

March 1, 2011

Lynne Patenaude
Environment Canada
351 St Joseph Blvd.
Gatineau, Quebec
K1A 0H3

Dear Lynne:

RE: Canadian Energy Pipeline Association (CEPA) Comments Regarding the Comprehensive Air Management System and BLIERS for the Natural Gas Pipeline Sector

In follow-up to the October 26, 2010 meeting held with you and your staff and CEPA and some of its member companies and in consideration of the path forward, CEPA wishes to provide you with our thoughts on both the Comprehensive Air Management Strategy (CAMS) and any policy considerations by Environment Canada (EC) for the pipeline sector.

CEPA's Views on CAMS

The recent announcement of the Canadian Council of Ministers of the Environment (CCME) to proceed with CAMS is a positive step towards addressing Canadians' concerns related to air quality. As governments work to implement programs that meet the objectives of CAMS, we hope the unique circumstances of natural gas pipelines operating in Canada are taken into consideration.

However, CEPA would like to express its concern regarding the accelerated timeframe for implementation of CAMS. It is our understanding that "Ministers have established milestones for progress and initiated work on the first steps of the new system. They committed to a collaborative process and will continue to engage stakeholders. The Ministers directed officials to develop the major elements of the system in 2011. Implementation will begin in 2013." (CCME Communique dated October 20, 2010). An immediate issue is the ability of the pipeline sector to achieve any major equipment modifications if required by the adoption of a pipeline BLIER by the new implementation date of 2013. Natural gas transmission companies are regulated and the time to complete the approval processes to make major modifications or to replace equipment continues to increase. Currently, we do not believe that any equipment replacement or major modifications could be implemented by 2013. We recommend that if pipeline companies are required to make equipment modifications to meet new air emissions standards, the time allowed in the original timeframe (2015) as proposed in the CAMS document is needed as a minimum to allow for the completion of the growing regulatory processes and requirements for major equipment changes.

CEPA Key Messages

CEPA is supportive of government efforts to manage air pollutants and improve air quality for Canadians. We are also supportive of the intent/objectives of the Comprehensive Air Management System. We believe our ongoing work following the decision to place the Base-Level Industrial Emissions Requirement (BLIERS) process on hold in the spring of 2010, demonstrates our commitment to both:

- The efforts to manage air quality in Canada; and
- Gaining a better understanding of the role natural gas pipelines have in improving air quality for Canadians.

As the discussions regarding NOx emissions from natural gas pipelines have progressed over the past years, we have spent considerable effort to gain an understanding of how pipeline operations impact NOx emissions. From this work we have identified a number of circumstances we believe should be considered when determining how pipeline NOx emissions are managed. Several of these key considerations were discussed in our presentations on October 26, 2010, including:

- Canadian pipelines emit very low levels of NOx and these levels have dropped significantly since 2006. It is currently estimated that NOx from natural gas pipeline facilities contribute less than 1% of the NOx emitted in Canada. (NPRI 2008)
- Pipeline compressor stations are widely dispersed geographically and many are located in remote areas where air quality remains acceptable.
- Costs to upgrade or replace existing equipment to reduce NOx emissions further are estimated to be high (in the range \$10,000 to \$100,000 per tonne NOx reduced) and the opportunities for significant reductions are low.
- Canadian pipelines and the Canadian energy industry compete with parallel infrastructure investments and other unconventional gas resources in the United States. Any increases in the cost of transporting Canadian gas to markets in the U.S. could impact investment and economic output in Canada.
- There has been a significant shift in pipeline capital stock from uncontrolled, higher emitting equipment to low and zero emitting units as a result of the CCME *National Emission Guidelines for Stationary Combustion Turbines*. In fact, there have been capital stock changes and modifications that have occurred without regulations or programs requiring equipment modifications. Where pipelines operate in controlled air quality zones, pipeline operators have already upgraded equipment and installed low-NOx turbines to reduce emissions.
- Methods to estimate and monitor NOx emissions from gas turbines and reciprocating engines have improved in recent years. Pipeline companies have allocated both funding and resources to develop methods that take into account stack testing, specific engine characteristics and operating conditions and we are committed to continuing these efforts to find practical solutions to improve the accuracy of NOx emissions inventories.

While we encounter difficulty in making future predictions of absolute NOx emissions as factors such as market conditions and weather events impact gas throughput and hence emissions levels, there will continue to be an ongoing shift of capital stock from high emitting to low emitting units as old equipment is replaced and as pipeline expansions occur.

CEPA Recommendation re: Existing Natural Gas Pipeline Turbine Fleet

Given these circumstances, it is our view that the current CCME *National Emission Guidelines for Stationary Combustion Turbines* achieve a good base level of emission performance for new natural gas turbines and that an additional BLIER for existing gas turbines in natural gas pipeline applications is unnecessary. The current Guidelines will result in continued installation of low emitting equipment as pipeline systems expand in order to deliver growing volumes of clean burning natural gas to replace higher emitting energy sources and to meet energy needs.

CEPA Recommendation re: Existing Natural Gas Pipeline Reciprocating Engine Fleet

With respect to BLIERs for reciprocating engines, the pipeline sector acknowledges that there is an opportunity to reduce NOx emissions. Throughout the BLIERs discussions, there was an understanding that the pipeline BLIERs could be aligned with the standards set forth by the Upstream Oil & Gas (UOG) sector for both new and existing reciprocating engines. Conceptually, CEPA has no objection to alignment with a new-equipment standard for reciprocating engines, however, CEPA member companies have not been represented in these discussions to date. CEPA would appreciate the opportunity to review and comment on the proposal and comment on prior to formally agreeing to the adoption.

Based on the CAMS framework document of April 2010, representatives from the UOG sector could not reach consensus on a BLIER below 6 g/kW-h for existing rich burn engines. It is our understanding that there has been no intent to target existing lean-burn engines through the current BLIER framework. The decision to target only rich burn engines at this time is based on the fact that the solution to emissions controls for lean burn engines is considerably more expensive and complex. While non-selective catalytic reduction (NSCR) and enhanced air fuel ratio controls can be applied at a reasonable cost to rich burn engines, similar technology does not generate the same level of emission reductions for lean-burn units. Significant mechanical retrofits, including turbocharger modifications, advanced engine controls and high pressure fuel injection are required to achieve noticeable emission reductions in lean burn units. In many cases, the cost of these retrofits far exceeds the replacement value of the engines.

The pipeline sector has analyzed our fleet of engines and supports the implementation of a BLIER of 6.0 g/kw-hr for existing rich-burn engines. This emission level would provide a technically feasible standard while avoiding upgrade costs that are significantly high and therefore burdensome on the pipeline sector. If there are concerns related to NOx loading within a particular constrained airshed, a lower emission standard can be considered on a site-specific basis. We feel that this approach is consistent with the intent of the CAMS framework.

In closing, CEPA appreciates the opportunity to provide our views on the CAMS and BLIERs initiatives. Please contact CEPA's Director, Regulatory & Financial, Ranjana Martin at 403-221-8756 if you have any questions.

Sincerely yours,



Brenda Kenny
President & CEO

Cc: Blair Batchelor