



Report Date: May 22, 2019

File: 1644

Report Number: 119633

REGISTERED MAIL

Mackenzie Pulp Mill Corporation

PO Box 2609

1000 Coquawaldi Road

Mackenzie, BC V0J 2C0

Dear Mackenzie Pulp Mill Corporation

Re: Warning Letter, Permit, 1644

On November 14, 2018, Ministry of Environment, Environmental Protection Division staff conducted an inspection under *Environmental Management Act (EMA)*, 1644. The inspection determined that Mackenzie Pulp Mill Corporation is out of compliance with its Permit 1644, and the section(s) listed below. This Warning Letter lists the compliance verification information contained below.

Failure to comply with the requirements set out in your Permit is an offence under the *Environmental Management Act (EMA)*. Section 120(6) of *EMA* states as follows:

120(6) A person who, holding a permit or approval issued to the person under this Act to introduce waste into the environment, introduces waste into the environment without having complied with the requirements of the permit or approval commits an offence and is liable on conviction to a fine not exceeding \$1 000 000 or imprisonment for not more than 6 months, or both.

It should also be noted that, as an alternative to prosecution of the offence referenced above, the Ministry may initiate action to impose an administrative penalty against Mackenzie Pulp Mill Corporation. *The Administrative Penalties Regulation (EMA)* (B.C. Reg. 133/2014) (APR) was brought into force in 2014. The APR describes the prescribed provisions of the *EMA* as well as that of specified regulations under which administrative penalties can be assigned. Section 12(5) of the APR states as follows:

12(5) A person who fails to comply with a requirement of a permit or approval issued or given under the Act is liable to an administrative penalty not exceeding \$40 000, unless the requirement the person failed to comply with is also a prescribed provision of the EMA or the regulations that is subject to a different maximum administrative penalty.

I request that Mackenzie Pulp Mill Corporation immediately implement the necessary changes or modifications to correct the non-compliance(s) listed above with the *Environmental Management Act*. Further, I request that Mackenzie Pulp Mill Corporation notify this office in writing, by email or letter within 30 days of this letter, advising what corrective measures have been taken, and what else is being done, to prevent similar non-compliances in the future.

Please submit your response to the Ministry's Compliance Mailbox at EnvironmentalCompliance@gov.bc.ca.

As a result of this Warning, this authorization will be prioritized for follow-up inspection. The corrective measures will be reviewed by an Officer as part of the next inspection.

Finally, if you fail to take the necessary actions to restore compliance, you may be subject to escalating enforcement action. This Warning Letter and the alleged violations and circumstances to which it refers, will form part of the compliance history of Mackenzie Pulp Mill Corporation and will be taken into account in the event of future violations.

**Ministry of Environment
and Climate Change
Strategy**

Compliance
Environmental
Protection Division

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Prince George BC V2L 3H9

Telephone: 250 565 6135
Facsimile: 250 565 6629
Website: www.gov.bc.ca/env

Inspection Details:

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| Requirement Description: | <p>1. Specific Authorized Discharges and Related Requirements, 1.1 Recovery Boiler Stack (located as shown in Appendix A) 1.1.1: The maximum authorized rate of discharge is 5600 m3/min for 24 hours/day, 7 days/week. The normal operating period is 24 hours/day.</p> |
| Details/Findings: | <p>On February 14, 2019, Ministry of Environment and Climate Change Strategy (Ministry) Officer Garda conducted an office review inspection of Mackenzie Pulp Mill Corporation pulp mill located near Mackenzie, B.C. to verify compliance with permit 1644 (Permit). The Permit authorizes the discharge of contaminants to air from a bleach kraft pulp mill. The Permit was first issued on April 13, 1976, and last amended on February 5, 2018.</p> <p>The time period covered by this inspection was from July 1, 2017, to February 4, 2018 (inspection period). Due to the time period of this inspection, compliance is being assessed with the May 17, 2010 version of the Permit. This inspection included the review of the following documentation: - Monthly Reports from June 2017 to January 2018;</p> <p>A review of the monthly reports for July 2017, and from September 2017 to January 2018 determined that the recovery boiler flow rate was within the Permit limit within these time periods. The August 2017 monthly report did not provide rate of discharge data for the recovery boiler; therefore, compliance with the rate of discharge requirement could not be determined for this month.</p> |
| Compliance: | Not Determined |
| Requirement Description: | <p>1. Specific Authorized Discharges and Related Requirements, 1.1 Recovery Boiler Stack (located as shown in Appendix A) 1.1.2: The emission of bivalent sulphur compounds (as H₂S) shall not exceed an average daily concentration of 8.3 mg/m³ (5.86 ppm) and shall not exceed an average hourly concentration of 16.6 mg/m³ (11.7ppm).</p> |
| Details/Findings: | <p>A review of the monthly reports from July 2017 to January 2018 determined that the recovery boiler bivalent sulphur compounds (as H₂S) hourly average concentration limit was exceeded three times during this time period. The exceedances were reported as follows:</p> <ul style="list-style-type: none"> - August 6, 2017 at 22:00 - 13.19 ppm - September 12, 2017 at 05:00 - 15.56 ppm - December 20, 2017 at 05:00 - 16.24 ppm |
| Compliance: | Out |

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| Actions to be taken: | Ensure that the emission of bivalent sulphur compounds (as H ₂ S) does not exceed the Permit limits. |
| Requirement Description: | 1. Specific Authorized Discharges and Related Requirements, 1.1 Recovery Boiler Stack (located as shown in Appendix A) 1.1.4: From January 1, 1991 onwards, the emission of particulate matter shall not exceed a concentration of 230mg/m ³ (corrected to 6% O ₂). |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the recovery boiler particulate matter (PM) emission was within the Permit limit during the quarterly stack tests conducted during this inspection period. Stack testing was conducted on September 28, 2017 - 88.86 mg/m ³ , October 17, 2017 - 223.81 mg/m ³ , and January 9, 2018 202.89 mg/m ³ , corrected to 6% O ₂ . |
| Compliance: | In |
| Requirement Description: | 1. Specific Authorized Discharges and Related Requirements, 1.2 "Other Sources" - (Lime Kiln Stack, Dissolving Tank Stack, Slaker Vent Stackm and Brown Stock and Pulping Vent located in Appendix A) 1.2.1: The maximum authorized rate of discharge is 2450m ³ /min for 24 hours/day, 7 days/week. The normal operating period is 24 hours/day. |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the flow rate from "other sources" were within the Permit limit during these time periods. |
| Compliance: | In |
| Requirement Description: | 1. Specific Authorized Discharges and Related Requirements, 1.2 "Other Sources" - (Lime Kiln Stack, Dissolving Tank Stack, Slaker Vent Stackm and Brown Stock and Pulping Vent located in Appendix A) 1.2.2: The emission of bivalent sulphur compounds (as S) shall not exceed a total mass of 0.35 kg/ADUt. (Asterisk) Asterisk reads: The mass of the contaminant is relative to the air dry unbleached tonnes of pulp produced on the day of sampling |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the emission of bivalent sulphur compounds from "other sources" did not exceed the Permit limit during this time period. |

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| Compliance: | In |
| Requirement Description: | <p>1. Specific Authorized Discharges and Related Requirements, 1.2 "Other Sources" - (Lime Kiln Stack, Dissolving Tank Stack, Slaker Vent Stackm and Brown Stock and Pulping Vent located in Appendix A)</p> <p>1.2.3: The emission of particulate matter from the dissolving tank shall not exceed a total mass of 0.35 kg/ADUt. (Asterisk) Asterisk reads: The mass of the contaminant is relative to the air dry unbleached tonnes of pulp produced on the day of sampling</p> |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the PM emission from the dissolving tank were within the Permit limit during quarterly stack tests for this time period. Stack testing was conducted on July 27, 2017, and October 16, 2017. |
| Compliance: | In |
| Requirement Description: | <p>1. Specific Authorized Discharges and Related Requirements, 1.2 "Other Sources" - (Lime Kiln Stack, Dissolving Tank Stack, Slaker Vent Stackm and Brown Stock and Pulping Vent located in Appendix A)</p> <p>1.2.4: The emission of particulate matter from the lime kiln shall not exceed a concentration of 230mg/m³ particulate concentrations.</p> |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the PM emission from the lime kiln were within the Permit limit for this time period. Stack testing was conducted on July 27, 2017, and October 16, 2017. |
| Compliance: | In |
| Requirement Description: | <p>1. Specific Authorized Discharges and Related Requirements, 1.3 Power Boiler Stack (located as shown in Appendix A)</p> <p>1.3.1: The maximum authorized rate of discharge is 3800 m³/min for 24 hours/day, 7 days/week. The normal operating period is 24 hours/day.</p> |
| Details/Findings: | A review of the monthly reports for July 2017, and from September 2017 to January 2018 determined that the power boiler flow rates were within the Permit limit for these time periods. The August 2017 monthly report did not provide flow rate data for the power boiler as stack testing was not conducted in August; therefore, compliance with the rate of discharge requirement could not be determined for this month. |

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| Compliance: | Not Determined |
| Requirement Description: | 1. Specific Authorized Discharges and Related Requirements, 1.3 Power Boiler Stack (located as shown in Appendix A) 1.3.2: The emission of particulate matter shall not exceed a concentration of 460 mg/m ³ (corrected to 8% O ₂). |
| Details/Findings: | A review of the monthly reports for July 2017, and from September 2017 to January 2018 determined that the power boiler emissions were within the Permit limit for these time periods. The August 2017 monthly report did not provide PM data for the power boiler as stack testing was not conducted in August; therefore, compliance with the rate of discharge requirement could not be determined for this month. |
| Compliance: | Not Determined |
| Requirement Description: | 1. Specific Authorized Discharges and Related Requirements, 1.4 Bleach Plant Exhaust Stack (located as shown in Appendix A) 1.4.1: The maximum authorized rate of discharge is 1125m ³ /min for 24 hours/day, 7days/week. The normal operating period is 24 hours/day. |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the bleach plant flow rate was reported in June, September, and December of 2017 during this time period. The reported flow rates were within the Permit limit. As the bleach plant flow rate was not reported for all months during this time period and the Permit does not stipulate a flow rate monitoring and reporting frequency, compliance with this requirement could not be determined. |
| Compliance: | Not Determined |
| Requirement Description: | 9. Monitoring Requirements; 9.1 Recovery Boiler (Stack #1) 9.1: Discharge Rate - Monthly; Particulate Matter - Quarterly; Bivalent Sulphur Compounds - Continuous; Sulphur Dioxide - Monthly. |

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| Details/Findings: | <p>A review of the monthly reports for July 2017, and from September 2017 to January 2018, determined that emission monitoring data for recovery boiler discharge rate, PM, bivalent sulphur compounds, and sulphur dioxide was conducted at the frequencies required during these time periods. Stack testing for PM was conducted on September 28, 2017, October 17, 2017, and January 9, 2018.</p> <p>The recovery boiler rate of discharge, bivalent sulphur compounds, and sulphur dioxide concentration was not reported in the August 2018 monthly report; therefore compliance with this requirement can not be determined for August 2018.</p> |
| Compliance: | Not Determined |
| Actions to be taken: | Ensure that recovery boiler monitoring is conducted at the frequencies required in the permit, and report as required as per Permit Section 14. |
| Requirement Description: | <p>9. Monitoring Requirements; 9.3 Brown Stock and Pulping Vent (Vent #8)</p> <p>9.3: Discharge Rate - Monthly; Bivalent Sulphur Compounds - Monthly.</p> |
| Details/Findings: | A review of the monthly reports from July 2017 to January 2018 determined that the brown stock and pulping vent monitoring was conducted as required. |
| Compliance: | In |
| Requirement Description: | <p>9. Monitoring Requirements; 9.4 Power Boiler (Stack #2)</p> <p>9.4: Discharge Rate - Monthly; Particulate Matter - Quarterly; NOX - Quarterly; Opacity - continuous.</p> |

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| Details/Findings: | <p>A review of the monthly reports from July 2017 to January 2018 determined that power boiler emission monitoring was not conducted at the frequencies required by the Permit. Monitoring for the recovery boiler discharge rate and PM emission was not conducted in August 2018; these parameters are required to be monitored monthly. Page one of the August 2018 monthly report states that "The Power Boiler monthly particulate testing was not completed in August. We were unable to get a test scheduled before the start of the annual shutdown on August 19 and the mill was down for the rest of the month."</p> <p>A review of the monthly reports from July 2017 to January 2018 determined that NOX was tested quarterly, as required by the Permit.</p> |
| Compliance: | Out |
| Actions to be taken: | <p>Ensure that power boiler emission monitoring is conducted at the frequencies required by the Permit.</p> <p>The Permittee is responsible for scheduling and conduction monitoring at the frequencies required by the Permit. An annual shutdown is part of routine maintenance where the dates of the shutdown are known in advance, and under this circumstance is not considered a valid reason for failing to monitor at the frequencies required by the permit.</p> |
| Requirement Description: | <p>9. Monitoring Requirements; 9.5 Bleach Plant</p> <p>9.5: Chlorine Residual (after chlorination stage) - Hourly; Exhaust Gas Chlorine - Quarterly; Exhaust Gas Chlorine Dioxide - Continuous and Quarterly</p> |
| Details/Findings: | <p>A review of the monthly reports from July 2017 to January 2018 determined that bleach plant continuous exhaust gas chlorine dioxide monitoring was conducted continuously and quarterly testing for bleach plant exhaust gas chlorine dioxide was conducted on September 29, 2017 and December 8, 2017 during this time period.</p> |
| Compliance: | In |

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| Requirement Description: | <p>14. Reporting</p> <p>14: Monitoring results from sections 9.1 to 9.6 submitted to the Regional Waste Manager on a monthly basis within 31 days of the monitoring period. Results from the monitoring of bivalent sulphur compounds as required in sections 9.1 to 9.3 shall be reported as a daily and an hourly average. Results from the monitoring of chlorine residual as required in section 9.5 shall be reported as daily average and the maximum hourly concentration for each day.</p> |
| Details/Findings: | <p>A review of the monthly reports from July 2017 to January 2018 determined the following:</p> <ul style="list-style-type: none"> - Monitoring results from sections 9.1 to 9.5 were submitted to the Regional Waste Manager within 31 days of the monitoring period; - Results from the monitoring of bivalent sulphur compounds as required in sections 9.1 to 9.3 were reported as a daily and an hourly average; and - Results from monitoring of chlorine residual as required in section 9.5 were reported as daily average and the maximum hourly concentration for each day. |
| Compliance: | In |
| Requirement Description: | <p>15. Reporting Format</p> <p>15: The monitoring data required in sections 9.1 through 9.6 above are to be suitably tabulated and submitted on paper or compiled using a computer program format which is compatible with a Lotus 1-2-3 spreadsheet. The data may then be stored in a standard 3.50" or 5.25" computer diskette for submission to the Waste Management Branch in accordance with the specified reporting requirements.</p> |
| Details/Findings: | <p>A review of the monthly reports from July 2017 to January 2018 determined that monitoring was submitted electronically in a tabulated format.</p> <p>The recovery boiler rate of discharge, bivalent sulphur compounds, and sulphur dioxide concentration was not reported in the August 2018 monthly report as required in Permit Section 9.1; therefore, the permittee is out of compliance with this reporting requirement.</p> |
| Compliance: | Out |

Compliance History:

2012-02-09 - IR624 - Investigation - Sections 1.1.2 Recovery Boiler Stack, 1.2.2 Other Sources, and 1.3 Boiler Stack.
2012-12-17 - IR5601 - Investigation - Sections 1.1.2 Recovery Boiler Stack, 1.3 Boiler Stack, 9.1 Recovery Boiler, 12 Sampling Locations and Techniques, 13.3 Bivalent Sulphur Compounds, and 14 Reporting.
2013-04-29 - IR9988 - Investigation - Sections 1.3 Boiler Stack, and Replicate Sampling Results.
2013-08-27 - IR11481 - Warning - Sections 1.1.5 Recovery Boiler Stack, 4.0 Maintenance of Works and Emergency Procedures, 13.3 Bivalent Sulphur Compounds, and Replicate Sampling Results.
2014-01-29 - IR15562 - Investigation - Sections 1.1.2 Recovery Boiler Stack, 1.2.2 Other Sources, 1.3 Boiler Stack, 9.2 Lime Kiln, Dissolving Tank, Slaker, 13.3 Bivalent Sulphur Compounds and Replicate Sampling Results.
2015-03-31 - IR20050 - Advisory - Sections 1. Specific Authorized Discharges and Related Requirements, and 9.1 Recovery Boiler (Stack 1)
2016-03-02 - IR26267 - Advisory - Sections 1.1.5 Recovery Boiler Stack, and 7 Process Modifications
2016-03-29 - IR26293 - Investigation - Sections 1. Specific Authorized Discharges and Related Requirements, 9.0 Monitoring Requirements, 13. Source Testing Procedures, 14 Reporting
2017-07-14 - IR52911 - Administrative Penalty Referral - Sections 1.1.2 Recovery Boiler Stack, 1.1.4 Recovery Boiler Stack, 1.2.2 "Other Sources", 1.3.2 Power Boiler Stack, 4. Maintenance of Works and Emergency Procedures, 9.1 Recovery Boiler (Stack #1), 9.5 Bleach Plant, 12. Sampling Locations and Techniques.

The Ministry of Environment Compliance and Enforcement Policy and Procedure (C&E Policy) prescribes common requirements and procedures for all Ministry staff to ensure consistent and riskbased assessment and response to non compliance. Using the Non-Compliance Decision Matrix, the compliance determination for this inspection has been assessed as a **Level 2, Category C**.

More information about Environmental Compliance, the Non-Compliance Decision Matrix, and reporting and data submission requirements can be found at the links below:

General compliance information:

www.gov.bc.ca/environmentalcompliance

Non-Compliance Decision Matrix information:

www.gov.bc.ca/environment/how-compliance-is-assessed

Reporting and data submission requirements (to be sent to EnvAuthorizations@gov.bc.ca):

www.gov.bc.ca/submit-waste-authorization-reports

Please be advised that this inspection report may be published on the provincial government website within 7 days.

If you have any questions about this warning, please contact the undersigned.

Yours truly,

Chris Garda
Environmental Protection Officer

cc: COS - South Peace Region

Attachments:

Deliver via:

Email:

Fax:

Mail:

Registered Mail:

Hand Delivery:

**Ministry of Environment
and Climate Change
Strategy**

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DISCLAIMER:

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of the regulations and codes of practices please visit
<http://www.bclaws.ca>

If you require a copy of the original permit, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.