1.0 OBJECTIVES

This Environmental Performance Agreement ("Agreement") establishes a framework through which the Railway Association of Canada (RAC), its member companies (Annex 1), Environment Canada (EC), and Transport Canada (TC) will address emissions of criteria air contaminants (CAC) and greenhouse gases (GHG) from railway locomotives operated by Canadian railway companies in Canada.

This Agreement:

- recognizes the successes of the predecessor 1995-2005 Memorandum of Understanding (MOU) between the RAC and EC respecting the control of emissions of nitrogen oxides (NOx) produced by locomotives during rail operations in Canada (Annex 2); and,
- includes measures, targets and actions which will further reduce emissions from rail operations and help protect health and environment for all Canadians as well as address climate change; and,
- reflects targets and action plans from the rail industry's emission reduction and fleet renewal strategies for the period 2006-2015.

2.0 DURATION OF THE AGREEMENT

This Agreement will come into force upon signing by the duly authorised representatives of the RAC, EC and TC, and will endure until December 31st 2010, unless it is terminated at an earlier date. The party that is terminating the Agreement will give six months prior formal written notice to the other two parties.

3.0 CRITERIA AIR CONTAMINANT EMISSIONS

Air pollution represents a serious threat to human health and the environment. Air quality issues, such as smog and acid rain, result from the presence of, and interactions between, a group of pollutants known as criteria air contaminants (CACs) and related pollutants (Annex 3).

The federal government has taken action to reduce air pollution from on-road and off-road vehicles and engines. This Agreement builds upon the previous MOU that was signed in 1995. Despite major growth in rail traffic, NOx emissions averaged below the 115 kilotonnes "cap" that was set in the MOU. Further reductions in CAC emissions are expected to be achieved under this Agreement.

3.1 CAC Commitments by the RAC

It is recognised that, during the life of this Agreement, the U.S. Environmental Protection Agency (EPA) may introduce new emissions standards for locomotives. The RAC will encourage all of its members to conform to all applicable emission standards, including any updated EPA emissions standards respecting new and in-service locomotives manufactured after 1972.

For the same period, the RAC will also encourage its members to adopt operating practices aimed at reducing CAC emissions.

3.2 CAC Commitments by the Major Railway Companies

Canadian National, Canadian Pacific, VIA Rail and GO Transit will, during this Agreement:
• Acquire only new and freshly manufactured locomotives\(^1\) that meet applicable EPA emissions standards;
• Retire\(^2\) from service 130 medium-horsepower locomotives\(^3\) built between 1973 and 1999.
• Upgrade, upon remanufacturing, all high-horsepower locomotives to EPA emissions standards; and
• Upgrade to Tier 0, upon remanufacturing, all medium horsepower locomotives\(^2\) built after 1972 beginning in 2010.

4.0 GREENHOUSE GAS EMISSIONS

Climate change is a major challenge for transportation, as it is for all other sectors of the Canadian economy. In 2002 railways accounted for 6 megatonnes, or 3 percent of total Canadian transportation GHG emissions (Annex 4).

4.1 GHG Commitments by RAC
For the duration of the Agreement, the RAC will encourage all of its members to make every effort to reduce aggregate GHG emissions from railway operations. The 2010 GHG emission targets for the rail industry are:

- Class 1 Freight \(16.98 \text{ Kg CO}_2 \text{ eq per 1,000 RTK}\)
- Short Lines \(15.38 \text{ Kg CO}_2 \text{ eq per 1,000 RTK}\)
- Intercity Passenger \(0.12 \text{ Kg CO}_2 \text{ eq per 1,000 passenger-km}\)
- Commuter \(1.46 \text{ Kg CO}_2 \text{ eq per 1,000 passengers}\)

4.2 For the same time period, the RAC will prepare, in cooperation with all of its members, an Action Plan for reducing GHG emissions within six months of signing of the Agreement. The Action Plan will set out actions that the RAC and its members will undertake to attain the GHG emission targets. Examples of possible actions are listed in Annex 5.

5.0 REPORTING

5.1 Annual Reporting: The RAC will prepare an annual report by December 31st of each year which will describe the performance under this Agreement and will contain:

- the information described in section 5.2;
- a summary of the actions undertaken by the RAC’s members to conform with all applicable EPA emission standards and to adopt operating practices that reduce CAC emissions;
- a summary of the actions undertaken by the RAC to inform its members about practices or technologies that reduce emissions of CACs and GHGs; and,
- a summary of the annual progress that the RAC and its members have made towards meeting targets in GHG emissions as set out in Section 4.1.

Each annual report will be approved by the Management Committee (Section 6.1). Each annual report shall be published jointly by the parties to the Agreement and released to the public as soon as possible once approved, including publication on EC, TC and the RAC websites. RAC will be the copyright holder of all rights in and to the annual report. EC and TC will be the licensees of any copyright held by RAC in the annual report. The first report will be for calendar year 2006 and the last report will be for the year 2010.

5.2 Data:

5.2.1 The emissions inventory in each annual report will be prepared in accordance with the methodologies described in “Recommended Reporting Requirements for Locomotive Emissions Monitoring (LEM) Program, September, 1994” and/or as recommended by the Management Committee.

5.2.2 The annual report will contain the following information:

- the names of the Canadian railway companies that reported under the Agreement, and their provinces of operation;
a table describing locomotives that meet the EPA emissions standards;
the composition of the locomotive fleet by model, year of manufacture, horsepower, engine model, and duty type;
the gross tonne-kilometres, revenue tonne-kilometres and total fuel consumption data for railway operations during the reported calendar year;
estimates of the annual emissions of nitrogen oxides (NOx), hydrocarbons (HC), sulphur oxides (SOx), particulate matter (PM), carbon monoxide (CO), nitrous oxide (N₂O), methane (CH₄), carbon dioxide (CO₂), and CO₂ equivalent, emitted during all rail operations in Canada; and,
fuel consumption and emissions data will be listed separately and aggregated as follows -- passenger, freight, and yard switching services.

5.3 Third Party Verification:
A qualified auditor will be given access, each year, or periodically but not more frequently than once a year, to audit the processes and supporting documentation pertaining to the Agreement. Parties to the Agreement will select the appropriate auditor capable of independently verifying the reports and will share audit costs. The mandate of the auditor will be decided by the Management Committee.

6.0 MANAGEMENT OF THE AGREEMENT

6.1 The Agreement will be governed by a Management Committee comprising senior officials from the parties to the Agreement and a representative of an environmental non-governmental organization. The Director General, Clean Air Directorate of Environment Canada, the Director General of the Office of Environmental Affairs of Transport Canada and the Director General of Rail Safety of Transport Canada, or their delegates will represent the federal government. The RAC and its member companies will be represented by the RAC’s Chair of the Environment Committee, and its Vice-President, Operations and Regulatory Affairs, or their delegates. The environmental non-governmental organization representative will be selected by the RAC, TC and EC prior to the first meeting of the Management Committee. The Management Committee will meet at least once a year.

6.2 The Management Committee will:

• review the annual report before its publication;
• conduct, as necessary, a review of the Agreement to assess any significant changes to the Canadian rail industry or the Canadian economy in general that can have an impact on the ability of the RAC and its member companies to respect the terms of the Agreement;
• make recommendations that it deems necessary to improve the Agreement; and
• at its discretion create, schedule, and oversee the work of a Technical Review Committee (Section 6.3).

6.3 The functions of the Technical Review Committee may include the following:

• oversee reporting and verification activities;
• review and verify annual data submitted to EC and TC by the RAC;
• review as necessary the methodology used for estimating emissions and recommend changes, when appropriate;
• review actions undertaken to achieve the goals of the Agreement; and
• undertake any other activities as requested by the Management Committee.

7.0 SUPPORTING THE AGREEMENT

7.1 EC and TC will work with the RAC in support of the RAC’s implementation of measures to reduce emissions of CACs, by providing technical advice on emission reduction technologies and best practices;

7.2 TC will work with the RAC in support of the RAC’s implementation of the Action Plan for reducing GHG emissions, including such programs and initiatives as may be established in support of the government’s environmental agenda.
7.3 EC and TC will make reasonable efforts to consult with the RAC on the inclusion of rail related research in departmental research and development plans.

7.4 EC and TC will organize and convene jointly with the RAC, a conference or seminar on emissions reduction and environmental best practices in the railway industry.

7.5 EC and TC will recognize, as appropriate, progress achieved by the RAC and its members towards meeting or exceeding emissions reduction objectives. EC and TC will choose the time and manner of any public acknowledgement of the RAC’s and its members’ achievements.

7.6 EC and TC will share information with the RAC respecting how emissions reduction actions may be credited in accordance with any such mechanisms as may be established for this purpose.

7.7 EC and TC will use best efforts to work with the RAC to address barriers that may impede emission performance in the railway industry.

8.0 GENERAL PROVISIONS AND SIGNATURES

This Agreement is a voluntary initiative that expresses in good faith the intentions of the Parties. It is not intended to create nor does it give rise to legal obligations of any kind whatsoever. As such, it is not enforceable at law. The government reserves the right to develop and implement regulatory or other measures it deems appropriate to achieve clean air and climate change goals. Nothing in this Agreement will constrain the Parties from taking further actions relating to CAC and GHG emissions or fuel use that are authorized or required by law.

The parties recognize that the information provided pursuant to the Agreement will be governed by the applicable legislation concerning protection and access to information.

Dated at ______________________ this _______ day of _______ 2006

____________________________________
Minister of the Environment

____________________________________
Minister of Transport Infrastructure and Communities

____________________________________
President, Railway Association of Canada

1 New and freshly manufactured locomotives, Tier 0 and remanufacturing are defined in Title 40, chapter I, subchapter C, part 92 of the US Code of Federal Regulations.
2 These retired locomotives are generally offered for sale, traded for other power or stripped of parts.
3 Medium-horsepower locomotives: locomotives with power between 2000 hp and 3000 hp
4 High-horsepower locomotives: locomotives with power greater than 3000 hp