

APPENDIX J

AIR QUALITY MANAGEMENT AND DUST CONTROL PLAN

This document is a preliminary Air Quality and Dust Control Plan. It will be finalized prior to initiation of construction and operations of MGEC and be reviewed with the Ministry of Environment to ensure it meets regulatory requirements and the commitments made in this Application for an Environmental Assessment Certificate.

1. Effects on air quality from the operation of the MGEC will be minimized by the use of:
 - a modern electrostatic precipitator to minimize particulate matter emissions.
 - good design and operating practices to minimize emissions of NO_x, CO and VOCs emissions and by the use of wood residue as the primary fuel and natural gas as the backup fuel to minimize SO_x emissions.
2. As part of the Air Quality Management and Dust Control plan, Mackenzie Green Energy LP (MGELP) will conduct the following emission monitoring activities during operation of MGEC as a condition of its air permit:
 - Install and maintain a continuous emission monitoring system (CEMS) that will measure in-stack opacity, NO_x concentration and dry gas flow rate in accordance with standard measurement methods acceptable to the Province.
 - Calibrate and verify the performance of the CEMS as required under the air permit.
 - Report the results from the continuous monitoring program to the BC Ministry of Environment in a form to be agreed upon.
 - Test the wood-fired boiler stack exhaust to measure particulate matter and NO_x concentrations and the dry gas flow rate to demonstrate compliance with permit criteria. Stack testing for permit compliance purposes will be conducted semi-annually for the first two years of operation of MGEC and thereafter, subject to approval by the Regional Manager, will be conducted annually. Report the results of stack testing to the BC Ministry of Environment.
3. During plant construction there will be no major or permitted sources of contaminants, but there is a potential for fugitive dust and particulate matter emissions to occur from earth and aggregate handling and storage, operation of engines on construction equipment and trucks, metal fabrication activities, and other construction processes. Air quality effects from construction activities are usually variable, localized, and intermittent.
4. Effects of fugitive dust emissions on air quality are best mitigated through good housekeeping practices and measures to prevent particles from becoming airborne in dry weather from stockpiles, exposed loose surfaces, materials handling processes, and road way areas. Fugitive dust is typically generated during construction by the effects of wind, operating machinery, or the movement of vehicles on paved or unpaved surfaces.
5. During construction, MGELP will minimize emissions of fugitive dust by requiring contractors to:
 - Implement good house keeping practices to keep roads clean and to reduce track-out of soil that deposits on high-traffic road surfaces.
 - Implement measures to minimize dust from dry soil piles and exposed surfaces (if stored for an extended periods).

- Implement measures to minimize dust during the handling of material on stockpiles and during transfer to and from construction equipment, where practical.
 - Reducing emissions of particulate matter from diesel engines on equipment and vehicles by operating them according to manufacturer's recommendations.
6. The following control options could be applied to mitigate significant fugitive dust problems if they arise during construction:
- Use water sprays or an environmentally acceptable alternative dust suppressant to control dust on the access road, lay-down, and work area. Preference shall be given to the use of water, with consideration for water conservation and effects of runoff on surface waters, where appropriate.
 - Cover or wet down dry soil storage piles, exposed surfaces (for extended periods), and dry materials.