

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 2892-ARTN8J

Issue Date: January 5, 2018

Resolute FP Canada Inc.
2001 Neebing Ave
Thunder Bay, Ontario
P7E 6S3

Site Location: 2001 Neebing Ave
Thunder Bay City, District of Thunder Bay

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

A newsprint, specialty papers and kraft market pulp manufacturing facility, consisting of the following processes and support units:

- Fibre Line;
- Kraft Bleach Plant;
- Kraft Chemical Plant;
- Kraft Digester;
- Kraft Pulp Machine;
- Kraft Reconst Area;
- Kraft Recovery Area (C Recovery Boiler and associated equipment);
- Newsmill Finishing & Shipping;
- Paper Machine 5;

- Thermal Mechanical Pulping;
- Water Quality Operations;
- Maintenance Garage;
- Chip Transfer Operation;
- Steam Generation Operations, including four (4) steam turbines, designated as Turbine No. 3, 4, 5 and 6, with electrical generation capacities of 18, 19.5, 26 and 60 megawatts, respectively, and the following boilers:
 - one (1) natural gas fired steam boiler, designated as Power Boiler No. 4, with a maximum heat input of 275.5 million kilojoules per hour, discharging into the atmosphere through a stack, having a exit diameter of 4.0 metres, extending 49.0 metres above grade and 31.6 metres above the roof;
 - one (1) non-contact cooling tower.
 - one (1) Wood Fuel Combustion System, designated as Power Boiler No. 3, having a maximum combustion capacity of 43.36 tonnes per hour of *Wood Fuel* . The maximum steam production of the above noted system is 113.5 tonnes per hour and the average steam production is 90.8 tonnes per hour. The Wood Fuel Combustion System is equipped with the following:
 - one (1) boiler complete with dump grate and pneumatic discharge, furnace dimensions of 4.6 metre depth by 5.9 metre width and approximate furnace volume of 390 cubic metres;
 - one (1) forced draft combustion air fan having a capacity of 40.8 cubic metres per second at 38 degrees Celsius;
 - one (1) induced draft exhaust fan having a capacity of 107.4 cubic metres per second at 213 degrees Celsius;
 - one (1) multiclone complete with 230 tubes; and
 - one (1) venturi type scrubber to control suspended particulate matter from the boiler, having a diameter of 5.88 metres, an overall height of 15 metres, a maximum volumetric capacity of 60 normal cubic metres per hour, using as scrubbing fluid a sodium hydroxide solution in water, having a concentration of 50 percent sodium hydroxide, at a maximum rate of 7,945 litres per minute and operating at pressure drop of 4.36 kilopascals. The scrubber is equipped with an entrainment separator-mist eliminator and vents to the atmosphere through a stack, having an exit diameter of 2.06 metres, terminating 50.29 metres above grade,

- one (1) Combustion System, designated as Power Boiler No. 6, having a maximum combustion capacity of 1362 bone dried tonnes of *Wood fuel* per day, exhausted via a stack extending 60.96 metres above grade, having an exit diameter of 3.35 metres and equipped with the following:
 - one (1) Combustion Engineering Model VU40 boiler equipped with natural gas burners with the maximum heat input of 275 megawatts (MW), complete with vibrating conveyor grate complete with fuel distributors and distributor air fan and pneumatic discharge, furnace dimensions of 7.3 metres depth by 7.6 metres width and approximate furnace volume of 1,340 cubic metres;
 - one (1) forced draft combustion air fan, having a capacity of 96 cubic metres per second at 38 degrees Celsius;
 - one (1) induced draft exhaust fan, equipped with Variable Frequency Drive, having a capacity of 204 actual cubic metres per second at 224 degrees Celsius;
 - one (1) Combustion Engineering, Model Viscodyne settling chamber;
 - one (1) Joy Manufacturing, Type SYGR14 Size6 8-13 multicone;
 - one (1) Environmental Elements Corporation, electrostatic precipitator consisting of one chamber and operating with 3 energized fields out of total of four fields with the total active collection area of approximately 6,958 square metres and a gas volume of 167 cubic metres at operating temperature of 194 degrees Celsius;
 - one (1) combustion air system, comprising dampers, nozzles and associated instrument, including upgraded overfire air system;
 - one (1) fuel infeed system, comprising reclaimers, taper slot screen, fuel-sizing equipment, conveyors, chutes, screw-metering feeders, metal detector and associated instrumentation.

including the *Equipment* and any other ancillary and support processes and activities, exhausting to the atmosphere as described in the *ESDM Report*, and operating at *Facility Production Limits* listed in the table below:

Facility Production Limits

Facility	Annual Production Limits
Kraft Mill	360,000 air dried tonnes per year
News Mill	401,500 air dried tonnes per year
Thermal Mechanical Pulp Plant	365,000 air dried tonnes per year

For the purpose of this environmental compliance approval, the following definitions apply:

1. "*Abatement Plan*" means an abatement plan, developed by the *Company*, that includes the identification and assessment of methods to reduce or prevent emissions of contaminants from Power Boiler No.3, and that includes, but is not limited to, methods such as pollution prevention, process modification, alternative production methods, product modification, product substitution, and/or add-on controls;
2. "*ACB list*" means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the *Ministry* and available on a Government website;
3. "*Acceptable Point of Impingement Concentration*" means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,
 - a. is not identified in the *ACB list*, or
 - b. is identified in the *ACB list* as belonging to the category "Benchmark 2" and has a concentration at a *Point of Impingement* that exceeds the concentration set out for the contaminant in that document.

With respect to the *Original ESDM Report*, the *Acceptable Point of Impingement Concentration* for a *Compound of Concern* mentioned above is the concentration set out in the *Original ESDM Report*;

4. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide*, by RWDI Air Inc. and dated July 19, 2011 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility*, as updated in accordance with Condition 5 of this *Approval*;
5. "*Acoustic Assessment Summary Table*" means a table prepared in accordance with the *Basic Comprehensive User Guide* summarising the results of the *Acoustic Assessment Report*, as updated in accordance with Condition 5 of this *Approval*;
6. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility*.

7. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility* , assessed to determine compliance with the Performance Limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233*.
8. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit*, prepared in accordance with *Publication NPC-233*.
9. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it;
10. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
11. "*Commissioning period*" means the 90-day period following the first start-up of a new or significantly modified large wood-fired combustor.
12. "*Company*" means Resolute FP Canada Inc. that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA*;
13. "*Compound of Concern*" means a contaminant that is not registered by the *Company* on the *Technical Standards Registry*, and that is described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05*, namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible;
14. "*Continuous Monitoring Plan*" means a plan to continuously monitor the concentration of oxygen and carbon monoxide in the undiluted gas emitted from the combustion chamber of the *Wood Fuel Combustors*, the temperature of the hot combustion gases in the *Wood Fuel Combustors*, and the opacity of the gases leaving Power Boiler No.6.
15. "*Continuous Monitoring System*" means the continuous emission monitoring system described in the *Continuous Monitoring Plan*, consisting of continuous monitors and recording devices;
16. "*Description Section*" means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility*;
17. "*Director*" means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA*;
18. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;

19. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;
20. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
21. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
22. "*Equipment*" means equipment or processes described in the *ESDM Report*, the *Technical Standard(s)* for which the *Company* is registered on the *Technical Standards Registry*, this *Approval* and in the *Schedules* referred to herein and any other equipment or processes;
23. "*Equipment with Specific Operational Limits*" means **Power Boilers No. 3, 4 and 6, and the steam turbines No. 3, 4, 5 and 6** any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval*;
24. "*ESDM Report*" means the most current Emission Summary and Dispersion Modelling Report that describes the *Facility*. The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document*;
25. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
26. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
27. "*Fuel Management Plan* " means a document or a set of documents prepared by the *Company* to provide written instructions to staff of the *Company*.
28. "*Hogged Wood Fuel* " means an unprocessed mix of coarse chips of bark and wood fibre generated by grinding or chipping action;
29. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment* . The *Independent Acoustical Consultant* shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment* .

30. "*Log*" means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report*, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2;
31. "*Manager*" means the Manager, Technology Standards Section, Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Standards Development Branch, as those duties relate to the conditions of this Approval.
32. "*Minister*" means the Minister of the Environment and Climate Change or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act;
33. "*Ministry*" means the ministry of the *Minister*;
34. "*Modification*" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may (a) discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air; or (b) discharge or alter the rate or manner of discharge of a contaminant registered by the *Company* on the *Technical Standards Registry*; or (c) discharge or alter noise or vibration emissions from the *Facility*;
35. "*Noise Abatement Action Plan*" means a noise abatement program developed by the *Company* to achieve compliance with the sound level limits set in *Publication NPC-300* .
36. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers;
37. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
38. "*Original ESDM Report*" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by Resolute FP Canada Inc. and dated August 17, 2009 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
39. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
40. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
41. "*Pre-Test Plan* " means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*

42. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated February 2017, as amended;
43. "*Processes with Significant Environmental Aspects*" means the *Equipment* which, during regular operation, would discharge (a) a *Compound of Concern* into the air in an amount which is not considered as negligible in accordance with section 26(1)4 of *O.Reg. 419/05* and the *Procedure Document* or (b) a contaminant registered by the *Company* on the *Technical Standards Registry*.
44. "*Publication NPC-103*" means the *Ministry* Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry* as amended.
45. "*Publication NPC-207*" means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry*, August 1978, as amended;
46. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
47. "Publication NPC-300" means the Ministry Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August, 2013, as amended.
48. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
- Schedule A - Supporting Documentation;
 - Schedule B - Source Testing Procedure;
 - Schedule C - Noise Abatement Action Plan; and
 - Schedule D - *Technical Standards* for which the *Company* is registered.
49. "*Paper Sludge*" means waste wood fibre from the liquid effluent primary treatment system;
50. "*Source Testing*" means sampling and testing to measure emissions resulting from operating the equipment at a level of maximum production within the approved operating range of the equipment.
51. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended.
52. "*Shut-down*" means an operating condition during which the operation of a source of contaminant is decreased from normal operating conditions to an inoperative state.
53. "*Start-up*" means an operating condition during which the operation of a source of contaminant is increased from an inoperative state to normal operating conditions.

54. "*Technical Standard*" has the same meaning as in section 1 of *O. Reg. 419/05*;
55. "*Technical Standards Registry*" means the *Ministry's* Technical Standards Registry – Air Pollution for *Technical Standard* registrations described in section 39 of *O. Reg. 419/05* made under the *EPA*;
56. "*Toxicologist*" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants;
57. "*Wood Chips* " means a piece of wood of a defined size, cut or chipped from a larger piece of wood;
58. "*Wood Fuel* " means fuel comprised of one or more of the following materials: *Hogged Wood Fuel* , *Wood Chips* , *Wood Pellets* , bark, sawdust, *Woodwaste* , cellulosic plant material, paper and *Paper Sludge* ;
59. "*Wood Fuel Combustors* " means the Wood Fuel Combustion System designated as Power Boiler No. 3 and the Combustion System designated as Power Boiler No. 6, described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
60. "*Wood Pellets* " means a pellet made from *Wood Fuel* or *Woodwaste* ;
61. "*Woodwaste* " means woodwaste as defined in Ontario Regulation 347 R.R.O. 1990, as amended;
62. "*Written Summary Form*" means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

1. Except as otherwise provided by this *Approval*, the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:

- Schedule A - Supporting Documentation;
- Schedule B - Source Testing Procedure;
- Schedule C - Noise Abatement Action Plan; and
- Schedule D - *Technical Standards* for which the *Company* is registered

2. LIMITED OPERATIONAL FLEXIBILITY

1. Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval*, future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:
 - a. are within the scope of the operations of the *Facility* as described in the *Description Section* of this *Approval*;
 - b. do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval*; and
 - c. result in compliance with the performance limits as specified in Condition 4 or result in compliance with requirements of a *Technical Standard* for which the *Facility* is registered on the *Technical Standards Registry*.
2. Condition 2.1 does not apply to,
 - a. the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility*, unless the addition or *Modification* is necessary in order to comply with a requirement of a *Technical Standard* for which the *Facility* is registered; or
 - b. *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act*.
3. Condition 2.1 of this *Approval* shall expire ten (10) years from the date of this *Approval*, unless this *Approval* is revoked prior to the expiry date. The *Company* may apply for renewal of Condition 2.1 of this *Approval* by including an *ESDM Report* and an *Acoustic Assessment Report* that describes the *Facility* as of the date of the renewal application.

3. REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION*

1. Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1.a and 2.1.b, the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification*.
2. The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* is not identified in the *ACB list* as belonging to the category "Benchmark 1" and a proposed update to an *ESDM Report* indicates that one of the following changes with respect to the concentration of the *Compound of Concern* may occur:
 - a. The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and
 - i. the concentration of the *Compound of Concern* exceeds the concentration set out for the contaminant in the *ACB list*; or
 - ii. the *Compound of Concern* is not identified in the *ACB list*; or
 - b. The concentration of the *Compound of Concern* in the updated *ESDM Report* exceeds the higher of,
 - i. the most recent *Acceptable Point of Impingement Concentration*, and
 - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
3. The request required by Condition 3.2 shall propose a concentration for the *Compound of Concern* and shall contain an assessment, performed by a *Toxicologist*, of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement*.
4. If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification*. The *Director* shall provide written confirmation of receipt of this request to the *Company*.
5. If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director*.
6. If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the *Company* shall,

- a. revise and resubmit the request; or
 - b. notify the *Director* that it will not be making the *Modification*.
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
 8. If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification*.
 9. Condition 3 does not apply if Condition 2.1 has expired.

4. PERFORMANCE LIMITS

1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,
 - a. the *Compound of Concern* is identified in the *ACB list* as belonging to the category “Benchmark 1” and the discharge results in the concentration at a *Point of Impingement* exceeding the Benchmark 1 concentration; or
 - b. the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,
 - i. if an *Acceptable Point of Impingement Concentration* exists, the most recent *Acceptable Point of Impingement Concentration*, and
 - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
2. Condition 4.1 does not apply if the benchmark set out in the *ACB list* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.
3. The *Company* shall:
 - a. implement the *Noise Control Measures* as detailed in Schedule C ;
 - b. at all times, subsequent to the completion of the *Noise Abatement Action Plan* , ensure that the noise emissions from the Facility comply with the limits set out in *Ministry Publication NPC-300* ;

- c. ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Noise Abatement Action Plan*. The *Company* shall ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.
4. The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207*.
5. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report* and Conditions in this *Approval*, unless such operation is addressed by requirement in a *Technical Standard* for which the *Facility* is registered.

5. DOCUMENTATION REQUIREMENTS

1. The *Company* shall maintain an up-to-date *Log*.
2. No later than March 31 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.
3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05*) and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility*.
4. The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval*, update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.
5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:
 - a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval*;
 - b. a summary of each *Modification* satisfying Condition 2.1.a and 2.1.b that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception*.

2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

1. The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval*, operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects*, which shall specify as a minimum:
 - a. frequency of inspections and scheduled preventative maintenance;
 - b. procedures to prevent upset conditions;
 - c. procedures to minimize all fugitive emissions;
 - d. procedures to prevent and/or minimize odorous emissions;
 - e. procedures to prevent and/or minimize noise emissions; and
 - f. procedures for record keeping activities relating to the operation and maintenance programs.
2. Condition 7.1 does not apply with respect to *Processes with Significant Environmental Aspects* which have requirements under a *Technical Standard* for which the *Company* is registered that are equivalent to the operating procedures and maintenance programs set out in Condition 7.1.
3. Condition 7.2 does not apply with respect to procedures to prevent and/or minimize noise emissions.
4. The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval*, the operating procedures and maintenance programs.
5. The *Company* shall monitor and report emissions of TRS, TSP, and meteorological data of wind speed and wind direction in accordance with the Air Quality Monitoring Manual and the following requirements:

- a. Monitoring data shall be obtained and collected at the ambient air monitoring stations located in the community listed below or at locations acceptable to and approved in writing by the *District Manager*:

Location	Ambient Air Monitoring Station Number	Parameters to be Monitored
Frederica Street	63500	TRS TSP [Hi-Vol particulate] Wind speed and wind direction
Bailey Avenue	63510	TRS TSP [Hi-Vol particulate] Wind speed and wind direction

- b. Ambient air monitoring stations shall be located, operated and maintained in accordance with the Air Quality Monitoring Manual;
- c. Emissions of *TRS*, TSP and meteorological data of wind speed/velocity, as noted in Condition 7.5(a), shall be reported to the *District Manager* in accordance with the Air Quality Monitoring Manual, or any other method acceptable to and approved in writing by the *District Manager*; and
- d. Emissions of *TRS*, TSP and meteorological data of wind speed/velocity shall be made available to the public in a timely and accessible manner, acceptable to and approved in writing by the *District Manager*.

8. COMPLAINTS RECORDING AND REPORTING

1. If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval*, the *Company* shall take the following steps:
- a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
- b. Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager*.
- c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.

- d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.
2. Condition 8.1 does not apply with respect to *Equipment* which has requirements under a *Technical Standard* for which the *Company* is registered that are equivalent to the complaints recording and response procedures set out in Condition 8.1.
3. Condition 8.2 does not apply with respect to complaints recording and response procedures pertaining to noise emissions.

9. RECORD KEEPING REQUIREMENTS

1. Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval*, including, but not limited to, any records required to be kept by this *Approval*, shall be provided to the employee in or agent of the *Ministry*, upon request, in a timely manner.
2. Unless otherwise specified in this *Approval*, the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval*, including,
 - a. a copy of the *Original ESDM Report* and each updated version;
 - b. a copy of each version of the *Acoustic Assessment Report*;
 - c. supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports*;
 - d. the records in the *Log*;
 - e. copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval*;
 - f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects*; and
 - g. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval*.

10. REVOCATION OF PREVIOUS APPROVALS

1. This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.

11. SOURCE TESTING

1. The *Company* shall, within twelve (12) months of the date of the *Approval* , perform *Source Testing* , following the Source Testing Procedure outlined in Schedule B, to determine the emission rate of Dioxins, Furans and Dioxin-like PCBs from Power Boiler No. 3.
2. The *Company* shall, within twelve (12) months of the date of the *Approval* and repeat every four (4) years thereafter, perform *Source Testing* , following the Source Testing Procedure outlined in Schedule B, to determine the emission rate of Total Suspended Particulate Matter and Benzo(a)pyrene from the *Wood Fuel Combustors* .

12. CONTINUOUS MONITORING

1. The *Company* shall submit, to the *Manager* , not later than sixty (60) days from the date of this *Approval* , a *Continuous Monitoring Plan* , complete with specifications for the *Continuous Monitoring System* and continuous recording devices, along with the verification method for demonstrating the temperature and residence time requirements for the *Wood Fuel Combustors* . The *Company* shall finalize the *Continuous Monitoring Plan* in consultation with the *Manager* .
2. The *Company* shall, install, conduct and maintain the *Continuous Monitoring System* not later than six (6) months after the *Manager* has approved the *Continuous Monitoring Plan*.
3. The *Company* , as part of a regular inspection program, shall measure, inspect and record the following parameters once daily from the venturi scrubber equipped to Power Boiler No.3:
 - a. static pressure drop across the throat of the venturi scrubber;
 - b. flow rate of the recirculated scrubbing fluid of the venturi scrubber, with an alarm set to low flow conditions;
 - c. pH of the scrubbing fluid of the venturi scrubber.
4. The *Company* shall, develop a list of operating parameters affecting the collection efficiency of the electrostatic precipitator (such as voltage, sparking frequency, rapping frequency, a gas flow indicator and similar) equipped to Power Boiler No.6 and record the values of these parameters on hourly basis or some other time period which is acceptable to the *District Manager* ;
5. The *Company* shall measure and record the type and feed rates of *Wood Fuel* to the *Wood Fuel Combustors* on a daily basis and retain these records for a minimum of three (3) years.

13. PERFORMANCE

1. The *Company* shall ensure that Power Boiler No.6 is designed and operated to comply, at all times, with the following performance requirements:

- a. The concentration of oxygen in the undiluted gas emitted from the combustion chamber of the Power Boiler No.6 shall not be less than 4 per cent by volume on a 3-hour rolling average and dry basis.
 - b. The concentration of particulate matter emitted from Power Boiler No.6 is not greater than 120 milligram per dry cubic meter, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals
 - c. The concentration of carbon monoxide in the undiluted gas emitted from Power Boiler No.6 is not greater than 800 parts per million on a dry basis, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals, 10-day rolling averaging until June 30, 2021, and 500 parts per million on a dry basis, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals, 10-day rolling averaging, there after.
2. The *Company* shall take reasonable steps to ensure that the operation of Power Boiler No.3 and Power Boiler No.6 meets the following targets:
 - a. The temperature in the combustion chamber of Power Boiler No.3 and Power Boiler No.6 , as recorded by the continuous temperature monitoring system required by this *Approval* , shall be at least 1000 degrees Celsius, and
 - b. The residence time, of the products of combustion and the combustion air, in the combustion chamber of Power Boiler No.3 and Power Boiler No.6 shall not be less than one (1) second.
3. Requirements in Sections 13.1 (a), 13.1 (b), 13.1 (c), 13.2 (a) and 13.2. (b) do not apply during the following periods:
 - a. The *Commissioning Period* of Power Boiler No.3 and Power Boiler No.6.
 - b. The *Start-up* and *Shut-down* periods of Power Boiler No.3 and Power Boiler No.6 if,
 - i. the *Shut-down* does not last for more than 6 hours,
 - ii. the *Start-up* does not last for more than 24 hours,
 - iii. the *Start-up* or *Shut-down* is conducted according to a written plan that minimizes discharges into the air during the period of start-up or shut-down.
4. No fuels other than those as approved by this *Approval* shall be used as fuel in the *Wood Fuel Combustors* .

14. BI-ANNUAL TUNE-UP

1. The *Company* shall conduct, within two (2) years of the date of this *Approval* and repeat every two (2) years thereafter, a tune-up of the *Wood Fuel Combustors* to assist in achieving effective combustion. The tune-up shall include but not be limited to:
 - a. Physical inspection of the following:
 - i. fuel handling equipment
 - ii. fuel distribution equipment
 - iii. combustion air system
 - iv. air measurement devices
 - v. grates or burners
 - b. Review of equipment performance:
 - i. review carbon monoxide and oxygen data
 - ii. review airflow data
 - iii. review air to fuel ratio data and verify operating within design criteria
 - iv. review calibration data and performance of the continuous monitoring system
 - c. Conduct combustion test:
 - i. visual observation of combustion
 - ii. monitor and adjust excess air ratio
 - iii. monitor oxygen and carbon monoxide data
2. A report shall be prepared for each tune-up, retained for a minimum of five (5) years after its creation, and made available for review by the *Ministry* upon request. The report shall include, but not be limited to:
 - a. summary of the results from the tune-up
 - b. summary of recommendations to be implemented to ensure proper combustion

- c. an implementation schedule, indicating the timeframe for the implementation of the recommendations provided in the report.

15. FUEL MANAGEMENT PLAN

1. The *Company* shall, not later than three (3) months from the date of this *Approval*, prepare a *Fuel Management Plan* for the *Wood Fuel Combustors*. The *Company* shall update the Plan as necessary. The Plan shall include, but not be limited to:
 - a. A list of the types of fuels that may be stored at the *Facility*.
 - b. For each type of fuel listed in item (a), an identification of the parameters that will demonstrate the storage quality of the fuel, including size and moisture content.
 - c. For each parameter identified under item (b), a determination of a range of values within which the fuel will be considered of acceptable quality for storage at the *Facility*.
 - d. A procedure to ensure that the fuel is tested to ensure that the value for each parameter identified under item (b) is within the range determined under item (c) for the parameter.
 - e. A procedure to ensure the fuel is inspected on a regular basis and that the inspection includes an inspection of the pile and of the feed system.
 - f. A procedure to ensure that fuel not considered acceptable for storage at the *Facility* is rejected and not stored at the *Facility*.
 - g. An indication of the maximum time that fuel may be stored at the *Facility*.
 - h. A pile turn-over procedure to ensure that fuel that have been stored at the *Facility* longest is used first.
 - i. A procedure to ensure that records are prepared and retained at the *Facility* that set out,
 - i. the quantity of fuel purchased by the *Facility* and the source from which it was purchased,
 - ii. the quantity of fuel generated at the *Facility*, and
 - iii. the quantity of fuel rejected for storage at the *Facility*, in accordance with paragraph (6), and the reasons for the rejection.
 - j. An operations manual for the combustion of each type of fuel listed in item (a) that outlines the operating procedure to be maintained to continuously meet the requirements of Condition 13 of this *Approval*.

2. The *Company* shall immediately implement and maintain the *Fuel Management Plan*.

16. NOTIFICATION REQUIREMENTS

1. The *Company* shall notify the *District Manager*, in writing either via email or letter, of each exceedance of the carbon monoxide limit specified in Condition 13.1, within two (2) business days of the exceedance. The notification shall include:
 - a. The type of wood being processed;
 - b. The moisture content of the material;
 - c. Pollution control device parameters;
 - d. Continuous emission monitor data for all monitored parameters; and
 - e. Results of investigation on the cause(s) of the exceedance and remedial action(s) taken if deemed required.
2. The record of the notification shall be retained for a period of not less than three (3) years.
3. The *Company* shall make available upon request by the *District Manager*, operating data of the *Wood Fuel Combustors*.

17. SUMMARY REPORTS

1. The *Company* shall prepare, once every two (2) years, a Summary Report to summarize the performance and monitoring requirements of the *Wood Fuel Combustors* as included in this *Approval*. Each Summary Report shall include:
 - a. For each parameter listed in this *Approval* which testing or continuous monitoring is required, the following statistical information:
 - i. The maximum measurement taken over the two-year period;
 - ii. The minimum measurement taken over the two-year period;
 - iii. The average measurement taken over the two-year period.
 - b. A record of all notices required to be given under Condition 16 during the two-year period.
 - c. The dates during the two-year period when *Start-up* or *Shut-down* of the *Wood Fuel Combustors* occurred.

- d. A record of approved fuel management procedures required in Condition 15 and details of instances where these were not followed, if any.
- e. For each pollution control device associated with the *Wood Fuel Combustors* , the dates during the two-year period when the device did not operate.
- f. A record of the results from the bi-annual tune-up required under Condition 14 of this *Approval*.
- g. All records recorded in the log book required under Condition 18.6.

18. ABATEMENT PLAN

1. The issuance of, and compliance with the conditions of this *Approval* , does not:
 - a. relieve the *Company* of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
 - b. limit in any way the authority of the *Ministry* to require certain steps to be taken or to request that any additional information, related to compliance with this *Approval* or any applicable regulatory requirement, be provided to the *Ministry* .
2. The *Company* shall, not later than July 1, 2021:
 - a. reduce the maximum concentration of carbon monoxide in the undiluted gas emitted from the Power Boiler No. 3 to less than 500 parts per million on a dry basis, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals, 10-day rolling averaging;
 - b. ensure the concentration of oxygen in the undiluted gas emitted from the combustion chamber of Power Boiler No. 3 shall not be less than 4 per cent by volume on a 3-hour rolling average and dry basis;
 - c. ensure the concentration of particulate matter emitted from Power Boiler No. 3 is not greater than 120 milligram per dry cubic meter, normalized to 11 per cent oxygen at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals.
3. The *Company* shall develop, in consultation with the *District Manager* , and acceptable to the *Director* , an *Abatement Plan* for the performance and operation of Power Boiler No. 3.
4. The *Abatement Plan* shall include, but not be limited to:

- a. a review of any applicable codes of practice, guidelines and best practices, established or recommended by any provincial or federal authority, local or international organization and industry association;
 - b. the identification of a method or group of methods to be implemented by the *Company* , that when implemented will ensure that the Power Boiler No. 3 operates in compliance with the performance limits as specified in Condition 18.2 of this Approval;
 - c. an implementation schedule, indicating the timeframe for the implementation of each of the methods or group of methods identified in the *Abatement Plan* ;
 - d. a list of all *Ministry* comments received, if any, on the development of the *Abatement Plan* , and a description of how each *Ministry* comment was addressed in the *Abatement Plan* .
5. The *Company* shall submit the *Abatement Plan* to the *Director* and the *District Manager* not later than six (6) months from the date of this Approval .
- a. The *Director* may not accept the *Abatement Plan* if the *Director* or *District Manager* are of the opinion that:
 - i. the minimum requirements described in this *Approval* were not included in the *Abatement Plan*;
 - ii. implementation of the *Abatement Plan* is not likely to ensure that the Power Boiler No. 3 operates in compliance with the performance limits as specified in Condition 18.2 of this *Approval* ; or
 - iii. the implementation schedule for the *Abatement Plan* is not acceptable to the Ministry.
 - b. If the *Director* does not accept the *Abatement Plan* , the *Director* may, upon written notification, require the *Company* to submit a revised *Abatement Plan* acceptable to the *Director* and the *District Manager* within the time frame specified in the notification.
 - c. Upon acceptance of the *Abatement Plan* by the *Director* , the *Company* shall implement the *Abatement Plan* .
6. The *Company* shall record, in a log book, each time a specific action or method described in the *Abatement Plan* is implemented. The *Company* shall record, as a minimum:
- a. the date when each action or method is implemented; and
 - b. a description of the action or method implemented.

7. The *Company* shall, not later than July 1, 2021, submit an up-to-date *ESDM Report* , to the *Director* and the *District Manager* , incorporating the results of implementing the *Abatement Plan* .

19. NOISE ABATEMENT ACTION PLAN

1. The *Company* shall implement the *Noise Abatement Action Plan* described in Schedule C.
2. The *Company* shall ensure that the *Noise Abatement Action Plan* shall achieve compliance of the noise emissions from the *Facility* with the limits set out in *Ministry Publication NPC-300* .

20. ACOUSTIC AUDIT

1. The *Company* shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the *Facility* , following the completion of the *Noise Abatement Action Plan* . The *Company* :
 - a. shall carry out acoustic audit measurements in accordance with the procedures in *Publication NPC-103* ;
 - b. shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit* , prepared by an *Independent Acoustical Consultant* , in accordance with the requirements of *Publication NPC-233* , to the *District Manager* and the *Director* , not later than the date specified in the *Noise Abatement Action Plan* .
2. The *Director* :
 - a. may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed;
 - b. may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director* .

SCHEDULE A

Supporting Documentation

1. Application for Approval (Air & Noise) submitted by Avenor Inc., dated February 13, 1996, signed by R.F. McMullen and all supporting information included, letter and Facsimiles from Avenor Inc., dated respectively, February 29, June 7 and July 25, 1996, all signed by S. Meredith.
2. Application for Approval (Air & Noise), dated November 3, 2005 and signed by Chris Walton, Bowater Canadian Forest Products Division, and all supporting information associated with the application, and all the information and documentation contained in the documents listed in Table 2.
3. Application for a Certificate of Approval (Air) No. 8-6015-91 by Bowater Pulp and Paper Inc. dated June 1, 1991 and signed by R. McMullen.
4. Application for a Certificate of Approval (Air) No. 8-6015-99 RE1 by Bowater Pulp and Paper Inc. dated April 2, 1998 and signed by B. Mooney.
5. Environmental Elements Corporation, M.O. 420638: Section 2, Description of Equipment: Section 3, Technical Tabulation: Section 4, Operating Conditions and Guarantees.
6. Application for Amendment of Approval (Air)- #6 Power Boiler (Master File No. 01.05.06.01.01), Letter from Bowater Pulp and Paper Inc. dated April 15, 1998 and signed by Brian Mooney.
7. #6 Boiler Electrostatic Precipitator C of A Information Request (Master File No. 01.05.06.01.01), Letter from Bowater Pulp and Paper Inc. dated November 4, 1998 and signed by Brian Mooney.
8. #6 Power Boiler Electrostatic Precipitator, Draft C of A, (Master File No. 01.05.06.01.01), Letter from Bowater Pulp and Paper Canada Inc. dated December 4, 1998 and signed by Brian Mooney.
9. Statistical Comparison- Sludge vs. Virgin Wood, for R.F. McMullen, Manager, Environmental Affairs, Canadian Pacific Forest Products, 2001 Neebing Avenue, Thunder Bay, Ontario P7C 4W3, by Environmental Protection Laboratories, 6850 Goreway Drive, Etobicoke, Ontario L4V 1P1, September 8, 1993.
10. Application for Approval (Air & Noise), dated August 17, 2009, signed by Chris Walton and submitted by the *Company*;
11. Emission Summary and Dispersion Modelling Report, prepared by AbiBow Canada Inc. and dated August 17, 2009 ;

12. AAR or other Noise Report entitled "AbiBow Canada Inc. – Thunder Bay Operations. Final Report, acoustic Assessment Report," dated July 19, 2011, and prepared by RWDI Air Inc. ;
13. Application for Approval (Air & Noise), dated October 16, 2012, signed by Chris Walton and submitted by the *Company*.
14. Noise Abatement Action Plan (NAAP), Resolute FP Canada Inc. - Thunder Bay Division, Thunder Bay, Ontario, 1603410, attachment to email from Ashleigh Marchl of the *Company* to Thomas Shevlin of MOECC and Michelle Heyens of MOECC dated December 9, 2016, signed by Ashleigh Marchl.

SCHEDULE B

Source Testing Procedure

1. The *Company* shall submit to the *Manager* a *Pre-Test Plan* for the *Source Testing* required under this *Approval*. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*.
2. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*.
3. The *Company* shall complete the *Source Testing* not later than six (6) months after the *Manager* has approved the *Pre-Test Plan*.
4. The *Company* shall notify the *Manager*, the *District Manager* and the *Director* in writing of the location, date and time of any impending *Source Testing* required by this *Approval*, at least fifteen (15) days prior to the *Source Testing*.
5. The *Company* shall submit a report (hardcopy and electronic format) on the *Source Testing* to the *Manager*, the *District Manager* and the *Director* not later than three (3) months after completing the *Source Testing*. The report shall be in the format described in the *Source Testing Code*, and shall also include, but not be limited to:
 - a. an executive summary;
 - b. an identification of the applicable North American Industry Classification System code (NAICS) for the *Facility*;
 - c. records of operating conditions at the time of *Source Testing*, including but not limited to the following:
 - i. production data; and
 - ii. *Facility* / process information related to the operation of the source;
 - d. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of the contaminants tested; and
 - e. a tabular comparison of *Source Testing* results to original emission estimates described in the *Company's* application and the *ESDM Report*.
6. The *Director* may not accept the results of the *Source Testing* if:
 - a. the *Source Testing Code* or the requirements of the *Manager* were not followed;

- b. the *Company* did not notify the *Manager* , the *District Manager* and *Director* of the *Source Testing* ; or
 - c. the *Company* failed to provide a complete report on the *Source Testing*.
7. If the *Director* does not accept the results of the *Source Testing*, the *Director* may require re-testing. If re-testing is required, the *Pre-Test Plan* strategies need to be revised and submitted to the *Manager* for approval. The actions taken to minimize the possibility of the *Source Testing* results not being accepted by the *Director* must be noted in the revision.
8. If the *Source Testing* results are higher than the emission estimates in the *Company's ESDM Report*, the *Company* shall update their *ESDM Report* in accordance with Section 26 of *O. Reg. 419/05* with the results from the *Source Testing* report and make these records available for review by staff of the *Ministry* upon request. The updated Emission Summary Table from the updated *ESDM Report* shall be submitted with the report on the *Source Testing*.

SCHEDULE C

Noise Abatement Action Plan

The *Noise Abatement Action Plan* shall consist of the *Noise Control Measures* detailed in "Noise Abatement Action Plan (NAAP), Resolute FP Canada Inc. - Thunder Bay Division, Thunder Bay, Ontario, 1603410", attachment to the email from Ashleigh Marchl of Resolute to Thomas Shevlin of MOECC and Michelle Heyens of MOECC dated December 9, 2016, signed by Ashleigh Marchl, to be implemented according to the following schedule;

- No later than December 31, 2019 – complete *Noise Control Measures* for Phase 1 of the *Noise Abatement Action Plan*.
- No later than June 1, 2020 - submit (to the Environmental Approval Services Section of the Ministry, as well as to the Thunder Bay District Office of the Ministry) an *Acoustic Audit Report* on the results of an independent *Acoustic Audit* conducted to demonstrate compliance with MOE noise guidelines following completion of the *Noise Abatement Action Plan*.

Noise Abatement Action Plan (NAAP)										
Resolute FP Canada Inc. - Thunder Bay Division, Thunder Bay, Ontario, 1603410										
Notes to Table:										
1	Current 2016 noise data cannot be used to set noise levels or measures to limit, and any changes to noise operations.									
2	EXXXV sound pressure level presented in the "Maximum 7.5 second equivalent" point of reception. Difference between the daytime / evening equivalent in the operation of 2 banks that only operate during the daytime (L20A0 and L20A0B).									
3	Depth: the predicted nighttime sound level exceeding the limit by 3 to 7 dB, that is considered in the approach approved by the MRBEC for the existing MCA.									
Implementation-Non Phase	Source ID	Source Description	Mitigation Measure	Minimum Overall Insertion Loss (dB)	Predicted Sound Level at Point of Reception (dB)					Completion Date
					M01	M02	M03	M04	M05	
Current 2016 (1)	n/a	n/a	n/a	n/a	50 / 50	54 / 53	51 / 53	43 / 43	52 / 52	n/a
Phase 1	L3	Fan drive Exhaust Inlets on Lead Generator	Silencer	14	48 / 48 (1)	50 / 49 (1)	49 / 48 (1)	43 / 43	43 / 43 (1)	December 31, 2019
	PH3 029	Muffle Chamber Exhaust Chimney Stack	Silencer	5						
	PH3 028	Exhaust Exhaust Fan Stack	Silencer	6						
	PH3 011	Exhaust Exhaust Fan Stack	Silencer	6						
	PH3 019	1. West End Exhaust 2. Blower Exhaust Duct	Silencer	8						
	PH3 021	Blower Exhaust Fan #1	Silencer	5						
	PH3 023	Blower Exhaust Fan #2	Silencer	9						
	PH3 024	Blower Exhaust Fan #2 double check	Silencer	9						
	TMF 011	#2 Process Exhaust Fan	Silencer	9						
	TMF 012	#1 Process Exhaust Fan	Silencer	11						
	KMS 038	Dry End Duct Secondary Exhaust Fan - Spenser Stack	Silencer	7						
	KMS 039	Dry End Secondary Exhaust Fan - Spenser Stack	Silencer	7						
	KMS 040	Wet End Duct Primary Exhaust	Silencer	7						
	KMS 041	Wet End Duct Exhaust	Silencer	7						
	L20	Plant enclosure on TP Processing Building	Acoustic Barrier	3						
LDR1	PH3 Power End Lander (CAT 600)	Construction of Acoustic Treatment of Lander	15							
LDR2	PH3 Power End Lander (CAT 1900)	Acoustic Barrier, Limit to Day-time Only if Future Operation Change	9							
LDR4C	PH3 Ash Banker Front End Lander (CAT 1906)	Acoustic Barrier	6							

SCHEDULE D

Technical Standards for which the Company is Registered

- (a) Technical Standards Registry - Air Pollution, in respect of the Pulp and Paper- Industry Standard. Registration number 503-15-393-rv0, dated February 27, 2015.

The reasons for the imposition of these terms and conditions are as follows:

1. GENERAL

Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval*.

2. LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS

Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval*, and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications*. The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit*. In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval*. *Approval* holders will still have to obtain other relevant approvals required to operate the *Facility*, including requirements under other environmental legislation such as the *Environmental Assessment Act*.

3. DOCUMENTATION REQUIREMENTS

Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this *Approval* and allows the *Ministry* to monitor on-going compliance with these performance limits. The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports, along with a list of contaminants registered by the *Company* on the *Technical Standards Registry* available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility*.

4. REPORTING REQUIREMENTS

Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry*, to assist the *Ministry* with the review of the site's compliance with the *EPA*, the regulations and this *Approval*.

- 5. OPERATION AND MAINTENANCE**
Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes. Condition No. 7 is included to also monitor the contaminant emissions to ensure that no adverse effect will occur in daily operation of the *Facility* .
- 6. COMPLAINTS RECORDING AND REPORTING PROCEDURE**
Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment*, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.
- 7. RECORD KEEPING REQUIREMENTS**
Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry*, upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.
- 8. REVOCATION OF PREVIOUS APPROVALS**
Condition No. 10 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.
- 9. EQUIPMENT PERFORMANCE**
Conditions No. 11, 12, 13, 14, 15, 16, and 17 are included to ensure optimum combustion performance in the *Wood Fuel Combustors*.
- 10. ABATEMENT PLAN**
Condition No. 18 is included to clarify the legal rights and responsibilities of the *Company* under the *Approval* and to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility* .
- 11. NOISE ABATEMENT ACTION PLAN**
Condition No. 19 is included to require the *Company* to implement a *Noise Abatement Action Plan* designed to ensure that the noise emissions from the *Facility* will be in compliance with applicable limits set in the *Ministry* 's noise guidelines.
- 12. ACOUSTIC AUDIT**
Condition No. 20 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA* , the regulation and this *Certificate* can be verified.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
7707-8NDTEK issued on

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

- 1. The name of the appellant;
- 2. The address of the appellant;
- 3. The environmental compliance approval number;
- 4. The date of the environmental compliance approval;
- 5. The name of the Director, and;
- 6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

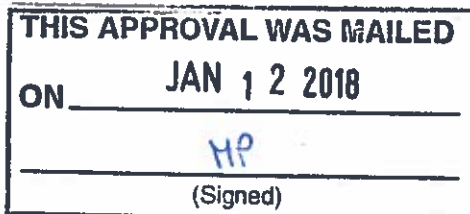
AND

The Director appointed for the purposes of Part II.1
of the Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 5th day of January, 2018



Ian Greason, P.Eng.
Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

SM/

c: District Manager, MOECC Thunder Bay - District
Ashleigh Nicholson, Resolute FP Canada Inc.