



REGISTERED MAIL

File: PE-1138

August 26, 2014

Mackenzie Pulp Mill Corporation
PO Box 2609
Mackenzie BC
V0N 2C0

Attention: Nicholas Lewis, Loss Prevention Manager

RE: Effluent Toxicity Failure

Dear Mr. Lewis,

Thank you for your letter dated August 22, 2014 requesting a reduction in the frequency of testing of the final outfall of the Mackenzie Pulp Mill Corporation.

Review of the file indicates that there have been no rainbow trout mortalities reported since July 25, 2014 and the TSS, BOD₅ and COD levels have also dropped significantly.

In accordance with section 4 of permit PE-1138, effective today, the monitoring program outlined in section 4.1.1 is hereby modified as follows:

4.1.1 Effluent from the Effluent Treatment System

4.1.1.1 Abnormal Operating Conditions

In addition to the requirements under section 4.1.5 and 4.1.6 if a Rainbow Trout (96 hour LC50) test fails to pass under section 2.1.3.1, or if each of three consecutive:

1. Daily COD test results are \geq than 900 mg/L;
2. Daily BOD₅ test results are greater than permit limits under section 2.1.3.2 ; and
3. Daily TSS test results are greater than permit limits under sections and 2.1.3.3, then

Testing must be as per Table A unless otherwise instructed by the Director.

Table A-Abnormal Operating Conditions

Parameter	Frequency	Sample Type	Comment
Temperature	Continuous	In-Line	
Total Suspended Solids	Daily	Composite	
Volatile Suspended Solids	Once/Week	Composite	
Chemical Oxygen Demand (COD)	Daily	Composite	NEW
BOD ₅	Daily ¹	Composite	Revised
Rainbow Trout (96 hour LC ₅₀)	M/W/F ⁵	Grab	Revised
Daphnia magna (48 hour LC ₅₀)	M/W/F ⁵	Grab	Revised
pH	Daily	Grab	
pH	Continuous	In-Line	
Conductivity	Continuous	In-Line	
Resin Acids	M/W/F ⁵	Grab	Revised
AOX	Once/Week	Composite	
Dioxin/Furan ³	As per Federal Regulation	As per Federal Regulation	
Flow	Daily	In-Line	
Dissolved Oxygen	Daily	Grab	
Ammonia (as N) ⁴	Daily	Grab	
Nitrate (as N)	Once/Week	Grab	Revised
Total Kjeldahl Nitrogen (as N)	Once/Week	Grab	Revised
Total Phosphorous	Once/Week	Grab	Revised
Total Dissolved Phosphorous	Once/Week	Grab	Revised

4.1.1.2 Normal Operating Conditions

If each of three consecutive:

1. Rainbow Trout (96 hour LC50) tests pass under section 2.1.3.1;
2. Daily COD test results are less than 900 mg/L;
3. Daily BOD₅ test results are within the permit limit under section 2.1.3.2 ; and
4. Daily TSS test results are within permit limits under sections and 2.1.3.3, then

testing must be as per Table B unless otherwise instructed by the Director.

Table B-Normal Operating Conditions

Parameter	Frequency	Sample Type	Comment
Temperature	Continuous	In-Line	
Total Suspended Solids	Daily	Composite	
Volatile Suspended Solids	Once/Week	Composite	
Chemical Oxygen Demand (COD)	Daily	Composite	NEW
BOD ₅ August 25, 2014-September 12, 2014	Daily ¹	Composite	Revised
BOD ₅ Sept 13, 2014 onward	3 x per week ¹	Composite	Revised
Rainbow Trout (96 hour LC ₅₀) August 25, 2014-September 12, 2014	Once/week ²	Grab	Revised
Rainbow Trout (96 hour LC ₅₀) September 13, 2014 onward	Once/month ²	Grab	Revised
Daphnia magna (48 hour LC ₅₀) August 25, 2014-September 12, 2014	M/W/F ⁵	Grab	Revised
Daphnia magna (48 hour LC ₅₀) September 13, 2014 onward	Once/week ²	Grab	Revised
pH	Daily	Grab	
pH	Continuous	In-Line	
Conductivity	Continuous	In-Line	
Resin Acids	Once/week ²	Grab	
AOX	Once/week	Composite	
Dioxin/Furan ³	As per Federal Regulation	As per Federal Regulation	
Flow	Daily	In-Line	
Dissolved Oxygen	Daily	Grab	
Ammonia (as N) ⁴	Daily	Grab	
Nitrate (as N)	Once/Month	Grab	
Total Kjeldahl Nitrogen (as N)	Once/Month	Grab	
Total Phosphorous	Once/Month	Grab	
Total Dissolved Phosphorous	Once/Month	Grab	

¹ Where bypassing of the first aeration lagoon is occurring, as authorized by subsection 3.2.2, the BOD₅ frequency remains daily.

² Report results in terms of percent mortality.

³ Non-measurable concentrations of dioxins and furans are measured as less than 15 +/- 5 ppq for 2,3,7,8 TCDD and 50 ppq for 2,3,7,8 TCDF.

⁴ Sample to include pH and temperature at time of sampling (field reading) and pH and temperature at time of laboratory analysis.

⁵ Monday, Wednesday and Friday in addition to initial 4.1.6 test requirement.

Corrective action, immediate retest requirements and reporting as per sections 4.1.5 and 4.1.6 remain in effect. Results are to also be included to the monthly report submitted under section 4.5.

All Permittees are required to fully comply with the Act including permit conditions at all times. Failure to do so may result in referral to the Conservation Officer Service for investigation and possible escalating enforcement action. This letter has been issued without prejudice to any past, ongoing or future enforcement action that may be a result of noncompliance at this facility. Note this letter does not constitute authorization to discharge beyond the limits identified in permit PE-1138.

Yours truly,



Brady Nelless
for Director, *Environmental Management Act*

/PDL
CC. Environment Canada
Terry Bradford-General Manager Mackenzie Pulp Operations