Parkland Airshed Management Zone

Federal Regulations and Initiatives

Related to Ozone and Air Quality

March, 2011

CANADA – Federal Acts, Regulations, Guidelines

Canadian Clean Air Act

(Refer to Website http://ww2.parl.gc.ca for reference to this formerly introduced Bill C-30 entitled Canada's Clean Air and Climate Change Act - April 3, 2006 – Sept 14, 2007)

Canada's Clean Air Act was tabled in 2006 and has yet to be brought forward to Parliament. According to government, the purpose of the Act was to

- Move industry from voluntary compliance to strict enforcement
- Replace the current ad hoc, patchwork system with clear consistent and comprehensive standards
- Institute a holistic approach that does not treat the related issues of pollutants and greenhouse gas emissions in isolation

There have been two acts proposed by the Canadian federal government with the name "Clean Air Act." The first, passed in 1970, sought to regulate the release of four specific air pollutants: asbestos, lead, mercury and vinyl chloride. It was replaced by the **Canadian Environmental Protection Act** in 2000.

Canadian Environmental Protection Act (CEPA)

Website: www.justice.gc.ca for copy of ACT or http://www.ec.gc.ca

The **Canadian Environmental Protection Act** of **1999** is "An Act respecting pollution prevention and the protection of the environment and human health in order to contribute to sustainable development."

The goal of the renewed Canadian Environmental Protection Act (CEPA) is to contribute to sustainable development through pollution prevention and to protect the environment, human life and health from the risks associated with toxic substances.

CEPA also recognises the contribution of pollution prevention and the management and control of toxic substances and hazardous waste to reducing threats to Canada's ecosystems and biological diversity.

Amendment of Canada Energy Efficiency Act and Regulations, 2008

Website: www.nrcan.gc.ca

The goal of Canada's **Energy Efficiency Act** is to eliminate the least energy-efficient products from the Canadian marketplace.

The Act came into force in 1992, giving the Government of Canada the authority to make and enforce standards for the performance of energy using products that are imported to Canada or that are manufactured in Canada and shipped across provincial or territorial borders. The Act also gives the federal government the authority to set labelling requirements for these products so consumers can compare the energy efficiency of various models of the same product.

The proposed amendments to the Act itself will make it more efficient. For example, it will be clear that standards can be prescribed that will apply to classes of products rather than only to individual products. This will be especially important with respect to Canada's efforts to reduce the amount of standby power consumption. The amendments will allow us to make improvements to the well-known EnerGuide label so that it is even easier for consumers to compare the energy performance of different models of the same kind of product.

Canadian National Air Ambient Quality Objectives (NAAQOs)

Website: http://ceqg-rcqe.ccme.ca/

National ambient air quality objectives are the benchmark against which Canada assesses the impact of anthropogenic activities on air quality and ensures that current emission control policies are successfully protecting human health and the environment. Air quality objectives are designed to facilitate air quality management on regional scales.

Canada-wide Standards for Particulate Matter (PM) and Ozone.

Website: www.ccme.ca/ourwork/air.html?caregory_id=99#982

In June 2000 federal, provincial and territorial governments, except Quebec, signed the Canada-wide Standards for Particulate Matter (PM) and Ozone**.** These standards commit government to significantly reduce PM and ground-level ozone by 2010. The Canada-wide Standards for PM and Ozone are an important step towards the long-term goal of minimizing the risks of these pollutants to human health and the environment.

Canada Petroleum Resources Act and Canada Oil and Gas Operations Act

Website**:** www.neb-one.gc.ca

- **Canada Petroleum Resources Act -** An Act to regulate interests in petroleum in relation to frontier lands, to amend the Oil and Gas Production and Conservation Act and to repeal the *Canada Oil and Gas Act*
- **Canada Oil and Gas Operations Act -** An Act respecting oil and gas operations in Canada

The above Acts are regulated by the National Energy Board (NEB). NEB regulates international and interprovincial aspects of the oil, gas and electric utility industries. The purpose of the NEB is to ensure that pipelines, energy development and trade are done in the Canadian public interest.

Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations 2010

Website: www.ec.gc.ca

The objective of the proposed *Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations* (the proposed regulations) is to reduce GHG emissions by final regulations that establish progressively more stringent greenhouse gas emission standards for new passenger automobiles and light trucks for the 2011-2016 model years. These emission standards align with U.S. standards and are meant to provide a level playing field that will lead North American manufacturers to produce more advanced vehicles, while enhancing their competitiveness in North American and export markets.

The proposed regulations would require that vehicle manufacturers and importers meet fleet average GHG emission standards for their passenger automobiles and light trucks for the 2011 and later model years.

Renewable Fuels Strategy

Website: www.ec.gc.ca

The Renewable Fuels Strategy is a key initiative in support of the Government's commitment to reduce Canada's greenhouse gas emissions. The strategy includes a four-prong approach.

1. Reduce GHG emissions resulting from fuel use by regulations requiring renewable fuel content of 5 % in gasoline and 2 % in diesel and heating fuel by 2011.
2. Encourage greater production of biofuels by providing production incentives to stimulate domestic development of renewable fuels (***EcoENERGY for Biofuels program***).
3. Provide new market opportunities for agricultural producers and rural communities through programs to support farmer participation in the biofuel industry (***ecoAgriculture Biofuels Capital - ecoABC program***)
4. Accelerate the commercialization of new biofuel technologies though initiatives to support next generation biofuel technologies. (***NextGen Biofuels Fund managed by Sustainable Development Technology Canada SDTC***) Website: www.sdtc.ca

Renewable Fuels Regulations

Website: **www.ec.gc.ca**

Regulations requiring an average renewable fuel content of 5 % in gasoline are finalized and came into effect December 15, 2010. The Government of Canada also intends to regulate a 2 % requirement for renewable content in diesel fuel and heating oil by 2011, subject to successful demonstration of technical feasibility under the range of Canadian conditions. The 2 % requirement would be put in place by an amendment to the *Renewable Fuels Regulations.*These regulations are part of the government's broader Renewable Fuels Strategy meant to help Canada reach its goal of reducing total greenhouse gas emissions by 17 % from 2005 levels by 2020.

Regulations Proposed for Coal Fired Electricity Generation

Website: **www.ec.gc.ca**

The Government of Canada is taking action to reduce greenhouse gas emissions in the electricity sector by moving forward with regulations on coal-fired electricity generation. The government will provide an ample phase out period for the electrical sector to make the transition to cleaner generation technologies.

Draft regulations to reduce GHGs from the electricity sector are expected to be published in *Canada Gazette* early in 2011 and final regulations published later that year. This will allow sufficient time for consultations and outreach with industry and other stakeholders. Regulations are scheduled to come into effect on July 1, 2015.

Proposed Regulations for Heavy-Duty Vehicle Greenhouse Gas Emissions

Environ Website: **www.ec.gc.ca**

Environment Canada prepared a Regulatory Framework consultation document to seek early views from interested parties on key elements being considered for future regulations to limit greenhouse gas emissions from new on-road heavy-duty vehicles and engines of 2014 and later model years. Canada's heavy-duty vehicle regulations will be aligned with those of the United States.

Consultation will continue with the transportation and vehicle manufacture industries, environmental non-governmental organizations, provinces/territories and other stakeholders throughout the regulatory development process. Proposed regulations are intended to be developed for pre-publication in the *Canada Gazette*, Part I, in mid-2011 to provide for a formal 60-day consultation. **Final regulations are targeted for December 2011** .The implementation date of the regulations will be aligned with that of the U.S.

Federal Agreements, Initiatives

United Nations Economic Commission for Europe (UNECE)

Website: http://www.unece.org/env/lrtap/

In 1979 there was a Geneva Convention on Long Range Transboundary Air Pollution. It led to the 1999 protocol to Abate Acidification, eutrophication and **ground level Ozone** being entered into force by 25 countries including Canada on May 17, 2005.

Canada/United States Air Quality Agreement

Website: http://www.ec.gc.ca

In 1991 the U.S. and Canada committed to reduce the impact of transboundary air pollution through the US-Canada Air Quality Agreement (AQA). In 2000 the U.S. and Canada negotiated an Ozone annex to establish commitments related to the reduction of NOx and VOCs, ozone forming air pollutants. The **2008 report** highlights progress toward meeting the commitments established on acid rain and **ozone in the agreement**.

Environment Canada - National Pollutant Release Inventory (NPRI)

Website under Environment Canada at: http://www.ec.gc.ca

The National Pollutant Release Inventory is Canada`s legislated publicly accessible inventory of pollutant releases, disposals and transfers for recycling. It is the key resource for:

- identifying pollution prevention priorities
- supporting the assessment and risk management of chemicals and air quality monitoring
- helping develop targeted regulations for reducing releases of toxic substances and air pollutants
- encouraging actions to reduce release of pollutants into the environment and
- improving public understanding

Canada's Clean Air Regulatory Agenda and 2007 - 2011 Program

Website: www.tbs-sct.gc.ca

Through the Clean Air Agenda (CAA) the Government of Canada (lead department- Environment Canada) has been working towards making tangible improvements in Canada's environment by addressing the challenges of climate change and air pollution. Targeted air pollutants are mainly PM, NO_x , SO_x ,VOCs and some specifics such as NH_3, Hg, benzene, PAHs, fluorides, and for greenhouse gases (as CO_2 equivalent). Since 2007 the CAA is supporting regulatory initiatives in the industrial, transportation, consumer and commercial sectors; and a range of complementary program measures designed to reduce greenhouse gas emissions, improve indoor air quality, mitigate the impacts of climate change and engage at the international level.

Turning the Corner: An Action Plan to Reduce Green House Gases and Air Pollution

Website: www.ec.gc.ca

In April 2007 the Government of Canada released *Turning the Corner: an Action Plan to Reduce Greenhouse Gases and Air Pollution*. It outlined the government's approach to reducing greenhouse gas and air pollutant emissions. Among other things, reductions are proposed to be mandated through regulations applied in major industrial sectors. In the case of greenhouse gases, the regulations would set a 2010 implementation date for emission-intensity reduction targets for regulated entities.

Turning the Corner sets out several compliance mechanisms to provide industry with flexibility in meeting regulatory obligations. One such mechanism is the Credit for Early Action Program, which recognizes firms that took verified early action to reduce greenhouse gases between 1992 and 2006.

Comprehensive Air Management System (CAMS)

Website: www.ccme.ca/assets/pdf/cams_proposed_framework_e.pdf

In May, 2008 the federal, provincial and territorial governments and representatives of nongovernment organizations and industry began an unprecedented collaboration to develop a new air management system for Canada. This was sanctioned by the federal cabinet and by all governments through the Canadian Council of Ministers of the Environment. The goal is real emission reductions, better air quality and significant health and environmental benefits across the country. CAMS will focus on air quality and the many different types of sources of emissions that determine that quality. This new system is collaborative in that it relies on the engagement of the federal, provincial and territorial governments to work together with stakeholders to develop standards, ensure continuous improvement in the overall system and avoid duplicate regulation.

Global Research Alliance on Agricultural Green House Gases

Website: http:// www.ec.gc.ca

On December 16, 2009 the Government of Canada, as a founding member, joined an international network of the Global Research Alliance on Agricultural Greenhouse Gases to drive agricultural research that will deliver practical benefits for the environment and farmers around the world. The research is aimed at developing new ways to reduce greenhouse gas emissions from agricultural activities.

Technology Action Plan for Advanced Vehicles

Website: www.majoreconomiesforum.org

Canada is an active member in the Global Partnership launched by Leaders of the Major Economies Forum (MEF) at their summit in July, 2009. At that meeting a number of countries agreed to lead on the development of a series of Technology Action Plans looking at the challenges and opportunities available to advance technological progress in key technologies. Canada is leading with the Technology Action Plan for Advanced Vehicles, which will contribute to developing and deploying greener, better-performing vehicles worldwide. Together with the U.S., Canada is working towards a common North American approach to reduce greenhouse gas emissions for vehicles by introducing aligned and progressively tighter regulatory requirements over the 2011-2016 model years.

Copenhagen Accord

Website: http:// www.ec.gc.ca

On Jan 30, 2010 Jim Prentice, Canada's Environment Minister, announced the submission of Canada's 2020 emissions reduction target under the Copenhagen Accord; a 17 % reduction of emissions from 2005, which is meant to be consistent with the U.S.. Ninety % of Canada's electricity is also to be provided by non-emitting sources such as hydro, nuclear, clean coal and wind power by 2020. Canada's target is contingent on all major emitters associating with the Accord

In support of these goals, the **Clean Energy Fund (CEF) provided $850 million over five years** for the demonstration of promising technologies, including large-scale carbon capture and storage (CCS) projects, and renewable energy and clean energy systems demonstrations. It also provided $150 million over five years for clean energy research and development.

Clean Energy Fund Program (CEF)

For more information on **all CEF projects below**, go to Website: http:// www.nrcan.gc.ca

CEF - Renewable Energy and Clean Energy Systems Demonstrations

On January 11, 2010, the Minister of Natural Resources, the Hon. Lisa Raitt, announced the selection of 19 successful project proposals for renewable energy or clean energy through the Clean Energy Fund. Examples of these demonstations projects are:

- Tidal Energy Project in the Minas Passage, Bay of Fundy
- Northern Application of a Geothermal District Heating System - Yellowknife
- Biomass-based Urban Central Heating Demonstration - Quebec City
- Demonstration of Heat and Power from Biomass Gasification - Vancouver

CEF-Large Scale Carbon Capture and Storage (CCS) Demonstration Projects – (Science and Technology)

The Clean Energy Fund allocated $650 million over 5 years to co-fund 3-5 large-scale, integrated Carbon Capture and Storage (CCS) projects that are at, or near, full commercial scale, and that have a minimum total demonstration project cost of $100 million. Natural Resources Canada is inviting a small number of proposals from for-profit organizations that are well advanced in planning and execution of such a large-scale project, have the capacity to undertake the project and have secured significant provincial funding commitments for their project. Three projects are announced to date:

- **Shell Canada Energy Quest Project**, Scotford Upgrader Athabasca Oil Sands Project
- **TransAlta Project Pioneer**, Trans Canada's Keephills near Edmonton
- **Enhance Energy – Alberta Carbon Trunk Line Carbon Capture and Storage Project**, Alberta's Industrial heartland and throughout central Alberta

CEF - Research and Development Projects

The R&D component of the Clean Energy Fund will fund a range of activities from basic research up to and including pre-demonstration pilot projects, in four areas:

- renewable and clean energy, for example, marine, wind and solar energy and its increased integration into Canada's electricity system and the built environment
- new technologies to address the environmental challenges facing oil sands
- hydrogen and fuel cells and
- technologies to lower CO_2 capture costs and increase knowledge on CO_2 storage

Office of Energy Efficiency - Natural Resources Canada

Website: http://oee.nrcan.gc.ca

Has incentive programs and information about home, building and industry retrofitting for energy efficiency

Copehagen Accord - Canada's Commitment to Fast-start Climate Change Financing

GEF Website: www.gefweb.org

As part of the Accord Canada committed to provide climate change international financing to help third world countries environmental issues. Canada is contributing $400 million in new and additional climate change financing for the 2010-2011 fiscal year.

The **Global Environmental Facility (GEF**) of one of the key mechanisms to address global environmental commitments in developing countries. It is an independent multilateral financial mechanism that supports activities in developing countries to produce global environmental benefits in six interlinked focal areas: biodiversity, climate change, ozone layer depletion, international waters, land degradation and persistent organic pollutants.

The Canadian International Development Agency is the Government of Canada lead on the GEF, with Environment Canada providing technical and environmental advice on GEF programming and priorities.

Clean Air Day (CAD)

Website: http:// www.cleanairday.com or enviroinfo@ec.gc.ca

Clean Air Day, June 8, 2011 is a celebration of environmentally friendly activities that promote clean air and good health across Canada. It is a great opportunity to make environmentally friendly lifestyle choices for you, your family and your community.

The goal of CAD is to increase public awareness and action on two key environmental priorities, clean air and climate change. By utilizing a collaborative, decentralized approach, CAD has become the focal point for a wide variety of like-minded environmental, health and transportation activities all across the country.