



## LANE REGIONAL AIR PROTECTION AGENCY TITLE V OPERATING PERMIT

1010 Main Street  
Springfield, OR 97477  
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Issued in accordance with the provisions of ORS 468A.040  
and based on the land use compatibility findings included in the permit record.

ISSUED TO:

**International Paper Company**  
**Springfield Mill**  
**801 42<sup>nd</sup> Street**  
**Springfield, Oregon 97478**

PLANT SITE LOCATION:

801 42<sup>nd</sup> Street  
Springfield, Oregon 97478

INFORMATION RELIED UPON:

Application Number: 62175  
Received: 12/12/16  
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LAND USE COMPATIBILITY STATEMENT:

Issued by: City of Springfield  
Dated: September 30, 1997

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

  
\_\_\_\_\_  
Susannah Sbragia, Interim Director

January 23, 2024  
\_\_\_\_\_  
Date

| <u>Nature of Business</u>                      |           | <u>SIC</u> | <u>NAICS</u>   |
|--|-----------|------------|----------------|
| Kraft Pulping and Containerboard Manufacturing | Primary   | 2631       | 322130         |
| Electrical Power Generation                    | Secondary | 4911       | 221112, 221117 |

RESPONSIBLE OFFICIAL:

Title: Mill Manager

FACILITY CONTACT PERSON:

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Title: Air Quality Engineer  
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**LIST OF ABBREVIATIONS USED IN THIS PERMIT**

|                   |   |                  |  |
|-------------------|---|------------------|--|
| ACDP              | Air Contaminant Discharge Permit  | DCS              | Dust Collection System                               |
| ADMT              | Air Dried Metric Tons   | DEQ              | Oregon Department of Environmental Quality           |
| ADS               | Air Density Separator   |                  |  |
| ADT               | Air Dried Tons (same as AD short ton)   | Distillate       | Any oil meeting the specifications of                |
| ADTP              | Air Dried Tons of Pulp  | Fuel Oil         | ASTM Grade 1 or Grade 2 fuel oils.                   |
| AIA               | Aggregate Insignificant Activity  | DNCG             | Dilute Non-Condensable Gases                         |
| ASB               | Aeration Stabilization Basin  | DP               | Differential Pressure                                |
| ASTM              | American Society of Testing and Materials   | dscf             | Dry Standard Cubic Foot                              |
| BART              | Best Available Retrofit Technology  | dscfm            | Dry Standard Cubic Feet per Minute                   |
| BACT              | Best Available Control Technology   | DTV              | Dissolving Tank Vent                                 |
| Batch             | For the purposes of sulfur content of fuel oils, batch means one blend tank at the supplier's facility          | DV               | Device   |
|                   |   | dv               | Deciview   |
| BDT               | Bone Dry Tons   | EAL              | Emission Action Level                                |
| BDU               | Bone Dry Units (equal to 2400 bone dry pounds)  | ECTS             | Effluent Collection & Treatment System               |
|                   |   | EF               | Emission Factor                                      |
| BEEU              | BART Eligible Emission Unit   | EPA              | US Environmental Protection Agency                   |
| BL                | Black Liquor  | ERC              | Emission Reduction Credit                            |
| BLS               | Black Liquor Solids   | ESP              | Electrostatic Precipitator                           |
| BSW               | Brown Stock Washer (HVLC Source)  | EU               | Emissions Unit                                       |
| C                 | Carbon  | FCAA             | Federal Clean Air Act                                |
| CaCO <sub>3</sub> | Lime, lime rock, calcium carbonate  | FGR              | Flue Gas Recirculation                               |
| CAM               | Compliance Assurance Monitoring   | ft <sup>3</sup>  | Cubic feet   |
| CaO               | Calcium Oxide   | GHG              | Greenhouse Gases                                     |
| CCA               | Clean Condensate Alternative  | gpm              | Gallons Per Minute                                   |
| CCUP              | Containerboard Capacity Utilization Project   | g/dscm           | Gram per Dry Standard Cubic Meter                    |
| CEMS              | Continuous Emissions Monitoring System  | gr/dscf          | Grain per Dry Standard Cubic Foot                    |
| CFR               | Code of Federal Regulations   | HAP              | Hazardous Air Pollutant as defined by LRAPA Title 44 |
| CMS               | Continuous Monitoring System  | Hi-D             | High Density   |
| CNCG              | Concentrated Non-Condensable Gases  | Hr-opr           | Hours of Operation                                   |
| CO                | Carbon Monoxide   | H <sub>2</sub> S | Hydrogen Sulfide                                     |
| CO <sub>2</sub>   | Carbon Dioxide  | HVLC             | High Volume Low Concentration                        |
| CO <sub>2</sub> e | Carbon Dioxide Equivalent   | ID               | Identification                                       |
| COMS              | Continuous Opacity Monitoring System  | I&M              | Inspection and Maintenance                           |
| CSD               | Condensate Steam Distillation   | Kg               | Kilogram   |
| CSTOP             | Condensate Stream Stripping Optimization Project  | lb               | Pound  |
|                   |   | Lo-D             | Low Density  |
| daa               | Daily Arithmetic Average for the 24-hour mill operating period beginning at 7:30 a.m. (local time) <sup>1</sup> | LRAPA            | Lane Regional Air Protection Agency                  |
|                   |   | LVHC             | Low Volume High Concentration                        |

<sup>1</sup> daa (daily arithmetic average) when used in context of periodic source testing, the daa calculation uses the most recent source test to calculate the daa.

**LIST OF ABBREVIATIONS, CONTINUED**

|                   |   |                 |   |
|-------------------|---|-----------------|---|
| M                 | Thousand  | PSD             | Prevention of Significant Deterioration   |
| MACT              | Maximum Achievable Control Technology                                       | PSEL            | Plant Site Emission Limit   |
| MB                | Material Balance  | QA              | Quality Assurance   |
| MC                | Moisture Content  | QAP             | Quality Assurance Plan  |
| MDTP              | Machine Dried Tons of Paper or Pulp   | QC              | Quality control   |
| MeOH              | Methanol  | RATA            | Relative Accuracy Test Audit  |
| MM                | Million   | RH              | Regional Haze 2021 Round 2  |
| MMBtu             | Million British Thermal Units   | Reprocessed Oil | Recycled waste oil or fuel oil which satisfies the specifications of ASTM D396 No.6 or OAR 340-111-0020(2)(c) and does not exceed the specifications of 40 CFR 279.11 |
| Mos               | Months  | Residual Oil    | ASTM D 396 grade No. 4 or No. 6 fuel oil  |
| MR                | Machine Room  | RICE            | Reciprocating Internal Combustion Engine  |
| MSP               | Monitoring System Performance   | RMP             | Risk Management Plan  |
| NA                | Not Applicable  | SAFO            | Stipulated Agreement and Final Order  |
| NAAQS             | National Ambient Air Quality Standard                                       | SAM             | Sulfuric Acid Mist  |
| NCASI             | National Council of the Paper Industry for Air and Stream Improvement, Inc. | scf             | Standard Cubic Foot   |
| NCG               | Non-Condensable Gases   | scfm            | Standard Cubic Feet per Minute  |
| NDCE              | Non-Direct Contact Evaporator   | SDT             | Smelt Dissolving Tank   |
| NESHAP            | National Emission Standards for Hazardous Air Pollutants                    | SERP            | Source Emission Reduction Plan  |
| NG                | Natural Gas   | SFO             | Stipulated Final Order  |
| ng/J              | Nanograms/Joule   | SIC             | Standard Industrial Code  |
| NN                | Not Needed  | SIP             | State Implementation Plan   |
| NON               | Notice of Non-compliance  | SO <sub>2</sub> | Sulfur Dioxide  |
| NO <sub>x</sub>   | Nitrogen Oxides   | SSM             | Start-up, Shutdown, and/or Malfunction  |
| NSPS              | New Source Performance Standards  | ST              | Source Test   |
| NSR               | New Source Review   | SWT             | Scale Weight Tons of paper  |
| O <sub>2</sub>    | Oxygen  | TBD             | To Be Determined  |
| OAR               | Oregon Administrative Rules   | TBLS            | Tons of Black Liquor Solids   |
| OCC               | Old Corrugated Container  | T CaO           | Tons of Calcium Oxide (Lime)  |
| ODT               | Oven Dried Tons   | TRS             | Total Reduced Sulfur  |
| ODP               | Oven Dry Pulp   | ULSD            | Ultra-Low Sulfur Diesel No. 2 oil   |
| O&M               | Operation and Maintenance   | VCE             | Vapor Compression Evaporator  |
| ORS               | Oregon Revised Statutes   | VE              | Visible Emissions   |
| Pb                | Lead  | VOC             | Volatile Organic Compound   |
| PCD               | Pollution Control Device  | WBL             | Weak Black Liquor   |
| PM                | Particulate Matter  | WESP            | Wet Electrostatic Precipitator  |
| PM <sub>10</sub>  | Particulate Matter less than or = to 10 microns in size                     |                 |   |
| PM <sub>2.5</sub> | Particulate Matter less than or = to 2.5 microns in size                    |                 |   |
| ppm               | Part Per Million  |                 |   |

**Modified EPA Method 9:** As used in this permit “Modified EPA Method 9” is defined as follows:

Opacity must be measured in accordance with EPA Method 9 using the data reduction procedures in EPA Method 203B. For all standards, the minimum observation period must be six minutes, though longer periods may be required by a specific rule or permit condition. Aggregate times (e.g., three (3) minutes in any one (1) hour) consist of the total duration of all readings during the observation period that are equal to or greater than the opacity percentage in the standard, whether or not the readings are consecutive. Each EPA Method 9 reading represents 15 seconds of time. [See also the definition of “Opacity” in LRAPA Title 12 - Definitions]

**PERMITTED ACTIVITIES**

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]
2. All conditions in this permit are federally enforceable, state enforceable and/or LRAPA enforceable except as noted below: [OAR 340-218-0060 and 340-218-0070]
  - 2.a. Conditions 6, 7, 8, 9, 16, G5 and G9 are currently enforceable by LRAPA only.
  - 2.b. Conditions 77, 82, 84 (#4 Rec TRS), 100, 101, 104, 111, 112 (Kiln TRS), 119, 123 (SDTV TRS), 126, 128 (Misc. TRS), 165 (CIA TRS) and 196 (TRS Reporting) are currently enforceable by LRAPA only but will become federally enforceable upon the EPA approval of proposed revisions to the Oregon State Implementation Plan (SIP) and the Oregon Plan for the Control of Designated Pollutants From Existing Facilities (Section 111(d) Plan).
  - 2.c. The TRS PSEL in Condition 177 is currently enforceable only by LRAPA but will become federally enforceable upon the EPA approval of proposed revisions to the Oregon Plan for the Control of Designated Pollutants from Existing Facilities (Section 111(d) Plan). All conditions in this permit are federally enforceable, state enforceable and/or LRAPA enforceable except as noted below: [OAR 340-218-0060 and 340-218-0070]

**EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION**

3. The emissions units regulated by this permit are the following. [OAR 340-218-0040(3)]:

**Table 1. Emissions Unit and Pollution Control Device Identification**

| <b>Emission Unit Description</b>                   | <b>EU ID</b> | <b>Pollution Control Device Description</b>               | <b>PCD ID</b> |
|--|--------------|---|---------------|
| <b>Power Boiler</b>                                | EU-150A      | None  | NA            |
| <b>Package Boiler</b>                              | EU-150B      | LNB with FGR (Low NOx Burner with Flue Gas Recirculation) | NA            |
| <b>Effluent Collection &amp; Treatment System:</b> |              |   |               |
| West Aeration Basin FU185-299                      | EU-185       | None  | NA            |
| East Aeration Basin FU185-500                      |              |   |               |
| Clarifier & Surge Pond FU185-801 & TA185-126       |              |   |               |
| Flotator TA185-177                                 |              |   |               |
| <b>Unpaved Road Fugitives (PM) (FU275-999D)</b>    | EU-275A      | None  | NA            |
| <b>Other Sources of TRS (Original):</b>            |              |   |               |
| Kamyr Brown Stock Washer (BSW) System PS420-999    | EU-275C      | None  | NA            |
| BSW #1 Hood Vent Fan East EQ420-047                |              |   |               |
| BSW #1 EQ420-018                                   |              |   |               |
| BSW #2 Hood Vent Fan West EQ420-046                |              |   |               |
| BSW #2 EQ420-020                                   |              |   |               |
| Diffuser Washer PS420-107                          |              |   |               |
| Kamyr Foam Tower PS420-096                         |              |   |               |
| Spill Tank TA420-037                               |              |   |               |
| Diffuser Filtrate Tank TA420-109                   |              |   |               |
| Rejects Tank TA420-059                             |              |   |               |
| Kamyr Chip Bin FU401-098                           |              |   |               |
| VCE Compressor Fugitives TA186-120                 |              |   |               |
| #3 Weak Black Liquor Tank TA440-003                |              |   |               |
| #4 Weak Black Liquor Tank TA440-004                |              |   |               |
| Multi-purpose Tank TA440-130                       |              |   |               |
| #7 Strong Black Liquor Tank TA445-300              |              |   |               |

| Emission Unit Description   | EU ID   | Pollution Control Device Description                    | PCD ID    |
|---|---------|---|-----------|
| <b>Other Sources of TRS (Additional w/Title V):</b>                             |         |   |           |
| Kamyr 480 Bauer Refiner Chest Vent EQ420-070                                    | EU-275D | None  | NA        |
| Recaust Hot Water Tank TA420-014  |         |   |           |
| Kamyr Contaminated Hot Water Tank TA420-035                                     |         |   |           |
| #5 Causticizer TA455-012  |         |   |           |
| #6 Causticizer TA456-010  |         |   |           |
| <b>Chip Handling and Screening:</b>   |         |   |           |
| Chip Handling Belts FU310-999E  | EU-310  | None  | NA        |
| #1 Chip Silo TA310-127 (VOC)  |         |   |           |
| #2 Chip Silo TA310-128 (VOC)  |         |   |           |
| #1 Gyrotory Screen Bin TA310-226  |         |   |           |
| ADS Cyclone #1 TA310-232  |         |   |           |
| #2 Gyrotory Screen Bin TA310-237  |         |   |           |
| ADS Cyclone #2 TA310-243  |         |   |           |
| #3 Gyrotory Screen Bin TA310-248  |         |   |           |
| ADS Cyclone #3 TA310-254  |         |   |           |
| Red Rocket Blower TA310-248   |         |   |           |
| <b>Chip Storage:</b>  |         |   |           |
| Chip Storage System FU320-999   | EU-320  | None  | NA        |
| Main Chip Pile FU-320-999A  |         |   |           |
| Truck Dumps EQ310-164   |         |   |           |
| <b>Fines System:</b>  |         |   |           |
| Fines Bin Cyclone FU330-999   | EU-330  | None  | NA        |
| Fines Bin FU401-098   |         |   |           |
| <b>Kamyr Digester:</b>  |         |   |           |
| Spill Tank (minus TRS) TA420-037  | EU-420  | None  | NA        |
| Diffuser Filtrate Tank (minus TRS) TA420-109                                    |         |   |           |
| Rejects Tank (minus TRS) TA420-059  |         |   |           |
| Recaust Hot Water Tank (minus TRS) TA420-014                                    |         |   |           |
| Kamyr Contaminated Hot Water Tank (minus TRS) TA420-035                         |         |   |           |
| Combined Emissions from Kamyr Chip Bins (controlled and uncontrolled) TA401-098 |         |   |           |
| <b>Evaporation/Recovery Tanks &amp; Steam System:</b>                           |         |   |           |
| #7 Strong Black Liquor Tank (minus TRS) TA445-300                               | EU-440  | None  | NA        |
| Chemical & Makeup Handling Fugitives FU441-999                                  |         |   |           |
| Multi-purpose Tank (minus TRS) TA440-130  |         |   |           |
| #4 Recovery Furnace NDCE EQ445-321-   | EU-445C | #4 Recovery Dry-Bottom ESP (Electrostatic Precipitator) | CD445-480 |
| #4 Recovery Smelt Dissolving Tank Vent (SDTV) TA445-350                         | EU-445D | #4 Recovery DTV Joy-Turbulaire Wet Scrubber             | CD445-480 |
| <b>Lime Kilns #2 &amp; #3 PS455-999</b>   | EU-455  | Lime Kilns Dry ESP (Electrostatic Precipitator)         | CD456-110 |
|   |         | Noncondensable Gas (NCG) Collection & Thermal Oxidation | CD186-193 |
| Lime Kiln #2 EQ455-033  |         | #2 Lime Kiln NCG Thermal Oxidation                      | CD454-033 |
| Lime Kiln #3 EQ455-062  |         | #3 Lime Kiln NCG Thermal Oxidation                      | CD455-062 |
| Lime Kiln Dust Collection Fan to ESP FA454-176                                  |         | None  | NA        |
| #3 Reburn Lime Drag Chain EQ455-067   |         | None  | NA        |
| #3 Reburn Elevator GE455-068  |         | None  | NA        |
| #3 Reburn Lime Tank EQ455-069   |         | None  | NA        |
| Fresh Lime Tank EQ455-072   |         | None  | NA        |

| Emission Unit Description   | EU ID   | Pollution Control Device Description | PCD ID    |
|---|---------|--------------------------------------|-----------|
| <b>Recaust Systems:</b>   |         |                                      |           |
| #2 Kiln Rock Storage TA454-122                                    | EU-456  | None                                 | NA        |
| #3 Kiln Rock Storage TA455-084                                    |         |                                      |           |
| Lime Cycle Chemical Handling Fugitives FU456-999A                 |         |                                      |           |
| #2 Mud Filter (minus TRS) GE454-052                               |         |                                      |           |
| #3 Mud Filter Hood Fan (+fugitives #3 filter minus TRS) GE455-153 |         |                                      |           |
| #3 Mud Filter (minus TRS) PR455-053                               |         |                                      |           |
| #3 Mud Filter Vacuum Pump Vapor (minus TRS) PU455-056             |         |                                      |           |
| #2 Mud Filter Sump (minus TRS) TA454-016                          |         |                                      |           |
| South Green Liquor Clarifier (minus TRS) TA455-001                |         |                                      |           |
| #5 Causticizer (minus TRS) TA455-012                              |         |                                      |           |
| #6 Causticizer (minus TRS) TA456-010                              |         |                                      |           |
| South White Liquor Clarifier TA455-018                            |         |                                      |           |
| South Mud Washer TA455-025  |         |                                      |           |
| South Lime Mud Storage TA455-050                                  |         |                                      |           |
| Jet Condenser Seal Tank (minus TRS) TA455-158                     |         |                                      |           |
| North Green Liquor Clarifier (minus TRS) TA456-001                |         |                                      |           |
| #3 Causticizer (minus TRS) TA456-015                              |         |                                      |           |
| North White Liquor Clarifier TA456-020                            |         |                                      |           |
| North Mud Washer TA455-020  |         |                                      |           |
| North Lime Mud Washer TA456-028                                   |         |                                      |           |
| North Lime Mud Storage TA456-036                                  |         |                                      |           |
| Precipitator Slurry Tank (minus TRS) TA456-128                    |         |                                      |           |
| <b>Paper Recycling Systems:</b>                                   |         |                                      |           |
| #1 Thickener Exhaust Fan FA601-121                                | EU-600  | None                                 | NA        |
| Pulper Exhaust Fan FA601-255                                      |         |                                      |           |
| #1 Pulper at OCC TA601-003  |         |                                      |           |
| OCC Clarifier TA601-167   |         |                                      |           |
| Dump Chest Vent TA601-031   |         |                                      |           |
| #9 Hi-D Storage Tank TA601-134                                    |         |                                      |           |
| <b>No. 2 Machine Room (MR) Wet End Systems:</b>                   |         |                                      |           |
| #3 Hi-D Tank TA705-002  | EU-715A | Baghouse (associated with FU710-999) | CD710-005 |
| #4 Hi-D Tank TA705-003  |         |                                      |           |
| #5 Hi-D Tank TA705-093  |         |                                      |           |
| #6 Hi-D Tank TA705-094  |         |                                      |           |
| #7 Hi-D Tank TA705-130  |         |                                      |           |
| #8 Hi-D Tank TA705-208  |         |                                      |           |
| #10 Hi-D Tank TA705-999   |         |                                      |           |
| #8 Lo-D Tank TA705-215  |         |                                      |           |
| Drum Saveall Hood Exhaust Fan FA705-032                           |         |                                      |           |
| Drum Saveall EQ705-018  |         |                                      |           |
| WOW Pulper Hood Exhaust FA705-107                                 |         |                                      |           |
| WOW Pulper TA705-020  |         |                                      |           |
| Morden Pulper Hood Exhaust Fan FA705-174                          |         |                                      |           |
| Trim Conveying System Fan FA730-026                               |         |                                      |           |
| Morden Pulper Tub TA705-134                                       |         |                                      |           |
| No. 2 MR Additive Chemical Handling Fugitives FU710-999           |         |                                      |           |
| Clay & Starch Exhaust Fan FA715-221                               |         |                                      |           |
| Cooked Starch Storage Tank TA710-013                              |         |                                      |           |
| Alum Storage Tank TA710-082                                       |         |                                      |           |
| Paper #2 Total Wet End Vent Emissions PS715-999A                  |         |                                      |           |

| Emission Unit Description   | EU ID              | Pollution Control Device Description | PCD ID    |
|---|--------------------|--------------------------------------|-----------|
| <b>No. 2 Machine Room (MR) Wet End Systems, Continued:</b><br>Primary Bel Bond Lead-in Box Fan FA715-034<br>Primary Bel Bond Auto-Slice Fan FA715-035<br>Secondary Bel Bond Lead-in Box Fan #1 FA715-036<br>Secondary Bel Bond Auto-Slice Fan FA715-037<br>Secondary Bel Bond Lead-in Box Fan #2 FA715-076<br>Saveall Exhaust Fan FA715-280<br>Machine Room (MR) Roof Exhaust Fan #5 FA715-281<br>False Ceiling Exhaust Fan #4 FA715-283<br>North Pulse Drainage Module (PDM) Fan FA715-284<br>North Pulse Drainage Module (PDM) Fan FA715-285<br>False Ceiling Exhaust Fan #3 FA715-320<br>False Ceiling Exhaust Fan #8 FA715-352<br>False Ceiling Exhaust Fan #9 FA715-353<br>False Ceiling Exhaust Fan #10 FA715-354<br>False Ceiling Exhaust Fan #7 FA715-355<br>False Ceiling Exhaust Fan #6 FA715-356<br>#2 MR Combined Vacuum Flume Vent PS715-436<br>#2 ENP Vacuum Flume Vent Stack PS715-534<br>Wire Pit Tank TA705-066<br>Primary Bel Bond Mist Elimination Fan FA715-358<br>Secondary Bel Bond Mist Elimination Fan FA715-359<br>Flotation Saveall TA705-078 | EU715-A, Continued | See above                            |           |
| <b>No. 2 Machine Room (MR) Dry End Systems:</b><br>Dust Collection Exhauster FA730-104<br>Paper #2 Total Dry End Vent Emissions PS715-999B<br>Machine Hood Exhaust FA715-122<br>Machine Hood Exhaust FA715-123<br>Machine Hood Exhaust FA715-130<br>Machine Hood Exhaust FA715-131<br>3 <sup>rd</sup> Section N. End MR Hood Exhaust FA715-138<br>3 <sup>rd</sup> Section S End MR Hood Exhaust FA715-139<br>4 <sup>th</sup> Section MR Hood Exhaust FA715-146<br>MR Roof Exhaust #1 FA715-276<br>MR Roof Exhaust #2 FA715-277<br>MR Roof Exhaust #3 FA715-278<br>MR Roof Exhaust #4 FA715-279<br>#2 Calender Hood Exhaust FA715-321<br>3 <sup>rd</sup> Dryer Roof Exhaust FA715-340<br>4 <sup>th</sup> Dryer Roof Exhaust FA715-343<br>3 <sup>rd</sup> Hood Exhaust FA715-491<br>#2 MR Diverter Valve Trim Conveying Sys VA730-025   | EU-715B            | Baghouse (associated with FA730-104) | CD730-105 |
| <b>Aggregate Insignificant Activities</b>   | EU-AIA             | None                                 | NA        |
| <b>Aggregate Insignificant Activities - TRS only</b>  | EU-AIATRS          | None                                 | NA        |

## FACILITY-WIDE EMISSION LIMITS AND STANDARDS

The following table contains summaries of applicable requirements other than the Plant Site Emission Limits (PSEL), along with the monitoring methods for the emissions units to which those requirements apply.

**Table 2. Facility-wide Emission Limits and Standards\***

| Applicable Requirement                        | Condition Number | Pollutant/Parameter                     | Limit/Standard                                  | Monitoring Requirements   |                  |                                      |
|---|------------------|---|---|---|------------------|--------------------------------------|
|   |                  |   |   | Method  | Condition Number | Frequency                            |
| 48-015(1)                                     | 4                | Fugitive Emissions                      | Minimize Fugitives                              | I&M Recordkeeping   | 5, 17            | VE Survey                            |
| 49-010(1) & 32-090(1) & (2)                   | 6 & 7            | Air contaminants                        | No Nuisance/Injury                              | Recordkeeping   | 8                | By Complaint                         |
| 32-055  | 9                | PM Fallout                              | No Deposition of PM >250 µm on others' property | I&M Recordkeeping   | 10               | By Complaint                         |
| RH SAFO No.208850 08/09/2021 Fuel Requirement | 11               | ULSD No. 2 Fuel Oil, ASTM Grade 2-D S15 | ≤0.0015% sulfur by weight                       | Recordkeeping   | 12               | By Batch Fuel Shipment               |
| 40 CFR Part 68 Accidental Release Prevention  | 13               | Risk Management                         | Risk Management Plan (RMP)                      | Notify LRAPA & submit RMP upon becoming subject to 40 CFR Part 68 | 13, 198          | Semi-annual compliance certification |
| 51-015  | 14               | SERP                                    | Reduce Emissions                                | Recordkeeping   | 15, 190.a.iv     | By Episode                           |
| 36-020 and 36-040                             | 16               | Emergency Freeze Protection Plan        | Only propane space heaters allowed              | Recordkeeping   | 190.a.v          | Per Emergency Freeze Episode         |
| 40 CFR Part 63, Subpart S                     | 18 - 51          | NESHAP                                  | Reduce Emissions                                | Recordkeeping   | 18 - 51          | As Required by Rule                  |
| 40 CFR Part 63, Subpart MM                    | 52 - 75          | NESHAP                                  | Reduce Emissions                                | Recordkeeping   | 52 - 75          | As Required by Rule                  |

\* Facility production day and daily arithmetic averages (daa) are based on 24-hour mill operating period beginning at 7:30 a.m. (local time).

4. Applicable Requirement: The permittee must not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions must include, but are not limited to the following: [LRAPA 48-015(1)]
  - 4.a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
  - 4.b. Application of water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
  - 4.c. Full or partial enclosure of materials stockpiles in cases where application of water or other suitable chemicals is not sufficient to prevent particulate matter from becoming airborne;
  - 4.d. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
  - 4.e. Adequate containment during sandblasting or other similar operations;
  - 4.f. The covering of moving, open bodied trucks transporting materials likely to become airborne;

- 4.g. The prompt removal from paved streets of earth or other material which does or may become airborne.
5. **Monitoring Requirement:** At least once each week, during the months of May through October, the permittee must visually survey the plant for any sources of excess fugitive emissions. For the purpose of this survey, excess fugitive emissions are considered to be any visible emissions that leave the plant-site boundaries for more than 18 seconds in a six-minute period. The person conducting the observation must follow the procedures of EPA Method 22 downwind of the property boundary. If sources of visible emissions are identified, the permittee must: [OAR 340-218-0050(3)(a)]
- 5.a. For fugitive emissions units EU-275A (Unpaved Roads) and EU-320 (Chip Piles), the permittee shall use water or a chemical control treatment to minimize emissions, unless cold weather would make this activity result in hazardous conditions. If water is used to control the fugitive dust conditions, the permittee must take care not to create a water quality problem from surface run-off.
- 5.b. Immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in Condition 4; or comply with Condition 5.c;
- 5.c. Develop an LRAPA approved fugitive emission control plan upon request by LRAPA and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period following the procedures of EPA Method 22. [LRAPA 48-015(3), OAR 340-218-0050(3)(a)]
- 5.d. **Recordkeeping:** The permittee must maintain records of the fugitive emissions surveys including date, time, corrective actions (if necessary), and/or the results of any EPA Method 22 tests or Modified EPA Method 9. Records must be maintained on site for a period of at least five (5) years and must be provided to LRAPA personnel on request.
- 5.e. **If the weekly** surveys conducted during three (3) observation weeks do not detect visible emissions for more than 5% (18 seconds) of the survey time, the surveys need only be performed once per month.

### Nuisance Conditions

6. **Applicable Requirement:** The permittee must not cause or allow air contaminants from any source subject to regulation by LRAPA to cause a nuisance. [LRAPA 49-010(1)] Nuisance Conditions will be verified by LRAPA. [This condition is LRAPA-only enforceable]
7. **Applicable Requirement:** Other Emissions: [LRAPA 32-090 (1) & (2)], [This condition is LRAPA-only enforceable]
- 7.a. The permittee must not discharge from any source whatsoever such quantities of air contaminants which cause injury or damage to any persons, the public, business or property. Such determination is to be made by LRAPA. [LRAPA 32-090(1)]
- 7.b. The permittee must not cause or permit emission of water vapor if the water vapor causes, or tends to cause detriment to the health, safety or welfare of any person or causes, or tends to cause damage to property or business. [LRAPA 32-090(2)]
8. **Monitoring Requirement:** The permittee must maintain a log recording all complaints received from the public by the permittee during the operation of the facility for monitoring pertaining to Conditions 6 and 7. The log must document the date of contact, time of observed nuisance condition, description of nuisance condition, location of receptor, status of plant operation during the observed period, and time of response to complainant. A facility representative must immediately investigate the condition following the receipt of the nuisance complaint and a plant representative must provide a response to the complainant within 24 hours, if possible, but no later than 5 business days. [OAR 340-218-0050(3)(a)], [This condition is LRAPA-only enforceable.]
9. **Applicable Requirement:** The permittee must not cause or permit the emission of any particulate matter which is greater than 250 microns in size if such particulate matter does or will deposit upon real property of another person when notified by LRAPA that the deposition exists and must be controlled. [LRAPA 32-055], [This condition is LRAPA-only enforceable]

10. Monitoring Requirement: The permittee must monitor compliance with the applicable requirement in Condition 9 using the facility inspections required in Condition 5. [LRAPA 34-016 and OAR 340-218-0050(3)(a)]

### **Sulfur Content of Fuel Oil**

11. Applicable Requirement: The permittee must not use any ULSD No.2 fuel oil (ASTM Grade 2-D S15 distillate fuel oil) containing more than 0.0015 percent sulfur by weight (15 ppm). Sulfur content must be measured using the test methods identified in Condition 12. [OAR 340-218-0-050(3)(a) and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR 340-223-0110(b)(C)]
12. Monitoring Requirement: The permitted must monitor the sulfur content of each shipment of ULSD No.2 fuel oil received by: [OAR 340-218-0-050(3)(a)]
- 12.a. Obtaining a billing statement or purchase receipt to indicate that the oil used is ultra-low sulfur diesel (ULSD), which has a sulfur content no greater than 0.0015% sulfur by weight (15 ppm) from each vendor for each shipment of fuel received; or
- 12.b. Obtaining a sulfur content certificate from each vendor for each shipment of fuel received; or
- 12.c. Analyzing or having analyzed by a contract laboratory, a representative sample taken by the permittee from each shipment of fuel received.

### **Accidental Release Prevention – Risk Management Plan (RMP)**

13. Applicable Requirement: Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the accidental release prevention regulations in 40 CFR Part 68, then the permittee must notify LRAPA in advance of introducing the chemical to the facility, and must submit a risk management plan (RMP) by the date by the date specified in 40 CFR Section 68.10. Once subject to 40 CFR 68, the permittee must comply with the plan and all other applicable Part 68 requirements and certify compliance with the applicable requirements of Part 68 as part of the semi-annual compliance certification as required by 40 CFR Part 70. [40 CFR Part 68]

### **Source Emission Reduction Plan (SERP)**

14. Applicable Requirement: In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Eugene/Springfield area by LRAPA, the permittee must take the action appropriate to the episode condition as required by LRAPA 51-015 and contained in the Source Emission Reduction Plan (SERP) below. The permittee must take such action when the permittee first becomes aware of such a declaration whether through news media or direct contact with LRAPA. The permittee must take the actions listed below when an air pollution episode is declared:
- 14.a. **ALERT:**
- 14.a.i. Kilns & #4 Recovery Furnace: Monitor ESP control equipment for operation at full practical efficiency.
- 14.a.ii. Power Boiler & Package Boiler: Prepare to curtail combustion of ULSD No. 2 fuel oil. Maximum utilization of midday (12 noon to 4 pm) atmospheric turbulence for boiler lancing and soot blowing.
- 14.b. **WARNING:**
- 14.b.i. Kilns & #4 Recovery Furnace: Same for “ALERT”.
- 14.b.ii. Power Boiler and Package Boiler: Reduce ULSD No. 2 fuel oil consumption.
- 14.c. **EMERGENCY:**
- 14.c.i. Kilns & #4 Recovery Furnace: If emission control equipment performance is adversely impacted by equipment malfunctions or maintenance activities, reduce operations to a level where control equipment performance is at full practical efficiency. If this is not practical, reduce source operations to a minimum practical level required for equipment and personnel protection.

- 14.c.ii. Power Boiler & Package Boiler: Cease burning ULSD No. 2 fuel oil or reduce fuel oil firing to a minimum practical level required for equipment and personnel protection.

During an applicable Air Pollution Episode, the SERP must be available on the source premises for inspection by LRAPA personnel. A record of all air pollution episodes and emission reduction actions must be maintained in accordance with Condition 15. [LRAPA 51-015]

15. Monitoring and Recordkeeping: The permittee must maintain a record (log) of air pollution episodes and emission reduction actions taken and must provide a copy of the log to LRAPA upon request. [LRAPA 34-016 and 340-218-0050(3)(a)]

### Emergency Freeze Protection Plan

16. Plant site emergency heating for freeze protection utilizing propane space heaters is allowed. Emergency heating utilizing kerosene or diesel salamander or “smudge pot” heaters is prohibited. [36-020 and 36-040], [This condition is LRAPA-only enforceable]

### FACILITY-WIDE VISIBLE EMISSIONS MONITORING

17. On the schedule contained in Condition 17.a, the permittee must conduct a six (6) minute visible emission survey of each emission unit with devices with the potential to emit visible air contaminants to the atmosphere using EPA Method 22. The visible emission surveys may be conducted simultaneously on multiple emission points when they are in the same field of view for the observer. The person conducting this survey does not have to be EPA Method 9 certified. However, the individual should be familiar with the procedures of EPA Method 9 including using the proper location to observe visible emissions. For purposes of this survey, excessive emissions observed using Method 22 are considered to be any visible emissions that leave the plant-site boundaries. [OAR 340-218-0050(3)(a)]

- 17.a. The permittee must use the following monitoring schedule for conducting the visible emission surveys:

17.a.i. Daily for the Power Boiler (EU-150A) from stack monitoring point (PR150-008), in accordance with Condition 135.a.ii, on each boiler startup on ULSD No. 2 fuel oil.

17.a.ii. Weekly for the following:

17.a.ii.A. Power Boiler (EU-150A) from stack monitoring point PR150-008 when burning ULSD No. 2 fuel oil, in accordance with Condition 135.a.iii.

17.a.ii.B. Package Boiler (EU-150B) from stack monitoring point EQ150-301 when burning ULSD No. 2 fuel oil, in accordance with Condition 147, only during periods when the Package Boiler COMS monitor is inoperable. (Data obtained using the COMS in accordance with Condition 147 can be used to satisfy this monitoring requirement); and

17.a.iii. Monthly (if operating more than 10% of the days in the month) for the following emissions units:

17.a.iii.A. Lime Kilns (EU-455) from the combined Kilns stack monitoring point CD456-110, in accordance with Condition 117, only during periods when the Lime Kiln COMS is not in operation;

17.a.iii.B. Lime Kiln (EU-455) #3 Reburn Elevator (GE455-068), monitored at each device, in accordance with Condition 118, only during periods when the Dust Collection System (DCS) is not in operation; and

17.a.iii.C. No. 2 Paper Machine Dry-End Systems (EU-715B) monitored at the 1st Dryer Section Hood Exhaust Device FA715-122 only during the months of June through September;

17.a.iii.D. EU-310 (Chip Handling & Screening Cyclones), EU-330 (Fines Cyclone), EU-715A.(Wet-End No.2 Paper Machine) and EU-715B (Dry-End No.2 Paper Machine).

17.a.iv. Semi-annually for EU-275C and EU275D (Miscellaneous TRS units).

- 17.b. All visible emissions surveys must be conducted during operating conditions that have the potential to create visible emissions (e.g., process is operating under normal, representative conditions).
- 17.c. If the daily surveys conducted during three (3) consecutive observation days do not detect visible emissions for more than 5% (18 seconds) of the survey time, the surveys need only be done once per week.
- 17.d. If the weekly surveys conducted during three (3) consecutive observation weeks do not detect visible emissions for more than 5% (18 seconds) of the survey time, the surveys need only be done once per month.
- 17.e. If the monthly surveys conducted during three (3) consecutive observation months do not detect visible emissions for more than 5% (18 seconds) of the survey time, the surveys need only be done once per quarter.
- 17.f. If visible emissions are detected at the emission unit boundary for more than 5% (18 seconds) of the survey time, the permittee must:
  - 17.f.i. Take corrective action, which includes the following: the permittee must use water, sweeping, a chemical treatment, or other effective method to minimize the fugitive emissions, unless cold weather would make this activity result in hazardous conditions. Cold weather is defined as weather conditions where ambient temperatures at surface level are expected to be or have been less than 32 degrees F within 12 hours. If water is used to control the fugitive dust emissions, the permittee must take care not to create a water quality problem from surface water run-off; or
  - 17.f.ii. Perform a Modified EPA Method 9 (see page 7 of this permit for the definition of 'Modified EPA Method 9') within 24 hours on the affected monitoring point. Each Modified Method 9 observation period must be for a minimum of six (6) minutes unless any one (1) reading is greater than 20% opacity, in which case the observation period must be for a minimum of 60 minutes or until a violation of the emissions standards identified in Condition 154 (Paper Machine Sec #1 Hood Exhaust) is documented whichever is a shorter period.
- 17.g. The permittee must record the corrective action taken or the results of the Modified EPA Method 9 tests.
- 17.h. The permittee may demonstrate compliance with Conditions 4 and 154 notwithstanding visible emissions being detected for more than 5% (18 seconds) of the survey time, so long as it promptly performs a Modified EPA Method 9 pursuant to Condition 17.f.ii documenting that the opacity is less than 20%.
- 17.i. If visible emissions are detected for more than 5% (18 seconds) of the survey time, the survey and/or observation frequency for the affected monitoring point will start over with the initial frequency specified in Condition 17.f.i.
- 17.j. If the observer is unable to conduct the survey and/or Modified EPA Method 9 tests due to visual interferences caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow which impair visibility, the observer must note such conditions on the data observation sheet and make at least three (3) attempts to conduct the surveys and/or tests at approximately 2-hour intervals throughout the day. If the visible emissions survey and/or test could not be conducted on the regularly scheduled day due to interferences, the observer must conduct the test on the following day.
- 17.k. Prior notification and a pre-test plan are not required to be submitted to LRAPA for each visible emissions survey or Modified EPA Method 9 test.

**SUBPART S NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FROM THE PULP AND PAPER INDUSTRY (PULP & PAPER NESHAP (MACT I))**

18. The permittee, as a major source of HAPs (defined in Subpart A) and a producer of pulp, paper, or paperboard from kraft pulping processes using wood, is subject to the requirements of 40 CFR Part 63 Subpart S NESHAP from the Pulp and Paper Industry Standards for Kraft Pulping Systems and Pulping Process Condensates. The requirements of 40 CFR Part 63 Subpart S apply to the total of all HAP emission points in the Kraft pulping systems and are contained in the following conditions. Table 3 contains a summary of the requirements from 40 CFR Part 63 Subpart S and the permit conditions where these requirements are found. The permittee must comply with the applicable requirements of 40 CFR part 63 subpart A - General Provisions in Table 1 to Subpart S of Part 63. [40 CFR 63.440(a)(1), 40 CFR 63.440(b)(1), 40 CFR 63.440(g)]

**Table 3. Subpart S – Pulp and Paper NESHAP Conditions and Requirements**

| Applicable Requirement              | Condition Number | Pollutant/ Parameter                        | Limit/ Standard                            | Monitoring Requirements   |                  |                        |
|-------------------------------------|------------------|---|--|---------------------------|------------------|------------------------|
|                                     |                  |   |  | Method                    | Condition Number | Frequency              |
| Various                             | 21               | Definitions                                 | N/A  | N/A                       | N/A              | N/A                    |
| 40 CFR 63.443                       | 25               | Kraft Pulping LVHC and HVLC HAPs            | Capture and Control                        | I&M Recordkeeping         | 31, 41           | Variable               |
| 40 CFR 63.446                       | 26               | Kraft Pulping Process Condensate HAPs       | Capture and Control                        | I&M Recordkeeping         | 35, 42           | Variable               |
| 40 CFR 63.446                       | 26.c             | Named Condensate Streams                    | Capture and Control                        | I&M Recordkeeping         | 37, 37.c, 42     | Continuous             |
| 40 CFR 63.8(d)(2)                   | 33.a             | Operating Scenario                          | CMS QA Plan                                | Recordkeeping             | 34               | Annual Updates         |
| 40 CFR 63.446 and 40 CFR 63.453(n)  | General          | Stripper Parameters Triggering Action       | Operate within established parameter range | Recordkeeping and Testing | 35.e, 37.c, 39.i | Continuous requirement |
| 40 CFR 63.446                       | 27               | Closed Collection of Condensates            | Capture and Control                        | I&M Recordkeeping         | 39               | Variable               |
| 40 CFR 63.446(e)                    | 28               | Condensate Treatment Requirements (General) | Capture and Control                        | I&M Recordkeeping         | 37               | Variable               |
| 40 CFR 63.446(g)                    | 29               | Excess Emissions for Condensates            | Capture and Control                        | I&M Recordkeeping         | 39, 42           | Variable               |
| 40 CFR 63.447                       | 30               | Kraft Pulping HVLC HAPs                     | Clean Condensate Alternative               | I&M Recordkeeping         | 30.k             | Annual                 |
| 40 CFR 63.450                       | 31               | Enclosures and Closed Vent Systems          | I&M  | I&M Recordkeeping         | 39, 42           | Variable               |
| 40 CFR 63.962 & 40 CFR 63.446(d)(1) | 32               | Individual Drain Systems                    | I&M  | I&M Recordkeeping         | 39.g, 42         | Variable               |

## VIOLATION OF THE STANDARD

19. The permittee must operate the control devices used to comply with the conditions of this permit that pertain to the Pulp and Paper NESHAP (40 CFR part 63 subpart S), in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored. Except as provided in Conditions 25.d and 29 (<10% for condensate control), operation of the control device below minimum operating parameter values or above the maximum operating parameters established in this permit or failure to perform procedures required by this permit shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. [40 CFR 63.453(o)]
20. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to LRAPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.453(q)]

## SUBPART S – DEFINITIONS AND GENERALLY APPLICABLE CONDITIONS

21. Pulp and Paper NESHAP Definitions
  - 21.a. The terms used in the section(s) of this permit that are specifically intended to implement the NESHAP General Provisions, 40 CFR part 63 subpart A, shall have the meaning given them in 40 CFR 63.2, Definitions. [40 CFR 63.2]
  - 21.b. The terms used in the conditions of this permit that are specifically intended to implement Subpart S -NESHAP from the Pulp and Paper Industry: Standards for Kraft Pulping Systems and Pulping Process Condensates, 40 CFR 63.440 through 63.459, shall have the meaning given them in 40 CFR 63.441, Definitions. [40 CFR 63.441]
  - 21.c. The terms used in the conditions of this permit that are specifically intended to implement Subpart RR NESHAP for Individual Drain System requirements, as specified in Subpart S NESHAP from the Pulp and Paper Industry, shall have the meaning given them in 40 CFR 63.961, Definitions. [40 CFR 63.961]
  - 21.d. *Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding. [40 CFR 63.441]
    - 21.d.i. The affirmative defense for violation of emission standards during malfunction must be in accordance with 40 CFR 63.456. [40 CFR 63.456]
  - 21.e. *Black liquor* means spent cooking liquor that has been separated from the pulp produced by the kraft pulping process. [40 CFR 63.441]
  - 21.f. *Chip Steamer* means a vessel used for the purpose of preheating or pretreating wood chips prior to the digester, using flash steam from the digester or live steam. [40 CFR 63.441]
  - 21.g. *Closed-vent system means* a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from an emission point to a control device. [40 CFR 63.441]
  - 21.h. *Combustion device* means an individual unit of equipment, including but not limited to, a thermal oxidizer, lime kiln, recovery furnace, process heater, or boiler, used for the thermal oxidation of organic hazardous air pollutant vapors. [40 CFR 63.441]
  - 21.i. *Continuous Monitoring System (CMS)* is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation. [40 CFR 63.2]

- 21.j. *Digester system* means each continuous digester or each batch digester used for the chemical treatment of wood or non-wood fibers. The digester system equipment includes associated flash tank(s), blow tank(s), chip steamer(s) not using fresh steam, blow heat recovery accumulator(s), relief gas condenser(s), prehydrolysis unit(s) preceding the pulp washing system, and any other equipment serving the same function as those previously listed. The digester system includes any of the liquid streams or condensates associated with batch or continuous digester relief, blow, or flash steam processes. [40 CFR 63.441]
- 21.k. *Emission point* means any part of a stationary source that emits hazardous air pollutants regulated under this subpart, including emissions from individual process vents, stacks, open pieces of process equipment, equipment leaks, wastewater and condensate collection and treatment system units, and those emissions that could reasonably be conveyed through a stack, chimney, or duct where such emissions first reach the environment. [40 CFR 63.441]
- 21.l. *Evaporator system* means all equipment associated with increasing the solids content and/or concentrating spent cooking liquor from the pulp washing system including pre-evaporators, multi-effect evaporators, concentrators, and vacuum systems, as well as associated condensers, hotwells, and condensate streams, and any other equipment serving the same function as those previously listed. [40 CFR 63.441]
- 21.m. *Flow indicator* means any device that indicates gas or liquid flow in an enclosed system. [40 CFR 63.441]
- 21.n. *High volume, low concentration or HVLC collection system* means the gas collection and transport system used to convey gases from the HVLC system to a control device. [40 CFR 63.441]
- 21.o. *High Volume, low concentration or HVLC System* means the collection of equipment including the pulp washing, knotter, screen, decker, and oxygen delignification systems, weak liquor storage tanks, and any other equipment serving the same function as those previously listed. [40 CFR 63.441] **[Note: The facility does not have knotters, deckers, or oxygen delignification systems.]**
- 21.p. *Kraft pulping* means a chemical pulping process that uses a mixture of sodium hydroxide (NaOH) and sodium sulfide (Na<sub>2</sub>S) as the cooking liquor. [40 CFR 63.441]
- 21.q. *Lime kiln* means an enclosed combustion device used to calcine lime mud, which consists primarily of calcium carbonate (CaCO<sub>3</sub>), into calcium oxide (CaO). [40 CFR 63.441]
- 21.r. *Low volume, high concentration or LVHC collection system* means the gas collection and transport system used to convey gases from the LVHC system to a control device. [40 CFR 63.441]
- 21.s. *Low volume, high concentration or LVHC system* means the collection of equipment including the digester, turpentine recovery, evaporator, steam stripper systems, and any other equipment serving the same function as those previously listed. [40 CFR 63.441]
- 21.t. *Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 63.2]
- 21.u. *Named Streams* means the designated portions of affected systems specified in the NESHAP Subpart S from which the required emission reductions will be achieved. LVHC-affected systems (see 21.r and 21.s, above) are the digester systems, turpentine recovery systems (except for Condition 39.g.ii.A, cold storage), evaporation systems, steam stripper systems, or other systems serving one of the above functions. 'Named streams' in LVHC systems are subject to a compliance date of April 16, 2001. HVLC-affected systems (see 24.o) are pulp washing systems, oxygen delignification systems, and specified decker, knotter, and screen systems. **[Note: The mill's HVLC system is comprised of the Kamyr pulp washing system and screen system; no deckers, knotters or oxygen delignification systems exist at the facility.]**
- 21.v. *Noncondensable (NCG) Sources* for the Low-Volume, High Concentration (LVHC) system are as follows:

- 21.v.i. Combined foul condensate Tanks A (TA186-150), B (TA186-160) & C (TA186-170) vent;
- 21.v.ii. Condensate Steam Stripper Distillation (CSD) column vacuum pump exhaust (PU186-180);
- 21.v.iii. Foul Condensate Surface Condensers #7 (SC440-040) and #7A (SC440-041) vacuum pump exhaust (PU440-040)
- 21.v.iv. Secondary Turpentine Decanter (TA401-089) as of September 22, 2019
- 21.v.v. Turpentine Storage Tank (TA401-064) as of September 22, 2019;
- 21.v.vi. Turpentine Surge Tank (TA401-087) as of September 22, 2019
- 21.v.vii. #4 Recovery Turpentine Decanter (TA186-163)
- 21.v.viii. Kamyrr Flash Tank (TA440-001)
- 21.v.ix. Kamyrr Blow Tank (TA401-017)
- 21.v.x. Kamyrr Steaming Vessel Vent (CD401-062) (to DNCG system as of October 8, 2004),.
- 21.w. *Oven-dried pulp or ODP* means a pulp sample at zero percent moisture content by weight. Pulp samples for applicability or compliance determinations for both the pulping and bleaching systems must be unbleached pulp. For purposes of complying with mass emission limits in this subpart, megagram of ODP must be measured to represent the amount of pulp entering and processed by the equipment system under the specified mass limit. For equipment that does not process pulp, megagram of ODP must be measured to represent the amount of pulp that was processed to produce the gas and liquid streams. [40 CFR 63.441]
- 21.x. *Process Operating Time* for determining excess emissions from the steam stripper treatment system specified in Condition 29, is defined as all periods during which a named condensate stream is being produced. Total steam stripper condensate treatment system operating time in Condition 29 is defined as all periods during which condensate streams are being collected in the stripper feed tanks (A, B & C tanks), and/or the stripper is operating within the allowed parameter range (see Condition 39.j). The mill-specific sources of foul condensate are listed in Condition 26.c.
- 21.y. *Pulp washing system* means all equipment used to wash pulp and separate spent cooking chemicals following the digester system and prior to the paper machine system (at unbleached mills). The pulp washing system equipment includes vacuum drum washers, diffusion washers, rotary pressure washers, horizontal belt filters, intermediate stock chests, and their associated vacuum pumps, filtrate tanks, foam breakers or tanks, and any other equipment serving the same function as those previously listed. The pulp washing system does not include deckers, screens, knotters, stock chests, or pulp storage tanks following the last stage of pulp washing. [40 CFR 63.441]
- 21.z. *Pulping process condensates* means any HAP-containing liquid that results from contact of water with organic compounds in the pulping process. Examples of process condensates include digester system condensates, turpentine recovery system condensates, evaporator system condensates, LVHC system condensates, HVLC system condensates, and any other condensates from equipment serving the same function as those previously listed. Liquid streams that are intended for byproduct recovery are not considered process condensate streams. [40 CFR 63.441]
- 21.aa. *Recovery furnace* means an enclosed combustion device where concentrated spent liquor is burned to recover sodium and sulfur, produce steam, and dispose of unwanted dissolved wood components in the liquor. [40 CFR 63.441]
- 21.bb. *Screen system* means equipment in which oversized particles are removed from the pulp slurry prior to the bleaching or papermaking system washed stock storage. [40 CFR 63.441]
- 21.cc. *Shutdown* means the cessation of operation of an affected source or portion of an affected source for any purpose. [40 CFR 63.2]

- 21.dd. *Spent liquor* means process liquid generated from the separation of cooking liquor from pulp by the pulp washing system containing dissolved organic wood materials and residual cooking compounds. [40 CFR 63.441]
- 21.ee. *Startup* means the setting in operation of an affected source or portion of an affected source for any purpose. [40 CFR 63.2]
- 21.ff. *Steam Stripper System* means a column (including associated stripper feed tanks, condensers, or heat exchangers) used to remove compounds from wastewater or condensates using steam. The steam stripper system also contains all equipment associated with a methanol rectification process, including rectifiers, condensers, decanters, storage tanks, and any other equipment serving the same function as those previously listed. [40 CFR 63.441] The permittee's processes that meet the definition must include the VCE (vapor compression evaporator) and CSD (condensate steam distillation) of the VCE/CSD system provided that the VCE continues to provide a pre-stripping function for the foul condensate in conjunction with the CSD.
- 21.gg. *Strong liquor storage tanks* mean all storage tanks containing liquor that has been concentrated in preparation for combustion or oxidation in the recovery process. [40 CFR 63.441]
- 21.hh. *Temperature monitoring device* means a piece of equipment used to monitor temperature and having an accuracy of  $\pm 1.0$  percent of the temperature being monitored expressed in degrees Celsius or  $\pm 0.5$  degrees Celsius ( $^{\circ}\text{C}$ ), whichever is greater. [40 CFR 63.441]
- 21.ii. *Total Process Operating Time* for determining excess emissions from the LVHC NCG collection system specified in Condition 25.d (NCG LVHC system excess emissions) is defined as the sum of the periods of time that at least one (1) of the sources of NCGs to the LVHC NCG collection system is operating. The sources of NCGs are listed in Condition 21.v.
- 21.jj. *Turpentine recovery system* means all equipment associated with recovering turpentine from digester system gases including condensers, decanters, storage tanks, and any other equipment serving the same function as those previously listed. The turpentine recovery system includes any liquid streams associated with the turpentine recovery process such as turpentine decanter underflow. Liquid streams that are intended for byproduct recovery are not considered turpentine recovery system condensate streams. [40 CFR 63.441]
- 21.kk. *Weak liquor storage tank* means any storage tank except washer filtrate tanks containing spent liquor recovered from the pulping process and prior to the evaporator system. [40 CFR 63.441]

### Permit Reopenings

22. LRAPA may reopen this permit to insert new conditions or modify existing conditions when such reopening is necessary to revise conditions in this permit that are affected by any revisions to 40 CFR part 63 subparts A and/or S. [OAR 340-218-0200]

**SUBPART S – KRAFT PULPING SYSTEM REQUIREMENTS (LVHC & HVLC SYSTEMS)**

**Table 4. Summary of Kraft Pulping System Requirements**

| Applicable Requirement                             | Condition Number | Pollutant/Parameter | Limit/Standard  | Monitoring Condition |
|--|------------------|---------------------|---|----------------------|
| 40 CFR 63.443(a)(1) Kraft Pulping System Standards | 25               | LVHC and HVLC HAPs  | Capture & Control LVHC & HVLC systems or implement Clean Condensate Alternative (CCA) (only for HVLC sources) | 41                   |

**SUBPART S – OPERATING SCENARIO (Collect 7.2 lb MeOH/ODTP & Treat 6.6 lb MeOH/ODTP)**

23. Applicable Requirement: The permittee has requested only one operating scenario for Subpart S. The permittee must demonstrate compliance with Subpart S Pulp and Paper NESHAPs applicable condensate requirements in Conditions 26.c (7.2 lb/ODTP-methanol collected) and 28.a (6.6 lb/ODTP methanol treated) by meeting the requirements in Condition 37 (CMS on liquid product methanol) and Condition 30 (CCA for HVLC sources). An alternative operating scenario for Subpart S is applicable upon request by the permittee and can be added to the permit through the appropriate modification process to provide the overall permit standards based on the federal requirements. [40 CFR 63.446(b), (c)(3) and (e)(4), 40 CFR 63.447,
24. This condition lists the specific LVHC and HVLC equipment, devices and vents that are subject to the 40 CFR Part 63, Subpart S requirements in this permit. [40 CFR Part 63, Subpart S]

|   |
|---|
| <b>LVHC Equipment:</b>  |
| Combined Foul Condensate Tanks A (TA186-150), B (TA186-160) and C (TA186-170) Vent (to CNCG system) |
| Condensate Steam Stripper Distillation (CSD) column vacuum pump exhaust (PU186-180)                 |
| Foul Condensate Surface Condensers #7 (SC440-040) & 7A (SC440-041) vacuum pump exhaust (PU-440-040) |
| Secondary Turpentine Decanter (TA401-089) to DNCG system as of September 22, 2019                   |
| Turpentine Storage Tank (TA401-064) to DNCG System as of September 22,2019                          |
| Turpentine Surge Tank (TA 401-087) to DNCG System as of September 22, 2019                          |
| #4 Recovery Turpentine Decanter (TA186-163)   |
| Kamyr FlashTank (TA440-001)   |
| Kamyr Blow Tank (TA401-017)   |
| Kamyr Digester Steaming Vessel Condenser Vent (CD401-062) to DNCG System as of November 21,2014     |
| <b>LVHC Main Vents:</b>   |
| NCG System Emergency Auto-Vent  |
| Turpentine Emergency Auto-Vent  |
| Kamyr Steaming Vessel Vent (PS401-062)  |
| 7/7A Vacuum Pump Seal Pot Exhaust (PU440-033)   |
| <b>LVHC Control Devices:</b>  |
| Lime Kilns EU-455 (Kilns #2 & #3) or backup control device EU-445C (#4 Recovery Furnace)            |

|   |
|---|
| <b>HVLC Equipment: Kamy Brown Stock Washer (BSW) System: (control &amp; HAP reduction using CCA*)</b> |
| Kamy BSW #1 Washer (Hood Vent (FA420-047))  |
| Kamy BSW #2 Washer (Hood Vent (FA420-046))  |
| Kamy Diffusion Washer (Vent (PS420-107))  |
| Kamy Washer Foam Tower (TA420096)   |
| <b>HVLC Pulp Screening System Vents: (control &amp; HAP reduction using CCA*)</b>                     |
| Kamy Chip Bin Condenser Vent (401-156)  |
| Kamy Screened Rejects Pulp Tank (TA420-059) (< 0.20 lb/ton de minimis 63.443(a)(1)(ii)(B), AIA)       |
| Kamy Refined Rejects Chest (TA420-045) (< 0.20 lb/ton de minimis 63.443(a)(1)(ii)(B), AIA)            |
| <b>HVLC Equipment &amp; Main Vents: (control &amp; HAP reduction using CCA*)</b>                      |
| Kamy BSW #1 Washer (Hood Vent FA420-047)  |
| Kamy BSW #2 Washer (Hood Vent FA420-046)  |
| Kamy Diffusion Washer (Vent PS420-107)  |
| Kamy Washer Foam Tower (TA420-096)  |
| Kamy Chip Bin Condenser Vent (CV401-156)  |

\*Note: The permittee has opted to use the Clean Condensate Alternative for all HVLC equipment emissions, as specified in Condition 30.

**LVHC and HVLC Systems (Emission Reductions through Clean Condensate Alternative (CCA) for HVLC systems, Condition 30)**

25. Applicable Requirement: The permittee must control the total HAP emissions from the following kraft process pulping equipment systems: [40 CFR 63.440(d) and 40 CFR 63.443(a)]
- 25.a. Each LVHC system, as defined in 40 CFR 63.441 (Condition 21.s) and the LVHC equipment specified in Condition 24, must be enclosed and vented into a closed-vent system and routed to a control device that meets requirements specified in Condition 25.c. The enclosures and closed-vent system must meet the requirements specified in Condition 31. [40 CFR 63.443(a)(i) and 63.443(c)]
  - 25.b. Each HVLC system (defined in 40 CFR 63.441 & Condition 21.o), and the HVLC equipment specified in Condition 24, must be enclosed and vented into a closed-vent system and routed to a control device that meets requirements specified in Condition 25.c. The enclosures and closed-vent system must meet the requirements specified in Condition 31. [40 CFR 63.443(c)] The permittee has elected to demonstrate compliance with this requirement to control HAP emissions from HVLC pulp washing systems using the Clean Condensate Alternative (CCA) HAP control option specified in Condition 30. LRAPA approved the permittee’s CCA approach on November 23, 2004. [40 CFR 63.443(a)(ii)(B) & (a)(iii) and 63.443(c)]
  - 25.c. The permittee must reduce total HAP emissions from each LVHC and HVLC (CCA control option) equipment system listed in Condition 23 using a boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone. Use of alternative control devices under 40 CFR 63.443(d) is not allowed without an approved Title V operating permit modification. [40 CFR 63.443(d)(4)(i)]
  - 25.d. Periods of excess emissions reported under Condition 43 shall not be a violation of Conditions 25.a, 25.b and 25.c provided that the time of excess emissions divided by the total process operating time (defined in Condition 21.x) in a semi-annual reporting period does not exceed the following levels: [40 CFR 63.443(e)]
    - 25.d.i. One percent for control devices used to reduce the total HAP emissions from the LVHC (CNCG) system; and [40 CFR 63.443(e)(1)]
    - 25.d.ii. Four percent for control devices used to reduce the total HAP emissions from the HVLC (DNCG) system; and [40 CFR 63.443(e)(2)]

- 25.d.iii. Four percent for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems. [40 CFR 63.443(e)(3)]
- 25.d.iv. Excess emissions from the LVHC system must be measured based on the monitoring of the emission points from the equipment listed in Condition 24.
- 25.d.v. The percent of periods of excess emissions from the LVHC system in a semi-annual reporting period will be calculated as follows:  
$$\frac{\text{(Total Venting Time from the Vents in Condition 25. d. iv)}}{\text{(Total Process Operating Time in Semiannual Reporting Period)}}$$
- 25.d.vi. Periods of time when the process is not in operation will not be considered “venting time”, even if the LVHC system vent valve is open to the atmosphere. Concurrent periods of time when multiple LVHC system vent valves are open will be counted as a single “venting time.”
- 25.d.vii. DNCG venting excess emission time must be defined as when the emergency vent is open, and the system develops enough positive pressure to vent actual emissions. All times when the emergency vent valve is open and the steaming vessel vents are open must be reported.

### SUBPART S – STANDARDS FOR KRAFT PULPING PROCESS CONDENSATES

- 26. Applicable Requirement: The permittee must comply with the following requirements for the pulping system condensates: [40 CFR 63.446(a)]
  - 26.a. The condensate collection and treatment averaging time must be no more than 60 days. [40 CFR 63, Subpart S].
  - 26.b. The pulping process condensates from the following equipment systems must be collected and treated to meet the requirements specified in Conditions 26.c, 27, and 28: [40 CFR 63.446(b)(1-5)]
    - 26.b.i. Each digester system;
    - 26.b.ii. Each turpentine recovery system;
    - 26.b.iii. Each evaporator system condensate from:
      - 26.b.iii.A. The vapors from each stage where weak liquor is introduced (feed stages); and
      - 26.b.iii.B. Each evaporator vacuum system for each stage where weak liquor is introduced (feed stages).
    - 26.b.iv. Each HVLC collection system (CCA control option for HVLC, Condition 30); and
    - 26.b.v. Each LVHC collection system.

#### Mill-Specific Named Condensate Streams (7.2 lbs collect/6.6 lbs treat per ODTP)

- 26.c. The permittee’s **mill-specific ‘named streams’** equipment systems, corresponding to the combinations of HAP-containing **pulping process condensates** generated, produced, or associated with the equipment systems listed in Conditions 26.b.i. through 26.b.v., above, are listed in Conditions 26.c.i through 26.c.v (HVLC systems), and 26.c.vi (LVHC NCG system) below. [40 CFR 63.446(c)]

These **mill-specific ‘named condensate streams’**, that in total contain a total HAP mass of 3.6 kilograms or more of total HAP per megagram (7.2 pounds per ton) of ODP, for mills that do not perform bleaching, are subject to the condensate closed collection requirements in Condition 27 and the condensate treatment requirements in Condition 28. The collection of any of these streams shall count towards the 7.2 pounds/ton collection requirement. The permittee is not required to collect all of these streams provided the collection requirements of 7.2 lb/ton of ODP and treatment requirement of 6.6 lb/ton of ODP are satisfied. [40 CFR 63.446(c)(3) & 63.446(e)(4)]

  - 26.c.i. Condensates from Kamyr Digester Steaming Vessel Condenser Vent;

- 26.c.ii. The condensates from each turpentine recovery system include the following mill streams:
  - 26.c.ii.A. Secondary Turpentine Decanter;
  - 26.c.ii.B. Turpentine Storage Tank;
  - 26.c.ii.C. Turpentine Surge Tank;
  - 26.c.ii.D. #4 Recovery Turpentine Decanter;
  - 26.c.ii.E. Condensates from each HVLC collection system;
  - 26.c.ii.F. Recovery satellite turpentine and foul condensate collection systems from the NCG system.
- 26.c.iii. The evaporator condensates from each stage where weak liquor is introduced (feed stages) including the following mill streams:
  - 26.c.iii.A. Vapor Compression Evaporator (VCE) second stage foul condensate collected at the CSD reboiler;
  - 26.c.iii.B. Combined Foul Condensate Feed Tanks A, B & C;
  - 26.c.iii.C. Reboiler Vent Condenser condensate;
  - 26.c.iii.D. 6A/7A Evaporator 7A Heater condensate;
  - 26.c.iii.E. Foul Condensate Surface Condenser #7 and #7A;
  - 26.c.iii.F. No. 4 Evaporator Surface Condenser foul-side condensate; and
  - 26.c.iii.G. No. 4 Evaporator 7th Effect Heater condensate.
- 26.c.iv. The evaporator condensates from each vacuum system where weak liquor is introduced including the following mill streams:
  - 26.c.iv.A. Condensates Steam Stripper Distillation (CSD) (NCG Pre-scrubber).
- 26.c.v. Condensates from each HVLC collection system (CCA control option for HVLC system, Condition 30);
- 26.c.vi. Condensates from each LVHC NCG system.
- 26.d. The portion of the evaporator condensate from the above-named streams in Condition 26.c.iii that is not collected due to the permittee's process of stages condensate segregation, i.e. clean-side condensate not collected, or for other reasons, are the following streams listed in Conditions 26.d.i through 26.d.iii. The permittee may also collect these streams to comply with the 7.2 lb/ton ODP collection requirement in Condition 26.c and the condensate treatment requirements in Condition 28 (6.6 lb/ton); but it is not required that these streams be collected provided that the requirements of those conditions are already satisfied.
  - 26.d.i. VCE First Stage Clean condensate;
  - 26.d.ii. 7A Surface Condenser Clean condensate; and
  - 26.d.iii. No. 4 Evaporator 7-Surface Condenser Clean condensate.
- 26.e. Modifications to the list of mill-specific applicable condensate streams in Condition 26.c must be done in accordance with 40 CFR 70.7 (permit modification), if the evaporators or other equipment are modified in a manner that changes the applicable 'named-stream' list. The list must continue to meet the requirements of Condition 26.c, if it is modified. [40 CFR 70.7]

### **Closed Collection of Process Condensates**

- 27. Applicable Requirement: The pulping process condensates from the equipment systems listed in Condition 26.c must be conveyed in a closed collection system that is designed and operated to meet the following requirements: [40 CFR 63.446(d)]

- 27.a. Each closed collection system must meet the individual drain system requirements of Subpart RR as specified in Condition 32, except for closed vent systems and control devices which must be designed and operated in accordance with Conditions 31 (closed vent systems) and 25.c (control devices). [40 CFR 63.446(d)(1)]
- 27.b. If a condensate tank is used in the closed collection system, the tank must meet the following requirements: [40 CFR 63.446(d)(2)]
  - 27.b.i. The fixed roof and all openings (e.g., access hatches, sampling ports, gauge wells) must be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million above background, and vented into a closed vent system that meets the requirements in Condition 31 and routed to a control device that meets the requirements in Condition 25.c; and
  - 27.b.ii. Each opening must be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal, or for equipment inspection, maintenance, or repair.

### Condensate Treatment Requirements

- 28. Applicable Requirement: Each pulping process condensate from the equipment systems listed in Condition 26.c must be treated according to the following mill selected option: [40 CFR 63.446(e)]
  - 28.a. Treat the pulping process condensates to remove 3.3 kilograms or more of total HAP (as MeOH) per megagram (6.6 pounds per ton) of ODP or achieve a total HAP concentration of 210 parts per million or less by weight at the outlet of the control device. [40 CFR 63.446(e)(4)]
  - 28.b. The permittee must use the monitoring methods in Condition 37 to demonstrate compliance with Condition 28.
  - 28.c. Each HAP removed from a pulping process condensate stream during treatment and handling under Conditions 27 and 28, must be controlled as specified in Conditions 25.a and 25.b (enclosures & closed-vent systems) and 25.c (thermally oxidize in Kilns or Recovery). [40 CFR 63.446(f)]

### Excess Emissions: Regulated Condensates

- 29. Applicable Requirement: For the steam stripper system control device (defined in Condition 21.ff) used to treat pulping process condensates to comply with the requirements specified in Condition 28 (63.446(e)(4)), periods of excess emissions reported under Condition 43 (63.455) shall not be a violation of Conditions 27 (closed collection of condensates), 28 (condensate treatment) and 26.c (condensate control requirements) provided that the time of excess emissions divided by the total process operating time (see Condition 21.ii) in a semiannual reporting period does not exceed 10 percent. [40 CFR 63.446(g)]

### SUBPART S – CLEAN CONDENSATE ALTERNATIVE (CCA)

- 30. Applicable Requirement: As an alternative to the requirements specified in Condition 25.b for the control of HAP emissions from HVLC pulping systems using the kraft process, the permittee must demonstrate to the satisfaction of LRAPA, by meeting all the requirements, below that the total HAP emissions reductions achieved by this CCA technology are equal to or greater than the total HAP emission reductions that would have been achieved by compliance with Condition 25.b (control of HVLC system HAP) by meeting the following requirements. [40 CFR 63.447]
  - 30.a. For the purposes of this CCA section only, the following additional definitions apply. [40 CFR 63.447(a)]
    - 30.a.i. *Clean Condensate Alternative (CCA)-affected source* means the total of all HAP emission points in the pulping, bleaching, causticizing, and papermaking systems (exclusive of HAP emissions attributable to additives to paper machines and HAP emission points in the LVHC system). [40 CFR 63.447(a)(1)]

- 30.a.ii. *Causticizing system* means all equipment associated with converting sodium carbonate into active sodium hydroxide. The equipment includes smelt dissolving tank, lime mud washers and storage tanks, white and mud liquor clarifiers and storage tanks, slakers, slaker grit washers, lime kilns, green liquor clarifiers and storage tanks, and dreg washers ending with the white liquor storage tanks prior to the digester system, and any other equipment serving the same function as those previously listed. [40 CFR 63.447(a)(2)]
- 30.a.iii. *Papermaking system* means all equipment used to convert pulp into paper, paperboard, or market pulp, including the stock storage and preparation systems, the paper or paperboard machines, and the paper machine white water system, broke recovery systems, and the systems involved in calendering, drying, on machine coating, slitting, winding, and cutting. [40 CFR 63.447(a)(3)]
- 30.b. The permittee must install and operate a CCA technology with a CMS (continuous monitoring system) to reduce total HAP emissions by treating and reducing HAP concentrations in the pulping process water used within the Clean Condensate Alternative affected source (defined above in Condition 30.a.i). [40 CFR 63.447(b)]
- 30.c. The permittee must calculate HAP emissions on a kilogram per megagram of ODP (lb/ODTP) basis and measure HAP emissions according to the appropriate procedures contained in Condition 49. (63.457 test methods and procedures). [40 CFR 63.447(c)]
- 30.d. The permittee determined the 1993 baseline HAP emissions for each equipment system and the total of all equipment systems in the clean condensate alternative affected source in accordance with 40 CFR 63.447(d)(1)&(2) and as detailed in the Weyerhaeuser Springfield MACT I Phase 2 CCA Project Report dated October 7, 2003 summarized in Condition 30.g. [40 CFR 63.447(d)]
- 30.e. The permittee determined the HAP emission reductions from the 1993 baseline HAP emissions determined in Condition 30.d for each equipment system and the total of all equipment systems in the clean condensate alternative (CCA) affected source for both: [40 CFR 63.447(e)]
- 30.e.i. HAP emission reduction occurring by complying with the requirements of Condition 25.b (control of HVLC system HAPs); and
- 30.e.ii. HAP emissions reduction occurring by complying with the clean condensate alternative (CCA) technology.
- 30.f. For the purposes of all requirements in this CCA section (Condition 30), the permittee uses an alternative, individual equipment systems (instead of the total of all equipment systems) within the clean condensate alternative system (CCA) affected source to determine emissions and reductions to demonstrate equal or greater than the reductions that would have been achieved by compliance with Condition 25.b. [40 CFR 63.447(f)]
- 30.g. The initial (April 1999) and all updates control strategy reports, including the final November 2004 LRAPA-approved CCA HAP control strategy for compliance with the pulping system HVLC control requirements specified in Condition 25.b, were submitted in accordance with 40 CFR 63.455 reporting requirements. [40 CFR 63.447(g)]

#### **CCA Initial Compliance Demonstration**

- 30.h. The permittee must use the CCA provided for under 40 CFR 63.447 for compliance with the HVLC requirements under 40 CFR 63.443(a)(1). The initial compliance demonstration with the CCA requirements was satisfied based on the Weyerhaeuser Springfield MACT I Phase 2 CCA Project Report dated October 7, 2003, submitted to LRAPA on July 26, 2004, with the Title V renewal application and approved by LRAPA in November 2004 prior to the April 17, 2006 deadline specified in 40 CFR 63.440(d)(1) for control of HVLC pulping system sources in Condition 25.b. [40 CFR 63.447(h)]
- 30.i. The CCA 1993 baseline emission rate minimum emission reduction established under Condition 30.e.i is 1.87 lb/ODTP as methanol (CCA report dated October 7, 2003). The permittee completed the CCA projects in Condition 30.j that produced HAP emission reductions equal to or greater than 1.87 lb/ODTP as methanol to comply with Condition 30.f. [40 CFR 63.447(h)]

- 30.j. The following CCA projects (from the CCA Project Report dated October 7, 2003) were completed, as specified below, to satisfy the emission reduction requirements in Condition 30.e.ii: [40 CFR 63.447(h)]
- 30.j.i. The NCG pre-scrubber underflow liquid relocation flowing to the causticizers and the slakers changed to be piped directly to the Kamyr Continuous Digester completed as of April 2000;
  - 30.j.ii. The demolition of the No.1 and No.3 Slakers and replacement with a new ventless low-emission Slaker (#4 slaker) completed as of May 2000; and
  - 30.j.iii. Operating and piping changes to replace the use of evaporator condensate to smelt dissolver scrubber with boiler blowdown condensate, steam condensate, caustic and fresh-water makeup from the Recovery area outside flash tank were completed in November 2002.

### **CCA Continuous Compliance**

- 30.k. The permittee must assure continuous compliance with Condition 30.j for the CCA by, at all times, maintaining the following conditions: [40 CFR 63.447(h)]
- 30.k.i. Any piping that could allow the flow of the NCG scrubber underflow liquid to the #4 slaker or causticizers must be removed, or a lock and tag must be utilized to prevent opening of the valve to the causticizers and/or the #4 slaker.
  - 30.k.ii. The NCG scrubber underflow liquid valve to the #4 slaker and causticizers is normally closed as required by Condition 30.k.i. On the rare occasion while the facility is operating where the permittee determines a need to briefly open this normally closed valve for inspection, troubleshooting or maintenance, such exceptions must be minimized as much as possible, and any such event must be reported to LRAPA consistent with the reporting procedures in Conditions 74 and 194 (excess emissions reporting).
  - 30.k.iii. The combined methanol emissions from the Recaust sources, (including the #4 slaker, causticizers, mud filters, mud washers, mud storage tanks, white and green liquor clarifiers, dregs filter, and kilns), and EU-445D #4 smelt dissolving tank vent must not exceed 1.0 lb/ODTP as methanol. Monitoring must be performed as specified in Condition 30.k.v.
  - 30.k.iv. Except as specified in this condition, only boiler-water blowdown condensate and/or mill/tempered water and/or caustic may be used as liquid makeup to the EU-445D #4 Smelt Dissolving Tank Vent wet scrubber.

### **CCA Monitoring and Testing Requirements**

- 30.k.v. **Testing Requirement:** *At least once per year*, the Slaker vent, at least one (1) causticizer, and the #4 Smelt Dissolving Tank (EU-445D) Scrubber vent must be tested for the methanol emission rate using EPA Method 308. The combined methanol emission rate for the Recaust sources (see list of sources in 30.k.iii) and Smelt Dissolving Tank Vent must be less than or equal to 1.0 lb/ODTP methanol on a daily average basis, calculated from an annual throughput basis. This is the emission rate that provides the minimum CCA emission reduction to achieve a lower emission rate than the alternative control option for HVLC sources under Condition 25.b. The combined emission rate in a given year for the Recaust sources listed in Condition 30.k.iii, must be calculated each year by testing an LRAPA-approved representative subset of those sources, including at least the #4 slaker and one (1) causticizer, and factoring each Recaust vent 2003 methanol emission rate, (from the 2003 CCA emission rate table in the Review Report) by the ratio of the current test year emission rate.

30.k.v.A. Example:

*Current year mud filter emission rate =*

$$\frac{\text{(Current year slaker emission rate)}}{\text{(2003 slaker emission rate)}} \times \text{(2003 mud filter emission rate)}$$

- 30.k.vi. Monitoring Requirement: *At least once per year*, to ensure the Kamyr washer methanol emissions are below the CCA baseline, the wash water to the Kamyr washer, must be sampled to ensure the liquid concentration is below the October 7, 2003 CCA Project Report baseline of 500 ppm.
- 30.k.vii. Monitoring Requirement: *At least once per year*, the makeup water to the Recaust area at the mud washer, must be sampled to track the process condensate methanol concentration. There shall be no methanol concentration limit on this condensate, due to the emission limit already established on the Recaust process under Condition 30.k.iii. [Note: The CCA 1993 baseline VCE condensate methanol concentration was 430ppm, where 550ppm equals the average concentration of 430 ppm plus one (1) standard deviation.]

## SUBPART S – STANDARDS FOR ENCLOSURES AND CLOSED VENT SYSTEMS

31. Applicable Requirement: The permittee must comply with the following requirements for enclosures and closed-vent systems. [40 CFR 63.450]
- 31.a. Each enclosure and closed-vent system specified in Condition 25.a (LVHC system) and 25.b (HVLC systems) for capturing and transporting vent streams that contain HAP must meet the requirements specified in Conditions 31.b through 31.d. [40 CFR 63.450(a)]
- 31.b. Each enclosure must maintain negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in Condition 49.f. Each enclosure or hood opening closed during the initial performance test specified in Condition 49 must be maintained in the same closed and sealed position as during the performance test, at all times, except when necessary to use the opening for sampling, inspection, maintenance, or repairs. [40 CFR 63.450(b)]
- 31.c. Each component of the closed-vent system used to comply with Conditions 25.a (LVHC system) and 25.b (HVLC systems) that is operated at a positive pressure and located prior to a control device must be designed for and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million by volume above background, as measured by the procedures specified in Condition 49.e. [40 CFR 63.450(c)] Monitoring for this condition must follow the procedures in Conditions 39.a through 39.e.
- 31.d. Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in Condition 25 must comply with either of the following requirements: [40 CFR 63.450(d)(1) & (2)]
- 31.d.i. On the NCG system emergency auto-vent valve in Condition 24 the permittee must install, calibrate, maintain, and operate according to manufacturer's specifications a flow indicator that provides a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. [40 CFR 63.450(d)(1) & 63.454(e)] To meet this requirement the permittee must continuously monitor any automatic vent bypass valves on the LVHC NCG collection with a data acquisition system and any valve output signal greater than 0% must be recorded and reported as a potential venting condition, in accordance with LRAPA 33-070 and 40 CFR 63.450 and Condition 113.
- 31.d.ii. For bypass line valves that are not computer controlled, the permittee must maintain the bypass line valve in the closed position with a car seal or a seal placed on the valve or closure mechanism or a cable and lock. The permittee must maintain a log identifying when, and for how long, any valve subject to this condition is open.

## SUBPART RR – STANDARDS FOR INDIVIDUAL DRAIN SYSTEMS

32. Applicable Requirement: The permittee must comply with the following requirements for individual drain systems. [40 CFR 63.446(d)(1) and 40 CFR 63.962]
- 32.a. The permittee must control air emissions from the individual drain system used to control emissions from pulping condensates using one or a combination of the following: [40 CFR 63.962(a)]
- 32.a.i. Covers, water seals, and other air emission control equipment as specified in Condition 32.b.
- 32.a.ii. Hard-piping.
- 32.a.iii. Venting of the individual drain system through a closed vent system to a control device in accordance with the following requirements:
- 32.a.iii.A. The individual drain system is designed and operated such that an internal pressure in the vapor headspace in the system is maintained at a level less than atmospheric pressure when the control device is operating, and
- 32.a.iii.B. The closed vent system and control device are designed and operated in accordance with the requirements of Conditions 25.c (kiln as control device) and 31.
- 32.b. If air emissions from an individual drain system are controlled in accordance with Condition 32.a.i, the permittee must meet the following requirements: [40 CFR 63.962(b)]
- 32.b.i. The individual drain system must be designed to segregate the organic vapors from wastewater managed in the controlled individual drain system from entering any other individual drain system that is not controlled for air emissions in accordance with the standards specified in this condition.
- 32.b.ii. *Drain Control Requirements*. Each drain must be equipped with either a water seal or a closure device in accordance with the following requirements:
- 32.b.ii.A. When a water seal is used, the water seal must be designed such that either:
- 32.b.ii.A.(1). The outlet to the pipe discharging the wastewater extends below the liquid surface in the water seal of the drain; or
- 32.b.ii.A.(2). A flexible shield or other device is installed which restricts wind motion across the open space between the outlet of the pipe discharging the wastewater and the drain.
- 32.b.ii.B. When a closure device is used (e.g., securing a cap or plug on a drain that is not receiving wastewater), the closure device must be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the drain opening and the closure device.
- 32.b.iii. *Operating Requirements*. The permittee must operate the air emission controls required by Condition 32.b.ii in accordance with the following requirements:
- 32.b.iii.A. Each closure device must be maintained in a closed position whenever wastewater is in the individual drain system except when it is necessary to remove or open the closure device for sampling or removing material in the individual drain system, or for equipment inspection, maintenance, or repair.

- 32.b.iii.B. Each drain equipped with a water seal and open to the atmosphere must be operated to ensure that the liquid in the water seal is maintained at the appropriate level. Examples of acceptable means for complying with this provision include but are not limited to using a flow-monitoring device indicating positive flow from a main to a branch water line supplying a trap; continuously dripping water into the trap using a hose; or regular visual observations.

## **SUBPART S – MONITORING REQUIREMENTS**

### **General Continuous Monitoring Systems (CMS) Quality Control Program Requirements for Subpart S**

33. Applicable Requirement: The following requirements apply to the CMS required for monitoring Steam Stripper parameters in Condition 35 (Subpart S CMS requirements):
- 33.a. A CMS quality control program as required by 40 CFR 63.8(d)(2) must be developed by April 16, 2001. The CMS quality control written procedures must be kept on record as required by 40 CFR 63.8(d)(3). [40 CFR 63.8(d)(2) and 63.8(d)(3)]
- 33.b. The permittee must keep the necessary parts for routine repairs of the affected CMS equipment readily available. [40 CFR 63.8(c)(1)(ii)]
34. Monitoring Requirement: The permittee must keep records pertaining to the CMSs required in Condition 38 as follows:
- 34.a. All CMS calibration checks; [40 CFR 63.10(b)(2)(x)]
- 34.b. All adjustments and maintenance performed on CMS; [40 CFR 63.10(b)(2)(xi)]
- 34.c. All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out of control periods); [40 CFR 63.10(c)(1)]
- 34.d. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks; [40 CFR 63.10(c)(5)]
- 34.e. The date and the time identifying each period during which the CMS was out of control; [40 CFR 63.10(c)(6)]
- 34.f. The nature of the repairs or adjustments to the CMS that was inoperative or out of control; [40 CFR 63.10(c)(12)] and
- 34.g. All procedures that are part of the quality control program required by 33.a. [40 CFR 63.10(c)(14)]

### **CMS to Monitor Steam Stripper Parameters**

35. Monitoring Requirement: The permittee must install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a Continuous Monitoring System (CMS, as defined in Condition 21.i and 40 CFR 63.2), to measure the following steam stripper parameters used to comply with the treatment requirements specified in Condition 28 (6.6 lb/ton), except as allowed in Condition 39.h. The CMS must include a continuous recorder. [40 CFR 63.453(a) and 63.453(g)]
- 35.a. The process wastewater feed rate;
- 35.b. The steam feed rate; and
- 35.c. The process wastewater column feed temperature
- 35.d. The steam-to-wastewater-feed ratio (steam feed/process wastewater feed) must be continuously calculated from the steam-feed rate and process-wastewater feed rate monitored above in Conditions 35.a and 35.b.
- 35.e. Steam Stripper CMS Parameter Recordkeeping: The permittee must record the following: [OAR 340-218-0050(3)(b)]
- 35.e.i. Changes to the steam stripper operating parameter ranges specified in Condition 39.j and the dates on which the new operating parameter ranges became effective.

- 35.e.ii. Each 1-hour/3-hour average parameter reading.
- 35.e.iii. Each 1-hour/3-hour steam-to-wastewater-feed ratio (steam feed/process wastewater feed).
- 35.e.iv. All periods of operation outside of established parameter ranges (see Condition 39.j).

### **CMS to Monitor Methanol Steam Stripper Outlet Concentration**

36. In accordance with Conditions 37 and 37.a the permittee must install, calibrate, certify, operate, and maintain according to the manufacturer's specifications, a Continuous Monitoring System (CMS, as defined in Condition 21.i and 40 CFR 63.2), to measure the methanol outlet concentration to comply with the steam stripper outlet concentration (210 ppm methanol) specified in Condition 28.a. [40 CFR 63.453(h)]

### **Monitoring to Demonstrate Compliance with Condensate Collection & Treatment Requirements**

37. Monitoring Requirement: The permittee must demonstrate compliance with the standards contained in Condition 26.c (collect 7.2 pounds methanol per ton of ODP) and Condition 28.a (treat 6.6 pounds of methanol per ton of ODP) by continuously monitoring (using the LRAPA-approved method in Condition 37.a ) the amount of methanol collected and treated using the HAP reduction methods in Condition 26.c. Compliance with Condition 28.a shall be demonstrated by the permittee whenever the amount of methanol treated is equal to or greater than 6.6 lb/ton of ODP, on a rolling average time basis not to exceed 60 days. Compliance with Condition 26.c shall be demonstrated by the permittee whenever the amount of methanol collected is equal to or greater than 7.2 lb/ton of ODP on a rolling average time basis not to exceed 60 days. Failure to meet one (1) of these standards for any authorized averaging period shall constitute a single violation of the underlying standard for the last day of the averaging period. If this compliance demonstration method is utilized, then compliance must be demonstrated using the procedures in Condition 37.a.)
- 37.a. For demonstrating compliance with either Condition 28.a (6.6 lb/ton) or Condition 26.c (7.2 lb/ton), the permittee must use the following procedures:
- 37.a.i. Determine the mass quantity of methanol treated according to Condition 28.a (6.6 lb/ton treated) by continuously monitoring the mass quantity of methanol in the product methanol stream by using a surrogate method of measuring methanol concentration, i.e., liquid product methanol density or stripper column top pressure/temperature ratio, and measuring the product methanol flow, and pulp production. The permittee must provide quality assurance of this CMS by following the requirements of Condition 33.a (CMS QA plan).
    - 37.a.i.A. The following equation must be used to calculate mass generation rate of methanol in lb/min (kg/min):
$$(Mass\ Fraction\ of\ Methanol\ in\ Product\ Methanol\ Stream) \times (Stream\ Density) \times (Steam\ Flow)$$
    - 37.a.i.B. The following equation must be used to calculate the mass quantity of methanol treated in the previous averaging time period in lbs/ODT (kg/ODT):
$$\frac{(Sum\ of\ Pounds\ per\ Minute\ for\ Each\ Minute\ During\ Averaging\ Period)}{\div (Total\ Pulp\ Produced\ During\ Averaging\ Period)}$$
  - 37.a.ii. Determine the mass quantity of methanol collected according to Condition 26.c by using the following equation:
$$\frac{(Methanol\ Treated\ as\ Determined\ in\ Condition\ 37.\ a.\ i.\ B)}{\div (Methanol\ Stripping\ Efficiency\ of\ Steam\ Stripper\ [lb\ out/lb\ fed])}$$

### **Initial Methanol Performance Test completed in October 2001 and reported December 11, 2001.**

- 37.b. The initial performance test requirements were completed in accordance with the procedures in Condition 37.c and the results were submitted to LRAPA on December 11, 2001. The initial

performance test consisted of monitoring under the requirements of Condition 37 and 37.a, where a CMS was used to calculate the quantity of methanol collected and treated using the calculations under Condition 37.a.i. The initial value for methanol stripping efficiency of the steam stripper was 0.96 pounds out per pound fed (96% efficiency). The permittee must continue to monitor for compliance by following Condition 37 (operate the CMS) to monitor condensate treatment and Condition 37.c.i (annual stripper methanol efficiency testing) to monitor condensate methanol collection.

#### **Validating Stripper Efficiency Value to Calculate Condensate Collection and Treatment Quantity from Treatment Quantity**

- 37.c. Monitoring Requirement: The value for the methanol stripping efficiency of the steam stripper used in Condition 37.a.ii must be updated annually.
- 37.c.i. At least once per year, the permittee must update the methanol stripping efficiency used to calculate methanol collection or to demonstrate compliance with Condition 26.c (7.2 lbs/ton collected) by using the following procedures on three (3) randomly-selected days over a two- (2) week period;
- 37.c.ii. Over a 24-hour period, take three (3) samples of foul condensate on each feed stream and three (3) samples of the steam-stripped condensate;
- 37.c.iii. Combine the three (3) samples into a composite sample and determine the methanol concentration using EPA Method 305, NCASI method DI/MeOH 94.02 or an alternative method approved by EPA, and determine the density of each stream;
- 37.c.iv. During the 24-hour period, measure the flow rate of the streams that were sampled;
- 37.c.v. Calculate the daily pounds of methanol in each sampled stream;
- 37.c.vi. Calculate the methanol stripping efficiency using the following equation:  
*(Pounds of Methanol in the Feed Streams)*  
– *(Pounds of Methanol in the Steam Stripped Condensate Stream)*  
÷ *(Pounds of Methanol in the Feed Streams)*
- 37.c.vi.A. The numerator in this calculation may also be calculated using the product methanol flow and concentration (or an average of both methods), provided the product methanol stream is sampled and tested according to conditions and the permittee maintains all appropriate records;
- 37.c.vi.B. If the stripper steam to feed stream mass ratio deviates from the parameter values reported in accordance with Condition 39.j, the permittee must perform testing in order to determine a new methanol stripping efficiency, using the procedures in Condition 37 and 37.c;
- 37.c.vii. If the stripper steam to feed stream mass ratio and feed stream temperature(s) have not deviated outside of the parameter range, the methanol stripping efficiency measured in accordance with Condition 37 must be averaged with the previous five (5) years of measured methanol stripping efficiency values in order to determine a new methanol stripping efficiency.

#### **Installation of Methanol Density Meters on Foul Condensate Feed Tanks A & B as Alternative to Annual Steam Stripper Efficiency Testing**

- 37.d. In lieu of annual methanol stripping efficiency required by Condition 37.c.i, the permittee may install methanol density meters on the foul condensate feed tanks A & B to measure pounds of MeOH/ODT collected to determine compliance with Condition 26.c (7.2 lbs/ODT collected) and, in accordance with Condition 39.h (alternate parameter monitoring), continually monitor and calculate the steam stripper's efficiency in stripping MeOH from the condensate stream. Installation of the feed tanks methanol density meters and establishment of an alternative methanol

CMS must be approved by LRAPA using the appropriate notice of construction and permit modification processes.

38. A CMS must be operated to measure the appropriate parameters (ex. steam stripper operating parameters specified in Condition 39.j) determined according to the procedures specified in 39.i (63.453(n)) to comply with the condensate applicability requirements specified in Condition 26.c. [40 CFR 63.453(i)]

### **Closed System Monitoring**

39. **Monitoring Requirement:** The permittee must demonstrate compliance with Condition 31 by performing the requirements specified in Conditions 39.a through 39.f. [40 CFR 63.453(k)]
- 39.a. For each enclosure opening, a visual inspection of the closure mechanism specified in Condition 31.b must be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed. [40 CFR 63.453(k)(1)]
- 39.b. Each closed vent system required by Condition 31.a must be visually inspected every 30 days and at other times as requested by LRAPA. LRAPA considers the 30-day frequency to be satisfied if the permittee inspects once per calendar month and each inspection is at least three (3) weeks apart. The visual inspection must include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects. [40 CFR 63.453(k)(2)]
- 39.c. For positive pressure closed vent systems or portions of closed vent systems, demonstrate no detectable leaks as specified in Condition 31.c measured initially and annually by the procedures in Condition 49.e. [40 CFR 63.453(k)(3)]
- 39.d. Demonstrate initially and annually that each enclosure opening is maintained at negative pressure as specified in Condition 49.f. [40 CFR 63.453(k)(4)]
- 39.e. The valve or closure mechanism specified in Condition 31.d.ii must be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line. [40 CFR 63.453(k)(5)]
- 39.f. If an inspection required by Conditions 39.a through 39.e identifies visible defects in ductwork, piping, enclosures or connections to covers required by Condition 31, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions must be taken as soon as practicable. [40 CFR 63.453(k)(6)]
- 39.f.i. A first effort to repair or correct the closed vent system must be made as soon as practicable but no later than five (5) calendar days after the problem is identified. [40 CFR 63.453(k)(6)(i)]
- 39.f.ii. The repair or corrective action must be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown, or if the permittee determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair to such equipment must be completed by the end of the next process unit shutdown. [40 CFR 63.453(k)(6)(ii)]
- 39.g. Each pulping process condensate closed collection system used to comply with Condition 27 (63.446(d)) must comply with the requirements specified in Conditions 39.g.i through 39.g.iii. [40 CFR 63.453(l)]
- 39.g.i. Each pulping process condensate closed collection system must be visually inspected every 30 days and must comply with the following inspection and monitoring requirements. LRAPA considers the 30-day frequency to be satisfied if the permittee inspects once per calendar month and each inspection is at least 3 weeks apart. [40 CFR 63.453(l)(1)]
- 39.g.i.A. The individual drain system must be visually inspected by the permittee as follows to check for defects that could result in air emissions to the atmosphere. [40 CFR 63.964(a)(1) and 40 CFR 63.453(l)(i)]

- 39.g.i.A.(1). The permittee must visually inspect each drain as follows:
- 39.g.i.A.(1).(a). In the case when the drain is using a water seal to control air emissions, the permittee must verify appropriate liquid levels are being maintained and identify any other defects that could reduce water seal control effectiveness.
- 39.g.i.A.(1).(b). In the case when the drain is using a closure device to control air emissions, the permittee must visually inspect each drain to verify that the closure device is in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing plugs, caps, or other closure devices.
- 39.g.i.A.(2). The permittee must visually inspect each junction box to verify that closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, or gaps in the closure devices; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
- 39.g.i.A.(3). The permittee must visually inspect the unburied portion of each sewer line to verify that all closure devices are in place and there are no defects. Defects include, but are not limited to, visible cracks, holes, gaps, or other open spaces in the sewer line joints, seals, or other emission interfaces.
- 39.g.i.A.(4). The permittee must perform the inspections initially at the time of installation of the water seals and closure devices for the individual drain system and, thereafter, at least once every year.
- 39.g.i.A.(5). In the event that a defect is detected, the permittee must repair the defect in accordance with the requirements Condition 39.g.i.C.
- 39.g.i.A.(6). The permittee must maintain a record of the inspection in accordance with the requirements specified in Condition 42.b .
- 39.g.i.B. The permittee must comply with the inspection and monitoring requirements for closed-vent systems and control devices specified in Conditions 35 and 39.
- 39.g.i.C. The permittee must repair all detected defects as follows: [40 CFR 63.964(b)]
- 39.g.i.C.(1). The permittee must make first efforts at repair of the defect no later than five (5) calendar days after detection and repair must be completed as soon as possible but no later than 15 calendar days after detection except as provided in Condition 39.g.i.C.(2).

- 39.g.i.C.(2). Repair of a defect may be delayed beyond 15 calendar days if the permittee determines that repair of the defect requires emptying or temporary removal from service of the individual drain system and no alternative capacity is available at the facility site to accept the wastewater normally managed in the individual drain system. In this case, the permittee must repair the defect at the next time the process or unit that is generating the wastewater managed in the individual drain system stops operation. Repair of the defect must be completed before the process or unit resumes operation.
- 39.g.i.C.(3). The permittee must maintain a record of the defect repair in accordance with the requirements specified in Condition 42.b .
- 39.g.ii. Each condensate tank used in the closed collection system must be operated with no detectable leaks (as specified in Condition 27.b.i.) measured initially and annually by the procedures specified in Condition 49.e. The tanks covered by this condition include the following:
- 39.g.ii.A. CSD A, B, and C feed tanks; and
- 39.g.ii.B. Turpentine decanters (except that cold storage or cold polishing decanter are not included);
- 39.g.iii. If an inspection required by this section identifies visible defects in the closed collection system, or if an instrument reading of 500 parts per million or greater above background is measured, then corrective actions specified in Condition 39.g.i.C must be taken.

#### **Alternate Controls or Parameters Require CMS to Monitor Parameters**

- 39.h. If the permittee uses a control device, technique or an alternative parameter other than those specified in Conditions 35 (steam stripper CMS), 36 (MeOH CMS), 38 (measure steam stripper operating parameters) 39 (closed system monitoring) and 39.g (Subpart RR drain system monitoring), the permittee must install a CMS and establish appropriate operating parameters to be monitored that demonstrate, to LRAPA's satisfaction, continuous compliance with the applicable control requirements. [40 CFR 63.453(m)]

#### **Establishing and/or Changing Operating Parameters**

- 39.i. To establish (initial stripper parameter values established in October 2001, see Condition 39.j) or reestablish the value for each operating parameter required to be monitored under Conditions 35 (steam stripper CMS (63.453(g)), 36 (MeOH CMS (63.453(h)), 38 (measure steam stripper operating parameters (63.453(i)), 39 (closed system monitoring (63.453(k)), and 39.g (Subpart RR drain system monitoring (63.453(l)), and/or to establish appropriate parameters for Conditions 38 and 39.h (Alternative controls/techniques/parameters), the permittee must use the following procedures: [40 CFR 63.453(n)]
- 39.i.i. During the initial performance test (completed October 2001) required in Condition 49 (63.457 test methods) or any subsequent performance test, continuously record the operating parameter; [40 CFR 63.453(n)(1)]
- 39.i.ii. Determinations must be based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations; [40 CFR 63.453(n)(2)]
- 39.i.iii. The permittee must provide for LRAPA's approval the rationale for selecting the monitoring parameters necessary to comply with Conditions 38 (Condensate CMS, 63.453(i)) and 39.h (Alternative control/techniques/parameters); [40 CFR 63.453(n)(3)]

- 39.i.iv. Provide for LRAPA's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the applicable emission standard. [40 CFR 63.453(n)(4)]
- 39.i.v. In addition, the steam stripper parameter range changes must conform with the following:
  - 39.i.v.A. The steam to wastewater feed ratio must be no less than 97.5 percent of the lowest steam to wastewater feed ratio measured during a source test that returned a compliant result; and
  - 39.i.v.B. The process wastewater column feed temperature must be no less than 30°F less than the lowest column feed temperature measured during a source test that returned a compliant result.

#### **Initial Steam Stripper Performance Test Operating Parameters**

- 39.j. In accordance with Conditions 39.i.i through 39.i.v, the permittee established the initial steam stripper operating parameters based on results from the October 2001 initial performance test that demonstrated compliance with the condensate collection and treatment standards contained in Condition 28 (condensate treatment (6.6 pounds of methanol per ODP)) and 26.c (condensate control requirements (collect 7.2 pounds methanol per ton of ODP)). The permittee must operate the steam stripper system (including the VCE, CSD and reboiler) as follows:
  - 39.j.i. The wastewater feed ratio must be no less than 11.12 based on a 3-hour discrete average;
  - 39.j.ii. The process wastewater column feed temperature must be no less than 139°F for the "A" column feed;
  - 39.j.iii. The process wastewater column feed temperature must be no less than 84°F for the "B" column feed; and
  - 39.j.iv. All parameter values must be recorded in accordance with Condition 35.e
- 40. The permittee must operate the condensate steam stripper system control device in a manner consistent with the minimum operating parameter values required to be monitored under Conditions 35 (Steam stripper CMS), established in accordance with Condition 39.i. and recorded in Condition 39.j. Except as provided in Condition 29 (<10% for condensate control), operation of the condensate steam stripper system control device below minimum operating parameter values established as specified in Condition 39.j. or failure to perform procedures required by Subpart S shall constitute a violation of the applicable emission standard of this subpart and be reported as a period of excess emissions. [40 CFR 63.453(o)].

#### **Vent Collection System Monitoring**

- 41. Monitoring Requirement: The permittee must monitor the parameters specified in this condition whenever any equipment included in the LVHC or HVLC systems are operating. [OAR 340-218-0050(3)(a), 40 CFR 63.6(e), 63.10(b)]:
  - 41.a. All periods in which the LVHC and HVLC systems is operating must be recorded;
  - 41.b. All periods in which the LVHC and HVLC systems is operating and a control device is not in use must be recorded;
  - 41.c. All periods in which a control device is in use but is functioning outside the required parameter range must be recorded; and
  - 41.d. All periods of bypassing from the LVHC and/or HVLC main vents valve(s) listed in Condition 23 under the monitoring method requirements in Condition 39.
    - 41.d.i. Bypassing must be monitored at least once every 15 minutes by use of a flow indicating device installed in each bypass line, or by use of any indicating device(s) that provide(s) a positive indication of bypassing. [40 CFR 63.450(d)]

- 41.d.ii. The duration of the use of bypass valves on computer-controlled valves. [40 CFR 63.454(b)(12)]

## **SUBPART S – RECORDKEEPING REQUIREMENTS**

42. Recordkeeping Requirement: The permittee must maintain the following records: [40 CFR 63.454 and 40 CFR 63.965]
- 42.a. The permittee must comply with the applicable recordkeeping requirements of 40 CFR 63.10 as shown in 40 CFR part 63 – subpart S, Table 1, including Conditions 33 (CMS QAP), 34 (CMS records) and 43 (semiannual report records) and the requirements found in Conditions 42.b through 42.f, below. [40 CFR 63.454(a)]
- 42.b. The permittee must prepare and maintain the following drain systems records required by Subpart RR: [40 CFR 63.965(a)]
- 42.b.i. A written site-specific individual drain system inspection plan that includes a drawing or schematic of the individual drain system and identifies each drain, junction box, and sewer line location.
- 42.b.ii. A record of the date that each inspection required by Condition 39.g.i.A is performed.
- 42.b.iii. When applicable, a record for each defect detected during inspections required by Condition 39.g.i.A.(6) that includes the following information: the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and the date that the corrective action was completed. In the event that repair of the defect is delayed in accordance with Condition 39.g.i.C.(2), the permittee must also record the reason for the delay and the date that completion of repair of the defect is expected.
- 42.c. For each applicable enclosure opening, closed-vent system, and closed collection system, the permittee must maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and must record the following information for each inspection: [40 CFR 63.454(b)]
- 42.c.i. Date of Inspection;
- 42.c.ii. Equipment type and identification;
- 42.c.iii. Results of negative pressure tests for enclosures;
- 42.c.iv. Results of leak detection tests;
- 42.c.v. The nature of the defect or leak and the method of detection (i.e., visual inspection or instrument detection);
- 42.c.vi. The date the defect or leak was detected and the date of each attempt to repair the defect or leak;
- 42.c.vii. Repair methods applied in each attempt to repair the defect or leak;
- 42.c.viii. The reason for the delay if the defect or leak is not repaired within 15 days after discovery;
- 42.c.ix. The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;
- 42.c.x. The date of successful repair of the defect or leak;
- 42.c.xi. The position and duration of opening of bypass line valves and the condition of any valve seals; and
- 42.c.xii. The duration of the use of bypass valves on computer-controlled valves.
- 42.d. The permittee must record the CMS parameters specified in Condition 35 and meet the requirements specified in Condition 42.a for any new affected process equipment or pulping

- process condensate stream that becomes subject to 40 CFR part 63 subpart S standards due to a process change or modification. [40 CFR 63.454(d)]
- 42.e. The permittee shall set the flow indicator on each bypass line specified in Condition 31.d.i (40 CFR 63.450(d)(1)) to provide a record of the presence of gas stream flow in the bypass line at least once every 15 minutes. [40 CFR 63.454(e)]
- 42.f. *Recordkeeping of malfunctions.* The permittee must maintain the following records of malfunctions: [40 CFR 63.454(g)]
- 42.f.i. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.454(g)(1)]
- 42.f.ii. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 20 (40 CFR 63.453(q)), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.454(g)(2)]

## SUBPART A & S – REPORTING REQUIREMENTS

### Semiannual Reporting

43. Reporting Requirement: The permittee must submit semiannual Summary Reports and (if required) Excess Emissions and Continuous Monitoring System Performance Reports to LRAPA in accordance with the following: [40 CFR 63.10(e)(3)]
- 43.a. If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the Summary Report (see Condition 43.d for information required) must be submitted, and the full Excess Emissions and Continuous Monitoring System Performance Report need not be submitted unless required by LRAPA. [40 CFR 63.10(e)(3)(vii)]
- 43.b. If the total duration of excess emissions of process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, then the Summary Report and the Excess Emissions and Continuous Monitoring System Performance Report must be submitted (including excess emission information specified in Condition 43.e). [40 CFR 63.10(e)(3)(viii)]
- 43.c. The semiannual reports required by this condition must be submitted LRAPA by the same dates as the annual and semiannual reports required in the permittee's Title V permit (Condition 197). [63.10(a)(5)]

### Summary Report

- 43.d. The Summary Report must be entitled "Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and must contain the information specified below: [40 CFR 63.10(e)(3)(vi)]
- 43.d.i. The company name and address of the affected source; [40 CFR 63.10(e)(3)(vi)(A)]
- 43.d.ii. An identification of each hazardous air pollutant monitored at the affected source; [40 CFR 63.10(e)(3)(vi)(B)]
- 43.d.iii. The beginning and ending dates of the reporting period; [40 CFR 63.10(e)(3)(vi)(C)]
- 43.d.iv. A brief description of the process units; [40 CFR 63.10(e)(3)(vi)(D)]
- 43.d.v. The emission and operating parameter limitations specified in the relevant standard(s); [40 CFR 63.10(e)(3)(vi)(E)]
- 43.d.vi. The monitoring equipment manufacturer(s) and model number(s); [40 CFR 63.10(e)(3)(vi)(F)]

- 43.d.vii. The date of the latest CMS certification or audit; [40 CFR 63.10(e)(3) (3)(vi)(G)]
- 43.d.viii. The total operating time of the affected source during the reporting period; [40 CFR 63.10(e)(3)(vi)(H)]
- 43.d.ix. An emission data summary (or similar summary if the permittee monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes; [40 CFR 63.10(e)(3)(vi)(I)]
- 43.d.x. A CMS performance summary (or similar summary if the permittee monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes; [40 CFR 63.10(e)(3)(vi)(J)]
- 43.d.xi. A description of any changes in CMS, processes, or controls since the last reporting period; [40 CFR 63.10(e)(3)(vi) (K)]
- 43.d.xii. The name, title, and signature of the responsible official who is certifying the accuracy of the report; [40 CFR 63.10(e)(3)(vi) (L)] and
- 43.d.xiii. The date of the report. [40 CFR 63.10(e)(3)(vi) (M)]

#### **Excess Emissions and Continuous Monitoring System Performance Report**

- 43.e. If required, the Excess Emissions and Continuous Monitoring System Performance Report must include the following emissions information:
  - 43.e.i. The specific identification (i.e., date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances that occurs during startups, shutdowns and malfunctions of the affected source; [40 CFR 63.10 (c)(7)]
  - 43.e.ii. The specific identification (i.e., date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances of excess emissions and parameter monitoring exceedances that occurs during periods **other than** startups, shutdowns and malfunctions of the affected source; [40 CFR 63.10 (c)(8)]
  - 43.e.iii. An emission data summary (or similar summary if the permittee monitors control system parameters), including: [40 CFR 63.10(e)(3)(vi)(I)]
    - 43.e.iii.A. The total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases);
    - 43.e.iii.B. The total duration of excess emissions expressed as a percent of the total source operating time during that reporting period; and
    - 43.e.iii.C. A breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- 43.f. If required, the Excess Emissions and Continuous Monitoring System Performance Report must include the following information on CMS performance:

- 43.f.i. The date and time identifying each period in which the CMS was inoperative except for zero (low-level) and high-level checks; [40 CFR 63.10(c)(5)]
- 43.f.ii. The date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7), and descriptions of corrective actions taken; [40 CFR 63.10(c)(6) and 63.8(c)(8)]
- 43.f.iii. A CMS performance summary (or similar summary if the permittee monitors control system parameters), including: [40 CFR 63.10(e)(3)(vi)(J)]
  - 43.f.iii.A. The total CMS downtime during the reporting period (recorded in hours),
  - 43.f.iii.B. The total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and
  - 43.f.iii.C. A breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

### Notification Reporting

- 44. In compliance with reporting and notification requirements specified in 40 CFR 63.9(b)(2), including all information required by 40 CFR 63.455(b)(1-3), the permittee submitted all required Subpart S (Pulp & Paper MACT I) Control Strategy notification reports to LRAPA by respective due dates as specified below: [40 CFR 63.455(a) & (b)]
  - 44.a. The permittee submitted the initial notification report on April 5, 1999, before the April 15, 1999 Subpart S reporting deadline.
  - 44.b. Following the initial notification report, the permittee submitted each subsequent 2-year control strategy update report as follows:
    - 44.b.i. The first 2-year control update report was submitted on April 7, 2001, before the April 15, 2001 Subpart S reporting deadline.
    - 44.b.ii. The second and final 2-year control update report was submitted on April 9, 2003, before the April 15, 2003 Subpart S reporting deadline.
- 45. Reporting Requirement: The permittee must meet the notification requirements specified in 40 CFR 63.9(b)(2) including all information required by 40 CFR 63.455(b)(1-3), upon startup of any new affected process equipment or pulping process condensate stream that becomes subject to the standards of 40 CFR Part 63 due to a process change or modification. [40 CFR 63.455(d)]

### Malfunction Reporting

- 46. Reporting Requirement: If a malfunction occurred during the reporting period, the report must include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with Condition 20 (40 CFR 63.453(q)), including actions taken to correct a malfunction. [40 CFR 63.455(g)]

### Performance Test Reporting

- 47. Reporting Requirement: The permittee must submit performance test reports as specified in Conditions 47.a through 47.d, below. [40 CFR 63.455(h)]
  - 47.a. The permittee must report the results of the performance test before the close of business on the 60th day following the completion of the performance test, unless approved otherwise in writing by LRAPA. A performance test is “completed” when field sample collection is terminated. Unless otherwise approved by LRAPA in writing, results of a performance test shall include the analysis of samples, determination of emissions and raw data. A complete test report must include the purpose of the test; a brief process description; a complete unit description, including a description of feed streams and control devices; sampling site description; pollutants measured; description of

sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions, including operating parameters for which limits are being set, during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; chain-of-custody documentation; explanation of laboratory data qualifiers; example calculations of all applicable stack gas parameters, emission rates, percent reduction rates, and analytical results, as applicable; and any other information required by the test method and LRAPA. [40 CFR 63.455(h)(1)]

- 47.b. Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2) as required by this subpart, the permittee must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of LRAPA, the permittee must also submit these reports, including the CBI, to LRAPA in the format specified by LRAPA. For any performance test conducted using test methods that are not listed on the ERT Web site, the permittee must submit the results of the performance test to LRAPA and/or the Administrator at the appropriate address listed in Condition 205. [40 CFR 63.455(h)(2)]
- 47.c. Within 60 days after the date of completing each CEMS performance evaluation test as defined in 40 CFR 63.2, the permittee must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with Conditions 47.b of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the permittee must submit the results of the performance evaluation to the Administrator and/or LRAPA at the appropriate address listed in Condition 205. [40 CFR 63.455(h)(3)]
- 47.d. All reports required by this subpart not subject to the requirements in Conditions 47.b and 47.c of above, must be sent to LRAPA at the appropriate address listed in Condition 205. LRAPA may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). LRAPA retains the right to require submittal of reports subject to Conditions 47.b and 47.c of this section in paper format. [40 CFR 63.455(h)(4)]

### **Affirmative Defense for Violation of Emission Standards During Malfunction**

48. In response to an action to enforce the standards set forth in Conditions 25.a and 25.b (40 CFR 63.443(c)) and Condition 25.c (63.443(d)), Conditions 26.c, 27 and 28 (63.446(c), (d), and (e)), and 30.b (63.447(b)), or Condition 31.d (40 CFR 63.450(d)), the permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed, however, if the permittee fails to meet the burden of proving all of the requirements in the affirmative defense, as specified in 40 CFR 63.456(a)(1-9) & (b). The affirmative defense shall not be available for claims for injunctive relief. [40 CFR 63.456]

## **SUBPART S – TESTING REQUIREMENTS**

### **Test Methods and Procedures**

49. Testing Requirement: Initial and repeat performance tests are required for the emissions sources specified in Conditions 49.a and 49.b, except for emission sources controlled by a combustion device that is designed and operated as specified in Condition 25.c. (40 CFR 63.443(d)(4)(i)). [40 CFR 63.457(a)]

- 49.a. Conduct an initial performance test for all emission sources subject to the limitations in Condition 25 (40 CFR 63.443 (Kraft Pulping System)), Condition 26 (40 CFR 63.446 (Pulping Condensates)), and Condition 30 (40 CFR 63.447 (CCA)).
- 49.b. Conduct repeat performance tests at five-year intervals for all emission sources subject to the limitations in 40 CFR 63.443. The first of the 5-year repeat tests must be conducted by **September 7, 2015, and thereafter within 60 months** (completed September 2014) from the date of the previous performance test. Five-year repeat testing is not required for screen systems with HAP emission less than 0.10 kilograms of total HAP per megagram of ODP (0.2 pounds per ton) specified in 40 CFR 63.443(a)(1)(ii)(B).
- 49.c. Vent Sampling Port Locations and Gas Stream Properties. For purposes of selecting vent sampling port locations and determining vent gas stream properties, required in Conditions 25 and 26, the permittee must comply with the applicable procedures in 40 CFR 63.457(b). [40 CFR 63.457(b)]
- 49.d. Liquid Sampling Locations and Properties. For purposes of selecting liquid sampling locations and for determining properties of liquid streams such as wastewaters, process waters, and condensates required in Conditions 26 and 30, permittee must comply with the procedures in 40 CFR 63.457(c). [40 CFR 63.457(c)]
- 49.e. Detectable Leak Procedures. To measure detectable leaks for closed vent systems as specified in Condition 31.c or for pulping process wastewater collection systems as specified in Condition 27.b.i, the permittee must comply with the requirements in 40 CFR 63.457(d) or an equivalent leak detection procedure approved in accordance with 40 CFR 63.8(4)(i). [40 CFR 63.457(d)(1) & (d)(2)]
- 49.f. Negative Pressure Procedures. To demonstrate negative pressure at process equipment enclosure openings as specified in Condition 31.b, the permittee must use one of procedures specified in 40 CFR 63.457(e). [40 CFR 63.457(e)]
- 49.g. HAP Concentration Measurements. For purposes of complying with the requirements in Conditions 25 and 30, the permittee must measure the total HAP concentration as one of the options ( as the sum of all individual HAPs or as methanol) 40 CFR 63.457(f). [40 CFR 63.457(f)]
- 49.h. Condensate HAP Concentration Measurement. For purposes of complying with the kraft pulping condensate requirements in Condition 26, the permittee must measure the total HAP concentration as methanol. [40 CFR 63.457(g)]
- 49.i. Vent Gas Stream Calculations. To demonstrate compliance with the mass emission rate, mass emission rate per megagram of ODP, and percent reduction requirements for vent gas streams specified in Conditions 25 and 30, permittee must use the procedures specified in 40 CFR 63.457(i). [40 CFR 63.457(i)]
- 49.j. Liquid Stream Calculations. To demonstrate compliance with the mass flow rate, mass per megagram of ODP, and percent reduction requirements for liquid streams specified in Condition 26, the permittee must use the procedures specified in 40 CFR 63.457(j). [40 CFR 63.457(j)]
- 49.k. Condensate Segregation Procedures. Compliance with the condensate segregation requirements specified in Condition 26.c must be determined using the procedures specified in 40 CFR 63.457(m). [40 CFR 63.457(m)]

## **SOURCE TESTING & EMISSION FACTOR VERIFICATION PROCEDURE**

- 50. If source testing and/or emission factor verification is required, the permittee must use the following procedures, unless otherwise specified in this permit or approved in writing by LRAPA: [LRAPA 35-0120 OAR 340-218-0040(4), and OAR 340-218-0050(3)]
  - 50.a. Pretest Notification and Test Plan Submittal:
    - 50.a.i. In the case of initial performance tests (also referred to as initial performance (source) tests), the permittee must notify LRAPA at least 60 days prior to the initial performance test by submitting a source test plan in accordance with DEQ's Source Sampling Manual. [40 CFR 63.7(b)(1)]; otherwise

- 50.a.ii. In the case of source tests and emission factor verification tests (other than initial performance tests), the permittee must notify LRAPA at least 15 days prior to conducting any source tests or emission factor verification tests by submitting a source test plan in accordance with DEQ's Source Sampling Manual.
- 50.b. Submittal of Test Results:
- 50.b.i. The permittee must submit a summary of all initial performance tests to LRAPA within 60 days. The summary must include the following information: 40 CFR 63.10(d)(2)]
- 50.b.i.A. Emissions unit and monitoring point identification;
- 50.b.i.B. Emission results in units that are consistent with the emissions limits on the emissions unit(s) being tested (e.g., gr/dscf, lb/hour, lb per unit throughput, etc.);
- 50.b.i.C. Process parameters during the test (e.g., material throughput, types and amounts of fuels used, heat input, etc.); and
- 50.b.i.D. Control device operating parameters, if applicable.
- 50.b.ii. The permittee must submit a summary of all source tests and emission factor verification tests (other than initial performance tests) to LRAPA within 60 days of any test. The summary must include the following information:
- 50.b.ii.A. Emissions unit and monitoring point identification;
- 50.b.ii.B. Emission results in units that are consistent with the emissions limits on the emissions unit(s) being tested (e.g., gr/dscf, lb/hour, lb per unit throughput, etc.);
- 50.b.ii.C. Process parameters during the test (e.g., material throughput, types and amounts of fuels used, heat input, etc.); and
- 50.b.ii.D. Control device operating parameters, if applicable.
- 50.c. The permittee must conduct all testing in accordance with the DEQ's Source Sampling Manual. [LRAPA 35-0120]
- 50.d. Only regular operating staff may adjust the processes or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
- 50.e. Performance tests must be conducted under such conditions as LRAPA specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee must make available to LRAPA such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.457(o)]

#### **Pretest Runs**

- 50.f. For the purpose of establishing operating parameter ranges, the permittee may perform pretest runs at any time prior to the compliance source test or emission factor verification test, subject to the following conditions:
- 50.f.i. Pretest run results are intended only to help predetermine operating parameter values to be used during the actual compliance source testing or emission factor verification testing, but may not be used themselves to establish operating parameter ranges required elsewhere in this permit;
- 50.f.ii. Pretest runs may be of any duration;
- 50.f.iii. Pretest run results may not be used as part of the compliance demonstration or emission factor verification; and

- 50.f.iv. Pretest runs must be completed prior to beginning the compliance source testing or emission factor verification testing, and no pretest runs may be conducted between individual compliance source test or emission factor verification test runs.
- 50.g. All compliance source tests must be performed at 90 to 110 percent of the normal maximum operating rate. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average daily operating rates during a 12-month period immediately preceding the source test.
- 50.h. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. For a source test to be accepted, there must be at least two (2) valid test runs.
51. Wherever 40 CFR part 63 subpart A specifies “postmark” dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals must be sent by the specified dates, but a postmark or other proof of send date is not required. Whenever the due date falls on a weekend or federal holiday, the due date is delayed to the next working day. [LRAPA 34-016 and 40 CFR 63.2]

**Table 5. Subpart A General Provisions that Apply to NESHAP Subpart S**

| General Provisions Reference | Summary of Requirements   | Applies to Subpart S                        | Explanation  |
|------------------------------|---|---|--|
| 63.1(a)                      | General applicability of the General Provisions                         | Yes, except (a)(10), and (a)(5), (a)(7)-(9) | Subpart S and other cross-referenced subparts specify calendar or operating day. Sections (a)(5), (a)(7)-(9) reserved. |
| 63.1(b)                      | Applicability determination   | Yes, except (b)(1) and (b)(2)               | Subpart S specifies its own applicability. Section (b)(2) reserved.  |
| 63.1(c)                      | Applicability of Subpart A  | Yes, except (c)(3)-(4)                      | Sections reserved.   |
| 63.1(d)                      | [Reserved]  | No  | Section reserved.  |
| 63.1(e)                      | Applicability of permit program before a relevant standard has been set | Yes   |  |
| 63.2                         | Definitions   | Yes   |  |
| 63.3                         | Units and abbreviations   | Yes   |  |
| 63.4                         | Prohibited activities and circumvention                                 | Yes, except (a)(3)-(5)                      | Sections reserved.   |
| 63.5                         | Construction and reconstruction   | Yes, except (b)(2), (b)(5), and (c)         | Sections reserved.   |
| 63.6(a)                      | Compliance with standards and maintenance requirements                  | Yes   |  |
| 63.6(b)                      | Compliance dates for new and reconstructed sources                      | No  | Subpart S specifies compliance dates for sources subject to subpart S. Section (b)(6) reserved.                        |
| 63.6(c)                      | Compliance dates for existing sources                                   | No  | Subpart S specifies compliance dates for sources subject to subpart S. Sections (c)(3)-(4) reserved.                   |
| 63.6(d)                      | [Reserved]  | No  | Section reserved.  |
| 63.6(e)                      | General duty to minimize emissions                                      | Yes, only (e)(1)(iii)                       | See § 63.453(q) for general duty requirement. Section (e)(2) reserved.   |
| 63.6(f)                      | Compliance with nonopacity emissions standards                          | Yes, except (f)(1)                          | No SSM exemption.  |
| 63.6(g)                      | Compliance with alternative nonopacity emissions standards              | Yes   |  |
| 63.6(h)                      | Compliance with opacity and visible emissions (VE) standards            | No  | Pertains to continuous opacity monitors that are not part of this standard. Section (h)(3) reserved.                   |
| 63.6(i)(1)-(14)              | Extension of compliance with emissions standards                        | Yes, except (i)(15)                         | Section reserved.  |
| 63.6(j)                      | Exemption from compliance with emissions standards                      | Yes   |  |
| 63.7(a)                      | Performance testing requirements  | Yes   |  |

| General Provisions Reference | Summary of Requirements                     | Applies to Subpart S   | Explanation  |
|------------------------------|---|--|--|
| 63.7(b)                      | Notification of performance test            | Yes  |  |
| 63.7(c)                      | Quality assurance program                   | Yes  |  |
| 63.7(d)                      | Performance testing facilities              | Yes  |  |
| 63.7(e)                      | Conduct of monitoring                       | Yes, except (e)(1)   | Replaced with § 63.457(o), which specifies performance testing conditions under subpart S.   |
| 63.7(f)                      | Use of an alternative test method           | Yes  |  |
| 63.7(g)                      | Data analysis, recordkeeping, and reporting | Yes, except (g)(2)   | Section reserved.  |
| 63.7(h)                      | Waiver of performance tests                 | Yes  |  |
| 63.8(a)                      | Monitoring requirements                     | Yes, except (a)(3)   | Section reserved.  |
| 63.8(b)                      | Conduct of monitoring                       | Yes, except (b)(2)   | Subpart S specifies locations to conduct monitoring.   |
| 63.8(c)(1)                   | Operation and maintenance of CMS            | Yes, only(c)(1)(ii)  | See § 63.453(q) for general duty requirement (which includes monitoring equipment).  |
| 63.8(c)(2)-(3)               | Operation and maintenance of CMS            | Yes  |  |
| 63.8(c)(4)                   | Operation and maintenance of CMS            | No   | Subpart S allows site specific determination of monitoring frequency in § 63.453(n)(4).  |
| 63.8(c)(5)                   | Operation and maintenance of CMS            | No   | Pertains to continuous opacity monitors that are not part of this standard.  |
| 63.8(c)(6)-(8)               | Operation and maintenance of CMS            | Yes  |  |
| 63.8(d)                      | CMS quality control program                 | Yes, except for last sentence of (d)(3), which refers to an SSM plan | SSM plans are not required.  |
| 63.8(e)                      | Performance evaluation of CMS               | Yes  |  |
| 63.8(f)                      | Use of an alternative monitoring method     | Yes, except (f)(6)   | Subpart S does not specify relative accuracy test for CEMs.  |
| 63.8(g)                      | Reduction of monitoring data                | Yes  |  |
| 63.9(a),(c),(e),(i),(j)      | Notification requirements                   | Yes  |  |
| 63.9(b)                      | Notification requirements                   | Yes, except (b)(3)   | Initial notifications must be submitted within one year after the source becomes subject to the relevant standard. Section (b)(3) reserved.  |
| 63.9(d)                      | Notification requirements                   | No   | Special compliance requirements are only applicable to kraft mills.  |
| 63.9(f)                      | Notification requirements                   | No   | Pertains to continuous opacity monitors that are not part of this standard.  |
| 63.9(g)                      | Notification requirements                   | Yes, except (g)(2) and (g)(3)  | Section (g)(2) pertains to continuous opacity monitors that are not part of this standard. Subpart S does not specify relative accuracy tests, therefore no notification is required for an alternative. |
| 63.9(h)                      | Notification requirements                   | Yes, except (h)(4)   | Section reserved.  |
| 63.9(k)                      | Notification requirements                   | Yes  | Only as specified in § 63.9(j).  |
| 63.10(a)                     | Recordkeeping requirements                  | Yes  |  |
| 63.10(b)                     | Records retention                           | Yes, except (b)(2)(i), (b)(2)(ii), and (b)(2)(iv)-(b)(2)(v)          | See § 63.454(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.   |

| <b>General Provisions Reference</b> | <b>Summary of Requirements</b>   | <b>Applies to Subpart S</b>                      | <b>Explanation</b>   |
|-------------------------------------|--|--|--|
| 63.10(c)                            | Additional recordkeeping requirements for sources with CMS                 | Yes, except (c)(2)-(4), (c)(9), and (c)(10)-(11) | See § 63.454(g) for malfunction recordkeeping requirements. Sections (c)(2)-(4) and (c)(9) reserved.   |
| 63.10(d)                            | Reporting requirements   | Yes, except (d)(3) and (d)(5)                    | Section (d)(3) pertains to continuous opacity monitors that are not part of this standard. See § 63.455(g) for malfunction reporting requirements. |
| 63.10(e)(1)                         | Additional reporting requirements for sources with CMS                     | Yes, except (e)(2)(ii) and (e)(4)                | Sections (e)(2)(ii) and (e)(4) pertain to continuous opacity monitors that are not part of this standard.  |
| 63.10(f)                            | Waiver of recordkeeping and reporting requirements                         | Yes  |  |
| 63.11                               | Control device requirements for flares                                     | Yes  |  |
| 63.12                               | State authority and delegations  | Yes  |  |
| 63.13                               | Addresses of State air pollution control agencies and EPA Regional Offices | Yes  |  |
| 63.14                               | Incorporations by reference  | Yes  |  |
| 63.15                               | Availability of information and confidentiality                            | Yes  |  |
| 63.16                               | Requirements for Performance Track member facilities                       | Yes  |  |

**SUBPART MM NESHAP: CHEMICAL RECOVERY COMBUSTION SOURCES NESHAP (PULP & PAPER MACT II)**

**Table 6. Subpart MM Summary of General Requirements**

| Applicable Requirement             | Condition Number | Pollutant/Parameter   | Monitoring Condition |
|------------------------------------|------------------|---|----------------------|
| 40 CFR 63.860(d)                   | 52               | General Provision   | N/A                  |
| 40 CFR 63.861<br>40 CFR 63.2       | 53               | Definitions   | N/A                  |
| OAR 340-218-0200                   | 54               | Permit Reopenings   | N/A                  |
| 40 CFR 63.8(d)(2) and<br>63.864(f) | 63.a             | CMS Quality Control Program   | 64                   |
| 40 CFR 63.867(c)                   | 72               | Excess Emissions Report, CMS Performance Report &/or Summary Report Semi-Annual Reporting | N/A                  |
| 40 CFR 63.10                       | 75               | Electronic Reporting  | N/A                  |

**SUBPART MM – GENERAL PROVISION**

52. Applicable Requirement: At all times, the permittee must operate and maintain any affected source (EU-445C, EU-445D and EU-455), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to LRAPA personnel which may include, but not be limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.860(d)]

**SUBPART MM – DEFINITIONS**

53. Definitions:

53.a. The terms used in the section(s) of this permit that are specifically intended to implement Subpart MM -- National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfitite, and Stand-Alone Semicheical Pulp Mills, 40 CFR 63.860 through 63.868, have the meaning given them in 40 CFR 63.861, Definitions. [40 CFR 63.861]

53.b. The terms used in the section(s) of this permit that are specifically intended to implement the NESHAP General Provisions, 40 CFR part 63 Subpart A, have the meaning given them in 40 CFR 63.2, Definitions. [40 CFR 63.2]

**SUBPART MM – PERMIT REOPENINGS**

54. LRAPA may reopen this permit to insert new conditions or modify existing conditions when such reopening is necessary to revise conditions in this permit that are affected by any revisions to 40 CFR Part 63 Subparts A and/or MM. [OAR 340-218-0200]

**SUBPART MM – REQUIREMENTS**

**Table 7. Summary of Subpart MM Applicable Requirements**

| Applicable Requirement                | Condition Number | Pollutant/Parameter   | Limit/Standard   | Averaging Time    | Monitoring Condition |
|---------------------------------------|------------------|---|--|-------------------|----------------------|
| 40 CFR Part 63, Subpart MM            | 55               | List of affected units  | See Condition 55   | N/A               | N/A                  |
| OAR 340-218-0140(1), 63.862(a)(ii)(A) | 56               | Operating Scenario  | See Condition 56   | N/A               | N/A                  |
| 63.863(c)                             | 57               | Compliance Dates (Revised w/Oct 2017 MM Changes)                  | October 11, 2019   | N/A               | N/A                  |
| 63.862(a)(1)                          | 58.a.i           | Recovery Furnace PM HAP   | 0.10 g/dscm (0.044 gr/dscf) @8% O <sub>2</sub>                 | N/A               | 65, 66, 66.a         |
|                                       | 58.a.ii          | SDTV PM HAP   | 0.10 kg/Mg BLS fired (0.20 lb/ton BLS fired)                   |                   | 66                   |
|                                       | 58.a.iii         | Lime Kiln PM HAP  | 0.1 g/dscm (0.064 gr/dscf) @10% O <sub>2</sub>                 |                   | 65, 66.a             |
| 63.864(c)                             | 59               | Corrective Action, units with ESPs (EU-445C & EU-455)             | When avg. of 10 consecutive 6-min avgs. > 20% opacity          | N/A               | 65, 66.a             |
| 63.864(c)                             | 60               | Corrective Action, units with scrubbers (EU-445D)                 | When any 3-hr block avg. below established operating limit     | 3-hr average      | 66                   |
| 63.864(k)(2)(i)                       | 61.a             | Violation of the Standard for Recovery Furnace with ESP (EU-445C) | >35% opacity for more than 2% operating time semiannual        | 6-minute averages | 59, 65               |
| 63.864(k)(2)(iii)                     | 61.b             | Violation of the Standard for Lime Kilns with ESP (EU-455)        | >20% opacity for more than 3% operating time semiannual period | 6-minute averages | 59, 65               |
| 63.864(k)(2)(iv)                      | 61.c             | Violation of the Standard, for SDTV with wet scrubber (EU-445D)   | 3-hr avg. below minimum operating limit period                 | 3-hr average      | 66                   |
| 63.864(j)                             | 67               | Establishing and Revising Operating Parameter Limits              | See Condition 69   | N/A               | 68                   |
| 63.867                                | 74               | Reporting Requirements  | Semi-annual & source test reports                              | N/A               | N/A                  |

55. This condition lists the existing chemical recovery combustion sources (NDCE #4 Recovery Furnace (EU-445C) #4 smelt dissolving tank (EU-445D) and lime kilns (EU-455)) subject to the 40 CFR Part 63, Subpart MM requirements in this permit. [40 CFR Part 63, Subpart MM]

### **SUBPART MM – OPERATING SCENARIO**

56. Applicable Requirement: The permittee has requested only one operating scenario for Subpart MM. An alternative operating scenario for Subpart MM bubbling is applicable upon request by the permittee and can be added to the permit through the appropriate modification process to provide the overall permit standards based on the federal requirements. [40CFR 63.862(a)(ii)(A)]

### **Compliance Dates**

57. Compliance dates: The permittee must comply with the revised Subpart MM requirements published on October 11, 2017 no later than October 11, 2019, with the exception of the following: [40CFR 63.863 (c)]
- 57.a. The first of the 5-year periodic performance tests must be conducted by October 11, 2020 (completed September 25, 2020) and thereafter within 5 years following the previous performance test, and [40CFR 63.863 (c)(1)]
- 57.b. The date to submit performance test data through CEDRI is within 60 days after the date of completing each performance test. [40CFR 63.863 (c)(2)]

### **Standards**

58. Applicable Requirement: The permittee must comply with the requirements of Condition 58.a. [40 CFR 63.863 and 63.862(a)(1)]
- 58.a. The permittee must comply with the PM emissions limits below: [40 CFR 63.862(a)(1)(i)]
- 58.a.i. *For each existing kraft recovery furnace (#4 Recovery Furnace EU-445C), the permittee must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 gram per dry standard cubic meter (g/dscm) (0.044 grain per dry standard cubic foot (gr/dscf)) corrected to 8 percent oxygen; [40 CFR 63.862(a)(1)(i)(A)]*
- 58.a.ii. *For each existing kraft smelt dissolving tank (EU-445D), the permittee must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 kilogram per megagram (kg/Mg) (0.20 pound per ton (lb/ton)) of black liquor solids fired; [40 CFR 63.862(a)(1)(i)(B)]*
- 58.a.iii. *For each existing kraft lime kiln (EU-455), the permittee must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere must be less than or equal to 0.15 g/dscm (0.064 gr/dscf) corrected to 10 percent oxygen. [40 CFR 63.862(a)(1)(i)(C)]*
- 58.a.iv. Particulate matter (PM) means total filterable particulate matter (FPM) (front half catch) as measured by EPA Method 5, EPA Method 17 (§63.865(b)(1)), or EPA Method 29 (40 CFR part 60, appendix A). **NOTE:** EPA Method 17 in appendix A of 40 CFR part 60 may be used in lieu of EPA Method 5 or EPA Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of EPA Method 17, and the stack temperature is no greater than 205°C (400°F). See 40 CFR 63.865(b)(1). [40 CFR 63.861]

### **Corrective Action Requirement**

#### **Kraft Recovery Furnace or Lime Kiln Equipped with an ESP (EU-445C and EU-455)**

59. Applicable Requirement: The permittee is required to implement corrective action for any kraft recovery furnace or lime kiln equipped with an ESP when the average of ten (10) consecutive 6-minute averages result in a measurement greater than 20 percent opacity during times when spent pulping liquor or lime mud is fed (as applicable). Corrective action can include completion of transient startup and shutdown conditions as expeditiously as possible. [40 CFR 63.864(k)(1) and 40 CFR 63.864(k)(1)(i)]

See Condition 74 for reporting requirements when exceedances occur.

### Smelt Dissolving Tank Equipped with a Wet Scrubber (EU-445D)

60. Applicable Requirement: The permittee is required to implement corrective action for any kraft smelt dissolving tank equipped with a wet scrubber (EU-445D), when any 3-hour block average parameter value is below the minimum operating limit established in accordance with Condition 67 and as specified in Condition 69, with the exception of pressure drop during periods of startup and shutdown. [40 CFR 63.864(k)(1) and 40 CFR 63.864(k)(1)(ii)]

See Condition 74 for reporting requirements when exceedances occur.

### Violation of the Standard

61. Applicable Requirement: The permittee is in violation of this permit and the standards in Condition 58.a (40 CFR 63.862(a)), if the monitoring exceedances in Condition 61.a through 61.c, below, occur during times when spent pulping liquor or lime mud is fed (as applicable): [40 CFR 63.864(k)(2)]
- 61.a. For each existing kraft recovery furnace equipped with an ESP (EU-445C), when opacity is greater than 35 percent for two (2) percent or more of the operating time within any semiannual period; or [40 CFR 63.864(k)(2)(i)]
- 61.b. For each existing lime kiln (EU-455) equipped with an ESP, when opacity is greater than 20 percent for three (3) percent or more of the operating time within any semiannual period. [40 CFR 63.864(k)(2)(iii)]
- 61.c. For each existing kraft smelt dissolving tank equipped with a wet scrubber (EU-445D), when six (6) or more 3-hour average parameter values within any 6-month reporting period are below the minimum operating limits established in accordance with Condition 67, with the exception of pressure drop during periods of startup and shutdown. [40 CFR 63.864(k)(2)(iv)]
- 61.c.i. For this condition and related EU-445D wet scrubber monitoring and recordkeeping conditions, the following terms are defined:
- 61.c.i.A. A “unit-exceedance-day” is any 24-hour period during which one (1) or more non-opacity monitoring exceedance(s) occur(s) at the dissolving tank (EU-445D) scrubber.
- 61.c.i.B. A “non-opacity monitoring exceedance” occurs whenever a 3-hour block average parameter value for either scrubber pressure drop or liquid flow rate is outside the range established in accordance with Condition 67.
- 61.c.i.C. The non-opacity emission standards in Condition 61.c apply at all times except during periods of startup, shutdown and malfunction, and as otherwise specified in 40 CFR 63 Subpart MM. If a startup, shutdown, or malfunction of one portion of the affected source (existing EU-445D with wet scrubber) does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in Condition 61.c, then that emissions point must still be required to comply with the non-opacity standards and other applicable requirements. [40 CFR 63.6(f)(1)]
- 61.c.i.D. “Affected units” are each existing kraft smelt dissolving tank unit (EU-445D) equipped with a wet scrubber.
- 61.c.ii. Unit-exceedance-days are counted separately for each affected unit.
- 61.c.iii. A violation occurs when an individual affected unit (EU-445D) accumulates six (6) or more “unit-exceedance days” within any 6-month reporting period.
- 61.c.iv. A separate violation of the standard occurs for each affected unit (EU-445D) that accumulates six (6) or more “unit-exceedance days” within any 6-month reporting period.

- 61.d. For the purposes of determining the number of “non-opacity monitoring exceedances” in Condition 61.c, no more than one exceedance will be attributed in any given 24-hour period. [40 CFR 63.864(k)(3)]
62. Applicable Requirement: Violations occurring under Conditions 61.a through 61.c must be reported following the requirements in Condition 74.b.

### **SUBPART A GENERAL CMS REQUIREMENTS APPLICABLE TO NESHAP SUBPART MM**

63. Applicable Requirement: The following requirements apply to the CMSs required in Conditions 65 (COMS for Units with ESPs) and 66 (CPMS for Units with ESPs and Units with Scrubbers):
- 63.a. A CMS quality control program as required by 40 CFR 63.8(d)(2) must be developed by March 13, 2004. The CMS quality control procedures must be kept on record as required by 40 CFR 63.8(d)(3). [40 CFR 63.8(d)(2) and 63.8(d)(3)]
- 63.b. The permittee must keep the necessary parts for routine repairs of the affected CMS equipment readily available. [40 CFR 63.8(c)(1)(ii)]
64. Recordkeeping Requirement: The permittee must keep records pertaining to the CMSs required in Conditions 65 (COMS for Units with ESPs) and 66 (CPMS for Units with Scrubbers) as follows:
- 64.a. All CMS calibration checks; [40 CFR 63.10(b)(2)(x)]
- 64.b. All adjustments and maintenance performed on CMS; [40 CFR 63.10(b)(2)(xi)]
- 64.c. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks; [40 CFR 63.10(c)(5)]
- 64.d. The nature of the repairs or adjustments to the CMS that was inoperative or out of control; and [40 CFR 63.10(c)(12)]
- 64.e. All procedures that are part of the quality control program required by Condition 63. [40 CFR 63.10(c)(14)]

### **Monitoring Of Units with ESPs**

65. Continuous Opacity Monitoring System (COMS) Requirements: For each affected kraft recovery furnace (EU-445C) and kraft lime kiln (EU-455) equipped with an ESP, the permittee must install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS), in accordance with Performance Specification 1 (PS-1) in Appendix B to 40 CFR part 60, provisions in §§63.6(h) and 63.8 and as specified below in Conditions 65.a through and 65.k. [40 CFR 63.864(d) and OAR 340-218-0050(3)(a)]
- 65.a. As specified in §63.8(c)(4)(i), each COMS must complete a minimum cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [40 CFR 63.8(c)(4)(ii) and 40 CFR 63.864(d)(3)]:
- 65.b. As specified in §63.8(g)(2), each 6-minute COMS data average must be calculated as the average of 36 or more data points, equally spaced over each 6-minute period. [40 CFR 63.864(d)(4)]
- 65.c. The COMS must be installed, operational and data verified either prior to or in conjunction with the initial and periodic performance test(s) conducted according to the requirements in Sec. 63.8 and according to Performance Specification 1 of 40 CFR part 60, appendix B. [40 CFR 63.8(c)(3)]
- 65.d. The COMS zero and upscale calibration drift must not exceed two (2) percent opacity over a 24-hour period. [40 CFR Part 60, Appendix B, PS-1]
- 65.d.i. A COMS is out of control if the calibration drift exceeds two times the calibration drift in Condition 65.d. [40 CFR 63.8(c)(7)]
- 65.d.ii. In the event a COMS is out of control, the permittee must: [40 CFR 63.8(c)(7) ]
- 65.d.ii.A. Take corrective action and repeat all tests that indicate the COMS is out of control;
- 65.d.ii.B. Repeat corrective action and retesting, if necessary, until the performance requirements are below the limits in Condition 65.d; and

- 65.d.ii.C. The beginning of the out of control period is the hour the permittee conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this condition. The end of the out-of-control period is the hour following the completion of the corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded in data must not be used in data averages and calculations or to meet any data availability requirements.
- 65.e. Except during periods when calibration, quality assurance or maintenance are being performed, opacity must be monitored at least once every 10 seconds at equally spaced intervals, and successive 6-minute average opacities must be calculated. [40 CFR 63.8(c)(4)(ii) and 40 CFR 63.8(g)(2)]
- 65.f. The minimum procedures for COMS must include, at least once each calendar quarter, a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures must provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity. [40 CFR 63.8(c)(5) and 40 CFR Part 60 Appendix F, Procedure 3]
- 65.g. If quality-assured data is achieved for four (4) consecutive quarters, the permittee may reduce their audit frequency to semi-annually. If a performance audit fails, the permittee must resume quarterly testing, as specified in Condition 65.f, for that audit requirement until it again demonstrates successful performance over four consecutive quarters. [40 CFR Part 60 Appendix F, Procedure 3, Section 2.0]
- 65.h. COMS data must be continuously recorded.
- 65.i. Data quality assurance: The permittee must keep CMS data quality assurance procedures consistent with the requirements in §63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this subpart, to be made available for inspection, upon request, by LRAPA. If the performance evaluation plan in §63.8(d)(2) is revised, the permittee must keep previous versions (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by LRAPA personnel, for a period of five (5) years after each revision to the plan. The program of corrective action must be included in the plan required under §63.8(d)(2). [40 CFR 63.864(f)]
- 65.j. Monitoring data: As specified in §63.8(g)(5), monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed in this subpart. [40 CFR 63.864(h)]
- 65.k. Recordkeeping: The permittee must record the following: [OAR 340-218-0050(3)(b)]
- 65.k.i. Each 6-minute average opacity;
  - 65.k.ii. All periods when the average of ten (10) consecutive 6-minute averages result in a measurement greater than 20 percent opacity, during times when spent pulping liquor or lime mud is fed (as applicable) ;
  - 65.k.iii. Any occurrence when corrective action is required pursuant to Conditions 59 or 60 including: [40 CFR 63.866(b)]
    - 65.k.iii.A. The time the deviation occurred;
    - 65.k.iii.B. The time corrective action was initiated and completed; and
    - 65.k.iii.C. Records of parameter monitoring data required under §63.864, including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief of the cause of the monitoring exceedance, the time the monitoring explanation exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken. [40 CFR 63.866(c)(3)]

- 65.k.iv. For existing kraft recovery furnaces, the percentage of operating time within each semiannual period when opacity is greater than 35 percent;
- 65.k.v. For each existing kraft lime kiln equipped with an ESP, the percentage of operating time within each semiannual period when opacity is greater than 20 percent;
- 65.k.vi. Any violation pursuant to Condition 61; [40 CFR 63.866(b)]
- 65.k.vii. Records of black liquor solids firing rates in units of megagrams/day or pounds/day for all recovery furnaces and semichemical combustion units; [40 CFR 63.866(c)(1)]
- 65.k.viii. Records of CaO production rates in units of megagrams/day or tons/day for all lime kilns; [40 CFR 63.866(c)(2)]

**Subpart A Recordkeeping**

- 65.k.ix. All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods); [40 CFR 63.10(c)(1)]
- 65.k.x. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks; [40 CFR 63.10(c)(5)]
- 65.k.xi. The date and time identifying each period during which the CMS was out-of-control, as defined in §63.8(c)(7); [40 CFR 63.10(c)(6)]
- 65.k.xii. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances that occur during startup, shutdown or malfunction of the affected source; [40 CFR 63.10(c)(7)]
- 65.k.xiii. The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startup shutdown or malfunction of the affected source; [40 CFR 63.10(c)(8)]
- 65.k.xiv. The nature and cause of any malfunction (if known); [40 CFR 63.10(c)(10)]
- 65.k.xv. The corrective action taken or preventive measures adopted; [40 CFR 63.10(c)(11)]
- 65.k.xvi. The nature of the repairs or adjustments to the CMS that was inoperative or out-of-control; [40 CFR 63.10(c)(12)]
- 65.k.xvii. Total process operating time of each affected unit during the reporting period; [40 CFR 63.10(c)(13)]
- 65.k.xviii. The occurrence and duration of each startup, shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards; [40 CFR 63.10(b)(2)(i)]
- 65.k.xix. The occurrence and duration of each malfunction of air pollution control and monitoring equipment; [40 CFR 63.10(b)(2)(ii)]
- 65.k.xx. All required maintenance performed on the air pollution control equipment; [40 CFR 63.10(b)(2)(iii)];
- 65.k.xxi. The occurrence and during of all out-of-control periods of COMS; [40 CFR 63.8(c)(8)];
- 65.k.xxii. All actions taken to correct an out-of-control COMS; [40 CFR 63.8(c)(8)];
- 65.k.xxiii. Each period in which a CMS is malfunctioning or inoperative (including out-control periods); [40 CFR 63.10(b)(2)(vi)]
- 65.k.xxiv. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data the permittee is required to report); and [40 CFR 63.10(b)(2)(vii)]
- 65.k.xxv. All CMS recordkeeping required by Condition 64.

## Monitoring of Units with CPMS Requirements

66. Continuous Parameter Monitoring System (CPMS) Requirement: For each CPMS required for each emissions unit specified below listed in this condition, the permittee must meet the requirements in Conditions 66.a and 66.b, below. [40 CFR 63.864(e) and I 340-218-0050(3)(a)]
- 66.a. For Kraft Recovery Furnace (EU-445C) and Lime Kiln (EU-455) using an ESP emission control device, the permittee must maintain proper operation of the ESP's automatic voltage control (AVC). [40 CFR 63.864(e)(1)]
- 66.b. For Kraft Smelt Dissolving Tank (EU-445D) equipped with a wet scrubber the permittee must install, calibrate, maintain, and operate a continuous parameter monitoring system (CPMS) that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in §63.8(c), as well as the procedures in Conditions 66.b.i through : [40 CFR 63.864(e)(10)]
- 66.b.i. The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate to within a gage pressure of  $\pm 500$  pascals ( $\pm 2$  inches of water gage pressure); and [40 CFR 63.864(e)(10)(i)]
- 66.b.ii. The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within  $\pm 5$  percent of the design scrubbing liquid flow rate. [40 CFR 63.864(e)(10)(ii)]
- 66.b.iii. As an alternative to pressure drop measurement under paragraph 66.b.i., a monitoring device for measurement of fan amperage may be used for smelt dissolving tank dynamic scrubbers that operate at ambient pressure or for low-energy entrainment scrubbers where the fan speed does not vary. [40 CFR 63.864(e)(10)(iii)]
- 66.b.iv. Except as specified below, pressure drop across the scrubber and the scrubbing liquid flow rate must be monitored at least once every 15 minutes at equally spaced intervals, or as an arithmetic or integrated 1-hour average of CMS data: [40 CFR 63.8(c)(4)(ii) and 40 CFR 63.8(g)(2)]
- 66.b.iv.A. During periods when calibration, quality assurance or maintenance are being performed, pressure drop across the scrubber and the scrubbing liquid flow rate must be monitored at least twice each hour, with each representing a 15-minute period. [40 CFR 63.8(g)(2)]
- 66.b.v. Pressure drop across the scrubber and the scrubbing liquid flow rate data must be reduced to hourly averages for every one-hour period. [40 CFR 63.8(g)(2)]
- 66.b.vi. A one-hour period means any 60-minute period commencing on the hour (or half hour). [40 CFR 63.2]
- 66.c. Each CPMS(s) must be installed, operational and the data verified either prior to or in conjunction with conducting the initial performance test (conducted September 9, 2004). [40 CFR 63.8(c)(3)]
- 66.d. Each CPMS data must be continuously recorded.
- 66.e. Data quality assurance: The permittee must keep CMS data quality assurance procedures consistent with the requirements in §63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this subpart, to be made available for inspection, upon request, by LRAPA. If the performance evaluation plan in §63.8(d)(2) is revised, the permittee must keep previous versions (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by LRAPA personnel, for a period of five (5) years after each revision to the plan. The program of corrective action must be included in the plan required under §63.8(d)(2). [40 CFR 63.864(f)]
- 66.f. Monitoring data: As specified in §63.8(g)(5), monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed in this subpart. [40 CFR 63.864(h)]

- 66.g. Recordkeeping: The permittee must record the following: [OAR 340-218-0050(3)(b)]
- 66.g.i. Each 1-hour and 3-hour block average pressure drop across the scrubber;
  - 66.g.ii. Each 1-hour and 3-hour block average scrubbing liquid flow rate;
  - 66.g.iii. Any occurrence when corrective action is required under Conditions 66 or 67, including: [40 CFR 63.866(b)]
    - 66.g.iii.A. Any period when the operating parameter levels were inconsistent with the levels established pursuant to Condition 67 with a brief explanation of the cause of the deviation;
    - 66.g.iii.B. The time the deviation occurred;
    - 66.g.iii.C. The time corrective action was initiated and completed; and
    - 66.g.iii.D. Records of parameter monitoring data required under §63.864, including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the monitoring exceedance occurred, the time corrective action was initiated and completed, and the corrective action. [40 CFR 63.866(c)(3)]
  - 66.g.iv. For each new or existing kraft recovery furnace, kraft smelt dissolving tank or kraft lime kiln equipped with a wet scrubber:
    - 66.g.iv.A. Each occurrence when 3-hour block average parameter values for either pressure drop or liquid flow rate are below the minimum operating limits established in Condition 69; and
    - 66.g.iv.B. The total number 3-hour-block-average parameter value exceedances attributed to any given 24-hour period. which occurs during the semiannual period; and
    - 66.g.iv.C. The total number of parameter value exceedances that occur within each 6-month reporting period.
  - 66.g.v. Any violations occurring under Conditions 61.a through 61.c; [40 CFR 63.866(b)]
  - 66.g.vi. Records of black liquor solids firing rates in units of megagrams/day or tons/day for all recovery furnaces and semichemical combustion units; [40 CFR 63.866(c)(1)]
  - 66.g.vii. Records of CaO production rates in units of megagrams/day or tons/day for all lime kilns; [40 CFR 63.866(c)(2)]

#### **ESTABLISHING AND REVISING OPERATING PARAMETER VALUES**

67. Monitoring Requirement: The permittee must establish operating limits for the SDTV emission unit EU-445D and the venturi scrubber monitoring parameters in Condition 66.b in accordance with the following: [40 CFR 63.864]
- 67.a. During the initial (conducted May 26, 2004) or periodic performance test (required in Condition 70 (§63.865)), the permittee must establish operating limits for SDTV emission unit EU-445D and venturi scrubber monitoring parameters in Condition 66.b; [40 CFR 63.864(j)(1)]
  - 67.b. Operating parameter limits must be established as follows:
    - 67.b.i. The minimum scrubber liquid flow rate must be no less than the lowest flow rate monitored during a test run that returned a compliant result.
    - 67.b.ii. The minimum pressure drop for venturi scrubbers must be no less than the lowest pressure drop monitored during a test run that returned a compliant result.
    - 67.b.iii. The minimum pressure drop for non-venturi scrubbers must be no less than one (1) standard deviations below the lowest pressure drop monitored during a test run that

returned a compliant result. The standard deviation must be determined from all applicable test results that returned compliant results.

- 67.c. The permittee may base operating limits on values recorded during previous performance tests or conduct additional performance tests for the specific purpose of establishing operating limits, provided that test data used to establish the operating limits are or have been obtained during testing that used the test methods and procedures required in 40 CFR 63.865. The permittee must certify that all control techniques and processes have not been modified subsequent to the testing upon which the data used to establish the operating parameter limits were obtained. [40 CFR 63.864(j)(2)]
- 67.d. The permittee may establish expanded or replacement operating limits for SDTV emission unit EU-445D and the venturi scrubber monitoring parameters in Condition 66.b and established in Condition 69 during subsequent performance tests using the test methods in Condition 70 (§63.865). [40 CFR 63.864(j)(3)]
- 67.e. The permittee must continuously monitor each parameter and determine the arithmetic average value of each parameter during each performance test run. Multiple performance tests may be conducted to establish a range of parameter values. Operating outside a previously established parameter limit during a performance test to expand the operating limit range does not constitute a monitoring exceedance. Operating limits must be confirmed or reestablished during performance tests. [40 CFR 63.864(j)(4)]
- 67.f. New, expanded, or replacement operating limits for the monitoring parameter values listed in Condition 66.b should be determined as described below in Conditions 67.f.i and 67.f.ii. [40 CFR 63.864(j)(5)]
  - 67.f.i. Set the minimum scrubbing liquid flow rate operating limit as the lowest of the 1-hour average scrubbing liquid flow rate values associated with each test run demonstrating compliance with the applicable emission limit in Condition 58.a.ii (§63.862).
  - 67.f.ii. Set the minimum scrubber pressure drop operating limit as the lowest of the 1-hour average pressure drop values associated with each test run demonstrating compliance with the applicable emission limit in Condition 58.a.ii (§63.862).
- 68. **Recordkeeping Requirement:** The permittee must retain the following records of each test used to create or revise operating parameter ranges and make them available upon request: [OAR 340-218-0050(3)(b)]
  - 68.a. Source test results;
  - 68.b. Relevant CMS outputs during the source test;
  - 68.c. The relevant production rate during the source test (CaO production for lime kilns, black liquor solids firing rates for #4 recovery furnace and #4 smelt dissolving tank);
  - 68.d. Records and documentation of supporting calculations for compliance determinations made under 40 CFR 63.865(a) through (d); and [40 CFR 63.866(c)(4)]
  - 68.e. Records of monitoring parameter limits established for each affected source or process unit. [40 CFR 63.866(c)(5)]

### **Venturi Scrubber CPMS September 24, 2020 Performance Test Revised Operating Parameters**

- 69. In accordance with Condition 67 and in compliance with Condition 57.a, the permittee conducted the required performance on the SDTV venturi scrubber monitoring parameters. Based on the results of the September 24, 2020 performance test, the permittee demonstrated compliance with Condition 66.b using the test methods in Condition 70 and revised the scrubber operating parameters determined by PM testing that returned compliant results. The revised venturi scrubber operating parameters are as follows:
  - 69.a. The minimum SDTV (EU-445D) scrubber liquid flow rate must be no less than 59.7 gpm; and
  - 69.b. The minimum pressure drop for the SDTV (EU-445D) scrubber must be no lower than 7.6 inches of water differential pressure.

## PERFORMANCE SOURCE TEST PROCEDURES

70. The permittee of each affected source or process unit (EU-445C (#4 Rec Furnace), EU445D (#4 SDTV) and EU-455 (Lime Kilns)) subject to the requirements of Subpart MM is required to conduct an initial performance test and periodic performance tests using the test methods and procedures listed in 40 CFR 63.7 and Condition 70.a, below. The permittee must conduct the first of the periodic performance tests within 3 years of the October 11, 2017 effective date of the revised standards (completed September 2020) and thereafter within five (5) years following the previous performance test. Performance tests must be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The permittee may not conduct performance tests during periods of malfunction. The permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee must make available to LRAPA such records as may be necessary to determine the conditions of performance tests. [40 CFR 63.865]

70.a. The permittee seeking to determine compliance with a PM emissions limit in Condition 58.a (§63.862(a)) must use the procedures in Conditions 70.a.i through 70.a.vi, below. [40 CFR 63.865(b)]

70.a.i. For purposes of determining the concentration or mass of PM emitted from each kraft recovery furnace, smelt dissolving tank, and lime kiln, Method 5 in appendix A-3 of 40 CFR part 60 or Method 29 in appendix A-8 of 40 CFR part 60 must be used, except that Method 17 in appendix A-6 of 40 CFR part 60 may be used in lieu of Method 5 or Method 29 if a constant value of 0.009 g/dscm (0.004 gr/dscf) is added to the results of Method 17, and the stack temperature is no greater than 205 °C (400 °F). For Methods 5, 29, and 17, the sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf), and water must be used as the cleanup solvent instead of acetone in the sample recovery procedure. Particulate matter (PM) means total filterable particulate matter (FPM) as measured EPA Method 5 or 29. [40 CFR 63.865(b)(1)]

70.a.ii. For sources complying with §63.862(b), the PM concentration must be corrected to the appropriate oxygen concentration using Equation 7 of this section as follows: [40 CFR 63.865(b)(2)]

$$C_{corr} = C_{meas} \times (20.9 - X) \div (20.9 - Y) \quad (\text{Equation 7})$$

Where:

$C_{corr}$  = the measured concentration corrected for oxygen, g/dscm (gr/dscf);

$C_{meas}$  = the measured concentration uncorrected for oxygen, g/dscm (gr/dscf);

X = the corrected volumetric oxygen concentration (8 percent for kraft or recovery furnaces and 10 percent for kraft lime kilns); and

Y = the measured average volumetric oxygen concentration.

70.a.iii. EPA Method 3A or 3B in appendix A-2 of 40 CFR part 60 must be used to determine the oxygen concentration. The voluntary consensus standard ANSI/ASME PTC 19.10-1981—Part 10 (incorporated by reference—see §63.14) may be used as an alternative to using EPA Method 3B. The gas sample must be taken at the same time and at the same traverse points as the particulate sample. [40 CFR 63.865(b)(3)]

70.a.iv. For purposes of complying with §63.862(a)(1)(ii)(A), the volumetric gas flow rate must be corrected to the appropriate oxygen concentration using Equation 8 of this section as follows: [40 CFR 63.865(b)(4)]

$$Q_{corr} = Q_{meas} \times (20.9 - Y) \div (20.9 - X) \quad (\text{Equation 8})$$

Where:

$Q_{corr}$  = the measured volumetric gas flow rate corrected for oxygen, dscm/min (dscf/min).

$Q_{meas}$  = the measured volumetric gas flow rate uncorrected for oxygen, dscm/min (dscf/min).

$Y$  = the measured average volumetric oxygen concentration.

$X$  = the corrected volumetric oxygen concentration (8 percent for kraft or soda recovery furnaces and 10 percent for kraft lime kilns).

- 70.a.v. 40 CFR 63.865(b)(5) requirements:
- 70.a.v.A. For purposes of selecting sampling port location and number of traverse points, Method 1 or 1A in appendix A-1 of 40 CFR part 60 must be used; [40 CFR 63.865(b)(5)(i)]
  - 70.a.v.B. For purposes of determining stack gas velocity and volumetric flow rate, Method 2, 2A, 2C, 2D, or 2F in appendix A-1 of 40 CFR part 60 or Method 2G in appendix A-2 of 40 CFR part 60 must be used; [40 CFR 63.865(b)(5)(ii)]
  - 70.a.v.C. For purposes of conducting gas analysis, Method 3, 3A, or 3B in appendix A-2 of 40 CFR part 60 must be used. The voluntary consensus standard ANSI/ASME PTC 19.10-1981—Part 10 (incorporated by reference—see §63.14) may be used as an alternative to using Method 3B; [40 CFR 63.865(b)(5)(iii)] and
  - 70.a.v.D. For purposes of determining moisture content of stack gas, Method 4 in appendix A-3 of 40 CFR part 60 must be used. [40 CFR 63.865(b)(5)(iv)]
- 70.a.vi. Process data measured during the performance test must be used to determine the black liquor solids firing rate on a dry basis and the CaO production rate. [40 CFR 63.865(b)(6)]

71. The permittee must follow the performance test procedures specified in this condition, unless otherwise approved in writing by LRAPA. [LRAPA 34-016, 35-0140 and OAR 340-218-0050(3)(a)(B)&(C)]
- 71.a. The permittee must conduct all testing in accordance with the DEQ's Source Sampling Manual.
  - 71.b. Only regular operating staff may adjust the processes or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
  - 71.c. All compliance source tests must be performed at 90 to 110 percent of the normal maximum operating rate. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average daily operating rates during a 12-month period immediately preceding the source test.
  - 71.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. For a source test to be accepted, there must be at least two (2) valid test runs.

#### **SUBPART A & MM – RECORDKEEPING REQUIREMENTS**

72. Recordkeeping Requirement: The permittee must maintain records of any occurrence when corrective action is required under Conditions 59 and 60 (§63.864(k)(1)) and when a violation is noted under Condition 61 (§63.864(k)(2)). [40 CFR 63.866(b)]

73. Recordkeeping Requirement: In addition to the records required by Conditions 65.k (COMS) and 66.g and the general records required by §63.10(b)(iii) and (vi) through (xiv), the permittee must maintain records of the following:[40 CFR 63.866(c)]
- 73.a. Records of black liquor solids firing rates in units of Mg/day or ton/day for #4 Recovery Furnace (EU-445C); [40 CFR 63.866(c)(1)]
  - 73.b. Records of CaO production in units of Mg/day or ton/day for Lime Kilns #2 and #3 (EU-455); [40 CFR 63.866(c)(2)]
  - 73.c. Records of parameter monitoring data required under Conditions 65.k and 66.g (§63.864), including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken; [40 CFR 63.866(c)(3)]
  - 73.d. Records and documentation of supporting calculations for compliance demonstration made under Condition 70 (§63.865); [40 CFR 63.866(c)(4)]
  - 73.e. Records of parameter operating limits established for each affected source or process unit; and [40 CFR 63.866(c)(5)]
  - 73.f. Records demonstrating compliance with the requirement in Condition 66.a (§63.864(e)(1)) to maintain proper operation of an ESP's AVC (for EU-445C & EU-455). [40 CFR 63.866(c)(8)]

#### **SUBPART A & MM – REPORTING REQUIREMENTS**

74. Reporting Requirement: The permittee must submit semiannual Excess Emissions Reports containing the information specified in Conditions 74.a through 74.e .The permittee must submit semiannual excess emission reports and summary reports (CMS Performance Reports (Condition 74.a.viii)) following the procedure specified in Condition 75.b , below, as specified in §63.10(e)(3)(v). [40 CFR 63.10(e)(3) and 40 CFR 63.867(c)]
- 74.a. If the total duration of excess emissions or process control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime is less than 5 percent of the total reporting period operating time, only the summary report is required to be submitted. This report will be titled “Summary Report – Gaseous and Opacity Excess Emissions and Continuous Monitoring System Performance” and must contain the information specified in Conditions 74.a.i through 74.a.x, below: [40 CFR 63.10(e)(3)(vii) and 40 CFR63.867(c)(1)(i) through(x)]
    - 74.a.i. The company name and address and name of the affected source; [40 CFR 63.867(c)(1)(i)]
    - 74.a.ii. The beginning and ending dates of the reporting period; [40 CFR 63.867(c)(1)(ii)]
    - 74.a.iii. An identification of each process unit with the corresponding air pollution control device, being included in the semiannual report, including the pollutants monitored at each process unit, and the total operating time for each process unit; [40 CFR 63.867(c)(1)(iii)]
    - 74.a.iv. An identification of the applicable emission limits, operating parameter limits, and averaging times; [40 CFR 63.867(c)(1)(iv)]
    - 74.a.v. An identification of the monitoring equipment used for each process and the corresponding model number; [40 CFR 63.867(c)(1)(v)]
    - 74.a.vi. Date of the last CMS certification or audit; [40 CFR 63.867(c)(1)(vi)]
    - 74.a.vii. An emission data summary, including the total duration of excess emissions (recorded in minutes for opacity and hours for gases), the duration of excess emissions expressed as a percent of operating time, the number of averaging periods recorded as excess emissions, and reasons I excess emissions (e.g., startup/shutdown, control equipment problems, other known reasons, or other unknown reasons); [40 CFR 63.867(c)(1)(vii)]

- 74.a.viii. A CMS performance summary, including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period (e.g., monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes); [40 CFR 63.867(c)(1)(viii)]
- 74.a.ix. A description of changes to CMS, processes, or controls since the last reporting period; [40 CFR 63.867(c)(1)(ix)]
- 74.a.x. A certification by a certifying official of the truth, accuracy and completeness. This will state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. [40 CFR 63.867(c)(1)(x)]
- 74.b. If measured parameters meet any of the conditions specified Conditions 59, 60 or 61 (§63.864(k)(1) or (2)), the permittee must submit a semiannual report describing the excess emissions that occurred. If the total duration of monitoring exceedances for the reporting period is one (1) percent or greater of the total reporting period operating time, or the total CMS downtime for the reporting period is five (5) percent or greater of the total reporting period operating time, or any violations according to §63.864(k)(2) occurred, information from both, the Summary Report and the Excess Emissions and Continuous Monitoring System Performance Report must be submitted. The report must be entitled “Excess Emissions and Continuous Monitoring System Performance Report” and must contain the information specified in Conditions 74.a.i. through 74.a.x. (above), in addition to the information required in §63.10(c)(5) through (14), as specified in Conditions 74.b.i through 74.b.vi (below). Reporting monitoring exceedances does not constitute a violation of the applicable standard unless violation criteria in §63.864(k)(2) and (3) are reached. [40 CFR 63.867(c)(3)(i, ii, iii)]
  - 74.b.i. An identification of the date and time identifying each period in which the CMS was inoperative except for zero (low-level) and high-level checks; [40 CFR 63.867(c)(3)(i)]
  - 74.b.ii. An identification of the date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7), [40 CFR 63.867(c)(3)(ii)]
  - 74.b.iii. The specific identification of each period of excess emissions and parameter monitoring exceedances as described in Conditions 74.b.iii.A through 74.b.iii.C, below: [40 CFR 63.867(c)(3)(iii)]
    - 74.b.iii.A. For opacity (EU-445C and EU-455)
      - 74.b.iii.A.(1). The total number of 6-minute averages in the reporting period (excluding process unit downtime);
      - 74.b.iii.A.(2). The number of 6-minute averages that exceed the relevant (per EU) opacity limit;
      - 74.b.iii.A.(3). The percent of 6-minute averages in the reporting period that exceed the relevant (per EU) opacity limit
      - 74.b.iii.A.(4). An identification of each exceedance by start and end time, and cause of exceedance (including startup/shutdown, process problems, other known causes, or other unknown causes);
    - 74.b.iii.B. For wet scrubber operating parameters EU-445(D):
      - 74.b.iii.B.(1). The operating limits established during the performance test for the scrubbing liquid flow rate and pressure drop across the scrubber (or fan amperage if used for smelt dissolving tank scrubber, if the permittee

- elects this option in accordance with Condition 66.b.iii);
- 74.b.iii.B.(2). The number of 3-hour wet scrubber parameter averages below the minimum operating limit established during the performance test, if applicable;
- 74.b.iii.B.(3). An identification of each exceedance by start and end time, and cause of exceedance (including startup/shutdown, process problems, other known causes, or other unknown causes).
- 74.b.iii.C. For alternative parameters established according to §63.864(e)(13): (for a process unit that use an ESP or wet scrubber) the permittee may monitor alternative control device operating parameters subject to prior written approval by LRAPA. The request for approval must also include the manner in which the parameter operating limit is to be set.
- 74.b.iv. The nature and cause of the event (if known).
- 74.b.v. The corrective action taken or preventative measures adopted.
- 74.b.vi. The nature of repairs and adjustments to the CMS that was in operative or out of control.
- 74.c. If the permittee fails to meet an applicable standard, including any emission limit in Condition 58.a (§63.862) or any opacity or CPMS operating limit in Conditions 59, 60, 61, and 67 (§63.864), the permittee must report such events in the semiannual excess emissions report. Report the number of failures to meet the applicable standard. For each instance, report the date, time and duration of each failure. For each failure the report must include a list of the affected sources or equipment, and for any failure to meet an emission limit under §63.862, provide an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions. [40 CFR 63.867(c)(4)]
- 74.d. The permittee of process units subject to the requirements of Subpart MM and Subpart S may combine excess emissions and/or summary reports for the mill. [40 CFR 63.867(c)(5)]
- 74.e. Semiannual reports required by this condition must be submitted by the same dates as the annual and semiannual reports specified in Condition 197. The semi-annual reports must be submitted to LRAPA and the EPA Regional office as specified in this Title V permit. [40 CFR 63.9(a)(4)(ii) and 63.10(a)(5)]

## Electronic Reporting Requirements

### 75. Electronic reporting.

- 75.a. Within 60 days after the date of completing each performance test (as defined in §63.2) required by 40 CFR part 63 subpart MM, the permittee must submit the results of the performance test following the procedure specified in either Condition 75.a.i or 75.a.ii: [40 CFR 63.867(d)(1)]
- 75.a.i. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, the permittee must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>)). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the permittee claims that some of the performance test information being submitted is confidential business information (CBI), the permittee must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media

to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

- 75.a.ii. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the permittee must submit the results of the performance test to LRAPA at the appropriate address listed in Condition 205 unless LRAPA agrees to or specifies an alternative reporting method.
- 75.b. The permittee must submit the notifications required in §63.9(b) and §63.9(h) (including any information specified in §63.867(b)) and semiannual reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The permittee must upload an electronic copy of each notification in CEDRI beginning with any notification specified in this paragraph that is required after October 11, 2019. The permittee must use the appropriate electronic report in CEDRI for this subpart listed on the CEDRI website (<https://www.epa.gov/electronicreporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for semiannual reports. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to LRAPA at all the appropriate addresses listed in Condition 205. Once the form has been available in CEDRI for 1 year, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. (3) If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, the permittee will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, the permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. The permittee must submit notification to the Administrator in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The permittee must provide to LRAPA a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which the permittee proposes to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of LRAPA. [40 CFR63.867(d)(2)]
- 75.c. If the permittee is required to electronically submit a report through CEDRI in the EPA's CDX, and due to a planned or actual outage of either the EPA's CEDRI or CDX systems within the period of time beginning 5 business days prior to the date that the submission is due, the permittee will be or are precluded from accessing CEDRI or CDX and submitting a required report within the time prescribed, the permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. The permittee must submit notification to LRAPA in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The permittee must provide to LRAPA a written description identifying the date, time and length of the outage; a rationale for attributing the delay in reporting beyond the regulatory deadline to the EPA system outage; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which the permittee proposes to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of LRAPA. [40 CFR63.867(d)(3)]

75.d. If the permittee is required to electronically submit a report through CEDRI in the EPA’s CDX and a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due, the permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). If the permittee intends to assert a claim of force majeure, the permittee must submit notification LRAPA in writing as soon as possible following the date the permittee first knew, or through due diligence should have known, that the event may cause or caused a delay in reporting. The permittee must provide to LRAPA a written description of the force majeure event and a rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event; describe the measures taken or to be taken to minimize the delay in reporting; and identify a date by which the permittee proposes to report, or if the permittee has already met the reporting requirement at the time of the notification, the date the permittee reported. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of LRAPA. [40 CFR63.867(d)(4)]

**Table 8. Subpart A General Provisions that Apply to Subpart MM**

| Reference  | Summary of Requirements  | Applies to Subpart MM | Explanation   |
|------------|--|-----------------------|---|
| 63.1(a)    | General applicability of the General Provisions  | Yes                   | Additional terms defined in § 63.861; when overlap between subparts A and MM of part 63, subpart MM takes precedence.                     |
| 63.1(b)(1) | Initial applicability determination  | No                    | Subpart MM specifies the applicability in § 63.860.   |
| 63.1(b)(2) | Title V operating permit - see 40 CFR part 70  | Yes                   | All major affected sources are required to obtain a Title V permit.   |
| 63.1(b)(3) | Record of the applicability determination  | No                    | All affected sources are subject to subpart MM according to the applicability definition of subpart MM.                                   |
| 63.1(c)(1) | Applicability of subpart A of this part after a relevant standard has been set                   | Yes                   | Subpart MM clarifies the applicability of each paragraph of subpart A of part 63 to sources subject to subpart MM.                        |
| 63.1(c)(2) | Title V permit requirement   | Yes                   | All major affected sources are required to obtain a title V permit. There are no area sources in the pulp and paper mill source category. |
| 63.1(c)(3) | [Reserved]   | No                    | Section reserved.   |
| 63.1(c)(4) | Requirements for existing source that obtains an extension of compliance                         | Yes                   |   |
| 63.1(c)(5) | Notification requirements for an area source that increases HAP emissions to major source levels | Yes                   |   |
| 63.1(c)(6) | Reclassification   | Yes                   |   |
| 63.1(d)    | [Reserved]   | No                    | Section reserved.   |

| Reference | Summary of Requirements   | Applies to Subpart MM                                      | Explanation  |
|-----------|---|--|--|
| 63.1(e)   | Applicability of permit program before a relevant standard has been set | Yes  |  |
| 63.2      | Definitions   | Yes  | Additional terms defined in § 63.861; when overlap between subparts A and MM of this part occurs, subpart MM takes precedence. |
| 63.3      | Units and abbreviations   | Yes  |  |
| 63.4      | Prohibited activities and circumvention                                 | Yes  |  |
| 63.5      | Construction/reconstruction applicability and approval                  | Yes, except (b)(2) and (c)                                 | Sections reserved.   |
| 63.6(a)   | Compliance with standards and maintenance requirements                  | Yes  |  |
| 63.6(b)   | Compliance dates for new and reconstructed sources                      | Yes  |  |
| 63.6(c)   | Compliance dates for existing sources                                   | Yes, except for sources granted extensions under 63.863(c) | Subpart MM specifically stipulates the compliance schedule for existing sources.   |
| 63.6(d)   | [Reserved]  | No   | Section reserved.  |
| 63.6(e)   | Operation and maintenance requirements                                  | Yes, only (e)(1)(iii)                                      | See § 63.860(d) for general duty requirement.  |
| 63.6(f)   | Compliance with nonopacity emissions standards                          | Yes, except (f)(1)   | No SSM exemption.  |
| 63.6(g)   | Compliance with alternative nonopacity emissions standards              | Yes  |  |
| 63.6(h)   | Compliance with opacity and visible emissions (VE) standards            | Yes, except (h)(1)   | No SSM exemption.  |
| 63.6(i)   | Extension of compliance with emissions standards                        | Yes  |  |
| 63.6(j)   | Exemption from compliance with emissions standards                      | Yes  |  |
| 63.7(a)   | Performance testing requirements  | Yes  |  |
| 63.7(b)   | Notification of performance test  | Yes  |  |
| 63.7(c)   | Quality assurance program   | Yes  |  |
| 63.7(d)   | Performance testing facilities  | Yes  |  |
| 63.7(e)   | Conduct of performance tests  | Yes, except (e)(1)   | See § 63.865.  |
| 63.7(f)   | Use of an alternative test method                                       | Yes  |  |
| 63.7(g)   | Data analysis, recordkeeping, and reporting                             | Yes  |  |

| Reference           | Summary of Requirements  | Applies to Subpart MM                                       | Explanation  |
|---------------------|--|---|--|
| 63.7(h)             | Waiver of performance tests  | Yes   | § 63.865(c)(1) specifies the only exemption from performance testing allowed under subpart MM.   |
| 63.8(a)             | Monitoring requirements - applicability  | Yes, except (a)(3) and (a)(4).                              | See § 63.864. The use of flares to meet the standards in subpart MM is not anticipated. Section (a)(3) reserved.   |
| 63.8(b)             | Conduct of monitoring  | Yes   | See § 63.864.  |
| 63.8(c)             | Operation and maintenance of CMS   | Yes, except (c)(1)(i) and (c)(1)(iii)                       | See § 63.864.  |
| 63.8(d)             | CMS quality control program  | Yes, except (d)(3)  | See § 63.864(f).   |
| 63.8(e)             | Performance evaluation of CMS  | Yes   |  |
| 63.8(f)             | Use of an alternative monitoring method  | Yes   |  |
| 63.8(g)             | Reduction of monitoring data   | Yes   |  |
| 63.9(a)-(j)         | Notification requirements  | Yes   | Subpart MM does not contain any opacity or VE standards; however, § 63.864 specifies opacity monitoring requirements.  |
| 63.9(k)             | Electronic reporting procedures  | Yes   | Only as specified in § 63.9(j).  |
| 63.10(a)            | Recordkeeping requirements   | Yes   | See § 63.866.  |
| 63.10(b)(1)-(b)(2)  | Records retention  | Yes, except (b)(2)(i), (b)(2)(ii), and (b)(2)(iv)-(b)(2)(v) | See § 63.866(d) for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure. |
| 63.10(b)(3)         | Records retention for sources not subject to relevant standard   | Yes   | Applicability requirements are given in § 63.860.  |
| 63.10(c)            | Additional recordkeeping requirements for sources with CMS   | Yes, except (c)(15)   | No SSM Plan.   |
| 63.10(d)            | Reporting requirements   | Yes, except (d)(5)(i) and (d)(5)(ii)                        | See § 63.867(c)(3) for malfunction reporting requirements. In addition, Subpart MM does not include any opacity or VE standards; however, § 63.864 specifies opacity monitoring requirements.  |
| 63.10(e)(1)         | Additional reporting requirements for sources with CMS - General   | Yes   |  |
| 63.10(e)(2)         | Reporting results of CMS performance evaluations   | Yes   |  |
| 63.10(e)(3)(i)-(iv) | Requirement to submit excess emissions and CMS performance report and/or summary report and frequency of reporting | No  | § 63.867(c)(1) and (3) require submittal of the excess emissions and CMS performance report and/or summary report on a semiannual basis.   |
| 63.10(e)(3)(v)      | General content and submittal dates for excess emissions and monitoring system performance reports                 | Yes   |  |
| 63.10(e)(3)(vi)     | Specific summary report content  | No  | § 63.867(c)(1) specifies the summary report content.   |

| Reference               | Summary of Requirements  | Applies to Subpart MM | Explanation  |
|-------------------------|--|-----------------------|--|
| 63.10(e)(3)(vii)-(viii) | Conditions for submitting summary report versus detailed excess emission report        | No                    | § 63.867(c)(1) and (3) specify the conditions for submitting the summary report or detailed excess emissions and CMS performance report. |
| 63.10(e)(4)             | Reporting continuous opacity monitoring system data produced during a performance test | Yes                   |  |
| 63.10(f)                | Waiver of recordkeeping and reporting requirements                                     | Yes                   |  |
| 63.11                   | Control device requirements for flares   | No                    | The use of flares to meet the standards in subpart MM is not anticipated.  |
| 63.12                   | State authority and delegations  | Yes                   |  |
| 63.13                   | Addresses of State air pollution control agencies and EPA Regional Offices             | Yes                   |  |
| 63.14                   | Incorporations by reference  | Yes                   |  |
| 63.15                   | Availability of information and confidentiality  | Yes                   |  |
| 63.16                   | Requirements for Performance Track member facilities                                   | Yes                   |  |

## EMISSION UNIT SPECIFIC EMISSION LIMITS, STANDARDS, AND MONITORING

### #4 RECOVERY FURNACE, EMISSIONS UNIT EU-445C

Table 9. EU-445C Emission Limits and Standards

| Applicable Requirement                 | Condition Number | Pollutant/Parameter | Limit/ Standard  | Monitoring Requirements                            |                  |                     |
|--|------------------|---------------------|--|--|------------------|---------------------|
|  |                  |                     |  | Method   | Condition Number | Frequency           |
| 40 CFR 60.283(a)(2)<br>NSPS Subpart BB | 76               | TRS                 | 5 ppm by volume on a dry basis, corrected to 8% oxygen<br>daily arithmetic average     | Initial Performance Test/<br>Continuous monitoring | 84               | Continuously        |
| 33-070(3)(a)(A)(ii)                    | 77               | TRS                 | 5ppm and 0.075 kg/metric ton pulp (0.150 lb/ton)<br>daily arithmetic averages          | Recordkeeping                                      | 85               | Daily               |
| 33-070(3)(b)(D)(i)(I),<br>ACDP 4(b)    | 78               | PM/PM <sub>10</sub> | 1.00 kg/ADMT (metric ton) pulp (2.00 lbs/ADT (short tons))<br>daily arithmetic average | Periodic ST/<br>Recordkeeping                      | 86               | Quarterly/<br>Daily |

| Applicable Requirement   | Condition Number | Pollutant/Parameter                           | Limit/ Standard  | Monitoring Requirements   |                  |                                       |
|--|------------------|---|--|---|------------------|---------------------------------------|
|  |                  |   |  | Method  | Condition Number | Frequency                             |
| 33-070(3)(b)(D)(i)(II) & 33-070(4), ACDP 4(b) and 40 CFR 60.282(a)(1)(i) | 79               | PM/PM <sub>10</sub>                           | 0.10 g/dscm (0.044 gr/dscf)<br><br>daily arithmetic average  | Periodic ST/ Recordkeeping  | 86               | Quarterly/ Daily                      |
| 33-070(3)(b)(A)(iii) and 40 CFR 60.282(a)(1)(ii)                         | 80               | Opacity                                       | For LRAPA Title 33: 35% for 30 min in 180 min or 60 min in 24-hr period<br>For NSPS Subpart BB: all 6-minute average opacities that exceed 35% for 6% or more of the operating time in any quarter | COMS  | 87               | Continuously                          |
| 33-070(3)(c)   | 81               | SO <sub>2</sub>                               | 300 ppm,<br>3-hr arithmetic average  | Periodic ST/ Recordkeeping  | 88               | Monthly                               |
| 33-070(3)(a)(D)  | 82               | Non-condensable gases (NCGs)                  | Alternative thermal oxidation device   | Recordkeeping   | 102, 103 & 113   | Daily                                 |
| 42-0080<br>2021 RH SAFO  | 83               | Fuel use                                      | Use only BLS, NG, ULSD No. 2-D S15 Fuel Oils #6  | Recordkeeping   | 89               | Daily                                 |
| 40 CFR 63.862(a)(1)(i)(A)<br><br>NESHAP Subpart art MM                   | 58.a.i           | PM HAP  | 0.10 gm/dscm (0.044 gr/dscf) @8% O <sub>2</sub>  | Initial Performance Test, then once every 5 years/<br>Continuous monitoring | 70, 65(COMS)     | Periodic Source Test/<br>Continuously |
| 40 CFR 63.864(k)(1)(ii)<br>NESHAP Subpart MM)                            | 59               | ESP Corrective Action                         | When avg of (10) 6-min avgs >20 opacity  | COMS  | 65               | Continuously when BLS fired           |
| 40 CFR 63.864(k)(2)(i)<br>NESHAP Subpart MM)                             | 61               | Opacity Violation                             | >35% opacity for more than 2% operating time in semiannual period  | COMS  | 65               | Continuously when BLS fired           |
| 40 CFR 63.864(e)(1)<br><br>NESHAP Subpart MM                             | 66.a             | ESP AVC<br><br>Establish Operating Parameters | Maintain Proper Operation  | CPMS<br>Continuously monitor AVC/<br>Recordkeeping                          | 66, 73.f         | Continuously when BLS fired           |

76. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 5 parts per million (ppm) by volume on a dry basis, corrected to 8 percent oxygen from emissions unit EU-445C as a 12-hr average. Total reduced sulfur emissions must be monitored in accordance with Condition 84. [40 CFR 60.283(2)]

77. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 5ppm and 0.075 kilogram/metric ton (0.150 pound/ton) of pulp production from emissions unit EU-445C as daily arithmetic averages (daa's). Total reduced sulfur emissions must be monitored in

- accordance with Condition 85. [LRAPA 33-070(3)(a)(A)(ii)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
78. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 1.00 kilogram/metric ton (2.00 pounds/ton) of pulp production from emissions unit EU-445C as a daily arithmetic average (daa). Particulate matter emissions must be measured in accordance with Condition 86. [LRAPA 33-070(3)(b)(D)(i)(I), and as modified in ACDP Condition 4(b)]
79. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.10 gram/dry standard cubic meter (0.044 grain/dry standard cubic foot) from emissions unit EU-445C as a daily arithmetic average (daa). Particulate matter emissions must be measured in accordance with Condition 86. [LRAPA 33-070(3)(b)(D)(i)(II), 33-070(4), and as modified in ACDP Condition 4(b), 40 CFR 60.282(1)(i)]
80. Applicable Requirement: The emissions of particulate matter from the #4 Recovery Furnace (EU-445C) must not exceed 35% opacity for a period or periods aggregating more than 30 minutes in any 180 consecutive minutes or more than 60 minutes in any 24 consecutive hours, excluding periods when the facility is not operating. Opacity must be monitored in accordance with Condition 87. [LRAPA 33-070(3)(b)(A)(iii) 40 CFR 60.282(a)(ii)]
- 80.a. For the #4 Recovery Furnace (EU-445C) NSPS Subpart BB reports required under 40 CFR 60.7(c) for NSPS Subpart BB opacity standards, the permittee must report semiannual periods of excess emissions as follows:
- 80.a.i. All 6-minute average opacities that exceed 35 percent. [40 CFR 60.284(d)(ii)]
- 80.b. LRAPA will not consider periods of excess emissions reported under Condition 80.a to be indicative of a violation of 40 CFR 60.11(d) provided that:
- 80.b.i. The percent total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed six (6) percent for average opacities from EU-445C. [40 CFR 60.284(e)(1)I]
- 80.b.ii. LRAPA determines that #4 Recovery Furnace (EU-445C) and the #4 Recovery Furnace ESP (CD445-480) is maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions. [40 CFR 60.284(e)(2)]
- 80.c. The procedures under 40 CFR 60.13 must be followed for installation, evaluation, and operation of the continuous monitoring systems required by Condition 87. [40 CFR 60.284(f)]
- 80.c.i. The COMs must be operated in accordance with the applicable procedures under Performance Specifications 1, 3, and 5 of appendix B of 40 CFR Part 60. [40 CFR 60.284(f)(1)]
- 80.c.ii. Quarterly accuracy determinations and daily calibration drift test must be performed in accordance with Procedure 1 of appendix F of 40 CFR Part 60. [40 CFR 60.284(f)(2)]
- 80.c.iii. If quality-assured data is achieved for four (4) consecutive quarters, the permittee may reduce their audit frequency to semi-annually. If a performance audit fails, the permittee must resume quarterly testing, as specified in Condition 80.c.ii, for that audit requirement until it again demonstrates successful performance over four consecutive quarters. [40 CFR Part 60 Appendix F, Procedure 3, Section 2.0]
81. Applicable Requirement: The permittee must not cause or allow the emission of sulfur dioxide in excess of 300 parts per million by volume, as a 3-hour arithmetic average from emissions unit EU-445C except when burning ULSD No. 2 fuel oil. Sulfur dioxide emissions must be measured in accordance with Condition 88. [LRAPA 33-070(3)(c) and Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021, entered under OAR 340-223-0110(b)(C)]
82. Applicable Requirement: The #4 Recovery Furnace (EU-445C) may be utilized as an alternative for the required thermal oxidation of non-condensable gases (NCGs) in accordance with Conditions 102 and 103.

Episodes of NCG venting must be monitored in accordance with Condition 113. [LRAPA 33-070(3)(a)(D)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.

83. Applicable Requirement: The permittee may only burn BLS (black liquor solids), natural gas and/or ULSD No. 2 fuel oil in the emission unit EU-445C. Fuels use must be monitored in accordance with Condition 89 as well as Conditions 12, 178.c (PSEL) and 172 (Regional Haze). [LRAPA 34-016, 42-0080, OAR 340-218-0050(3)(a) and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR 340-223-0110]

#### **Monitoring for Emissions Unit: #4 Recovery Furnace, EU-445C**

[OAR 340-218-0050(3)(a)]

84. Monitoring Requirement: The permittee must monitor total reduced sulfur emissions, as H<sub>2</sub>S, from emissions unit EU-445C by calibrating, maintaining, and recording the output of a continuous emissions monitoring system (CEMS) on monitoring point FA445-329, in accordance with ODEQ's Continuous Monitoring Manual for monitoring pertaining to Condition 76. [LRAPA 33-070(5)(b)(A) - LRAPA-only enforceable pending EPA approval of Section 111(d) Plan, 40 CFR 60.283(a)(2) and 40 CFR 60.284]
- 84.a. Monitoring must be continuous using a daily averaging period for monitoring related to LRAPA 33-070(5)(b)(A). The daily arithmetic average (daa) must be calculated from 1-hour arithmetic averages or equivalent.
- 84.b. The permittee must calculate and record on a daily basis 12-hour average TRS concentrations for the two (2) consecutive periods of each operating day. Each 12-hour average must be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average total reduced sulfur concentrations provided by each continuous monitoring system installed for Condition 76. [40 CFR 60.284(c)(1)]
- 84.c. The daily cumulative minutes with concentrations greater than 5 ppm must be recorded. [LRAPA 33-070(3)(A)(ii) and 33-070(6)(a)]
- 84.d. TRS concentrations must be corrected to 8% oxygen using the equation in 40 CFR 60.284(c)(3).
- 84.e. The span of the CEMs must be set at a TRS concentration of 25 ppm. [40 CFR 60.284(a)(2)(i) requires 30ppm; LRAPA approved 25ppm at the request of the permittee for improved accuracy which is allowed by 40 CFR Part 60 Appendix B, Spec 2, 6.1.1.2]
- 84.f. For the purposes of reports required under 40 CFR 60.7(c), the permittee must report semiannually periods of excess emissions as follows: [40 CFR 60.284(d)(1)(i)]
- 84.f.i. For emissions from EU-445C periods of excess emissions are:
- 84.f.i.A. All 12-hour averages of TRS concentrations above 5 ppm by volume.
- 84.g. LRAPA will not consider periods of excess emissions reported under Condition 84.f to be indicative of a violation of 40 CFR 60.11(d) provided that:
- 84.g.i. The percent total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed one (1) percent for TRS emissions from EU-445C: and [40 CFR 60.284(e)(1)(i)]
- 84.g.ii. LRAPA determines that the #4 Recovery Furnace (445C) and the #4 Recovery Furnace ESP (CD445-480) are maintained and operated in a manner which is consistent with good air pollution control practice for minimizing emissions during periods of excess emissions. [40 CFR 60.284(e)(2)]
- 84.h. The procedures under 40 CFR 60.13 must be followed for installation, evaluation, and operation of the continuous monitoring systems required by Condition 84. [40 CFR 60.284(f)]
- 84.h.i. The CEMs must be operated in accordance with the applicable procedures under Performance Specifications 1, 3, and 5 of appendix B of 40 CFR Part 60. [40 CFR 60.284(f)(1)]

- 84.h.ii. Quarterly accuracy determinations and daily calibration drift test must be performed in accordance with Procedure 1 of Appendix F of 40 CFR Part 60. [40 CFR 60.284(f)(2)]
- 84.i. The permittee must install, calibrate, maintain, and record the output of a continuous monitoring system (CMS) in accordance with ODEQ's Continuous Monitoring Manual for measuring oxygen on emissions unit EU-445C at the same location as the TRS CEMS for monitoring pertaining to Condition 76.
  - 84.i.i. The permittee must calculate and record on a daily basis 12-hour average oxygen concentrations for the two consecutive periods of each operating day. These 12-hour averages must correspond to the 12-hour average TRS concentrations under Condition 84.a and must be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations provided by the CMSs. [40 CFR 60.284(c)(2)]
  - 84.i.ii. The span of the CMS must be set at 25 percent oxygen. [40 CFR 60.284(a)(2)(ii)]
  - 84.i.iii. The permittee must use the oxygen CMS to correct TRS data to 8% oxygen. The correction may be calculated and recorded on a real-time basis or calculated and recorded on a daily basis (24-hour average) oxygen concentrations of each operating day for the recovery furnace. These 24-hour averages must correspond to the 24-hour average TRS concentrations measured under Condition 101.a and must be determined as an arithmetic mean of the appropriate 24 contiguous 1 hour average oxygen concentrations provided by each continuous monitoring system installed under Condition 84. [40 CFR 60.284(c)(2)]
- 85. Monitoring Requirement: The permittee must monitor total reduced sulfur emissions, as H<sub>2</sub>S, from emissions unit EU-445C by calculating emissions in units of kilograms of TRS/metric ton of equivalent air-dried pulp production (kg/ADMT) for monitoring pertaining to Condition 77. [LRAPA 35-0120 and 35-0140] This condition is LRAPA Enforceable only pending EPA approval of Section 111(d) Plan.
  - 85.a. The permittee must calculate emissions of total reduced sulfur by using the calibrated and O<sub>2</sub> corrected daily arithmetic average (daa) concentration obtained from the CEMS in Condition 84, the stack flow rate obtained from the correlation required in Condition 85.b, and the daily average equivalent ADMT production in Condition 85.c.
  - 85.b. The permittee may continue to use a correlation between the stack flow rate and the fuels firing rate (with the steam flow and fossil fuel correction, as appropriate) from previous source test data. The stack flow calculated from this correlation must be checked against new source test data by the end of each permit term if it is used in emission calculations.
  - 85.c. The permittee must calculate average daily equivalent ADMT or ODT production for each day in accordance with the following:
    - 85.c.i. Calculate a 3-month rolling pulp production per weight of dry BLS burned by recording the air-dried pulp production and the amount of BLS burned on a monthly basis, updating the ratio each month.
    - 85.c.ii. Monitor the mass of dry BLS burned per day.
    - 85.c.iii. Multiply the mass of dry BLS burned per day by the ratio of pulp tons per unit mass of dry BLS burned to obtain the average daily equivalent pulp production.
    - 85.c.iv. For operating days (24-hour time periods) when more than half the #4 Recovery Furnace fuel BTUs in any discrete hourly time periods on a given day come from fossil fuel, the furnace equivalent mass pulp production may be calculated from the furnace equivalent total fuel BTUs per air-dried pulp production 3-month rolling average. To track the furnace BTU to pulp ratio, the permittee must calculate the dry BLS burned per day assuming 6150 BTU per dry pound BLS on Recovery Furnace No. 4. The BTU assumption for natural gas shall be 1060 BTU/scf (site-specific value) and No. ULSD fuel oil shall be 140,000 BTU/gallon. BTU assumptions may be changed provided LRAPA is given written notification.
- 86. Monitoring Requirement: The following procedures and test methods must be used for certifying compliance with Conditions 78 and 79, (PSEL emission factor verification and NSPS Subpart BB initial

- performance test as required in 40 CFR 60.285(a) from emissions unit EU-445C at monitoring point CDP445-480: [LRAPA 34-016, 42-0080, and OAR 340-218-0050(3)(a)]
- 86.a. EPA Method 5 must be used for measuring particulate matter emissions in accordance with LRAPA 12-005, Definition for PM and monitoring pertaining to Conditions 78 and 79, and in accordance with 40 CFR 60.285(a) and (b)(1) for PM monitoring pertaining to Condition 79, at monitoring point CDP445-480. [40 CFR 60.285(a) and (b)(1)]
- 86.b. DEQ Method 5 must be used for measuring particulate matter emissions in accordance with OAR 340-200-0020 to verify the emission factor for the PSEL as required in Condition 179 at monitoring point CDP445-480. The EPA and DEQ Method 5 test runs must be conducted simultaneously by using one (1) sample train.
- 86.c. Particulate matter source testing must be performed at least quarterly except that testing may be semi-annual when the preceding six (6) source tests for emissions unit EU-445C were less than 0.075 gram/dscm (0.033 gr/dscf). [LRAPA 33-070(5)(c)(D)]
- 86.d. During each test, the permittee must record the following information:
- 86.d.i. Black liquor solids flow (gpm), black liquor solids (%), stack flow rate (dscfm) and oxygen concentration;
- 86.d.ii. Six-minute average opacities as measured by the COMS required in Condition 87;
- 86.d.iii. Average daily equivalent pulp production (ADMT) must be calculated in accordance with Condition 85.c; and
- 86.d.iv. #4 Recovery Furnace Electrostatic Precipitator, (PCD 445-480), primary and secondary voltages.
- 86.e. Source test reports prepared in accordance with the DEQ's Source Sampling Manual must be submitted to LRAPA within 60 days of completing any required source test, unless a different time period is approved in the source test plan submitted prior to the source test.
87. Monitoring Requirement: The permittee must monitor the stack opacity from Recovery Furnace #4 (EU-445C) by calibrating, maintaining, and recording the output of a continuous opacity monitoring system (COMS) in accordance with ODEQ's Continuous Monitoring Manual for monitoring pertaining to Condition 80. [LRAPA 33-070(5)(c)(B), 40 CFR 60.284(a)(1) and 40 CFR 60.284(d)(ii)]
- 87.a. The 6-minute average stack opacity for emissions unit EU-445C must be calculated from the individual data collected at least once per 10-second period by the instrument and recorded for each 6-minute block period. [40 CFR 60.13(e)(1)]
- 87.b. The number of 6-minute averages in excess of 35% during any 180 consecutive minutes and during any 24 consecutive hour period and the 6-minute average opacity in excess of 35% must be recorded.
- 87.c. The average hourly (clock hour) and the average daily opacities must be calculated from the 6-minute opacities or alternatively from the real time data collected at least once per minute.
- 87.d. The permittee must maintain an alarm that is triggered instantaneously when the opacity reaches 35%.
- 87.e. The permittee must set the span of the system at 70 percent opacity. [40 CFR 60.284(a)(1)]
- 87.f. Insufficient data completeness, as defined in DEQ's Continuous Monitoring Manual, excluding COMS downtime due to zero and span checks, performance audits, and routine monitor maintenance, will void that data period.
88. Monitoring Requirement: The permittee must monitor sulfur dioxide emissions from recovery furnace EU-445C when not burning fuel oil (ULSD), by either using the total reduced sulfur continuous emissions monitoring system (CEMS) required in Condition 84 or on a monthly basis, by conducting three (3) 1-hour source tests for monitoring pertaining to Condition 81 (< 300 ppm SO<sub>2</sub>) at monitoring point FA445-329. [LRAPA 33-070(5)(d)]

- 88.a. Sulfur dioxide monitoring must be done in accordance with DEQ’s Continuous Monitoring Manual if continuous emission monitors are used or in accordance with DEQ’s Source Sampling Manual if source tests are used.
  - 88.b. When the total reduced sulfur CEMs is used, the 3-hour average concentration must be calculated at least once each month from three (3) consecutive 1-hour arithmetic averages.
  - 88.c. Use of a dedicated SO<sub>2</sub> CEM analyzer as part of the TRS CEM sample train is not required but may be used by the permittee, provided it meets the requirements of Conditions 88.a through 88.b.
  - 88.d. SO<sub>2</sub> concentrations must be corrected to 8% oxygen. SO<sub>2</sub> monitoring periods must be in 3-hour blocks (e.g. 7:30-10:30, etc.).
89. Monitoring Requirement: The permittee must maintain daily and annual records of fuel usage burned in Recovery Furnace #4, EU-445C, for monitoring compliance with Condition 83. [LRAPA 34-016, 42-0080, OAR 340-218-0050(3)(a)]

**General NSPS Subpart A Requirements for NSPS Subpart BB**

- 90. The permittee must submit a notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification must be postmarked not less than 30 days prior to such date. [40 CFR 60.7(a)(5)]
- 91. The permittee must maintain records of SSM events as required by 40 CFR 60.7(b). [40 CFR 60.7(b)]
- 92. The permittee must submit excess emission reports as required by Conditions 80.a and 84.f and 40 CFR 60.7(c) and 40 CFR(c)(1-4). [40 CFR 60.7(c)]
- 93. The report required by Condition 92 must contain the information and be in the format shown in figure 1 of 40 CFR 60.7 and also contain the information as required by 40 CFR 60.7(d)(1) and 40 CFR 60.7(d)(2) unless otherwise specified by LRAPA. [40 CFR 60.7(d)]
- 94. For a period of at least two (2) years, the permittee must maintain records as required in 40 CFR 60.7(f), 40 CFR 60.7(f)(1) and (2). [40 CFR 60.7(f)]
- 95. For the performance tests required by Condition 86 the permittee must follow the applicable performance test requirements as specified in 40 CFR 60.8. [40 CFR 60.8]
- 96. The permittee must follow the compliance with standards and maintenance requirements as applicable in 40 CFR 60.11. [40 CFR 60.11]
- 97. The permittee must follow the applicable monitoring requirements as specified in 40 CFR 60.13. [40 CFR 60.13]
- 98. The permittee must follow the applicable general control device requirements as specified in 40 CFR 60.18. [40 CFR 60.18]
- 99. The permittee must follow the applicable general notification and reporting requirements as specified in 40 CFR 60.19. [40 CFR 60.19]

**LIME KILNS No. 2 and No. 3, EMISSIONS UNIT EU-455**

**Table 10. EU-455 Emission Limits and Standards**

| Applicable Requirement | Condition Number | Pollutant/Parameter | Limit/ Standard  | Monitoring Requirements |                  |                         |
|------------------------|------------------|---------------------|--|-------------------------|------------------|-------------------------|
|                        |                  |                     |  | Method                  | Condition Number | Frequency               |
| 33-070(3)(a)(B)        | 100              | TRS                 | 20 ppm daily arithmetic average                                | Continuous Monitoring   | 111              | Continuously            |
| 33-070(3)(a)(B)        | 101              | TRS                 | 0.05 kg/metric ton pulp (0.10 lb/ton) daily arithmetic average | Recordkeeping           | 112              | Daily when lime mud fed |

| Applicable Requirement                      | Condition Number | Pollutant/Parameter                    | Limit/ Standard  | Monitoring Requirements   |                  |   |
|---|------------------|--|--|---|------------------|---|
|   |                  |  |  | Method  | Condition Number | Frequency   |
| 33-070(3)(a)(D)                             | 102              | Non-condensable gases                  | Controlled   | Recordkeeping   | 113              | Daily   |
| 33-070(3)(a)(D)                             | 103              | Non-condensable gases                  | 650°C (1,200°F) for 0.3 second   | Recordkeeping   | 113              | Daily   |
| ACDP Condition 14                           | 104              | TRS,S-MeOH-H <sub>2</sub> O Mixture    | 650°C (1,200°F) for 0.3 second   | Recordkeeping   | 113              | Daily   |
| 33-070(3)(b)(B)(i) & ACDP Condition 5b      | 105              | PM/PM <sub>10</sub>                    | 0.38 kg/metric ton pulp (0.75 lb/ton) daily arithmetic average   | Periodic ST/Continuous Monitoring                                       | 114, 116         | Semi-annual/Continuously  |
| 40 CFR 63.862(a)(1)(i)(C)                   | 106              | PM/PM <sub>10</sub>                    | 0.15 g/dscm (0.064 gr/dscf) daily arithmetic average   | Periodic ST/Continuous Monitoring                                       | 114, 116         | Semi-annual/Continuously  |
| 32-010(3) & 33-070(3)(d)                    | 107              | Opacity                                | 20%; 3 minutes in 60 minutes   | Periodic ST   | 116              | Continuously/Monthly -- in accordance with Conditions 117 and 118 |
| 42-0080, Regional Haze SAFO                 | 108              | Fuel use                               | Use only NG, ULSD No. 2-D S15 fuel oil, product methanol and turpentine; track CaCO <sub>3</sub> makeup. | Recordkeeping   | 115              | Daily   |
| 32-007                                      | 109              | Opacity                                | See Condition 116  | Continuous Parameter Monitoring   | 116              | Continuously/Weekly -- if Continuous Opacity Indicator is down    |
| 40 CFR 63.862(a)(1)(i)(C) NESHAP Subpart MM | 58.a.iii         | PM HAP                                 | 0.15 g/dscm (0.064 gr/dscf) @10% O <sub>2</sub>  | Initial Performance Test, then once every 5 years/Continuous monitoring | 71, 65, 66.a     | Periodic Source Test/Continuously                                 |
| 40 CFR 63.864(k)(1)(i) NESHAP Subpart MM)   | 59               | ESP Corrective Action                  | When avg of 10 6-min avgs >20 opacity  | COMS  | 65, 66.a         | Continuously when lime mud is fed                                 |
| 40 CFR 63.864(k)(2)(iii) NESHAP Subpart MM) | 61.b             | Opacity Violation                      | >20% opacity for more than 3% operating time in semiannual period  | COMS  | 65               | Continuously when lime mud is fed                                 |
| 40 CFR 63.864(e)(1) NESHAP Subpart MM       | 66.a             | ESP AVC Establish Operating Parameters | Maintain Proper Operation  | CPMS Continuously monitor AVC/ Recordkeeping                            | 66, 73.f         | Continuously  |

100. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 20 parts per million (ppm) from emissions unit EU-455, as a daily arithmetic average (daa).

- Total reduced sulfur emissions must be monitored in accordance with Condition 111. [LRAPA 33-070(3)(a)(B)], This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
101. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 0.05 kilogram/metric ton (0.10 pound/ton) of production from emissions unit EU-455, as a daily arithmetic average (daa). Total reduced sulfur emissions must be monitored in accordance with Condition 112. [LRAPA 33-070(3)(a)(B)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
- 101.a. The limit in Condition 119 does not apply when EU-455 is not thermally converting calcium carbonate ( $\text{CaCO}_3$ ) to calcium oxide ( $\text{CaO}$ ). [LRAPA 33-070(1) definition of "lime kiln"]
102. Applicable Requirement: Non-condensibles (NCGs) from the Kamyr digester (EU-420), multiple-effect evaporators, and contaminated condensate stripping must be continuously treated to destroy TRS gases by thermal incineration in a lime kiln (EU-455 Kiln #2 or #3) or recovery furnace (EU-445C) by subjecting the non-condensibles to a temperature of not less than 650°C (1200°F) for not less than 0.3 seconds, in accordance with LRAPA 33-070(3)(a)(D) and 40 CFR 63.443. The vent gases must be continuously treated by thermal oxidation in either emissions unit EU-445C (#4 Rec. Furn.) or EU-455 (Lime Kilns) in accordance with LRAPA 33-070(3)(a)(D), 40 CFR 63.443 and Condition 25.c. Non-condensibles (NCGs) from the LVHC (Low Volume High Concentration) vents (defined in Condition 21.v) must be included in the NCG or parallel vent collection systems no later than April 16, 2001, in accordance with 40 CFR 63.443 (completed October 2001). Episodes of NCG systems venting must be monitored in accordance with Condition 113, Condition 41.d and Condition 46. [LRAPA 33-070(3)(a)(D) and 40 CFR 63.443]
103. Applicable Requirement: In the event that Lime Kiln #2 or #3 of EU-455 fails or is removed from service, the efficient thermal oxidation of non-condensibles must be transferred to the alternate Lime Kiln #2 or #3 or the alternate thermal oxidation unit (#4 Recovery Furnace (EU-445C)). Lime Kilns #2 and #3, or EU-445C, must serve as alternative devices for each other, and, per 40 CFR 64.443(d)(4)(i) and Condition 25.c, are listed as devices capable of meeting the thermal oxidation requirement within this permit condition. Also, any of the above thermal oxidation devices may be chosen and utilized as the primary thermal oxidation device, with any of the other units being used as alternatives when the primary device is incapable of performing the necessary thermal oxidation of NCGs. [LRAPA 33-070(3)(a)(D)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
- 103.a. EU-445C and EU-455 must be maintained at a temperature not less than 650°C (1,200°F) during NCG thermal oxidation.
- 103.b. The residence time for NCG thermal oxidation in emissions units EU-445C and EU-455 must be at least 0.3 second.
- 103.c. The venting of non-condensibles during changeover to alternative devices (Kiln #2 or EU-445C) must be minimized, but in no case must the time exceed one (1) hour per changeover.
104. Applicable Requirement: The permittee must subject foul condensate steam stripper product methanol, which may be thermally oxidized as supplemental fuel in EU-455, to a temperature of not less than 650°C (1,200°F) for not less than 0.3 seconds to thermally oxidize TRS gases and other organics. If Lime Kilns #2 & #3 of emission unit EU-455 are both down, venting of product methanol is prohibited, except as occurs through other permitted processes. [ACDP Condition 14]
105. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.38 kilogram/air dry metric ton (0.75 pound/ton) of production from emissions unit EU-455, as a daily arithmetic average (daa). Particulate matter emissions must be measured in accordance with Condition 114. [LRAPA 33-070(3)(b)(B)(i) and as modified in ACDP Condition 5b]
106. Applicable Requirement: The permittee must not cause to be discharged into the atmosphere from EU-455, any gases which contain particulate matter in excess of 0.15 gram/dry standard cubic meter (0.064 grain/dry standard cubic foot), corrected to 10 percent oxygen, as a daily arithmetic average (daa). Particulate matter emissions must be measured in accordance with Condition 114. [40 CFR 63 Subpart MM (MACT II) superseded LRAPA 33-070(3)(b)(B)(i) and as modified in ACDP Condition 5b as of March 13, 2004]
107. Applicable Requirement: The permittee must not cause or allow to be emitted any visible emissions from emissions unit EU-455 devices PS455-999 (Kilns) and the #3 Reburn Elevator (GE455-068), while

- operating, that exceed or equal 20 percent (%) opacity for a period or periods exceeding three (3) minutes in any one (1) hour, while kilns are operating. Opacity must be monitored in accordance with Conditions 114 and 116. [LRAPA 32-010(3) & 33-070(3)(d)]
108. Applicable Requirement: The permittee may only burn natural gas, ULSD No 2-D S15 distillate fuel oil, turpentine, and/or product methanol in the emission unit EU-455. Fuel use in the lime kilns (EU-455) must be monitored in accordance with Condition 115 as well as Conditions 12, 178.c (PSEL) and 173 (Regional Haze).[42-0080 & ACDP Condition 5d and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR3 40-223-0110(b)(C)]
109. Applicable Requirement: In addition to the limits and standards in Conditions 100 through 108, the permittee must take corrective action to return to highest and best practicable treatment and control if the Lime Kiln ESP, CD 456-110, opacity deviates from an acceptable range, as established by Conditions 114 and 116. [LRAPA 32-007]
- 109.a. These deviations and the corrective actions must be recorded in accordance with Condition 117. [LRAPA 32-007(2)(b)]
110. Use of a dedicated SO<sub>2</sub> CEM analyzer as part of the TRS CEM sample train must be used by the permittee to monitor SO<sub>2</sub> emissions from Lime Kilns #2 and #3. The SO<sub>2</sub> CEM analyzer must meet the CGA (cylinder gas audit) and RATA (relative accuracy test audit) requirements in the ODEQ's Continuous Monitoring Manual. A reference value of 50 ppm SO<sub>2</sub> shall be used for annual RATA. [LRAPA 35-0210 and OAR 340-218-0050(3)(a)]

### **Monitoring for Emissions Unit: Lime Kilns No. 2 and No. 3, EU-455**

[OAR 340-218-0050(3)(a)]

111. Monitoring Requirement: The permittee must monitor total reduced sulfur (TRS) emissions, as H<sub>2</sub>S, from emissions unit EU-455 by calibrating, maintaining, and recording the output of a CEMS on monitoring point CDP456-110 in accordance with ODEQ's Continuous Monitoring Manual for monitoring pertaining to Condition 100. [LRAPA 33-070(5)(b)(B)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
- 111.a. Monitoring must be continuous using a daily averaging period. The daily arithmetic average (daa) must be calculated from 1-hour arithmetic averages.
- 111.b. The daily cumulative minutes with concentrations greater than 20 ppm must be recorded.
- 111.c. TRS concentrations (ppm) must be corrected to 10% oxygen.
- 111.d. The permittee must install, calibrate, maintain, and record the output of a continuous monitoring system (CMS) in accordance with ODEQ's Continuous Monitoring Manual for measuring oxygen on emissions unit EU-455 at the same location as the TRS CEMS for monitoring pertaining to Condition 100.
- 111.d.i. The permittee must calculate the oxygen concentration as an hourly arithmetic average from the continuous monitoring system data.
- 111.d.ii. The span of the CMS must be set at 25 percent oxygen.
- 111.d.iii. The permittee must use the oxygen CMS to correct TRS data to 10% oxygen. The correction may be calculated and recorded on a real time basis or calculated and recorded on a daily basis as 24-hour average oxygen concentrations of each operating day for the Lime Kilns. These 24-hour averages must correspond to the 24-hour average TRS concentrations measured under Condition 111.a and must be determined as an arithmetic mean of the appropriate 24 contiguous 1 hour average oxygen concentrations provided by each continuous monitoring system installed under Condition 111.
112. Monitoring Requirement: The permittee must monitor total reduced sulfur (TRS) emissions, as H<sub>2</sub>S, from emissions unit EU-455 by calculating emissions in units of kilograms of TRS/metric ton of equivalent air-dried pulp production for monitoring pertaining to Condition 101. This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.

- 112.a. The permittee must calculate emissions of total reduced sulfur by using the calibrated and O<sub>2</sub> corrected daily arithmetic average (daa) concentration obtained from the CEMS in Condition 111, the stack flow rate obtained from the correlation required in Condition 112.b and the average daily equivalent ADMT production in Condition 112.c.
- 112.b. The permittee may continue to use the correlation between the stack flow rate and the type and amount of fuel(s) fired, and other contributing parameters to stack flow, from previous source test data. The stack flow correlation must be updated with data from the source testing required in Condition 114 no later than the end of each permit term during which the correlation is used to estimate mass emission rates.
- 112.c. The permittee must calculate average daily equivalent ADMT for each day in accordance with the following:
- 112.c.i. Use actual pulp production of ODT from the Kamyr kraft process (EU-420) for any days when the process operates at least four (4) hours in a given day; or for any days when the kraft process is down for more than 16 hours in a given day the following alternative methods may be utilized;
  - 112.c.ii. Calculate a 3-month rolling pulp mass production per amount of lime mud burned or total kiln fuel usage BTUs by recording the pulp production and the amount of lime mud burned or the total kiln fuel usage on a monthly basis, and updating the ratio on a 3-month rolling average each month.
  - 112.c.iii. Monitor the amount of dry lime mud burned or total kiln fuel usage per day and the annual amount of CaCO<sub>3</sub> makeup in tons per year.
  - 112.c.iv. Multiply the amount of dry lime mud burned or total kiln fuel usage per day (Condition 112.c.iii) by the ratio of pulp mass production per amount of lime mud burned or total kiln fuel heat input (Condition 112.c.i) to obtain the average daily equivalent pulp production.
113. Monitoring Requirement: The permittee must maintain daily records of all periods of interruption of combustion of non-condensable gases in emission units EU-445C and/or EU-455 for monitoring compliance with Conditions 25.c (kiln control of LVHC), 82 (#4 Rec as alternate control device), 102 (treat NCGs), 103 (switch to alternate control), 104 (methanol treatment), 41 (Subpart S vent recordkeeping) and 46 (malfunctions). [LRAPA 34-016]
- 113.a. Records must include all periods of non-condensable gas bypass, recorded in a log.
  - 113.b. Any preventative or corrective action taken as a result of the switch over to Recovery Furnace #4 (EU-445C), Lime Kiln #2 (EU-455) or Lime Kiln #3 (EU-455) must also be recorded in a log when the switchover is associated with periods of interruption of the combustion of non-condensable gases.
114. Monitoring Requirement: The following procedures and test methods must be used for certifying compliance with Conditions 105, 106, and 179 (PSEL emission factor verification) from emissions unit EU-455 at monitoring point CDP456-110: [LRAPA 34-016]
- 114.a. EPA Method 5 must be used for measuring particulate matter emissions in accordance with OAR 340-234-0010(29) and monitoring pertaining to Conditions 105 and 106.
  - 114.b. In accordance with OAR 340-234-0010(29), DEQ Method 5 must be used to measure particulate matter emissions and to verify the emission factor for the PSEL as required in Condition 168 (PSEL emission factor verification). The EPA and DEQ Method 5 test runs may be conducted simultaneously by using one (1) sample train.
  - 114.c. Particulate matter source testing must be performed at least semi-annually. Source tests must be separated by a minimum of three (3) months. [LRAPA 33-070(5)(c)(5)]
  - 114.d. During each test, the permittee must record the following information:
    - 114.d.i. Estimated lime mud burned and fuel type and amount in MMBtu;
    - 114.d.ii. Oxygen concentration;

- 114.d.iii. ESP stack opacity; and
  - 114.d.iv. Average daily equivalent pulp production (ADMT) must be calculated in accordance with Condition 112.c.
115. **Monitoring Requirement:** The permittee must maintain daily and annual records of fuel usage burned in the Lime Kiln, EU-455 and maintain annual records of tons of CaCO<sub>3</sub> makeup, for monitoring compliance with Condition 108. [LRAPA 34-016]
116. **Monitoring Requirement:** In order to form a basis for which to establish action levels for the lime kilns, the permittee must install, calibrate, maintain, and operate the following for the Lime Kiln, EU-455, for monitoring pertaining to Condition 109 in accordance with the facility's established written operating instructions, which must be approved in writing by LRAPA. This measurement must not be subject to the ODEQ Continuous Monitoring Manual, including PS-1, unless the state rules are amended to require COMs on Kraft Mill Lime Kilns in the future. The permittee must: [LRAPA 34-016 and LRAPA 35-0210]
- 116.a. Maintain a continuous opacity indicating system for the continuous measurement of opacity from the Lime Kiln ESP, CD 456-110;
  - 116.b. Maintain an alarm on the COMS that sounds when the instantaneous opacity reading reaches 20%; and
  - 116.c. Monitor visible opacity emissions monthly if the continuous opacity indicator is not in operation. Opacity must be monitored in accordance with Condition 17.
117. **Monitoring Requirement:** The permittee must survey the EU-455 Lime Kiln combined stack using EPA Method 22 for any visible emissions once per month for monitoring pertaining to Condition 107. The Method 22 monitoring must provide backup to Condition 116.a (Opacity Indicator monitoring) and shall not be required if the Opacity Indicator is functional for 90% of the days per month. If visible emissions are observed by Method 22, or the Opacity Alarm sounds according to Condition 116.b, the permittee must either take corrective action or conduct a Modified EPA Method 9 test within 24 hours. Any testing must be conducted in accordance with the DEQ's Source Sampling Manual or the testing requirements in this permit. The permittee must record the corrective action or the results of the Modified EPA Method 9 tests. If visible opacity observations are conducted, opacity must be monitored in accordance with Condition 17. [LRAPA 34-016 and LRAPA 35-0210]
118. **Monitoring Requirement:** The permittee must survey the #3 Lime Kiln Reburn Elevator (GE455-068) using EPA Method 22 for any visible emissions once per month for monitoring pertaining to Condition 107. Method 22 monitoring is not required on the Reburn Elevator Device if DCS (Dust Collection System) is in operation. If visible emissions are observed by Method 22, the permittee must either take corrective action or conduct a Modified EPA Method 9 test within 24 hours. Any testing must be conducted in accordance with the DEQ's Source Sampling Manual or the testing requirements of this permit. The permittee must record the corrective action or the results of the Modified EPA Method 9 tests. The permittee must record in a log the results of any corrective action taken and the results of any periodic inspections. Opacity must be monitored in accordance with Condition 17. [LRAPA 34-016 and LRAPA 35-0210]

**#4 RECOVERY SMELT DISSOLVING TANK VENT, EMISSIONS UNITS EU-445D**

**Table 11. EU445D Emission Limits and Standards**

| Applicable Requirement                             | Condition Number | Pollutant/Parameter   | Limit/ Standard  | Monitoring Requirements   |                  |  |
|--|------------------|---|--|---|------------------|--|
|  |                  |   |  | Method  | Condition Number | Frequency                                  |
| 33-070(3)(a)(C)                                    | 119              | TRS   | 0.0165 g/kg BLS<br>(0.033 lb/ton BLS)<br>daily arithmetic average  | Periodic ST   | 123.a            | Quarterly/<br>Semi-annual                  |
| 33-070(3)(b)(C)(i)                                 | 120              | PM/PM <sub>10</sub>   | 0.25 kg/metric ton pulp<br>(0.50 lb/ton)<br>daily arithmetic average   | Periodic ST/<br>Continuous<br>Parameter<br>Monitoring                               | 123.b, 124       | Quarterly/<br>Semi-annual/<br>Continuously |
| 32-010(3) & 33-070(3)(d)                           | 121              | Opacity   | 20%; 3 minutes in 60 minutes   | Continuous<br>Parameter<br>Monitoring   | 124              | Continuously                               |
| 32-007(2)(d)                                       | 122              | Scrubber liquid flow rate, pH & dP  | 3-hr block avg flow rate no less than 59.3 gpm & dP no lower than 7.6 in. H <sub>2</sub> O & pH avg no lower than 10.4                                   | Continuous<br>Parameter<br>Monitoring   | 124              | Continuously                               |
| 40 CFR 63.862(a)(1)(i)(B)<br><br>NESHAP Subpart MM | 58.a.ii          | PM HAP  | 0.10 kg/Mg BLS fired<br><br>(0.20 lb/ton BLS fired)  | Initial<br>Performance Test,<br>then once every 5<br>years/Continuous<br>monitoring | 70/66.b          | Periodic<br>Source Test/<br>Continuously   |
| 40 CFR 63.864(k)(1)(ii)<br>NESHAP Subpart I        | 60               | Scrubber Corrective Action  | When 3-hr block avg flow rate less than 59.3 gpm & dP lower than 7.6 in. H <sub>2</sub> O  | CPMS  | 66.b, 69         | Continuously<br>when BLS<br>fired          |
| 40 CFR 63.864(k)(2)(iv)<br>NESHAP Subpart MM)      | 61.c             | Std Violation   | When 6 or more 3 hr avg parameter values < min operating limits 6-month report period  | CPMS  | 66.b, 69         | Continuously<br>when BLS<br>fired          |
| 40 CFR 63.864(e)(10)<br><br>NESHAP Subpart MM      | 66.b<br><br>67   | Scrubber pressure drop and liquid flow rate<br><br>Establish Operating Parameters | Maintain Operating parameter limits (established 10/2020):<br>3-hr block avg flow rate no less than 59.3 gpm & dP no lower than 7.6 in. H <sub>2</sub> O | CPMS<br>Continuously<br>monitor scrubber<br>pressure drop and<br>liquid flow rate   | 66.b, 69         | Continuously<br>when BLS<br>fired          |

119. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 0.0165 gram/kilogram (0.033 pound/ton) black liquor solids from emissions unit 445D, as a daily arithmetic average (daa). Total reduced sulfur emissions must be measured in accordance with Condition 123.a. [LRAPA 33-070(3)(a)(C)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
120. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.25 kilogram/air-dried metric ton (0.50 pound/ton) of production from emissions unit 445D, as a daily

- arithmetic average (daa). Particulate matter emissions must be measured in accordance with Condition 123.b and 124. [LRAPA 33-070(3)(b)(C)(i)]
121. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from emissions unit 445D for a period or periods aggregating more than three (3) minutes in any one (1)-hour which is equal to or greater than 20% opacity. Compliance with this opacity standard must be monitored in accordance with Condition 124. [LRAPA 32-010(3) & LRAPA 33-070(3)(d)]
122. Applicable Requirement: In addition to the limits in Conditions 119 through 121, the permittee must take corrective action to return to highest and best practicable treatment and control if the #4 Smelt Dissolving Tank Scrubber (CD 445-447), 3-hour block average liquid flow, 3-hour block average liquid flow pH or 3-hour block average scrubber differential pressure deviates from an acceptable range. As of October 2020, the acceptable ranges are as follows: [LRAPA 34-016 and LRAPA 35-0210]
- 122.a. The scrubber minimum total liquid flow 3-hour block average is 59.3 gallons per minute (gpm), except for changes approved in writing by LRAPA which follow the procedure in Condition 123.e and 67. [Title V Subpart MM Condition 67]
- 122.b. The scrubber minimum liquid flow 3-hour block average pH is 10.4, except for changes approved in writing by LRAPA which follow the procedure in Condition 123.e.
- 122.c. The scrubber minimum differential pressure 3-hour block average is 7.6 inches water pressure, except for changes approved in writing by LRAPA which follow the procedure in Conditions 123.e and 67. [Title V Subpart MM Condition 67]
- 122.d. These deviations and the corrective actions must be recorded in accordance with Condition 124.

#### **Monitoring for Emissions Units: Smelt Dissolving Tank Vent, EU-445D**

[OAR 340-218-0050(3)(a)]

123. Monitoring Requirement: The following procedures and test methods must be used for certifying compliance with Conditions 119 and 120 from emissions unit EU-445D at monitoring point CDP445-164 (#4 DTV):
- 123.a. EPA Methods 16, 16A, 16B or a 16A/6C hybrid for TRS, as H<sub>2</sub>S, must be used at least quarterly for monitoring pertaining to Condition 119 except that testing may be semi-annual when the preceding six (6) source test results were less than 0.0124 gram/kilogram (0.025 pound/ton) black liquor solids. If semi-annual source test results equal or exceed 0.0124 gram/kilogram (0.025 pound/ton) black liquor solids, the frequency must revert to quarterly. [LRAPA 33-070(5)(b)(D)], This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
- 123.a.i. For Method 16A, the average emissions are calculated from three (3) 1-hour test results.
- 123.a.ii. For the Method 16A/6C hybrid, the average emissions are calculated from three (3) 1-hour test results.
- 123.b. In accordance with LRAPA 12-005, Definition for PM, EPA Method 5 must be used at least quarterly for monitoring pertaining to Condition 119 except that testing may be semi-annual when the preceding six (6) source tests were less than 0.187 kilogram/air dry metric ton (0.375 pound/ton) of production. [LRAPA 33-070(5)(c)(F)]
- 123.c. DEQ Method 5 must be used for measuring particulate matter emissions in accordance with the definition of “particulate matter” in LRAPA 12-005 to verify the emission factors for the PSELs from emissions unit EU-445D as required in Condition 179. The EPA and DEQ Method 5 test runs may be conducted simultaneously by using one (1) sample train.
- 123.d. The permittee must calculate emissions of total reduced sulfur and particulate matter in units of kilograms per metric ton of equivalent air-dried pulp production (kg/ADMT) by using the arithmetic average concentration and the stack flow rate obtained from the source test data in Conditions 123.a and 123.b and the daily average equivalent pulp production in Condition 85.c for EU-445D. This condition is LRAPA-only enforceable for total reduced sulfur pending EPA approval of Section 111(d) Plan.

- 123.e. The permittee may redetermine the scrubber liquid flow, scrubber liquid pH, or scrubber differential pressure emission action levels in Condition 122, as appropriate, based on historical data or other information and submit an application to LRAPA to change the applicable action level(s). The redetermined levels shall become effective upon approval in writing by LRAPA.
124. **Monitoring Requirement:** The permittee must continuously monitor the 3-hour block average liquid flow, or when that is not possible must monitor the liquid flow at least once each shift for Smelt Dissolving Tank Scrubber (CD445-147), in accordance with the facility's established written operating instructions, which must be approved in writing by LRAPA, for monitoring pertaining to Conditions 120, 121 and 122. [LRAPA 34-016 and LRAPA 35-0210]
- 124.a. The permittee must maintain an alarm on the scrubbing liquid flow rate to the scrubber that is triggered when the liquid flow rate deviates from the approved action level established by Condition 122.a. Corrective action must be taken when the scrubbing liquid flow rate deviates from the approved action level.
125. **Monitoring Requirement:** The permittee must continuously monitor the 3-hour block average liquid flow and liquid pH for Smelt Dissolving Tank Scrubber, CD445-164 (#4 DTV), in accordance with the facility's established written operating instructions, which must be approved in writing by LRAPA, for monitoring pertaining to Conditions 120, 121 and 122. [LRAPA 34-016 and LRAPA 35-0210]
- 125.a. Acceptable pH ranges will be established for each scrubber's liquid flow rate. The range proposed must be based upon statistical analysis of the data, where the acceptable range equals the average plus or minus two (2) standard deviations, or other statistical method approved by LRAPA. The permittees initial acceptable pH range is >pH10.4 per Condition 122.b and is set based on the permittee's study submitted to LRAPA on December 30, 2004, and accepted by LRAPA upon issuance of this permit.
- 125.b. The permittee may redetermine the action levels, as appropriate, based on historical data or other information and submit an application to LRAPA to change the applicable action level(s). The redetermined levels shall become effective upon approval by way of the appropriate permit revision procedures specified in OAR chapter 340 division 218.
- 125.c. The permittee must maintain an alarm on the scrubbing liquid pH that is triggered when the 3-hour block average liquid pH deviates from the approved action level established by Condition 125.a. Corrective action must be taken when the scrubbing liquid flow rate deviates from the approved action level.
- 125.d. When the continuous pH measurement is not possible or malfunctioning, the permittee may provide backup systems including but not limited to using once per shift manual samples and portable pH meter testing or use continuously monitored caustic flow to the scrubber as a surrogate for pH. Caustic flow may be measured with a flow measurement device including caustic metering pump speed, if such data can be correlated with pH. If the backup systems are utilized, the permittee must provide LRAPA with written information to establish the correlation between caustic flow and pH within 30 days of the first occurrence. If the backup systems are utilized or the facility does not exceed the 10% missing data allowance provided in Condition 192, the facility is in compliance with the continuous parameter monitoring requirement.
- 125.e. The Economizer Ash Mix Tank (TATA445-336) and the #4 Precipitator Ash Mix Tank (TA445-563) shall be permanently vented to the #4 Recovery Smelt Dissolving Tank (EU-445D) wet scrubber inlet.

**MISCELLANEOUS TRS EMISSION UNITS EU-275C and EU-275**

**Table 12. EU-275C and EU-275D Emission Limits and Standards**

| Applicable Requirement | Condition Number | Pollutant/Parameter | Limit/ Standard  | Monitoring Requirements |                  |             |
|------------------------|------------------|---------------------|--|-------------------------|------------------|-------------|
|                        |                  |                     |  | Method                  | Condition Number | Frequency   |
| 33-070(3)(d)           | 126              | Opacity             | 20%, 3 min in 60 min   | VE Periodic Monitoring  | 17               | Semi-annual |
| 33-070(3)(a)(E)(i)     | 127              | TRS                 | 0.078 kg/ADMT pulp<br>(0.156 lb/ADT)<br>daily arithmetic average | Periodic ST             | 128              | Annual      |

126. Applicable Requirement: The permittee must not cause or allow emissions from each kraft mill source, EU-275C and EU-275D which is equal to or greater than 20% opacity for a period exceeding three (3) minutes in any one (1) hour. Opacity must be monitored in accordance with Condition 17.a.iv. [LRAPA 32-010(3) and LRAPA 33-070(3)(d)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
127. The permittee must not cause or allow the emission of total reduced sulfur in excess of 0.078 kilogram/air-dried metric ton (kg/ADMT) (0.156 pound/air-dried ton (lb/ADT)) of production from all “Other Sources” listed in Table 12 of this permit for emission units EU- 275C and EU-275D, including categorically insignificant activities and aggregate insignificant activities but excluding Lime Kilns (EU-455), Recovery Furnace (EU-445C), Smelt Dissolving Tank Vent (EU-445D), as a daily arithmetic average (daa) in accordance with LRAPA 33-070(3)(a)(E)(i). Total reduced sulfur emissions must be monitored and measured in accordance with Condition 128. [LRAPA 33-070(3)(a)(E)(i)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.

**Table 13. EU-275C & EU-275D Devices and Descriptions**

| Emission Unit ID | Device ID                   | Device/Process Name                   |
|------------------|-----------------------------|---------------------------------------|
| EU-275C          | PS420-999                   | Kamyr Brown Stock Washer (BSW) System |
|                  | EQ420-047                   | BSW #1 Hood vent fan East             |
|                  | EQ420-018                   | Brown Stock Washer #1                 |
|                  | EQ420-046                   | BSW #2 Hood vent fan-West             |
|                  | EQ420-020                   | Brown Stock Washer #2                 |
|                  | PS420-107                   | Diffuser Washer                       |
|                  | TA420-096                   | Kamyr Foam Tower                      |
|                  | FU401-098                   | Kamyr Chip Bin                        |
|                  | TA186-120                   | VCE Compressor Fugitives              |
|                  | TA440-003                   | #3 Weak black liquor tank             |
|                  | TA440-004                   | #4 Weak black liquor tank             |
|                  | TA440-130                   | Multi-purpose tank                    |
| TA445-300        | #7 Strong black liquor tank |                                       |
| EU-275D          | EQ420-070                   | Kamyr 480 Bauer Refiner Chest Vent    |
|                  | TA420-014                   | Recaust Hot Water Tank                |
|                  | TA455-012                   | #5 Causticizer (1st in series of 5)   |
|                  | TA456-010                   | #6 Causticizer (2nd in series of 5)   |

**Monitoring for Emissions Unit: “Other Sources” of TRS, EU-275C and EU-275D**

[OAR 340-218-0050(3)(a)]

128. Monitoring Requirement: The permittee must measure total reduced sulfur emissions, as H<sub>2</sub>S, from the miscellaneous TRS sources listed in Condition 126, Table 12 (EU-275C & EU-275D devices) in accordance with the following source test procedures for monitoring pertaining to Condition 128: [33-070(5)(b)(C)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
- 128.a. Examine all prior source test data for miscellaneous TRS sources.
- 128.b. Source testing is not required for that group of miscellaneous TRS sources where the most recent representative test, or the average emission rate from prior source test data for each individual source demonstrates that its emissions are less than 3% of the limit (0.0023 kg/admt pulp as H<sub>2</sub>S, (0.0047 lbs per adt)) combined pulp production and the aggregate average emissions rates add up to less than 10% of the limit (0.0078 kg/admt pulp as H<sub>2</sub>S (0.0156 lbs per adt)) combined pulp production. For those sources in this group, the permittee must calculate TRS emissions using the most recent representative test result or the average emission rate from prior test data. Unless otherwise specified in this permit, the permittee must conduct all testing required by this permit in accordance with DEQ’s Source Sampling Manual and the LRAPA-approved pretest plan.  
[LRAPA 33-070(5)(b)(C)]
- 128.c. At least once per year, vents from “Other Sources” of TRS (EU-275C & EU 275D) that have not met the testing reduction criteria of 3%/10% specified in Condition 128.b, must be sampled to demonstrate the representativeness of the emissions of TRS using EPA Method 16, 16A, 16B, 16C or continuous emissions monitors. Sampling must consist of three (3) separate consecutive runs, each test run must be a minimum of 60 minutes. Continuous emissions monitors must be operated for three (3) consecutive hours in accordance with the DEQ Continuous Monitoring Manual.
- 128.d. Successive annual tests must be conducted at least 6 months apart.
- 128.e. During each test, the permittee must record the following information:
- 128.e.i. Average daily equivalent pulp production (ADMT), black liquor solids (BLS) flow (gpm), black liquor solids (weight %), total reduced sulfur emissions (ppm); and
- 128.e.ii. Average daily equivalent pulp production (ADMT) must be calculated in accordance with Conditions 85.c or 112.c. Total pulp mill production must be used for all other sources listed in Condition 126, Table 12 (EU-275C & EU-275D devices) to calculate kg/ADMT (lb/ADT).
- 128.f. If a source in Condition 126, Table 12 (EU-275C & EU-275D devices) meets the criteria in Condition 128.b, above, then that individual source no longer needs to be tested annually. If a new miscellaneous TRS source is installed and/or identified and has never been tested, the permittee must test that source within one (1) year of operating and/or identifying the new miscellaneous TRS source unit.
- 128.g. A source test plan, identifying all miscellaneous TRS sources to be tested, must be submitted in writing to LRAPA within 45 days prior to the planned source test.
- 128.h. A source test report, which includes the results of the source test(s), must be submitted to LRAPA for review and approval within 60 days of completing the source test, unless an alternative submittal date is approved by LRAPA. A calculation in kg TRS as H<sub>2</sub>S/ADMT (lb/ADT) of all misc. TRS sources listed in Table 13 of this permit must be included in the source test report at the time of submittal. Total pulp mill production recorded during the test, as specified in Condition 128.e, must be used to calculate kg/ADMT (lbs/ADT) of individual miscellaneous TRS sources to determine compliance with the standard in Condition 126.

**POWER BOILER, EMISSIONS UNIT EU-150A**

**Table 14. EU-150A Emission Limits and Standards**

| Applicable Requirement                  | Condition Number | Pollutant/Parameter   | Limit/ Standard   | Monitoring Requirements    |                           |  |
|---|------------------|---|---|----------------------------|---------------------------|--|
|   |                  |   |   | Method                     | Condition Number          | Frequency  |
| 32-010(3)                               | 129              | Opacity   | 20%; 3 minutes in 60 minutes  | Recordkeeping              | 17.a.i, 17.a.ii and 135.a | Daily on startup with ULSD, weekly when burning ULSD |
| 32-020(1)(b)(B)                         | 130              | PM/PM <sub>10</sub>   | 0.15 gr/dscf, average of 3 test runs  | Recordkeeping/ Periodic ST | 135                       | Daily/Annually when burning ULSD No. 2 fuel oil      |
| 42-0080 Regional Haze SAFO              | 131              | Fuel Use  | Use only NG or ULSD No 2. fuel oil.   | Recordkeeping/ Periodic ST | 135, 12 and 178.c         | Daily/Annually during ULSD No. 2 fuel oil burning    |
| Regional Haze Round II, SAFO No. 208850 | 132              | Install NO <sub>x</sub> CEM & Measure NO <sub>x</sub> Emissions | 0.25 lb NO <sub>x</sub> per MMBtu by January 31, 2025, on a 7-day rolling average | CEMS                       | 174, 175                  | Continuously   |
| Regional Haze Round II, SAFO No. 208850 | 133              | NO <sub>x</sub> PSEL  | 179 TPY NO <sub>x</sub> PSEL as a 12-month rolling average                        | CEMS                       | 176                       | Continuously   |
| 40 CFR Part 63 Subpart DDDDD            | 134              | HAPs  | See rule  | See rule                   | NA                        | See rule   |

129. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from emissions unit EU-150A to exceed an opacity equal to or greater than 20% for a period exceeding three (3) minutes in any one (1) hour. Opacity must be monitored in accordance with Conditions 17.a.i (daily upon startup on ULSD), 17.a.ii (weekly when burning ULSD) and 135. [LRAPA 32-010(3)]
130. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.15 grain per dry standard cubic foot of exhaust gas from emissions unit EU-150A, corrected to 50% excess air. Particulate matter emissions must be monitored in accordance with Condition 135. [LRAPA 32-020(1)(b)(B) and 32-020(5)(b)]
131. Applicable Requirement: In accordance with Regional Haze Round II Condition 171, the permittee may only burn natural gas or ULSD No 2. Fuel oil in emissions unit EU-150A. Fuel must be monitored in accordance with Condition 135 as well as Conditions 12 and 178.c (PSEL). [42-0080 and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]
132. Applicable Requirement: The permittee must install, calibrate, maintain, and operate a NO<sub>x</sub> Continuous Emission Monitoring System (CEMS) and measure NO<sub>x</sub> emissions from EU-150A (Power Boiler) in accordance Regional Haze Round II Condition 174. The permittee must demonstrate proper installation of the NO<sub>x</sub> CEMS following EPA Procedure 1 (40 CFR 60, Appendix F, Procedure 1), Performance Specification 2 (40 CFR Appendix B, Performance Specification 2) and DEQ's CEM Manual, Rev 2018, no later than March 31, 2023. On or after January 31, 2025, the permittee must meet the emission limit of 0.25 lb NO<sub>x</sub>/MMBtu on a 7-day rolling average from the EU-150 in accordance with Condition 175. [Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]

133. Applicable Requirement: In accordance with Regional Haze Round II Condition 176, on or after December 31, 2025, the permittee's assigned PSEL for the Power Boiler (EU-150A) is 179 tons NOx per year, as a 12-month rolling average. [Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]
134. Applicable Requirement: The permittee must comply with all applicable standards contained in 40 CFR Part 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters for EU-150A. [40 CFR 63.7490]

**Monitoring for Emissions Unit: Power Boiler, EU-150A**

[OAR 340-218-0050(3)(a)]

135. Monitoring Requirement: The permittee must maintain daily and annual records of all fuels used in emissions unit EU-150A during each calendar year for monitoring pertaining to Conditions 129, 130 and 131. [LRAPA 35-0120, 34-016 and 42-0080]
- 135.a. If ULSD No. 2 fuel oil is burned in Power Boiler EU-150A and provides more than 5% of the heat input per calendar year, the following procedures and test methods must be used for the Power Boiler for certifying compliance when the boiler is burning ULSD No. 2 fuel oil:
- 135.a.i. If two (2) or more visible emissions tests during the permit term result in 20% or more opacity (Method 9 basis), then LRAPA may request for that year that a DEQ Method 5 must be used annually to measure particulate matter emissions, while burning ULSD No. 2 fuel oil unless the results from two (2) consecutive source tests are less than 75% (0.11 gr/dscf) of the grain-loading limit in Condition 130, then no further source testing must be required during the permit term. If ULSD No. 2 fuel oil is used in a boiler at the end of the year because of a natural gas curtailment, the source test must be performed within 45 days of the onset of burning ULSD No.2 fuel oil. If ULSD No. 2 fuel oil is used in the boiler and the 5% heat input test requirement is triggered within 45 days of the end of the calendar year, the DEQ Method 5 test may be used to represent both the current and following year.
  - 135.a.ii. During or immediately after startup, except for the visual interferences in Condition 135.c, the permittee must conduct a 6-minute visible emission survey of each monitoring point following the general procedures outlined in EPA Method 22. Condensed water vapor is not considered an emission for the purposes of this survey method. The visible emission surveys will be performed by employees or contractors of the permittee who have been trained in the general procedures for determining the presence of visible emissions.
  - 135.a.iii. When burning liquid fuels (ULSD No. 2 fuel), the permittee must conduct a weekly 6-minute visible emission survey of the monitoring point following the general procedures outlined in EPA Method 22. Condensed water vapor is not considered an emission for the purposes of this survey method. The visible emission surveys will be performed by employees or contractors of the permittee who have been trained in the general procedures for determining the presence of visible emissions. If the surveys conducted during three (3) consecutive observation periods show no visible emissions, the surveys need only be done once per month.
    - 135.a.iii.A. If any visible emissions are identified for any of the above emissions units for more than 5% of the survey time (18 seconds), the permittee must do the following:
      - 135.a.iii.A.(1). Take corrective action to eliminate the visible emissions. The permittee must record the corrective action in a log; or Modified EPA Method 9 must be used to determine opacity in accordance with the DEQ's Source Sampling Manual. The Modified EPA Method 9 opacity must be conducted on the affected monitoring point within 24 hours. Each Modified EPA Method 9 observation period must be for a minimum of

six (6) minutes unless any one (1) reading is greater than 20% opacity, in which case the observation period must be for a minimum of 60 minutes or until a violation of the emissions standards identified in Condition 130, is documented, whichever is a shorter period. The permittee must record the results of the Modified EPA Method 9 test.

- 135.b. If a Method 9 opacity exceedance occurs, the survey and/or observation frequency for the affected monitoring point will start over with daily observations.
- 135.c. If the observer is unable to conduct the survey and/or Modified EPA Method 9 tests due to visual interferences caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, or night-time darkness, which impair visibility, the observer must note such conditions on the data observation sheet and make at least three (3) attempts to conduct the surveys and/or tests at approximately 2-hour intervals throughout the day. For night-time darkness on an oil startup, the observer must initially record whether surrogate parameters on the boiler indicate clean stack conditions, then make an initial attempt to complete the visible emission survey by 10:00 a.m. the next mill operating dayshift. In no case shall the initial attempt follow the startup by more than 20 hours. Surrogate parameters may include, but are not limited to, boiler excess O<sub>2</sub>, CO, relative quantities of ULSD No. 2 fuel oil and natural gas simultaneously fired, and any firebox camera that indicates proper oil combustion and a clean stack condition. If the visible emissions survey and/or test could not be conducted on the regularly scheduled day due to interferences, the observer must conduct the test on the following day.
- 135.d. Recordkeeping for Method 22 visible emission surveys may use Method 22-type standard forms, or computer records that document which individual made the observation, the date and time of the observation, and the nature of the observation.
- 135.e. Prior notification and a pre-test plan are not required to be submitted to LRAPA for each visible emissions survey or Modified EPA Method 9 test.
- 135.f. During each source test, the permittee must record fuel type and usage, opacity, and steam production.
- 135.g. The source tests must be separated by a minimum period of six (6) months.
- 135.h. A particulate matter source test and visible emissions observations are not required for monitoring pertaining to Conditions 129 and 130 while burning natural gas in emissions units EU-150A.

**PACKAGE BOILER, EMISSIONS UNIT EU-150B**

**Table 15. EU-150B Emission Limits and Standards**

| Applicable Requirement  | Condition Number | Pollutant/Parameter | Limit/ Standard                         | Monitoring Requirements   |                  |  |
|---|------------------|---------------------|---|---|------------------|--|
|   |                  |                     |   | Method  | Condition Number | Frequency                                    |
| 40 CFR 60.43b(f), 60.42(a)(2) (NSPS Subpart Db), 60.11(b) and (c), LRAPA 46-535(3)(b) & (d), 2021 RH SAFO | 136              | Opacity             | ≤20%, 6 minutes in 60 minutes ≤27%      | COMs or Method 9 (when COMs not operable) burning ULSD No. 2 fuel oil, n/a on natural gas | 147 or 17.a.ii.B | Continuously or Weekly                       |
| 32-010(1) & (3)   | 137              | Opacity             | 20%, except for 3 minutes in 60 minutes | Recordkeeping or Method 9 (when COMs not operable)  | 147 or 17.a.ii.B | Weekly                                       |
| 32-030(1)(a)  | 138              | PM/PM <sub>10</sub> | 0.10 gr/dscf, average of 3 test runs    | Testing and Recordkeeping   | 148              | Daily/Annually when burning exclusively ULSD |

| Applicable Requirement                             | Condition Number | Pollutant/Parameter | Limit/ Standard                               | Monitoring Requirements   |                   |  |
|--|------------------|---------------------|---|---------------------------|-------------------|--|
|  |                  |                     |   | Method                    | Condition Number  | Frequency                                    |
| 40 CFR 60.42(a)(1)                                 | 139              | PM                  | ≤0.10 lb/MMBtu (43ng/J)                       | Testing and Recordkeeping | 148               | Daily/Annually when burning exclusively ULSD |
| 40 CFR 60.42b(j), 46-535(3)(d), & 2021 RH SAFO     | 140              | SO <sub>2</sub>     | ≤0.0015% sulfur (15ppm) in ULSD No.2 fuel oil | Recordkeeping             | 149               | Continuously                                 |
| 40 CFR 60.43(a)(1) and 32-070(2)(a),               | 141              | SO <sub>2</sub>     | 0.80 lb/MMBtu, liquid fuels                   | Recordkeeping             | 149               | Daily  |
| 40 CFR 60.44b(a), 40 CFR 60.44(a)(1), 46-535(3)(d) | 142              | NO <sub>x</sub>     | ≤0.20 lb NO <sub>x</sub> /MMBtu, heat input   | CEM                       | 150               | Daily  |
| 32-007   | 143              | FGR System          | O & M   | Recordkeeping             | 151               | Monthly                                      |
| 42-0080 and 2021 RH SAFO                           | 144              | Fuel Use            | Use only NG & ULSD No. 2 fuel oil             | Recordkeeping             | 152, 12 and 178.c | Daily  |
| 40 CFR Part 63 Subpart DDDDD                       | 145              | HAPs                | See rule                                      | See rule                  | NA                | See rule                                     |

136. Applicable Requirement: The permittee must not cause to be discharged into the atmosphere from emissions unit EU-150B any gases which exhibit greater than 20% opacity (6-minute average) except for one (1) 6-minute period per hour (60 minutes) of not more than 27% opacity when burning ULSD No.2 fuel oil only. This limit does not apply during periods of startup, shutdown and malfunction under 40 CFR 60.46b(a). Opacity must be measured in accordance with Condition 147 (or Condition 17.a.ii.B when COMS is inoperable). [40 CFR 60.43b(f), 60.11(b) and (c), LRAPA 46-535(3)(b & d)]
137. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from emissions unit EU-150B for a period or periods aggregating more than three (3) minutes in any 1-hour, which is equal to or greater than 20% opacity. Opacity must be measured in accordance with Condition 147 (or Condition 17.a.ii.B when COMS is inoperable). [LRAPA 32-010(1) & (3)]
138. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.10 grain per dry standard cubic foot from emissions unit EU-150B, corrected to 50% excess air. Particulate matter emissions must be measured in accordance with Condition 148. [LRAPA 32-030(1)(a)]
139. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 43 ng/J (0.10 lb/MMBtu) from emissions unit EU-150B. Particulate matter emissions must be monitored in accordance with Condition 148. [40 CFR 60.42(a)(1)].
140. Applicable Requirement: In accordance with Regional Haze Round II Condition 171 and 40 CFR 60.41b, the permittee must not burn any ULSD No 2. Fuel oil containing more than 0.0015% sulfur by weight (15 ppm), in emissions unit EU-150B. Fuel use must be monitored in accordance with Condition 152 as well as Conditions 12 and 178.c (PSEL). [40 CFR 60.42b(d) & (j), LRAPA 46-535(3)(d) and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]
141. Applicable Requirement: The permittee must not cause, suffer, or allow the emission into the atmosphere of sulfur dioxide in excess of 0.80 pounds/million British thermal unit (lbs/MMBtu) heat input, maximum two-hour average, when liquid fuel (ULSD No. 2 fuel) is burned in emissions unit EU-150B (heat input >250 MMBtu per hour). Sulfur dioxide emissions must be monitored in accordance with Condition 152 and Conditions 12 or measured in accordance with Condition 184. [40 CFR 60.43(a)(1), LRAPA 32-070(2)(a)]

142. Applicable Requirement: The permittee must not cause or allow the emission of nitrogen oxides (as NO<sub>2</sub>) in excess of 86 ng/J (0.20 pounds/million British thermal unit (lbs/MMBtu)) heat input from emissions unit EU-150B when burning any fuel. Nitrogen oxides emissions must be monitored in accordance with Condition 150. [40 CFR 60.44b(a)(1)(ii), 40 CFR 60.11(d), LRAPA 46-535(3)(d)]
143. Applicable Requirement: The permittee must operate the existing flue gas recirculation (FGR) fan. The fan must be monitored daily for operating status, and, if found to be down for maintenance reasons, the FGR fan must be repaired at the next available shutdown on the boiler, EU-150B, provided that the boiler continues to meet the requirements of Condition 142 as monitored according to Condition 150. Inspection, operation and maintenance records must be available to LRAPA upon request. [LRAPA 32-070, and 40 CFR 60.11(d)]
144. Applicable Requirement: In accordance with Condition 171, the permittee may burn only natural gas and ULSD No. 2 fuel oil in the emission unit EU-150B. Fuel use must be monitored in accordance with Condition 152 as well as Conditions 12 and 178.c (PSEL). [42-0080 and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]
145. Applicable Requirement: The permittee must comply with all applicable standards contained in 40 CFR Part 63 Subpart DDDDD – National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters for EU-150B [40 CFR 63.7490]
146. Applicable Requirement: Compliance with applicable standards may be determined using non-reference sampling methods in accordance with 40 CFR 60.11(g).

### **Monitoring for Emissions Unit: Package Boiler, EU 150B**

[OAR 340-218-0050(3)(a)]

147. Monitoring Requirement: The permittee must monitor visible emissions to demonstrate compliance with Condition 136 from emissions unit EU-150B by calibrating, maintaining, and recording the output of a continuous opacity monitoring system (COMS) when burning liquid fuels (ULSD No. 2 fuel oil). The permittee must monitor visible emissions to demonstrate compliance with Condition 137 from EU-150B by either using the COMS or the permittee may conduct a Method 9 test in accordance with 40 CFR 60.48(b)(a)(1) through (3), when burning liquid fuels (ULSD No. 2 fuel oil). However, the Method 9 testing shall only be required as a backup to the COMS monitoring in case of monitor failure, when burning ULSD No. 2 fuel oil, otherwise the COMS monitoring must satisfy the Method 9 monitoring requirements and the applicable opacity limit when using the COMS must always be as per Condition 136. If the COMS shows an exceedance of the Condition 136 (20%/27%) standard and the permittee continues to burn ULSD No. 2 fuel oil, then a Method 9 test must be conducted as soon as possible to demonstrate compliance with Condition 137. No visible emissions monitoring (including COMS) must be required when burning natural gas. When burning a combination of gas and liquid fuels (ULSD No. 2 fuel oil), the monitoring requirements for ULSD No. 2 fuel oil must be followed. The procedures in the Federal New Source Performance Standards (NSPS) must be used for COMS operation, recordkeeping, and reporting. The COMS must meet the performance specifications in 40 CFR part 60, appendix B. The quality assurance procedures in 40 CFR part 60, appendix F must be implemented. Zero and span calibration checks must be conducted daily. The data must be reduced to and reported as 6-minute averages. [40 CFR 60.48b and 60.13]
- 147.a. The COMS must complete a minimum of one (1) cycle of sampling and analyzing for each successive 10-second period and one (1) cycle of data recording for each successive 6-minute period. [40 CFR 60.13(e)(1)]
- 147.b. The permittee must observe all other monitoring requirements as in [40 CFR 60.13].
- 147.c. Neutral density filter audits shall not be required for EU-150B when COMS operation is not required. The COMS must be maintained in operational condition by completing the normal preventive maintenance schedule so that it is online and calibrated if the permittee burns ULSD No. 2 fuel oil in EU-150B; however, there is no requirement to maintain if the permittee burns only natural gas in EU-150B. If the permittee burns ULSD No. 2 fuel oil in EU-150B, then a neutral density filter audit must be completed as soon as it is safe and practical, but not later than six (6) weeks from the advent of ULSD No. 2 fuel oil burning. If ULSD No. 2 fuel oil burning

continues, subsequent neutral density filter audits must be conducted in accordance with Conditions 65.f and 65.g.

148. **Monitoring Requirement:** The following procedures and test methods must be used for certifying compliance with Condition 138 from emissions unit EU-150B at monitoring point EQ150-301: [LRAPA 35-0120, 34-016 and 42-0080]
- 148.a. EPA Method 5 and DEQ Method 5 testing must be performed while burning exclusively liquid fuels (ULSD No. 2 fuel oil) to measure PM emissions for compliance with Conditions 138 and 139 (EPA Method 5) or Condition 179 (DEQ Method 5 for PSEL verification testing).
  - 148.b. If any source test is required, the source tests must be separated by a minimum period of six (6) months.
  - 148.c. During each test that may be required, the permittee must record the following information:
    - 148.c.i. Type and amount of oil usage (ULSD No. 2 fuel oil), and steam production; and
    - 148.c.ii. Opacity, as measured by the COMS required in Condition 163 or by Method 9, exhaust temperature levels, excess oxygen levels, and stack flows (dscfm).
  - 148.d. A report including the following information must be submitted to LRAPA for review and approval within 45 days of completing each source test for emission unit EU-150B, unless otherwise approved by LRAPA:
    - 148.d.i. Summary of the results of the source test,
    - 148.d.ii. Results of the visible emissions observations,
    - 148.d.iii. Exhaust temperatures; and
    - 148.d.iv. Measured excess oxygen levels during the tests.
149. **Monitoring Requirement:** While burning ULSD No. 2 fuel oil in emissions unit EU-150B, the permittee must demonstrate that the oil meets the definition of ultra-low sulfur distillate oil in accordance with 2021 RH SAFO (ULSD 0.0015% S by wt.), 40 CFR 60.42b(j) (very low sulfur distillate (<0.5% S)), and LRAPA 46-535(b), by maintaining fuel receipts from the fuel supplier for monitoring pertaining to Conditions 140 and 141. The receipts must certify that the oil complies with the specifications for ULSD No. 2 fuel oil, as defined by the American Society of Testing and Materials in ASTM D396-78 or its equivalent. The oil need not meet the fuel nitrogen content of 0.05 weight percent or less. [40 CFR 60.49b(r), 60.43(a)(1), 60.42b(j), LRAPA 46-553 and 32-065(2)(b) and Stipulated Agreement and Final Order, Order No. 208850, fully executed on August 9, 2021, entered under OAR340-223-0110(b)(C)]
150. **Monitoring Requirement:** The permittee must install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring nitrogen oxides emissions discharged to the atmosphere from emissions unit EU-150B and record the output of the system (CMS) in accordance with 40 CFR 60.48b(b) and 40 CFR 60.13 for monitoring pertaining to Condition 142. [LRAPA 35-0210]
- 150.a. The procedures under 40 CFR 60.13 must be followed for installation, evaluation, and operation of the continuous monitoring system. [40 CFR 60.48b(e)]
  - 150.b. The continuous monitoring system required under Condition 150 must be operated and data recorded during all periods of operation of emissions unit EU-150B, except for continuous monitoring system breakdowns and repairs. Data must be recorded during calibration checks, and zero and span check adjustments.
  - 150.c. The permittee must determine compliance with the nitrogen oxides standard in Condition 142 on a continuous basis by using a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(3)]
  - 150.d. The 1-hour average nitrogen oxides emission rates measured by the continuous monitoring system required by Condition 150 must be expressed in ng/J or lb/million Btu heat input and must be used to calculate the average emission rates for comparison with the limit in Condition 142. The 1-hour averages must be calculated using the data points equally spaced over each 1-hour period. At least

- two (2) data points must be used to calculate each 1-hour average. [40 CFR 60.13(h) and 40 CFR 60.48b(d)]
- 150.e. The span value of the CEM must be 500 ppm while burning liquid fossil fuel (ULSD No. 2 fuel oil), natural gas or a mixture of both. [40 CFR 60.48b(e)(2)]
- 150.f. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, or repairs, emission data will be obtained by using standby monitoring systems, EPA Method 7E, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam-generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. The standby CMS for Nitrogen Oxides must be parameter monitoring on the EU150B Flue Gas Recirculation (FGR) fan. If the FGR fan is operating under controlled automatic conditions while the CEM is temporarily down for the reasons above, the documentation of FGR operation must serve as the standby monitoring. [40 CFR 60.48b(f)]
- 150.g. The conversion procedures in Condition 150.d must be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/million Btu). When a continuous monitoring system for measuring oxygen is selected, the measurement of the pollutant concentration and oxygen concentration must each be on a consistent basis (dry).
151. **Monitoring Requirement:** The permittee must record in a log the results of the inspections and corrective actions taken for maintaining the flue gas recirculation system for the package boiler, EU-150B, for monitoring compliance with Condition 143. [LRAPA 35-0210]
152. **Monitoring Requirement:** The permittee must maintain daily and annual records of type and amount of fuel usage burned in the package boiler, EU-150B, for monitoring compliance with Condition 144. [LRAPA 35-0210]
153. **Recordkeeping and Reporting Requirements:** To comply with the reporting requirements for EU-150B (Package Boiler) as required per NSPS Subpart Db, including the requirements of 40 CFR 60.49(b), and 40 CFR 60.7(c), (d), and (e), the permittee must comply with the following:
- 153.a. The permittee must keep daily records including date, hourly average ppm nitrogen oxides, and 30-day rolling average nitrogen oxides as per Condition 150.
- 153.b. The permittee must maintain and report excess emissions of NO<sub>x</sub> (all fuels) or opacity (liquid fuels only) on a quarterly basis, including reasons for the excess emissions, if they were associated with a startup, shutdown or malfunction, and corrective actions taken as per Conditions 194, 195 and 196.
- 153.c. The permittee must provide recordkeeping to demonstrate compliance with the SO<sub>2</sub> emission standards under 40 CFR 60.42b(j)(2) and 60.49b(r), by maintaining fuel receipts to document the use of only very low sulfur oil (ULSD No. 2 fuel oil) and that the oil meets the definition of distillate oil as defined in 40 CFR 60.41b by complying with the requirements of Conditions 152, 12 and 200.a.i.
- 153.d. The permittee must maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of EU-150B, the Package Boiler; any malfunction of the air pollution control equipment; of any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
- 153.e. The permittee must provide records retention of five (5) years as per Conditions 192 and 193.
- 153.f. The permittee must send the reports required by 40 CFR 60.49b(h) to the authorities identified in Condition 205.
- 153.g. The permittee must report the following information within 30 days of the end of each calendar 6-month period to the LRAPA office, or alternatively to streamline the reporting deadlines, the permittee must report the following information within 45 days of the end of each calendar 6-month period with the Title V semi-annual and annual reports at the reporting deadlines in Conditions 197 (August 15) and 198 (March 15): [40 CFR 60.49b(h)]

153.h. Excess emission reports for EU-150B. If there are no excess emissions during the calendar quarter, the permittee must submit a report semi-annually stating that no excess emissions occurred during the semi-annual reporting period.

**OTHER EMISSIONS UNITS**

**Table 16. Other Emission Units Emission Limits and Standards**

| EU/Device ID   | Applicable Requirement      | Condition Number | Pollutant/Parameter | Limit/Standard                                | Monitoring Requirements                        |                    |  |
|--|-----------------------------|------------------|---------------------|---|--|--------------------|--|
|  |                             |                  |                     |   | Method   | Condition Number   | Frequency  |
| EU-310 (TA310-232, TA310-243, & TA310-254, FU310-999E)<br>EU-330 (Cyclone FU330-999) | 32-010(3)<br>33-070(3)(d)   | 154              | Opacity             | 20%, 3 minutes in 60 minutes                  | VE Periodic Monitoring                         | 17.a.iii.D         | Monthly  |
|  | 32-015(2)(c)                | 155              | PM/PM <sub>10</sub> | 0.10 gr/dscf                                  | VE Periodic Monitoring<br>I&M<br>Recordkeeping | 17.a.iii.D,<br>159 | Monthly  |
|  | 32-007                      | 157              | I&M                 | NA  | I&M<br>Recordkeeping                           | 159                | Monthly  |
| EU-715B (FA715-122)  | 32-010(3) &<br>33-070(3)(d) | 154              | Opacity             | 20%, 3 minutes in 60 minutes                  | VE Periodic Monitoring                         | 17.a.iii.C         | Monthly June through September for device FA715-122 only |
| EU-715A & 715B   | 32-015(2)(a)(B)(ii)         | 156              | PM/PM <sub>10</sub> | 0.15 gr/dscf                                  | VE Periodic Monitoring<br>I&M<br>Recordkeeping | 17.a.iii.C,<br>166 | Monthly  |
| EU-310 Chip Handling System (FU310-999)  | 32-045                      | 158              | PM                  | PM ≤ process rate allocated in LRAPA 32-08010 | ST or Engineering Estimate                     | 160, 166           | Not required   |

154. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from EU-310 (Red Rocket Cyclones ADS 1-3 (TA310-232, TA310-243 & TA310-254), EU-330 Cyclone (FU330-999) and EU-715B (FA715-122) to exceed an opacity equal to or greater than 20% for a period exceeding three (3) minutes in any one (1) hour. Opacity must be monitored in accordance with Condition 17. [LRAPA 32-010(3) & 33-070(3)(d)]
155. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.10 grain per dry standard cubic foot from emissions units EU-310, (chip ADS cyclones TA310-232, TA310-243, TA310-254 & Chip Handling Belts FU310-999E), and EU-330 (fines bin cyclone FU330-999). Particulate matter emissions must be monitored in accordance with Condition 17.a.iii.D and 159 and measured in accordance with Condition 166. [LRAPA 32-015(2)(c)]
156. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter in excess of 0.15 grain per dry standard cubic foot from paper machine emission units 715A (Wet End) and 715B (Dry End). Particulate matter emissions must be monitored in accordance with Condition 17.a.iii.C and measured in accordance with Condition 166. [LRAPA 32-015(2)(a)(B)(ii)]
157. Applicable Requirement: At least once per month, the permittee must inspect emissions units EU-310 (drop points for chip cyclone devices TA310-232, TA310-243, and TA310-254) and Chip Handling Belts FU310-999E and EU-330 (fines bin cyclone FU-330-999) and repair, if necessary, all material transfer points causing excessive fugitive emissions which leave the property boundaries, if the devices operate more than 10 days per month. Inspections must be monitored in accordance with recordkeeping in Condition 159. [LRAPA 32-007 and 48-015(2)(a)]

158. Applicable Requirement (Process Weight Rule): The permittee must not cause or allow the emission of particulate matter in any one (1) hour from EU-310 (Chip Handling System (FU310-999) in excess of the amount shown in LRAPA 32-8010 as required in LRAPA 32-045 for the process weight allocated to that process. Particulate matter emissions must be monitored in accordance with Condition 160 for EU-310 chip handling device FU310-999. No further monitoring, testing, or recordkeeping is required. [LRAPA 32-045 & 32-8010]

**Monitoring for Other Emissions Units**

[OAR 340-218-0050(3)(a)]

159. Monitoring Requirement: The permittee must record in a log the results of the inspections and any corrective actions taken for the following emissions units: EU-310 (drop points for Chip Cyclone devices TA310-232, TA310-243, and TA310-254.), EU-330 (fines bin cyclone FU-330-999) and for Chip Handling Belts FU310-999E, once per month for monitoring pertaining to Conditions 154, 155 and 157. [LRAPA 34-016]
160. Monitoring Requirement: For EU310 device FU310-999, or other similar chip-handling equipment, the amount of materials introduced to the process during the source test must be used to determine the process weight on LRAPA 32-8010 as required in LRAPA 32-045. A reasonable engineering estimate may be used if no direct measurement is possible or practical to determine the process weight. Monitoring must be according to Condition 166. [LRAPA 34-016]

**INSIGNIFICANT ACTIVITIES**

**Table 17. Insignificant Activities Requirements**

| Applicable Requirement                   | Condition Number | Pollutant/Parameter | Limit/Standard  | Monitoring Requirements |                  |
|--|------------------|---------------------|---|-------------------------|------------------|
|  |                  |                     |   | Method                  | Condition Number |
| General applicable requirements for IEUs | 161              | See Condition 161   | Various   | Not required            | 166              |
| 32-010(3) & 33-070(3)(d)                 | 162              | Opacity             | 20%, 3 minutes in 60 minutes                          | Not required            | NA               |
| 32-030(1)                                | 163              | PM/PM <sub>10</sub> | 0.10 gr/dscf  | Not required            | NA               |
| 32-015(2)                                | 164              | PM/PM <sub>10</sub> | 0.10 gr/dscf  | Not required            | NA               |
| 33-070(3)(c)(E)(i)                       | 165              | TRS                 | 0.078 kg/ADMT (0.156 lb/ADT) daily arithmetic average | Not required            | NA               |
| 40 CFR Part 63, Subpart ZZZZ             | 167              | HAPs                | Work Practices for emergency-use generators           | Not Required            | NA               |

161. Applicable Requirement: LRAPA acknowledges that insignificant emissions units (IEUs) identified by rule as either categorically insignificant activities or aggregate insignificant emissions as defined in LRAPA title 12 exist at facilities required to obtain an LRAPA Title V Operating Permit. In general, the requirements that could apply are incorporated as follows:
- 161.a. LRAPA 32-010(3) (20% opacity)
  - 161.b. LRAPA 32-030 (0.10 gr/dscf corrected to 12% CO<sub>2</sub> or 50% excess air for fuel burning equipment)
  - 161.c. LRAPA 32-015(2)(c) (0.10 gr/dscf for non-fugitive, non fuel-burning equipment)
  - 161.d. LRAPA 32-045 (process weight limit for non-fugitive, non fuel-burning equipment)

162. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere to exceed an opacity equal to or greater than 20% for a period exceeding three (3) minutes in any one (1) hour from any categorically insignificant activity or any activity included in the aggregate insignificant emissions. Opacity must be measured in accordance with Condition 166. [LRAPA 32-010(3) and 33-070(3)(d)]
163. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter, for any 3-hour average period, in excess of 0.10 grains per dry standard cubic foot, corrected to 12% CO<sub>2</sub> or 50% excess air, from any fuel burning equipment and refuse burning equipment that is a categorically insignificant activity or any activity included in the aggregate insignificant emissions. Particulate matter emissions must be measured in accordance with Condition 166. [LRAPA 32-030(1)]
164. Applicable Requirement: The permittee must not cause or allow the emission of particulate matter, for any 3-hour average period, in excess of 0.10 grains per dry standard cubic foot, from any non-fugitive air contaminant source other than fuel burning and refuse burning equipment that is a categorically insignificant activity or any activity included in the aggregate insignificant emissions. Particulate matter emissions must be measured in accordance with Condition 166. [LRAPA 32-015(2)]
165. Applicable Requirement: The permittee must not cause or allow the emission of total reduced sulfur in excess of 0.078 kg/ADMT kilogram/metric ton (0.156 lb/ADT (pound/ton)) of production from all categorically insignificant activity and all activities included in the aggregate insignificant emissions in addition to the “other sources of TRS” listed in Condition 127, as a daily arithmetic average (daa) in accordance with LRAPA 33-070(3)(a)(E)(i). Total reduced sulfur emissions must be measured in accordance with Condition 166. [LRAPA 33-070(3)(a)(E)(i)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
166. Monitoring Requirements: Unless otherwise required by this permit or an applicable requirement, LRAPA is not requiring any testing monitoring, recordkeeping, or reporting for any of the applicable emissions limits or standards that apply to IEUs or EU-310 and EU715A & B. However, if testing were performed for compliance purposes, the permittee would be required to use the test methods identified in and perform the testing in accordance with DEQ’s Source Sampling Manual. [LRAPA 35-0120]

### **RICE (Reciprocal Internal Combustion Engine) NESHAP FOR EMERGENCY GENERATORS**

167. Applicable Operating Conditions Requirements: The permittee must operate any emergency stationary RICE according to the requirements in Conditions 167.a through 167.c. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, Subpart ZZZZ, any operation other than emergency operation and maintenance and testing, as specified in Conditions 167.a through 167.c, and operation in non-emergency situations for 50 hours per calendar year, as specified in Conditions 167.a through 167.c is prohibited. If the permittee does not operate the engine according to the requirements in Conditions 167.a through 167.c, the engine will not be considered an emergency engine under this subpart and must meet all the requirements for non-emergency engines. These conditions are applicable to both compression ignition (CI) and spark ignition (SI) engines. [40 CFR 63.6640(f)]
- 167.a. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.440(f)(1)]
- 167.b. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in Condition 167.b.i for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed under Condition 167.c, counts as part of the 100 hours per calendar year allowed by Condition 167.b.i [40 CFR 63.440(f)(2)]
- 167.b.i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition LRAPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating the federal, state or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.440(f)(2)(i)]
- 167.c. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency

situations are counted as part of the 100 hours per calendar year for maintenance and testing specified in Condition 167.b. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.440(f)(3)]

- 167.d. Monitoring of RICE units must be performed in accordance with Condition 169.
168. Applicable Operation and Maintenance Requirements: In accordance with 40 CFR Part 63 Subpart ZZZZ, the permittee must comply with the following RICE management practices for each emergency reciprocating internal combustion engine (RICE) which: [40 CFR 63.6640(f)]
- 168.a. Change oil and every 500 hours of operation or annually, whichever, comes first; [40 CFR 63.6003(a), table 2d(4)(a)]
- 168.b. Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first; [40 CFR 63.6003(a), table 2d(4)(b)]
- 168.c. Inspect all hoses and belts every 500 hours of operation or annually, whichever, comes first, and replace as necessary; [40 CFR 63.6003(a), table 2d(4)(c)]
- 168.d. During periods of startup, minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply; and [40 CFR 63.6003(a), table 2d]
- 168.e. The permittee must install a non-resettable hour meter on each emergency stationary RICE, if one is not already installed. [40 CFR 63.6625(f)]
169. Applicable Monitoring and Recordkeeping Requirements: The permittee must keep the following records for emergency RICE: [LRAPA 34-016(1) and 40 CFR 63.6655]
- 169.a. For each emergency generator or fire pump RICE, record the following each time it is operated:
- 169.a.i. Date of operation;
- 169.a.ii. Time of engine start (clock time);
- 169.a.iii. Time of engine stop (clock time);
- 169.a.iv. Elapsed time from engine start to engine stop; and
- 169.a.v. Reason for operation.
- 169.b. For each emergency RICE, record the total annual time of operation for maintenance and readiness testing (M&R testing); and
- 169.c. Maintenance records for any emergency RICE as required in Condition 168
- 169.d. Recordkeeping Requirements: The permittee must keep records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report or record according to 40 CFR 63.10(b)(1). [40 CFR 63.6660]

## REGIONAL HAZE REQUIREMENTS

### Regional Haze Requirements – Round II - Reduction of Haze Precursors (PM<sub>10</sub>, NO<sub>x</sub> & SO<sub>2</sub>)

170. As of July 31, 2022, the permittee's combined assigned PSELs (see PSEL Condition 177 for the Power Boiler (EU-150A), Package Boiler (EU-150B), Lime Kilns (EU-455) and #4 Recovery Furnace (EU-445C)) for the following pollutants are: [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
- 170.a. 237 tons per year for SO<sub>2</sub>, as a 12-month rolling average.

- 170.b. 962 tons per year for NO<sub>x</sub>, as a 12-month rolling average.
- 170.c. 177 tons per year for PM<sub>10</sub>, as a 12-month rolling average.
171. The only fuel the permittee may combust in the Power Boiler (EU-150A) and the Package Boiler (EU-150B) is natural gas, except that the permittee may operate the Power Boiler (EU-150A) and the Package Boiler (EU-150B) on ultra-low sulfur diesel (ULSD) for no more than 48 hours per year and when needed for natural gas curtailments. [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
172. The only fuels the permittee may combust in the #4 Recovery Furnace (EU-445C) are Black Liquor Solids (BLS) and natural gas, except that the permittee may operate the #4 Recovery Furnace (EU-445C) on ultra-low sulfur diesel (ULSD) for no more than 48 hours per year and when needed for natural gas curtailment. [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
173. The only fuels the permittee may combust in the Lime Kilns (EU-455) are natural gas, product turpentine and product methanol, except that the permittee may operate the Lime Kilns (EU-455) on ultra-low sulfur diesel (ULSD) for no more than 48 hours per year and when needed for natural gas curtailment. [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
174. By December 31, 2022 (completed 12/28/2022), the permittee must install a NO<sub>x</sub> Continuous Emissions Monitoring System (CEMS) and measure NO<sub>x</sub> emissions from the Power Boiler (EU-150A). The permittee must install the NO<sub>x</sub> CEMS on the Power Boiler (EU-150A) in accordance with the following installation, quality control, and quality assurance requirements: [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
- 174.a. The permittee must demonstrate proper install the NO<sub>x</sub> CEMS following Procedure 1 (see 40 CFR Part 60, Appendix F, Procedure 1), Performance Specification 2 (see 40 CFR Part 60, Appendix B, Performance Specification 2) and DEQ CEM Manual (revised November 2018), no later than March 31, 2023 (completed 3/1/2023).
- 174.b. The permittee must submit NO<sub>x</sub> data collected during testing identified in Condition 197 to DEQ and LRAPA for review.
- 174.c. Upon DEQ's and LRAPA's approval of the CEMS certification (approved 5/8/2023), the permittee must use NO<sub>x</sub> data collected from the CEMS to demonstrate compliance with the NO<sub>x</sub> emission rates specified in Condition 175 (0.25 lb NO<sub>x</sub>/MMBtu on a 7-day rolling average) and Condition 176 (179 tons NO<sub>x</sub>/year as a 12-month rolling average).
- 174.d. The permittee must ensure that the Power Boiler (EU-150A) NO<sub>x</sub> CEMS is certified by DEQ and LRAPA no later than May 31, 2023 (certified 5/8/2023).
- 174.e. The permittee must use the NO<sub>x</sub> CEMS to document Power Boiler (EU-150A) emissions, replacing the equation in former Condition 186.g that requires monitoring of the Power Boiler NO<sub>x</sub>, no later than May 31, 2023.
- 174.f. The permittee must collect and record all data from the NO<sub>x</sub> CEMS and make that data available to DEQ and/or LRAPA upon request.
175. On or after January 31, 2025, the permittee must meet the emission limit of 0.25 lb NO<sub>x</sub>/MMBtu on a 7-day rolling average from the Power Boiler (EU-150A). [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]
176. On or after December 31, 2025, the permittee's assigned NO<sub>x</sub> PSEL for the Power Boiler (EU-150A) is 179 tons NO<sub>x</sub>/year, as a 12-month rolling average. At least 30 days prior to the December 31, 2025, effective date of the Power Boiler 179 tons NO<sub>x</sub>/year PSEL, the permittee must apply for a permit modification to revise the PSEL tables to reflect the 179 tons NO<sub>x</sub>/year limit. [Stipulated Agreement and Final Order, No. 208850, fully executed on August 9, 2021; entered under OAR 340-223-0110]

**PLANT SITE EMISSION LIMITS (PSELs)**

177. Applicable Requirement: The annual (12-month rolling) plant site emissions (tons per year) must not exceed the following. [OAR 340-218-0050(1), and 42-0041 through 42-0046]

**Table 18. Annual (12-Month Rolling) Plant Site Emission Limits (PSELs)**

| <b>Pollutant</b>   | <b>Plant Site Emission Limit (tons/year)</b> | <b>Unassigned Emissions (tons/year)</b> | <b>Regional Haze SAFO Combustion Units Combined PSEL (tons/year)</b> |
|--|--|---|--|
| PM   | 200  | 25                                      | NA   |
| PM <sub>10</sub>   | 193  | 15                                      | 177  |
| PM <sub>2.5</sub>  | 170  | 10                                      | NA   |
| TRS  | 53   | 10                                      | NA   |
| CO   | 591  | 100                                     | NA   |
| NO <sub>x</sub>  | 962  | 40                                      | 962  |
| SO <sub>2</sub>  | 153  | 40                                      | 237  |
| H <sub>2</sub> SO <sub>4</sub> (SAM)                     | 18   | 0                                       | NA   |
| VOC  | 1269   | 40                                      | NA   |
| GHG (CO <sub>2</sub> e) <sup>Anthropogenic</sup>         | 540,750                                      | NA                                      | NA   |
| GHG(CO <sub>2</sub> e) <sup>Anthropogenic+Biogenic</sup> | 1,269,532                                    | 0                                       | NA   |

- 177.a. The permittee may only use Unassigned Emissions after any necessary construction (OAR 340-218-0190) and operating permit revision applications (OAR 340-218-0120 through 340-218-0180) have been approved by LRAPA. In accordance with LRAPA 42-0055(3), unassigned emissions have been reduced to no more than the Significant Emission Rate (SER) for each pollutant with this Title V permit renewal. Note: All Emission Reduction Credits (ERCs) expired on July 25, 2015, and have been reduced to zero for all pollutants.
- 177.b. In accordance with the Regional Haze Stipulated Agreement and Final Order (SAFO), No. 208850, fully executed on August 9, 2021 and as stipulated in Condition 170, the combined PSELs for the Power Boiler (EU-150A), Package Boiler (EU-150B), #4 Recovery Furnace (EU-445C) and the Lime Kilns (EU-455) are:
  - 177.b.i. 177 tons per year for PM<sub>10</sub>, as a 12-month rolling average
  - 177.b.ii. 962 tons per year for NO<sub>x</sub>, as a 12-month rolling average
  - 177.b.iii. 237 tons per year for SO<sub>2</sub>, as a 12-month rolling average
- 177.c. The GHG Baseline Emission Rate and PSELs have been recalculated with updated 40 CFR Part 98 Subparts C & AA GHG emission factors and Global Warming Potential (GWP) factors.

**PLANT SITE EMISSION LIMIT MONITORING**

178. Monitoring Requirement: The permittee must determine compliance with the Plant Site Emission Limits established in Condition 177 of this permit by conducting monitoring in accordance with the following procedures, test methods, and frequencies: [OAR 340-218-0050(3)(a)]

178.a. The permittee must maintain annual records of the following process parameters:

**Table 19. Plant Site Emission Limit Monitoring and Testing**

| Unit/Device Description/<br>EU ID                       | Pollutant                              | Process Parameter (Units)  | Annual Emission Factor   | Units    | Test Methods | Test Frequency |
|---|--|----------------------------|--|----------|--------------|----------------|
| <b>EU ID: EU-150A Power Boiler (Max 544 MMBtu/hr)</b>   |  |                            |  |          |              |                |
| Power Boiler<br>PS150-001                               | CO                                     | Natural Gas (MMBtu)        | 1.40E-02   | lb/MMBtu | Method 10    | Once/Term      |
|   | CO                                     | ULSD No.2 Fuel Oil (MMBtu) | 3.57E-02   | lb/MMBtu | Not Required |                |
|   | NOx                                    | Natural Gas (MMBtu)        | See Condition 178.e  | lb/MMBtu | CEMs Data    | Continuously   |
|   | NOx                                    | ULSD No.2 Fuel Oil (MMBtu) | 2.57E-02   | lb/MMBtu | CEMs Data    | Continuously   |
|   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Natural Gas (MMBtu)        | 2.45E-03   | lb/MMBtu | Not Required |                |
|   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | ULSD No.2 Fuel Oil (MMBtu) | PM = 2.36E-02<br>PM <sub>10</sub> = 7.14E-03<br>PM <sub>2.5</sub> = 1.79E-03 | lb/MMBtu | Not Required |                |
|   | SAM                                    | ULSD No.2 Fuel Oil (MMBtu) | 6.151E-05  | lb/MMBtu | Not Required |                |
|   | SO <sub>2</sub>                        | Natural Gas (MMBtu)        | 6.41E-04   | lb/MMBtu | Not Required |                |
|   | SO <sub>2</sub>                        | ULSD No.2 Fuel Oil (MMBtu) | 1.52E-03   | lb/MMBtu | Not Required |                |
|   | VOC                                    | Natural Gas (MMBtu)        | 6.578E-03  | lb/MMBtu | Not Required |                |
|   | VOC                                    | ULSD No.2 Fuel Oil (MMBtu) | 1.743E-03  | lb/MMBtu | Not Required |                |
| <b>EU ID: EU-150B Package Boiler (Max 340 MMBtu/hr)</b> |  |                            |  |          |              |                |
| Package Boiler<br>PS150-300                             | CO                                     | Natural Gas (MMBtu)        | 1.40E-01   | lb/MMBtu | Method 10    | Once/Term      |
|   | CO                                     | ULSD No.2 Fuel Oil (MMBtu) | 3.57E-02   | lb/MMBtu | Not Required |                |
|   | NOx                                    | Natural Gas (MMBtu)        | 2.00E-01   | lb/MMBtu | CEMs Data    | Continuously   |
|   | NOx                                    | ULSD No.2 Fuel Oil (MMBtu) | 2.57E-02   | lb/MMBtu | CEMs Data    | Continuously   |
|   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Natural Gas (MMBtu)        | *2.45E-03  | lb/MMBtu | Not Required |                |
|   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | ULSD No.2 Fuel Oil (MMBtu) | PM = 2.36E-02<br>PM <sub>10</sub> = 7.14E-03<br>PM <sub>2.5</sub> = 1.79E-03 | lb/MMBtu | Not Required |                |
|   | SAM                                    | ULSD No.2 Fuel Oil (MMBtu) | 6.151E-05  | lb/MMBtu | Not Required |                |
|   | SO <sub>2</sub>                        | Natural Gas (MMBtu)        | 6.41E-04   | lb/MMBtu | Not Required |                |
|   | SO <sub>2</sub>                        | ULSD No.2 Fuel Oil (MMBtu) | 1.52E-03   | lb/MMBtu | Not Required |                |
|   | VOC                                    | Natural Gas (MMBtu)        | 6.578E-03  | lb/MMBtu | Not Required |                |
|   | VOC                                    | ULSD No.2 Fuel Oil (MMBtu) | 1.743E-03  | lb/MMBtu | Not Required |                |

| Unit/Device Description/<br>EU ID                           | Pollutant                                  | Process Parameter (Units) | Annual Emission Factor   | Units       | Test Methods   | Test Frequency                        |
|---|--|---------------------------|--|-------------|--|---------------------------------------|
| <b>EU ID: EU-185 Effluent System</b>                        |  |                           |  |             |  |                                       |
| Effluent Collection & Treatment System (ECTS)<br>FU185-000  | TRS  | Paper (ADT)               | 8.26E-04   | lb/ADT      | Not Required   |                                       |
|   | VOC  | Pulp - Unbleached (ADT)   | 1.20E-01   | lb/ADT      | Not Required   |                                       |
| <b>EU ID: EU-275A Road Fugitives</b>                        |  |                           |  |             |  |                                       |
| Containerboard On-site Unpaved Road Fugitives<br>FU275-999D | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Hours of Operation        | PM = 1.32<br>PM <sub>10</sub> = 3.55E-01<br>PM <sub>2.5</sub> = 3.55E-02 | lb/hr-opr   | Not Required   |                                       |
| <b>EU ID: EU-275C Other Sources of TRS (Original)</b>       |  |                           |  |             |  |                                       |
| Kamyr Chip Bins<br>FU401-098                                | TRS  | Pulp - Unbleached (ADT)   | 1.11E-03   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC Controlled                             | Pulp - Unbleached (ADT)   | 0.2466   | lb/ADT      | EPA Method 25A (VOC) Concurrent w/ Condenser Inlet & Outlet % efficiency | Twice/Term                            |
|   | VOC Uncontrolled                           | Pulp - Unbleached (ADT)   | 5.43   | lb/ADT      | EPA Method 25A (VOC)   | Twice/Term                            |
| Kamyr Brown Stock Washer System<br>PS420-999                | TRS  | Pulp - Unbleached (ADT)   | 0.0549   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Pulp - Unbleached (ADT)   | 1.122  | lb/ADT      | Not Required   |                                       |
| VCE Compressor Vent<br>TA186-120                            | TRS  | Pulp - Unbleached (ADT)   | 1.31E-03   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Pulp - Unbleached (ADT)   | 6.05E-03   | lb/ADT      | Not Required   |                                       |
| #3 Weak Black Liquor Tank<br>TA440-003                      | TRS  | Pulp - Unbleached (ADT)   | 1.50E-02   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Pulp - Unbleached (ADT)   | 6.185E-02  | lb/ADT      | Not Required   |                                       |
| #4 Weak Black Liquor Tank<br>TA440-004                      | TRS  | Pulp - Unbleached (ADT)   | 6.50E-04   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Pulp - Unbleached (ADT)   | 1.83E-03   | lb/ADT      | Not Required   |                                       |
| Multi-Purpose Tank<br>TA440-130                             | TRS  | Operating Hours           | 1.090E-01  | lb/hrs oper | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Operating Hours           | 8.211E-01  | lb/hrs oper | Not Required   |                                       |
| #7 Strong Black Liquor Tank<br>TA445-300                    | TRS  | Pulp - Unbleached (ADT)   | 4.20E-03   | lb/ADT      | Method 16, 16A, or 16B (Condition 128)                                   | Annually if >3%/10% per Condition 128 |
|   | VOC  | Pulp - Unbleached (ADT)   | 9.289E-03  | lb/ADT      | Not Required   |                                       |

| Unit/Device Description/<br>EU ID  | Pollutant                              | Process Parameter (Units) | Annual Emission Factor   | Units  | Test Methods                           | Test Frequency                        |
|--|--|---------------------------|--|--------|--|---------------------------------------|
| <b>EU ID: EU-275D Other Source of TRS (Additional Sources added w/Title V)</b> |  |                           |  |        |  |                                       |
| Kamyr Baur Refiner Chest Vent<br>EQ420-070                                     | TRS                                    | Pulp - Unbleached (ADT)   | 5.80E-04   | lb/ADT | Method 16, 16A, or 16B (Condition 128) | Annually if >3%/10% per Condition 128 |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 2.32E-03   | lb/ADT | Not Required                           |                                       |
| Contaminated Hot Water Tank<br>TA420-035                                       | TRS                                    | Pulp - Unbleached (ADT)   | 1.25E-03   | lb/ADT | Method 16, 16A, or 16B (Condition 128) | Annually if >3%/10% per Condition 128 |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 2.93E-03   | lb/ADT | Not Required                           |                                       |
| Recaust Hot Water Tank<br>TA420-014  | TRS                                    | Pulp - Unbleached (ADT)   | 1.25E-03   | lb/ADT | Method 16, 16A, or 16B (Condition 128) | Annually if >3%/10% per Condition 128 |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 2.93E-03   | lb/ADT | Not Required                           |                                       |
| #5 Causticizer<br>TA455-012  | TRS                                    | Pulp - Unbleached (ADT)   | 2.88E-03   | lb/ADT | Method 16, 16A, or 16B (Condition 128) | Annually if >3%/10% per Condition 128 |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 3.17E-04   | lb/ADT | Not Required                           |                                       |
| #6 Causticizer<br>TA456-010  | TRS                                    | Pulp - Unbleached (ADT)   | 8.20E-03   | lb/ADT | Method 16, 16A, or 16B (Condition 128) | Annually if >3%/10% per Condition 128 |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 9.03E-05   | lb/ADT | Not Required                           |                                       |
| <b>EU ID: EU-310 Chip Handling &amp; Screening System</b>                      |  |                           |  |        |  |                                       |
| Chip Handling Fugitives<br>FU310-999   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Pulp - Unbleached (ADT)   | PM = 8.87E-03<br>PM <sub>10</sub> = 4.19E-03<br>PM <sub>2.5</sub> = 2.10E-03 | lb/ADT | Not Required                           |                                       |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 5.575E-01  | lb/ADT | Not Required                           |                                       |
| <b>EU ID: EU-320 Chip Storage System</b>                                       |  |                           |  |        |  |                                       |
| Chip Storage<br>FU320-999  | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Pulp - Unbleached (ADT)   | PM = 6.30E-03<br>PM <sub>10</sub> = 2.99E-03<br>PM <sub>2.5</sub> = 4.49E-04 | lb/ADT | Not Required                           |                                       |
|  | VOC                                    | Pulp - Unbleached (ADT)   | 9.76E-03   | lb/ADT | Not Required                           |                                       |
| <b>EU ID: EU-330 Fines System</b>  |  |                           |  |        |  |                                       |
| Chip Fines System Cyclone<br>FU330-999   | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Fines (BDT)               | PM = 0.2<br>PM <sub>10</sub> = 0.19<br>PM <sub>2.5</sub> = 0.16              | lb/BDT | Not Required                           |                                       |
|  | VOC                                    | Fines (BDT)               | 4.88E-02   | lb/BDT | Not Required                           |                                       |
| <b>EU ID: EU-420 Kamyr Digester</b>  |  |                           |  |        |  |                                       |
| Contaminated Hot Water Tank (minus TRS)<br>TA420-035                           | VOC                                    | Pulp - Unbleached (ADT)   | 7.405E-03  | lb/ADT | Not Required                           |                                       |
| Spill Tank (minus TRS)<br>TA420-037  | VOC                                    | Pulp - Unbleached (ADT)   | 0.01   | lb/ADT | Not Required                           |                                       |
| Rejects Tank (minus TRS)<br>TA420-059  | VOC                                    | Pulp - Unbleached (ADT)   | 0.012  | lb/ADT | Not Required                           |                                       |
| Diffuser Filtrate Tank (minus TRS)<br>TA420-109                                | VOC                                    | Pulp - Unbleached (ADT)   | 0.01   | lb/ADT | Not Required                           |                                       |

| Unit/Device Description/<br>EU ID                               | Pollutant                                  | Process Parameter (Units)       | Annual Emission Factor   | Units        | Test Methods                      | Test Frequency                  |
|---|--|---------------------------------|--|--------------|-----------------------------------|---------------------------------|
| <b>EU ID:</b> EU-440 Evaporation, Recovery Tanks & Steam System |  |                                 |  |              |                                   |                                 |
| Chemical & Makeup Handling Fugitives<br>FU441-999               | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Pulp - Unbleached (ADT)         | PM = 2.08E-03<br>PM <sub>10</sub> = 1.87E-03<br>PM <sub>2.5</sub> = 9.35E-04 | lb/ADT       | Not Required                      |                                 |
| <b>EU ID:</b> EU-445C #4 Recovery Furnace NDCE w/ESP            |  |                                 |  |              |                                   |                                 |
| #4 Recovery Boiler<br>EQ445-321                                 | CO   | Natural Gas (MMBtu)             | 8.700E-02  | lb/MMBtu     | Method 10                         | Once/Term                       |
|   | CO   | ULSD No.2 Fuel Oil (MMBtu)      | 3.57E-02   | lb/MMBtu     | Not Required                      |                                 |
|   | CO   | Tons Black Liquor Solids (TBLS) | 1.04   | lb/TBLS      | Method 10                         | Once/Term                       |
|   | NOx  | Natural Gas (MMBtu)             | 2.733E-01  | lb/MMBtu     | Method 7E                         | Once/Term                       |
|   | NOx  | ULSD No.2 Fuel Oil (MMBtu)      | 2.57E-02   | lb/MMBtu     | Not Required                      |                                 |
|   | NOx  | Tons Black Liquor Solids (TBLS) | 1.24   | lb/TBLS      | Method 7E                         | Once/Term                       |
|   | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Natural Gas (MMBtu)             | 2.45E-03   | lb/MMBtu     | Not Required                      |                                 |
|   | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | ULSD No.2 Fuel Oil (MMBtu)      | PM = 2.36E-02<br>PM <sub>10</sub> = 7.14E-03<br>PM <sub>2.5</sub> = 1.79E-03 | lb/MMBtu     | Not Required                      |                                 |
|   | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Tons Black Liquor Solids (TBLS) | PM = 0.30<br>PM <sub>10</sub> = 0.30<br>PM <sub>2.5</sub> = 0.27             | lb/TBLS      | DEQ Method 5 (Condition 86)       | 3 mos. or 6 mos. (Condition 86) |
|   | SAM  | ULSD No.2 Fuel Oil (MMBtu)      | 6.151E-05  | lb/MMBtu     | Not Required                      |                                 |
|   | SAM  | Tons Black Liquor Solids (TBLS) | 4.63E-02   | lb/TBLS      | Not Required                      |                                 |
|   | SO <sub>2</sub>                            | Natural Gas (MMBtu)             | 6.410E-04  | lb/MMBtu     | Not Required                      |                                 |
|   | SO <sub>2</sub>                            | ULSD No.2 Fuel Oil (MMBtu)      | 1.52E-03   | lb/MMBtu     | Not Required?                     |                                 |
|   | SO <sub>2</sub>                            | Tons Black Liquor Solids (TBLS) | 1.95E-02   | lb/TBLS      | Method 6 or 6C or CEMs (Cond. 88) | Once per month (Condition 88)   |
|   | TRS  | Tons Black Liquor Solids (TBLS) | 5.60E-03   | lb/TBLS      | CEMS Data (Condition 84)          | Continuously (Condition 84)     |
| VOC   | Tons Black Liquor Solids (TBLS)            | 8.54E-02                        | lb/TBLS  | Not Required |                                   |                                 |
| <b>EU ID:</b> EU-445D #4 Smelt Dissolving Tank w/Wet Scrubber   |  |                                 |  |              |                                   |                                 |
| #4 Recovery Smelt Dissolving Tank<br>TA445-350                  | NOx  | Tons Black Liquor Solids (TBLS) | 3.30E-02   | lb/TBLS      | Method 7E                         | Once/Term                       |
|   | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Tons Black Liquor Solids (TBLS) | PM = 1.47E-01<br>PM <sub>10</sub> = 1.47E-01<br>PM <sub>2.5</sub> = 1.34E-01 | lb/TBLS      | DEQ Method 5 (Condition 123.b)    | 3 mos./6 mos. (Condition 123.b) |
|   | SO <sub>2</sub>                            | Tons Black Liquor Solids (TBLS) | 1.50E-02   | lb/TBLS      | Method 6 or 6C                    | Once/Term                       |
|   | TRS  | Tons Black Liquor Solids (TBLS) | 2.64E-02   | lb/TBLS      | Method 16, 16A or 16B             | 3 mos./6 mos.                   |
|   | VOC  | Tons Black Liquor Solids (TBLS) | 8.00E-02   | lb/TBLS      | Not Required                      |                                 |
| <b>EU ID:</b> EU-455 Lime Kilns #2 & #3 with ESP                |  |                                 |  |              |                                   |                                 |
| Lime Kilns Combined<br>PS455-999                                | CO   | Tons CaO (lime) (T CaO)         | 9.91E-02   | lb/T CaO     | Method 10                         | Once/Term                       |
|   | NOx  | Tons CaO (lime) (T CaO)         | 1.11   | lb/T CaO     | Method 7E                         | Once/Term                       |

| Unit/Device Description/<br>EU ID                                    | Pollutant                                  | Process Parameter (Units)  | Annual Emission Factor   | Units    | Test Methods                    | Test Frequency                  |
|--|--|----------------------------|--|----------|---------------------------------|---------------------------------|
| <b>EU ID: EU-455 Lime Kilns #2 &amp; #3 with ESP, CONTINUED</b>      |  |                            |  |          |                                 |                                 |
| Lime Kilns Combined<br>PS455-999                                     | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Tons CaO (lime)<br>(T CaO) | PM = 4.68E-01<br>PM <sub>10</sub> = 4.68E-01<br>PM <sub>2.5</sub> = 4.40E-01 | lb/T CaO | DEQ Method 5<br>(Condition 114) | 6 mos.<br>(Condition 114)       |
|  | SAM  | Tons CaO (lime)<br>(T CaO) | 3.58E-02   | lb/T CaO | Not Required                    |                                 |
|  | SO <sub>2</sub>                            | Tons CaO (lime)<br>(T CaO) | 2.79E+00   | lb/T CaO | Method 6 or 6C or<br>CEMs       | Twice/Term                      |
|  | TRS  | Tons CaO (lime)<br>(T CaO) | 5.27E-02   | lb/T CaO | CEMS Data<br>(Condition 111)    | Continuously<br>(Condition 111) |
|  | VOC  | Tons CaO (lime)<br>(T CaO) | 5.61E-02   | lb/T CaO | Not Required                    |                                 |
| <b>EU ID: EU-456 Recast Systems</b>                                  |  |                            |  |          |                                 |                                 |
| Lime Cycle<br>Chemical<br>Handling<br>Fugitives<br>FU456-999A        | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Pulp - Unbleached<br>(ADT) | PM = 5.20E-03<br>PM <sub>10</sub> = 4.70E-03<br>PM <sub>2.5</sub> = 2.35E-03 | lb/ADT   | Not Required                    |                                 |
| #2 Mud Filter<br>(minus TRS)<br>GE454-052                            | VOC  | Pulp - Unbleached<br>(ADT) | 9.39E-04   | lb/ADT   | Not Required                    |                                 |
| #3 Mud Filter<br>Hood Fan<br>(+fugitives;<br>minus TRS)<br>GE455-153 | VOC  | Pulp - Unbleached<br>(ADT) | 1.421E-02  | lb/ADT   | Not Required                    |                                 |
| #3 Mud Filter<br>Vacuum Pump<br>Vapor (minus<br>TRS)<br>PU455-056    | VOC  | Pulp - Unbleached<br>(ADT) | 3.538E-04  | lb/ADT   | Not Required                    |                                 |
| #2 Mud Filter<br>Sump (minus<br>TRS)<br>TA454-016                    | VOC  | Pulp - Unbleached<br>(ADT) | 2.318E-04  | lb/ADT   | Not Required                    |                                 |
| So. Green Liquor<br>Clarifier<br>(minus TRS)<br>TA455-001            | VOC  | Pulp - Unbleached<br>(ADT) | 1.464E-03  | lb/ADT   | Not Required                    |                                 |
| South White<br>Liquor Clarifier<br>TA455-018                         | VOC  | Pulp - Unbleached<br>(ADT) | 1.464E-03  | lb/ADT   | Not Required                    |                                 |
| South Mud<br>Washer<br>TA455-025                                     | VOC  | Pulp - Unbleached<br>(ADT) | 4.148E-04  | lb/ADT   | Not Required                    |                                 |
| South Lime Mud<br>Storage<br>TA455-050                               | VOC  | Pulp - Unbleached<br>(ADT) | 4.514E-03  | lb/ADT   | Not Required                    |                                 |
| Jet Condenser<br>Seal Tank (minus<br>TRS)<br>TA455-158               | VOC  | Pulp - Unbleached<br>(ADT) | 1.196E-04  | lb/ADT   | Not Required                    |                                 |
| North Green<br>Liquor Clarifier<br>(minus TRS)<br>TA456-001          | VOC  | Pulp - Unbleached<br>(ADT) | 1.464E-03  | lb/ADT   | Not Required                    |                                 |
| North White<br>Liquor Clarifier<br>TA456-020                         | VOC  | Pulp - Unbleached<br>(ADT) | 1.464E-03  | lb/ADT   | Not Required                    |                                 |

| Unit/Device Description/<br>EU ID                               | Pollutant                              | Process Parameter (Units) | Annual Emission Factor   | Units      | Test Methods | Test Frequency |
|---|--|---------------------------|--|------------|--------------|----------------|
| <b>EU ID: EU-456 Recast Systems, CONTINUED</b>                  |  |                           |  |            |              |                |
| North Lime Mud Washer<br>TA456-028                              | VOC                                    | Pulp - Unbleached (ADT)   | 4.148E-04  | lb/ADT     | Not Required |                |
| North Mud Storage Tank<br>TA456-036                             | VOC                                    | Pulp - Unbleached (ADT)   | 4.148E-04  | lb/ADT     | Not Required |                |
| Precipitator Slurry Tank (minus TRS)<br>TA456-128               | VOC                                    | Pulp - Unbleached (ADT)   | 9.330E-04  | lb/ADT     | Not Required |                |
| <b>EU ID: EU-600 Paper Recycling Systems</b>                    |  |                           |  |            |              |                |
| #1 Thickener Exhaust Fan<br>FA601-121                           | VOC                                    | OCC (ADT)                 | 2.074E-02  | lb/ADT     | Not Required |                |
| Pulper Exhaust Fan<br>FA601-255                                 | VOC                                    | OCC (ADT)                 | 7.660E-03  | lb/ADT     | Not Required |                |
| Dump Chest Vent<br>TA601-012                                    | VOC                                    | OCC (ADT)                 | 1.150E-03  | lb/ADT     | Not Required |                |
| #9 Hi-d Storage Tank<br>TA601-134                               | TRS                                    | Hours of Operation        | 6.900E-04  | lb/hr-oper | Not Required |                |
|   | VOC                                    | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |
| OCC Clarifier<br>TA601-167                                      | TRS                                    | OCC (ADT)                 | 5.250E-04  | lb/ADT     | Not Required |                |
|   | VOC                                    | OCC (ADT)                 | 2.965E-02  | lb/ADT     | Not Required |                |
| <b>EU ID: EU-715A No. 2 Paper Machine Room (MR) Wet Systems</b> |  |                           |  |            |              |                |
| Drum Saveall Hood Exhaust Fan<br>FA705-032                      | TRS                                    | Paper (ADT)               | 2.640E-04  | lb/ADT     | Not Required |                |
|   | VOC                                    | Paper (ADT)               | 1.952E-02  | lb/ADT     | Not Required |                |
| Furnish Pulper Hood Exhaust<br>FA705-107                        | TRS                                    | Paper (ADT)               | 2.980E-05  | lb/ADT     | Not Required |                |
|   | VOC                                    | Paper (ADT)               | 3.404E-03  | lb/ADT     | Not Required |                |
| Morden Pulper Hood Exhaust Fan<br>FA705-174                     | TRS                                    | Paper (ADT)               | 1.490E-07  | lb/ADT     | Not Required |                |
|   | VOC                                    | Paper (ADT)               | 1.720E-04  | lb/ADT     | Not Required |                |
| No. 2 MR Additive Chem. Handling Fugitives<br>FU710-999         | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | Paper (ADT)               | PM = 1.32E-02<br>PM <sub>10</sub> = 1.32E-02<br>PM <sub>2.5</sub> = 6.60E-03 | lb/ADT     | Not Required |                |
| #2 Paper Total Wet End Vent Emissions<br>PS715-999A             | TRS                                    | Paper (ADT)               | 1.190E-02  | lb/ADT     | Not Required |                |
|   | VOC                                    | Paper (ADT)               | 3.892E-01  | lb/ADT     | Not Required |                |
| #3 Hi-d Tank<br>TA705-002                                       | TRS                                    | Hours of Operation        | 1.500E-03  | lb/hr-oper | Not Required |                |
|   | VOC                                    | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |
| #4 Hi-d Tank<br>TA705-003                                       | TRS                                    | Hours of Operation        | 5.000E-03  | lb/hr-oper | Not Required |                |
|   | VOC                                    | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |

| Unit/Device Description/<br>EU ID  | Pollutant                                  | Process Parameter (Units) | Annual Emission Factor   | Units      | Test Methods | Test Frequency |
|--|--|---------------------------|--|------------|--------------|----------------|
| <b>EU ID: EU-715A No. 2 Paper Machine Room (MR) Wet Systems, CONTINUED</b> |  |                           |  |            |              |                |
| #5 Hi-d Storage Tank<br>TA705-093  | TRS  | Hours of Operation        | 1.500E-03  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |
| #6 Hi-d Storage Tank<br>TA705-094  | TRS  | Hours of Operation        | 1.720E-01  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 3.86   | lb/hr-oper | Not Required |                |
| #10 Hi-d Storage Tank<br>TA705-099   | TRS  | Hours of Operation        | 3.370E-01  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 3.86   | lb/hr-oper | Not Required |                |
| #7 Hi-d Storage Tank<br>TA705-130  | TRS  | Hours of Operation        | 1.720E-01  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 3.86   | lb/hr-oper | Not Required |                |
| #8 Hi-d Storage Tank<br>TA705-208  | TRS  | Hours of Operation        | 3.000E-03  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |
| #8 Lo-d Chest<br>TA705-215   | TRS  | Hours of Operation        | 1.500E-03  | lb/hr-oper | Not Required |                |
|  | VOC  | Hours of Operation        | 1.745E-01  | lb/hr-oper | Not Required |                |
| <b>EU ID: EU-715B No. 2 Paper Machine Room (MR) Dry Systems</b>            |  |                           |  |            |              |                |
| Dust Collection Exhauster<br>FA730-104                                     | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Paper (ADT)               | PM = 1.548E-03<br>PM <sub>10</sub> = 1.548E-03<br>PM <sub>2.5</sub> = 7.74E-04 | lb/ADT     | Not Required |                |
| Paper #2 Total Dry End Vent Emissions<br>PS715-999B                        | TRS  | Paper (ADT)               | 1.460E-02  | lb/ADT     | Not Required |                |
|  | VOC  | Paper (ADT)               | 3.892E-01  | lb/ADT     | Not Required |                |
| #2 MR Trim Conveying Sys.<br>VA730-025                                     | PM/PM <sub>10</sub> /<br>PM <sub>2.5</sub> | Paper (ADT)               | PM =4.190E-04<br>PM <sub>10</sub> =4.190E-04<br>PM <sub>2.5</sub> =2.10E-04    | lb/ADT     | Not Required |                |

178.b. For the emissions units listed in Table 19 (PSEL Monitoring & Testing), above, the permittee must determine compliance with the annual 12-month rolling PSELs for all pollutants except GHGs by multiplying the process parameter by the emission factor listed above for each pollutant within 30 days of the end of each month, with the exception of calculations provided for in Conditions 178.c, 178.d, 178.e, and 178.f.

$$E = (\sum P_{eu} \times EF_{eu} \div k) + AI + EE$$

where:

- E = Pollutant emissions in tons/year;
- Peu = Process parameter identified in the table above;
- EF<sub>eu</sub> = Emission factor identified for each emissions unit and pollutant in the table above;
- k = Conversion constant: 1 lb/lb and 2000 lbs/ton
- AI = 1 ton/year for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, CO, VOC, and TRS
- EE = Sum total (tons/year) Excess Emissions, per unit per pollutant

- 178.c. In determining compliance with the annual 12-month rolling PSELS, the permittee must determine emissions attributable to the burning of liquid fuel oil (ULSD No 2. Fuel Oil) using a material balance with the following equation to calculate the SO<sub>2</sub> emissions:

$$E = 2SF$$

where:

|   |   |   |
|---|---|---|
| E | = | emissions of sulfur dioxide tons/year;                  |
| S | = | sulfur content, (wt/wt) (as determined by Condition 12) |
| F | = | fuel used, lbs/day or tons/yr; and                      |
| 2 | = | 64 (lbs SO <sub>2</sub> /mole) / 32 (lbs S/mole)        |

- 178.d. The real-time TRS CEM data for emissions units EU-445C and EU-455 must be incorporated into the TRS emissions calculation performed in accordance with Condition 178.b for monitoring compliance with the facility-wide TRS PSEL.
- 178.e. The real-time NO<sub>x</sub> CEM data for emissions units EU-150A and EU-150B must be incorporated into the NO<sub>x</sub> emissions calculation performed in accordance with Condition 178.b for monitoring compliance with the facility-wide NO<sub>x</sub> PSEL. In addition, per the Regional Haze requirement specified in Condition 176, the Power Boiler NO<sub>x</sub> CEM data must be used to demonstrate compliance with the Regional Haze NO<sub>x</sub> group (EU-150A, EU-150B, EU-445C, & EU-455) limit of 962 tons NO<sub>x</sub>/year until the individual EU-150A NO<sub>x</sub> PSEL of 179 tons NO<sub>x</sub>/year becomes effective on or after December 31, 2025. At least 30 days prior to the December 31, 2025 effective date of the Power Boiler (EU-150A) 179 tons NO<sub>x</sub>/year PSEL, the permittee must apply for a permit modification to incorporate the individual EU-150A NO<sub>x</sub> PSEL into the permit.
- 178.f. The real-time SO<sub>2</sub> CEM data for emissions units EU-445C and EU-455 may be incorporated into the SO<sub>2</sub> emissions calculation performed in accordance with Condition 178.b for monitoring compliance with the facility-wide SO<sub>2</sub> PSEL, if the permittee chooses this real time monitoring alternative under Conditions 88.c (EU-445C SO<sub>2</sub> CEM) and 110 (Kiln SO<sub>2</sub> CEM) and the CGA (cylinder gas audit) and RATA (relative accuracy test audit) and data availability requirements are satisfied for this monitoring method.

### **PSEL Emission Factor Verification Testing**

179. The permittee must conduct emission factor verification tests in accordance with DEQ's Source Sampling Manual and the source test plan approved by LRAPA for the PM, CO, NO<sub>x</sub>, SO<sub>2</sub>, and VOC emission factors listed for emissions units using the test methods and minimum test frequencies listed above in Condition 178, Table 19. The results of the emission factor verification tests may be used to correct baseline or PSELS if more accurate data is obtained. [LRAPA title 12 "Baseline Emission Rate"] Some of the testing included in Condition 178, Table 19, under "Test Methods" or "Frequency" is provided to allow the use of compliance monitoring required elsewhere in the conditions of this permit to satisfy the PSEL verification testing monitoring requirements. Those conditions are identified in Table 19 in Condition 178. Where Table 19 in Condition 178 summarizes monitoring requirements from elsewhere in this permit, that summary is not intended to add duplicate testing. [OAR 340-218-0050(3)(a)]
- 179.a. When more than one (1) test is required during the permit term for emission factor verification, and less than three (3) tests/term are required, the tests must be separated by a minimum period of six (6) months.
- 179.b. Any of the testing required to determine compliance with emission limits and standards (e.g. testing required in Conditions 86 (#4 Rec PM), 88 (#4 Rec SO<sub>2</sub>), 114 (Kiln PM), 123 (#4 DTV PM & TRS), 128 (EU-275C & D TRS), and 160 (EU-310 PM) may be used to satisfy this requirement in part or in full.
- 179.c. In the source test plan, the permittee may propose the following:
- 179.c.i. To group similar emissions units together and source test only one (1) emissions device of the group of similar emissions units for emission factor verification testing.

- If the permittee determines that the emissions devices are not similar, source testing must be done on all the emissions devices.
- 179.c.ii. To conduct the source test at only one (1) monitoring point for an emissions unit if all monitoring points are expected to have similar emissions. If more than one (1) source test is required during the permit term, the subsequent test must be done on a different monitoring point, if applicable.
- 179.c.iii. To conduct a source test using an alternative method other than as specified in Condition 178.a, Table 19. Use of alternative methods, other than those specified in Condition 178.a, Table 19, are subject to approval by LRAPA.
- 179.c.iv. If the first emission factor verification test during this permit term indicates that the actual emission rate from a source or group of sources (subject to twice per term emission factor verification tests) is less than 50% of the emission factor listed in Condition 178.a, Table 19, the permittee need not perform the second emission factor verification test. If more than one (1) source test is required during the permit term, the subsequent test must be done on a different emissions device in the group of similar emissions devices.
- 179.d. The permittee must notify LRAPA at least 30 days prior to conducting any emission factor verification tests by submitting a source test plan in accordance with DEQ's Source Sampling Manual. The permittee is not required to submit a source test plan if a plan has already been approved for the emissions unit and the pollutant to be tested.
- 179.e. Source test reports prepared in accordance with the DEQ's Source Sampling Manual must be submitted to LRAPA within 60 days of completing any required source test, unless a different time period is approved in the source test plan submitted prior to the source test. The summary must include the following information:
- 179.e.i. Emissions unit and monitoring point identification;
- 179.e.ii. Emission factors in the same units as in the table above;
- 179.e.iii. Emission results in pounds per hour;
- 179.e.iv. Process parameters during the test (e.g., material throughput, types and amounts of fuels, heat input, etc.); and
- 179.e.v. Control device operating parameters if any.
180. The emissions factors listed in Condition 178.a, Table 19 are not enforceable limits unless otherwise specified in this permit. Compliance with PSELs must only be determined by the calculations contained in Conditions 178.b through 178.f of this permit using the measured process parameters recorded during the reporting period and the emission factors contained in Condition 178.a, Table 19 and the calculations in Conditions 178.b through 178.f. [OAR 340-218-0040(4)]
181. For compliance with annual PSELs, the permittee must maintain a system that tracks all emissions unit PSEL calculations that comprise the facility-wide rolling 12-month and discrete calendar yearly PSELs. The system must perform the calculations as required in Condition 178.b and perform the summation on a monthly basis, from daily estimates of actual emissions. The system and PSEL data must be available for inspection by LRAPA personnel, and the calculations must be documented in the permittee's QA Manual as required in Condition 188. The system may consist of computer tracking or by any other means documented in the permittee's QA Manual. Alternately the permittee may demonstrate compliance with the PSELs in Condition 177 by recordkeeping on process throughputs and demonstrating that the throughputs do not exceed the calculation basis of the PSELs. Emission units that do not operate for the respective time period shall not be included in the estimation of the PSEL calculations. [OAR 340-218-0050(3)]

## **EMISSION FEES**

182. Emission fees will be based on the Plant Site Emission Limits, unless the permittee elects to report actual emissions for one or more permitted processes/pollutants. [OAR 340-220-0090]

## COMPLIANCE SCHEDULE

183. The permittee must comply with requirements of the Regional Haze Round II Stipulated Agreement and Final Order (SAFO) No. 208850 signed on August 9, 2021. The SAFO requirements are specified in Conditions 170 through 176 and include the compliance schedule in effect for the Regional Haze Round II affected units (EU-150A, EU-150B, EU-445C and EU-455). [OAR 340-218-0080(4)]

## GENERAL TESTING REQUIREMENTS

184. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with DEQ's Source Sampling Manual. [OAR 340-212-0120 and 40 CFR 60.8]
- 184.a. Unless otherwise specified by LRAPA, DEQ, or federal regulation, the permittee must submit a source test plan to LRAPA at least 30 days prior to the date of the test. The test plan must be prepared in accordance with DEQ's Source Sampling Manual and address any planned variations or alternatives to prescribed test methods. The permittee should be aware, if significant variations are requested, it may require more than 30 days for LRAPA to grant approval and may require EPA approval in addition to approval by LRAPA.
- 184.b. Only regular operating staff may adjust the processes or emission control device operating parameter during a compliance test and within two (2) hours prior to the test(s). Any operating adjustments made during a compliance source test, which are a result of consultation during the test with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
- 184.c. Unless otherwise specified by permit condition or LRAPA-approved source test plan, all compliance source tests must be performed as follows:
- 184.c.i. At least 90% of the design capacity for new or modified equipment;
- 184.c.ii. At least 90% of the maximum production capacity for existing equipment; or
- 184.c.iii. At least 90% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as the 90<sup>th</sup> percentile of the average hourly operating rates during a 12-month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included in the source test report.
- 184.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If for reasons beyond the control of the permittee, a test run is invalid, LRAPA may accept two (2) test runs for demonstrating compliance with the emission limit or standard.
- 184.e. Source test reports prepared in accordance with DEQ Source Sampling Manual, must be submitted to LRAPA within 60 of completing any required test, unless a different time period is approved in the source test plan submitted prior to the source test.

## MONITORING AND RECORDKEEPING REQUIREMENTS

### General Monitoring Requirements

185. The permittee must not knowingly render inaccurate any required monitoring device or method. [OAR 340-218-0050(3)(a)(E)]
186. The permittee must use the same methods to determine compliance as those used to determine actual emissions for fee purposes and can be no less rigorous than the requirements of OAR 340-218-0080. [OAR 340-218-0050(3)(a)(F)]
187. The permittee must comply with the monitoring requirements on the date of permit issuance unless otherwise specified in the permit or applicable requirement. [OAR 340-218-0050(3)(a)(G)]

### Facility-Specific Monitoring Requirements

188. A comprehensive Quality Assurance Plan (QAP) for all continuous emissions monitoring systems (CEMS), must be maintained by the permittee in accordance with DEQ's Continuous Monitoring Manual. The QAP must include all elements required to ensure the integrity of all required emissions monitoring data. At

least annually, LRAPA must be notified of any changes to the QAP. If there are no changes, LRAPA does not require an annual notification. The permittee is not required to maintain more than one (1) master copy of the QAP. [OAR 340-218-0050(3)]

189. The permittee must install, calibrate, maintain, and operate all process monitoring devices in accordance with manufacturer's specifications. The permittee is allowed to calibrate continuous monitoring parameters annually unless federal rules or the manufacturer of the equipment specify a more frequent calibration frequency. In that case, calibrations must be completed on the more frequent period.
190. The permittee must maintain the following specific records of required monitoring information: [OAR 340-218-0050(3)(b)(A)]
  - 190.a. Facility-wide monitoring records as follows:
    - 190.a.i. Records of visible emissions observations at the property boundaries, results of visible emissions monitoring for Condition 17 and any corrective actions taken;
    - 190.a.ii. Results for any Method 9 visible emissions monitoring;
    - 190.a.iii. Fuel oil sulfur analyses certificates results for ULSD No. 2 fuel oil and crude sulfate turpentine analysis reports;
    - 190.a.iv. Records of air pollution episodes and emission reduction actions taken;
    - 190.a.v. Records of episodes of Emergency Freeze Protection Plan implementation/use of propane space heaters;
    - 190.a.vi. Log of air quality related complaints received from the public by the permittee and investigation reports for those complaints;
    - 190.a.vii. Occurrence and length of downtime for all pollution control devices if any process associated with the control device continues to operate while the control device is not operating;
  - 190.b. Monitoring records required by 40 CFR Part 63 Subpart S:
    - 190.b.i. Applicable enclosure openings, closed-vent system and closed collection system records as specified in Condition 42.c;
    - 190.b.ii. Steam Stripper System CMS parameter records specified in Condition 35;
    - 190.b.iii. Records of gas stream flow in bypass lines specified in Condition 42.e; and
    - 190.b.iv. Records of malfunctions in accordance with the Condition 42.f.
  - 190.c. Monitoring records of drain system inspections and repairs in accordance with Condition 42.b, as required by 40 CFR Part 63 Subpart RR.
  - 190.d. Monitoring records required by 40 CFR Part 63 Subpart MM:
    - 190.d.i. COMS records for units with ESPs (EU-445C & EU-455), as specified in Condition 65.k;
    - 190.d.ii. CPMS records for units with scrubbers (EU-445D), in accordance with Condition 66.g
    - 190.d.iii. Records of black liquor solids (BLS) firing rates for #4 Recovery Furnace (EU-445C) in units of megagrams per day or tons per day; and
    - 190.d.iv. Records of CaO production rates for #2 & # 3 lime kilns (EU-455) in units of megagrams/day or tons/day.
  - 190.e. Monitoring records specific to EU-445C #4 Recovery Furnace:
    - 190.e.i. Daily arithmetic average TRS concentrations from EU-445C, and daily cumulative hours with concentrations greater than 5 ppm;
    - 190.e.ii. Hourly arithmetic average oxygen and TRS concentrations from CEMS for EU-445C;

- 190.e.iii. Correlation equation and correlation coefficient for the relationship between stack flow and steam flow or stack flow and fuels firing rate for emission unit EU-445C;
- 190.e.iv. Average daily equivalent and annual pulp production (ADMT and ADT) through EU-445C;
- 190.e.v. Tons of dry black liquor solids burned per day in EU-445C
- 190.e.vi. Black Liquor Solids firing rates in megagrams/day or tons/day in EU-445C in accordance with Subpart MM recordkeeping requirements;
- 190.e.vii. Daily TRS emissions in units of kg/ADMT (or lb/ADT) from EU-445C;
- 190.e.viii. Source test results for PM emissions in units of lb/day and kg/ADMT (or lb/ADT) from EU-445C
- 190.e.ix. Records demonstrating compliance with Subpart MM requirements to maintain proper operation of the of EU-445C #4 Recovery Furnace ESP (CD-445-480) AVC (automatic voltage control);
- 190.e.x. Visible emissions from emissions unit EU-445C as collected by the COMS including the average daily opacities, number of 6-minute averages in excess of 35%, the average opacity above 35%, and corrective action taken to address opacity exceedances;
- 190.e.xi. Once per month 3-hour discrete average sulfur dioxide concentrations from EU-445C;
- 190.e.xii. Daily and annual records of the amounts and types of each fuel (BLS, NG and ULSD) combusted in EU-445C;
- 190.f. Monitoring records specific to EU-455 Lime Kilns #2 & #3:
  - 190.f.i. Daily arithmetic average TRS concentrations from EU-455 and daily cumulative hours with concentrations greater than 20 ppm;
  - 190.f.ii. Hourly arithmetic average oxygen, TRS and SO<sub>2</sub> concentrations from CEMS for EU-455;
  - 190.f.iii. Correlation between stack flow, type, and amount of fuels used and other contributing parameters to stack flow for emissions unit EU-455;
  - 190.f.iv. Average daily equivalent, monthly lime mud production, fuel usage, and air-dried pulp production to calculate average daily equivalent ADMT (or ADT) pulp production for EU-455;
  - 190.f.v. Average daily equivalent and annual pulp production (ADMT or ADT) through EU-455;
  - 190.f.vi. CaO production rate records in megagrams/day or tons/day for EU-455 lime kilns #2 and #3;
  - 190.f.vii. Daily TRS and PM emissions in units of kg/ADMT (or lb/ADT) from EU-455;
  - 190.f.viii. PM emissions from EU-455 in kg/ADMT (or lb/ADT) and gr/dscf as measured through source testing;
  - 190.f.ix. Daily records of down time of EU-455 (or EU445C) and corrective/preventative action taken when this downtime causes NCG system venting over one (1) hour;
  - 190.f.x. Daily records of all periods of interruption of NCG thermal oxidation;
  - 190.f.xi. Cumulative minutes that non-condensable gases are vented to the atmosphere each day;
  - 190.f.xii. Preventive measures or corrective action taken as a result of switching to a thermal oxidation unit (to #4 Rec (EU-445C) when switching causes NCG venting for more than one (1) hour per changeover;
  - 190.f.xiii. Daily records of the amounts of each fuel combusted during each day in EU-455;

- 190.f.xiv. Visible emissions from emissions unit EU-455 as collected by the COMS including the average daily opacities, number of 6-minute averages in excess of 20%, the average opacity above 20%, and corrective action taken to address opacity exceedances in accordance with the Subpart MM reporting requirements;
- 190.f.xv. Records demonstrating compliance with Subpart MM requirements to maintain proper operation of the of EU-455 ESP (CD-456-110) AVC (automatic voltage control);
- 190.f.xvi. Any records of visible emission monitoring for EU455;
- 190.f.xvii. Occurrence of deviations from the opacity action level for the EU-455 lime kiln ESP, CD 456-110, and any corrective actions taken;
- 190.g. Monitoring records specific to EU-445D #4 Smelt Dissolving Tank (#4 SDTV):
  - 190.g.i. TRS and PM emission results for EU-445D in kg/ADMT (lb/ADT);
  - 190.g.ii. Source test average scrubber operating parameters for #4 Smelt Dissolving Tank wet scrubber, CD445-164 (#4 SDTV), the number of deviations from the scrubber action levels, and any corrective actions taken;
- 190.h. Monitoring records specific to EU-275C Other TRS Sources and EU-275D Additional Miscellaneous TRS Sources:
  - 190.h.i. Source test results for TRS emissions for the miscellaneous/other TRS sources, EU-275C and EU-275D in kg/ADMT;
- 190.i. Monitoring records specific to EU-150A Power Boiler:
  - 190.i.i. Daily and annual records of fuel usage for EU-150A and the percent of heat input provided by ULSD No. 2 fuel oil per calendar year;
  - 190.i.ii. Any visible emissions observations for the Power Boiler, EU-150A when ULSD No. 2 fuel oil is used as fuel; and
  - 190.i.iii. Hourly arithmetic average oxygen and NO<sub>x</sub> concentrations from the NO<sub>x</sub> CEMS for EU-150A
- 190.j. Monitoring records specific to EU-150B Package Boiler:
  - 190.j.i. Daily and annual records of fuel usage for emissions units EU-150A and EU-150B, and the percent of heat input provided by ULSD No. 2 fuel oil per calendar year;
  - 190.j.ii. Visible emission data from EU-150B when ULSD No. 2 fuel oil is used as the fuel;
  - 190.j.iii. Hourly average NO<sub>x</sub> emission rates expressed in ng/J (lb/million Btu) heat input for EU-150B;
  - 190.j.iv. Operating status records on the flue gas recirculation system for EU-150B;
- 190.k. Monitoring records specific to EU-420 Kamyr Digester:
  - 190.k.i. Daily and annual records of pulp production through EU-420; and
  - 190.k.ii. Daily and annual records of days of operation for EU-420.
- 190.l. Monitoring records specific to EU-310, EU-320 & EU-330 Chip Systems:
  - 190.l.i. Daily and annual records of chips handled through EU-310 based on digester pulp throughput;
  - 190.l.ii. Daily and annual records of chips handled and stored through EU-320 based on digester pulp throughput; and
  - 190.l.iii. Daily and annual records of BDT of fines handled and stored through EU-330 (Fines System ).
- 190.m. Monitoring records specific to EU-600 Paper Recycling Systems:
  - 190.m.i. Daily and annual records of days of operation for EU-600;

- 190.m.ii. Daily and annual records of OCC production for EU-600;
- 190.n. Monitoring records specific to EU-715A & EU-715B #2 Paper Machine Room (MR) Wet & Dry Ends Systems:
  - 190.n.i. Daily and annual records of days of operation for EU-715A (Wet End) and EU-715B (Dry End); and
  - 190.n.ii. Daily and annual records of paper production for EU-715A and EU-715B.

### **General Recordkeeping Requirements**

- 191. The permittee must maintain the following general records of monitoring required by this permit as appropriate: [OAR 340-218-0050(3)(b)(A)]
  - 191.a. Date, place as defined in the permit, and time of sampling or measurements;
  - 191.b. Date(s) analyses were performed;
  - 191.c. Company or entity that performed the analyses;
  - 191.d. Analytical techniques or methods used;
  - 191.e. Results of such analyses;
  - 191.f. Operating conditions as existing at the time of sampling or measurement; and
  - 191.g. Records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibrations drift checks).
- 192. Unless otherwise specified by permit condition, the permittee must make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage, or weather conditions do not allow visible emissions monitoring for three (3) successive attempts), the missing record(s) shall not be considered a permit deviation provided the amount of data does not exceed 10% of the averaging or testing periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee must document the reason for the missing record. In addition, any missing record that can be recovered from other available information shall not be considered a missing record. [LRAPA 34-015, 34-016, and OAR 340-218-0050(3)(b)]
- 193. The permittee must retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contaminant Discharge Permit must be retained for five (5) years. [OAR 340-218-0050(3)(b)(B)]

### **REPORTING REQUIREMENTS**

#### **General Reporting Requirements [OAR 340-218-0050(3)(c)]**

- 194. Excess Emissions Reporting: The permittee must report all excess emissions as follows: [LRAPA 36-001 through 36-030]
  - 194.a. Immediately (within 1 hour of the event) notify LRAPA of an excess emission event by phone (541-726-1930), e-mail (lrapa@lrapa.org), or facsimile (541-726-1205); and
  - 194.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [LRAPA 36-025-1]
    - 194.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
    - 194.b.ii. The date and time the permittee notified LRAPA of the event;
    - 194.b.iii. The equipment involved;

- 194.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
- 194.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
- 194.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);
- 194.b.vii. The final resolution of the cause of the excess emissions; and
- 194.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to LRAPA 36-040.
- 194.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify LRAPA by calling the Oregon Emergency Response System (OERs). The current number is 1-800-452-0311.
- 194.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to LRAPA for prior authorization, as required LRAPA 36-010 (Planned Startup and Shutdown) and 36-015 (Scheduled Maintenance). New or modified procedures must be received by LRAPA in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
- 194.e. The permittee must notify LRAPA of planned startup/shutdown or scheduled maintenance events.
- 194.f. The permittee must continue to maintain a log of all excess emissions in accordance with LRAPA 36-025(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]
- 195. Permit Deviations Reporting: The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within 15 days of the deviation. Deviations that cause excess emissions, as specified in LRAPA title 36 must be reported in accordance with Condition 194 [OAR 340-218-0050(3)(c)]
- 196. The permittee must report the following information within 30 days of the end of each calendar month to the LRAPA office: [LRAPA 33-070(6)] This condition is LRAPA-only enforceable pending EPA approval of Section 111(d) Plan.
  - 196.a. Daily average emissions of TRS gases expressed in parts per million (ppm) as H<sub>2</sub>S on a dry gas basis with oxygen concentrations, if oxygen corrections are required, from emissions units EU-445C and EU-455;
  - 196.b. Daily average emissions of TRS gases in pounds of total reduced sulfur per equivalent ton of pulp processed (kg/ADMT or lb/adt), expressed as H<sub>2</sub>S from emissions units EU-445C and EU-455;
  - 196.c. Maximum daily 3-hour average emissions of SO<sub>2</sub> based on all samples collected during one (1) sampling period from the #4 Recovery Furnace EU-445C, expressed as ppm, dry basis;
  - 196.d. Number of 6-minute average opacities from the #4 Recovery Furnace stack EU-445C that exceed 35% opacity, and all daily average opacities from the #4 Recovery Furnace stack EU-445C;
  - 196.e. Daily average pounds of particulate matter per equivalent ton of pulp produced for the #4 Recovery Furnace EU-445C based on source test results;
  - 196.f. Results of the last two (2) #4 Recovery Furnace particulate matter source tests (grains per dry standard cubic foot), the stack flow rate (dscfm), and for the same source test period, the hourly average opacity;

- 196.g. All periods of non-condensable gas bypass.
- 196.h. Monthly calculations of 12-month rolling averages PSELS in tons per year for EU-150A, EU-150B, EU-445C and EU-455 combined (Regional Haze Round II SAFO Combustion Units PSEL) to demonstrate compliance with Condition 170 (Regional Haze combined limits).
- 196.i. Daily arithmetic average oxygen and NO<sub>x</sub> concentrations from the NO<sub>x</sub> CEMS for EU-150A.
- 197. The permittee must submit three (3) copies of reports of any required monitoring at least every 6 months, completed on forms approved by LRAPA. Six-month periods are January 1 to June 30, and July 1 to December 31. One copy of the report must be submitted to the EPA and two copies to the LRAPA office. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)]
  - 197.a. The first semi-annual report is due on August 15 and must include the semi-annual compliance certification, OAR 340-218-0080.
  - 197.b. The annual report is due on March 15 and must include the items required by Condition 200:
- 198. The semi-annual compliance certification must include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]
  - 198.a. The identification of each term or condition of the permit that is the basis of the certification;
  - 198.b. The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. *Note: Certification of compliance with the monitoring conditions in the permit is sufficient to meet this requirement, except when the permittee must certify compliance with new applicable requirements that are incorporated by reference. When certifying compliance with new applicable requirements that are incorporated by reference, the permittee must provide the information required by this condition.* Such methods and other means include, at a minimum, the methods and means required under OAR 340-218-0050(3). If necessary, the permittee also must identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;
  - 198.c. The status of compliance with permit terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Condition 198.b. The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under LRAPA 36-005 occurred;
  - 198.d. Such other facts as LRAPA may require to determine the compliance status of the source.
- 199. Notwithstanding any other provision contained in any applicable requirement, the permittee may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]
- 200. The annual monitoring report required by Condition 197.b must consist of:
  - 200.a. Specific annual reporting requirements: [LRAPA 34-016 and OAR 340-218-0050(3)]
    - 200.a.i. Fuel sulfur analyses certificates or analysis results for ULSD No. 2 fuel oil in accordance with Condition 12;
    - 200.a.ii. Annual pulp production (ADMT or ADT) through EU-445C;
    - 200.a.iii. Tons of dry black liquor solids burned in EU-445C;
    - 200.a.iv. Annual amounts and types of each fuel combusted during each day in EU-445C;
    - 200.a.v. Annual records of CaO production, tons of CaCO<sub>3</sub> makeup and equivalent pulp production for EU-455;

- 200.a.vi. Annual records of the amounts of each fuel combusted in EU455;
- 200.a.vii. Annual records of fuel usage for emissions units EU-150A and EU-150B, and the percent of heat input provided by ULSD No. 2 fuel oil per calendar year;
- 200.a.viii. Annual records of pulp production through EU-420 (Kamyr digester);
- 200.a.ix. Annual records of days of operation for EU-420;
- 200.a.x. Annual records of chips handled through EU-310 based on pulp throughput;
- 200.a.xi. Annual records of chips handled and stored through EU-320 based on pulp throughput;
- 200.a.xii. Annual records of BDT of fines, processed and stored in EU-330 (Fines System);
- 200.a.xiii. Annual records of paper production for EU-715A and EU-715B;
- 200.a.xiv. Annual records of days of operation for EU-600 and EU-715A & B; and
- 200.a.xv. Annual records of OCC production for EU-600;
- 200.b. Emission fee report; [OAR 340 division 220]
- 200.c. Excess emissions upset log (excluding incidents that the permittee has already reported as allowable under LRAPA title 36 in the monthly reports); [LRAPA 36-025]
- 200.d. Second semi-annual compliance certification, covering the period from July 1 to December 31; [OAR 340-218-0080] and
- 200.e. The annual report must also include annual greenhouse gas (GHG) emissions in accordance with Condition 202 (no later than March 31 of each year). [OAR 340-215-0010(2) and 340-215-0040]
- 201. Other reporting requirements stated elsewhere in this permit include the following: [LRAPA 34-016 and OAR 340-218-0050(3)]
  - 201.a. Source test plans for each emissions unit and pollutant to be tested and requested revisions to the source test plan, thereafter; and
  - 201.b. Emission factor verification testing summaries as required by Conditions 86.e (#4 Rec), 128.h (Misc. TRS), 148.d (Package Boiler), 179.e (EF Verification), and 178 (PSEL Monitoring).
- 202. Greenhouse Gas Registration and Reporting: If the calendar year emission rate of greenhouse gases (CO<sub>2</sub>e) is greater than or equal to 2,756 tons (2,500 metric tons), the permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215. The greenhouse gas report must be certified by the responsible official consistent with OAR 340-218-0040(6). In accordance with OAR 340-215-0046, the annual GHG report is due by March 31 of each year.
- 203. Any application form, report, or compliance certification submitted by the permittee to LRAPA must contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under OAR chapter 340 division 218, must state that, based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [OAR 340-218-0040(6)]
- 204. Notwithstanding any other provision contained in any applicable requirement, the permittee may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]
- 205. Addresses of regulatory agencies are the following, unless otherwise instructed:

|  |  |
|--|--|
| LRAPA<br>1010 Main Street<br>Springfield, OR 97477<br>(541) 736-1056 | Part 70 Operating Permit Program<br>US EPA Region 10, Mail Stop: OAW-150<br>1200 Sixth Avenue<br>Seattle, WA 98101<br>(206) 553-4273 |
|--|--|

## GENERAL CONDITIONS

### G1. General Provision

Terms not otherwise defined in the permit must have the meaning assigned to such terms in the referenced regulation.

### G2. Reference Materials

Where referenced in this permit, the version of the following materials are effective as of the dates noted unless otherwise specified in the permit:

- a. Source Sampling Manual; November 15, 2018 - State Implementation Plan Volume 4, Appendix A4;
- b. Continuous Monitoring Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A6; and
- c. All state and federal regulations as in effect on the date of issuance of this permit.

### G3. Applicable Requirements [OAR 340-218-0010(3)(b)]

Oregon Title V Operating Permits do not replace requirements in Air Contaminant Discharge Permits (ACDP) issued to the source even if the ACDP(s) have expired. For a source operating under a Title V permit, requirements established in an earlier ACDP remain in effect notwithstanding expiration of the ACDP or Title V permit, unless a provision expires by its terms or unless a provision is modified or terminated following the procedures used to establish the requirement initially. Source specific requirements, including, but not limited to TACT, RACT, BACT, and LAER requirements, established in an ACDP must be incorporated into the LRAPA Title V Operating Permit and any revisions to those requirements must follow the procedures used to establish the requirement initially.

### G4. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

- a. The permittee must comply with all conditions of the federal operating permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance must be supplemental to, and must not sanction noncompliance with the applicable requirements on which it is based.
- c. For applicable requirements that will become effective during the permit term, the source must meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

### G5. Masking Emissions:

The permittee must not install or use any device or other means designed to mask the emission of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [LRAPA 32-050(2)] This condition is LRAPA-only enforceable.

G6. Credible Evidence

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [LRAPA 34-017]

G7. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(c)(D), and 340-218-0080(2)]

Any document submitted to LRAPA or EPA pursuant to this permit must contain certification by a responsible official of truth, accuracy and completeness. All certifications must state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and, complete. The permittee must promptly, upon discovery, report to LRAPA a material error or omission in these records, reports, plans, or other documents.

G8. Outdoor Burning [LRAPA Title 47]

The permittee is prohibited from conducting outdoor burning, except as may be allowed by LRAPA 47-001 through 47-030.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR 340-248-0240, and LRAPA 43-015 (LRAPA-only enforceable)]

The permittee must comply with OAR 340-248-0240, LRAPA 43-015, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee must comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-218-0110]

- a. Compliance with the conditions of the permit must be deemed compliance with any applicable requirements as of the date of permit issuance provided that:
  - i. such applicable requirements are included and are specifically identified in the permit, or
  - ii. LRAPA, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- b. Nothing in this rule or in any federal operating permit must alter or affect the following:
  - i. the provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
  - ii. the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - iii. the applicable requirements of the national acid rain program, consistent with Section 408(a) of the FCAA; or
  - iv. the ability of LRAPA to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).
- c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative

amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by LRAPA.

G12. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee must allow Lane Regional Air Protection Agency, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

- a. Enter upon the permittee's premises where a Title V operating permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by the FCAA or LRAPA rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee must pay an annual base fee and an annual emission fee for all regulated air pollutants except for carbon monoxide, any class I or class II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act, or any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation under Section 112(r) of the Federal Clean Air Act. The permittee must submit payment to Lane Regional Air Protection Agency, 1010 Main Street, Springfield, Oregon, 97477, within 30 days of the date LRAPA mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to LRAPA. Payment must be made regardless of the dispute. User-based fees must be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

- a. The permittee must monitor for, and record, any off-permit change to the source that:
  - i. Is not addressed or prohibited by the permit;
  - ii. Is not a Title I modification;
  - iii. Is not subject to any requirements under Title IV of the FCAA;
  - iv. Meets all applicable requirements;
  - v. Does not violate any existing permit term or condition; and
  - vi. May result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in LRAPA Title 12.
- b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to LRAPA and the EPA.
- c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.
- d. The permit shield of Condition G11 must not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

- a. The permittee must monitor for, and record, any Section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:
  - i. Violate an applicable requirement;
  - ii. Contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
  - iii. Be a Title I modification.
- b. A minimum 7-day advance notification must be submitted to LRAPA and the EPA in accordance with OAR 340-218-0140(3)(b).
- c. The permit shield of Condition G11 must not extend to Section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit must be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

- a. Legal change of the registered name of the company with the Corporations Division of the State of Oregon, or
- b. Sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-218-0170]

The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.

G18. Significant Permit Modification [OAR 340-218-0180]

The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180.

G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]

Notwithstanding Conditions G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G20. Construction/Operation Modification [OAR 340-218-0190]

The permittee must obtain approval from LRAPA prior to construction or modification of any stationary source of air pollution control equipment in accordance with LRAPA 34-010 and 34-034 through 34-038.

G21. New Source Review Modification [LRAPA 38-0010]

The permittee must not begin construction of a major source or a major modification of any stationary source without having received an Air Contaminant Discharge Permit (ACDP) (LRAPA 34-010) from LRAPA and having satisfied the requirements of LRAPA Title 38 (New Source Review).

G22. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity will not be a defense. It will not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G23. Duty to Provide Information [OAR 340-218-0050(6)(e) and LRAPA 34-015]

The permittee must furnish to LRAPA, within a reasonable time, any information that LRAPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee must also furnish to LRAPA copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to LRAPA along with a claim of confidentiality.

G24. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

- a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by LRAPA.
- b. A permit must be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).
- c. Proceedings to reopen and reissue a permit must follow the same procedures as apply to initial permit issuance and must affect only those parts of the permit for which cause to reopen exists.

G25. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G26. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

- a. This permit must expire at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.
- b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless LRAPA requests an earlier submittal. If more than 12 months is required to process a permit renewal application, LRAPA must provide no less than six (6) months for the owner or operator to prepare an application.
- c. Provided the permittee submits a timely and complete renewal application, this permit must remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G27. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G28. Property Rights [340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G29. Permit Availability [LRAPA 34-015 and 340-218-0120(2)]

The permittee must have available at the facility at all times a copy of the LRAPA Title V Operating Permit and must provide a copy of the permit to LRAPA or an authorized representative upon request.

International Paper  
Springfield Mill

Permit Number: 208850  
Expiration Date: January 23, 2029  
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ALL INQUIRIES SHOULD BE DIRECTED TO:

Lane Regional Air Protection Agency  
1010 Main Street  
Springfield, OR 97477  
(541) 736-1056