ENVIRONMENT CANADA

Guidance Document – User Guide

**Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations**

Under the

*Canadian Environmental Protection Act, 1999*

**Disclaimer**

This document provides guidance only. It does not in any way supersede or modify the *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations*. In the event of an inconsistency between this document and the Regulations, the Regulations shall prevail.

Electricity and Combustion Division

Environment Canada

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**Coal-fired Electricity Regulation**

**Guidance Document-User Guide**

# Purpose of the Guidance Document

This guidance document intends to provide an easy to read review of the *Reduction of* *Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations,* herein referred to as the “Regulations”*.* It intends to make the Regulations more accessible for anyone to understand how they function. It also provides additional detail so that affected stakeholders are better informed about stated requirements, as well as it responds to many comments for clarification received during the 60 day comment period following publication of the proposed regulations in Canada Gazette, Part I (August 27, 2011) by elaborating on the meaning of specific sections.

This guidance document cites and should be read in tandem with the Regulations

# Using this Guidance Document

This guidance document is divided into two main sections:

* A focussed summary of how the various elements of the Regulations apply to key unit types, including:
  + New units
  + Old units
  + Existing units
  + Standby Units
  + Units with Gasification Systems
* A section by section walk through review of each regulatory element

A decision tree is also provided in the ANNEX to help guide users to navigate through this document and determine the applicability of the Regulations to their circumstances. In addition, Quick Reference Guides are included to assist regulatees with submitting applications and reports.

# Environment Canada Contact Information

For further information or general questions regarding this document of these Regulations, please contact ([Enviroinfo@ec.gc.ca](mailto:Enviroinfo@ec.gc.ca)) and include “Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations” in the subject line of your email, or phone (819-997-2800; 1-800-668-6767), and your request will be directed appropriately.

# Regulatory Overview

The Government of Canada committed to a national greenhouse gas reduction target of 17% below 2005 levels by 2020, and inscribed this in the Copenhagen Accord. The 2020 target is aligned with that of Canada’s largest trading partner, the United States (U.S.).

To achieve its target, the Government of Canada has established a comprehensive plan to reduce GHG emissions in all major emitting sectors, on a sector-by-sector basis. In moving forward with this plan, the Government of Canada published the *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations* on September, 2012 (Canada Gazette Part II (CGII), Vol. 146, No. 19).

The regulatory approach would apply an emissions performance standard to new coal-fired electricity generation units, and units that have reached the end of their useful life (i.e., old units), through regulations adopted under the *Canadian Environmental Protection Act, 1999* (CEPA). The emissions performance standard comes into effect on July 1st, 2015. Regulated firms are subject to enforcement and compliance requirements and penalties as specified under CEPA.

End of useful life is, in general, 50 years from the unit's commissioning date, implemented in three stages. The three stages and accompanying end of useful life in each will be:

* December 31st of the year that is the 50th year after the date of commissioning of the unit or the end of the year 2019 for units built before 1975;
* December 31st of the year that is the 50th year after the date of commissioning of the unit or the end of the year 2029 for units built after 1974 but before 1986;
* December 31st of the year that is the 50th year after the date of commissioning of the unit thereafter.

The regulations cover carbon dioxide emissions only and apply to any unit that burns coal, exclusively or in combination with other fuels, for the purpose of producing electricity sold to the grid. Petroleum coke is determined to be equivalent to coal under the regulations, and therefore will be regulated in the same manner. The regulations generally do not apply to units located outside of a power plant or to those units that whose primary purpose is not to produce electricity that is sold to the grid (i.e. non-electricity sector industries).

The emissions performance standard would be set at the emissions intensity level of Natural Gas Combined Cycle (NGCC) technology, a high-efficiency type of natural gas generation[[1]](#footnote-1) and is fixed at 420 tonnes of CO2/GWh of electricity produced by the unit during a year.

1. Natural Gas Combined Cycle (NGCC) is a type of power process whereby a gas turbine generates electricity, and the waste heat is used to make steam to generate additional electricity via a steam turbine. The process is more efficient than a simple generation cycle. [↑](#footnote-ref-1)