

# Action Plan on Climate Change

## Supplementary Cementing Materials

### Update

Vancouver, October 21 2002

## Overview

- Background
  - Kyoto then and now
- Minerals and Metals
- SCMs
  - Objectives
  - Current projects
  - Immediate future – to 2005

## Kyoto – some definitions

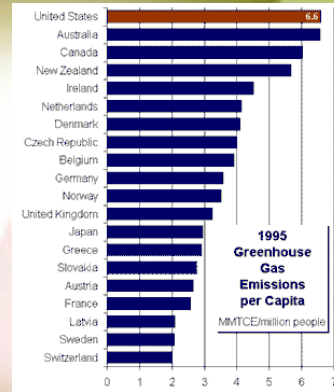
- Developed countries – 24 members of the OECD (except Mexico) – Annex II
- Industrialized countries – 24 developed plus 16 others (mainly former USSR countries) – Annex I
- Signatory to Kyoto – formally signed the agreement – not binding on country
- Ratified – country has formally adopted the protocol (parliamentary vote or equivalent)

## Kyoto

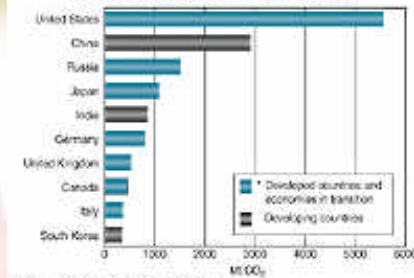
- Agreement signed in 1997
  - Will come into effect when
    - 55 countries ratify, AND
    - The 55 include countries accounting for at least 55% of 1990 CO<sub>2</sub> emissions from Annex I countries
  - More than 70 nations have ratified
    - All EU countries
    - 37.2% of Annex I emissions

## Kyoto - continued

- Major exceptions
  - US and Australia have formally withdrawn from agreement
- Three major countries remain “unratified”
  - Russia – 17.4%
  - Canada – 3.33%
  - Poland – 3.02%
- Russia and either Poland or Canada must ratify for Kyoto to be in force
  - Russia has stated that it will ratify the Kyoto accord



**Figure 1: Highest CO<sub>2</sub> Emission Countries in the World (1997 – Canada 8<sup>th</sup>)**



Note: Energy-related CO<sub>2</sub> emissions only.  
 \* These developed countries and economies in transition have emission reduction commitments under the Kyoto Protocol.  
 Source: Key World Energy Statistics 99, International Energy Agency

## Kyoto gases

- Carbon dioxide
- Methane
- Nitrous oxide
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF<sub>6</sub>)

## Canada's Action Plan

- \$500 million over five years
  - Move toward Kyoto target of 6% below 1990 emissions
  - Not intended to be the total solution (aims at reduction of about 65 million tpy CO<sub>2</sub>e)
- \$10 million to minerals and metals
  - Supplementary Cementing Materials - \$1.1 million
  - Concrete Roads - \$3.5 million
  - Enhanced Recycling - \$3.4 million
  - Studies/monitoring for GHG reduction - \$2 million
- Funds do not support technology development

## SCMs


- Target: increase SCM use in Canada by 500,00 tpy by end of program
- Advisory Committee guides program
  - Industry
  - Industry associations
  - Governments

## Projects

- Video series highlighting use of fly ash
- Assessment of current supply and use of SCMs in Canada
- Create and manage a web site on SCMs in Canada
- University-level course on use of coal combustion products
- Fact sheets on coal combustion products used as SCMs
- Fact sheets on ground blast furnace slag and silica fume
- Review of fly ash quality requirements

## The next three years

- Canada's ratification will mean significant additional effort on climate change activities
- Probably additional funds
- Certainly an emphasis on such areas as voluntary reduction in energy use and trading of emissions

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- Much debate about impact on Canada
    - Loss of employment?
    - Loss of business revenue?
  - There will be opportunities
    - Increased energy efficiency is a plus
    - There will be business opportunities – including in SCMs.

Thank you