

**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Regulations Amending the Off-Road Small Spark-Ignition Engine Emission Regulations
(BACA Actions 8, 11)

Description: The existing *Off-Road Small Spark-Ignition Engine Emission Regulations*, set air pollutant emission standards for small spark-ignition (typically gasoline) engines. These proposed amendments would further reduce air pollutant emissions by aligning with the new more stringent U.S. Phase 3 emission standards. The proposed amendments would affect manufacturers and importers of small engines and equipment, such as lawn and gardening equipment. More information is available online at <https://www.ec.gc.ca/lcpe-cepa/eng/regulations/DetailReg.cfm?intReg=233>.

Expected Outcome: The proposed Amendments would decrease exhaust and evaporative emissions of air pollutants from off-road engines using a spark plug, or other sparking device, and producing no more than 19 kW of power; improve overall air quality; and result in both health and environmental benefits for Canadians.

Partners: Provincial and territorial governments, engine and machine manufacturers, importers and industry associations and environmental non-government organizations.

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Batumi Action for Cleaner Air (BACA)
Actions by Canada

Country: Canada

Title:

Off-Road Compression-Ignition and Large Spark-Ignition Engines Emission Regulations
(BACA Actions 8, 11)

Description: The proposed regulations would replace the existing *Off-Road Compression-Ignition Engine Emission Regulations*. The new regulation would reduce air pollutant emissions from both off-road compression-ignition (diesel) and large spark-ignition (gasoline, propane and natural gas) engines by establishing emission standards and test procedures that would align with those of the United States Environmental Protection Agency.

The proposed regulations would affect manufacturers and importers of large spark-ignition engines, such as forklifts and ice resurfacers, and compression-ignition engines and equipment, such as construction, farming and forestry equipment. More information is available online at <https://www.ec.gc.ca/default.asp?lang=En&n=DF9C1A4C&offset=1&toc=show#X-2014031713015137>

Expected Outcome: The new regulations would reduce air pollutant emissions from large spark-ignition engines, improve overall air quality, and result in both health and environmental benefits for Canadians.

Partners: Provincial and territorial governments, engine and machine manufacturers, importers and industry associations and environmental non-government organizations.

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Regulations Amending the On-Road Vehicle and Engine Emission Regulations and Other Regulations Made Under the Canadian Environmental Protection Act, 1999 (BACA Actions 8, 11)

Description: The *Regulations Amending the On-Road Vehicle and Engine Emission Regulations and Other Regulations Made Under the Canadian Environmental Protection Act, 1999* (the ORVEER Amendments) introduce stricter limits on air pollutant emissions from new passenger cars, light-duty trucks and certain heavy-duty vehicles beginning with the 2017 model. The ORVEER Amendments are published with the *Regulations Amending the Sulphur in Gasoline Regulations* (the SiGR Amendments). The SiGR Amendments introduce lower limits on the sulphur content of gasoline. These two regulatory initiatives work in concert to reduce vehicle air pollutant emissions. The amendments impact on-road vehicle manufacturers and importers and gasoline producers and importers. More information is available online at <http://www.ec.gc.ca/lcpe-cepa/eng/regulations/DetailReg.cfm?intReg=222>.

Expected Outcome: Stricter limits for sulphur content in gasoline and with stricter limits for new vehicle exhaust and evaporative emissions are expected to work together to reduce emissions and improve overall air quality, resulting in both health and environmental benefits for Canadians

Partners: Provincial and territorial governments, vehicle manufacturers and importers, gasoline producers and importers, industry associations and environmental non-government organizations.

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Batumi Action for Cleaner Air (BACA)
Actions by Canada

Country: Canada

Title:

Ambient Air Quality Monitoring (*BACA Action 2*)

Description: Canada delivers long-term ambient air quality measurements at urban, rural, and remote sites from the Canada-US border to the high Arctic. These measurements, both at the surface and aloft, are undertaken to inform the status and trends of air pollutants (in ambient air) related to smog, acid deposition and their major precursors (nitrogen oxides (NO_x), sulphur dioxide (SO₂), volatile organic compounds (VOCs), black carbon), mercury, ammonia, tropospheric ozone, priority emerging and legacy chemicals, as well as to measure ultraviolet radiation and the thickness of the ozone layer through the total atmospheric column.

These measurements are carried out by a number of complementary networks including the National Air Pollution Surveillance (NAPS) program (<http://www.ec.gc.ca/rnsipa-naps/>) and the Canadian Air and Precipitation Monitoring Network (CAPMoN) (<https://www.ec.gc.ca/rs-mn/default.asp?lang=En&n=752CE271-1>).

Expected Outcome: This work provides relevant and accurate evidence and environmental intelligence to understand and report on the efficacy of mitigation actions associated with the impacts of air pollutants on air quality, and the health of humans and ecosystems. This work also helps to identify risks and opportunities to improved air quality as a result of changing sources, weather and climate conditions.

Partners: Provinces and Territories, United States National Atmospheric Deposition Program, World Meteorological Organization (WMO) and UNEP

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Batumi Action for Cleaner Air (BACA)
Actions by Canada

Country: Canada

Title:

Canadian Ambient Air Quality Standards (BACA Action 15)

Description: In May 2013, the federal government formally established air quality standards for fine particulate matter and ozone under Sections 54 and 55 of the Canadian Environmental Protection Act, 1999 as part of its commitment to implement a new comprehensive Air Quality Management System. The Air Quality Management System includes: Ambient air quality standards to drive improvement of outdoor air quality across the country; Industrial emissions requirements for major industrial sectors and equipment groups that set a base level of performance throughout Canada; A framework for air zone management within provinces and territories that enables actions to be tailored to specific sources of air emissions in a given area; Regional airsheds that facilitate regional-scale air quality reporting and the coordination of action to address transboundary air pollution issues; and an intergovernmental working group to improve collaboration and develop a plan to reduce emissions from the transportation sector.

Expected outcome: The federal government anticipates that there will be approximately 15% fewer Canadians exposed to levels above the 2020 standards for PM and ozone as a result of these new standards. This will result in fewer premature deaths, asthma attacks, hospital visits, missed work days and less crop and forest damage across Canada.

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Code of Practice to Reduce Emissions of Fine Particulate Matter (PM_{2.5}) from the Aluminium Sector (*BACA Actions 8, 9*)

Description: The Code of Practice describes operational activities in the primary aluminium sector and concerns related to emissions of fine particulate matter (PM_{2.5}) from these activities, including the production of aluminium from alumina using prebaked anode technology; prebaked anode production; green coke calcining and alumina production. It presents recommendations for the implementation of best practices to reduce emissions of PM_{2.5}. These recommended practices can be used by the aluminium industry, regulatory agencies and the general public as sources of technical and policy guidance but they do not replace regulatory requirements. For further information please visit <https://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=BF9A6F9A-1> .

Expected outcome: Fine particulate matter emissions from the aluminium sector are reduced through implementation of best practices.

Partners: Provincial and territorial environment departments of Canada

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Reducing Methane Emissions in the Upstream Oil and Gas Sector (BACA Action 8)

Description: In March 2016, the Government of Canada committed to putting in place federal methane regulations for the oil and gas sector by early 2017. Since then, ECCC held over 150 hours of consultations with provinces, territories, industry, ENGOs and associations representing Indigenous Peoples on the development of the federal regulatory approach. These regulations will reduce emissions of methane and VOC emissions, which are emitted together, from oil and gas sources. The proposed requirements are outcome-based and target five key methane emissions sources: 1) fugitive equipment leaks, 2) venting, 3) pneumatic devices, 4) compressors, and 5) well completions. Canada plans to publish the proposed methane regulations in early 2017.

Expected outcome: Reducing methane is recognized as one of the lowest cost opportunities to make significant GHG reductions from the energy sector. The proposed federal methane regulations for the oil and gas sector have been designed to achieve Canada's target of reducing emissions by 40-45% from 2012 levels by 2025. The proposed regulations will result in tangible reductions of 20 megatonnes of carbon dioxide equivalent, which is equal to taking about 5 million passenger vehicles off the road each year.

Partners: Indigenous peoples; provincial, territorial and municipal governments; industry; non-governmental organizations.

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

<p>Title: Sulphur in Gasoline Regulations (BACA Action 11)</p>
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Description: The *Sulphur in Gasoline Regulations* place limits on the sulphur concentration in gasoline that is produced, imported, sold or offered for sale in Canada. Also specified in the *Sulphur in Gasoline Regulations* are the acceptable analytical methods for determining the concentration sulphur.

In July 2015, Canada introduced more stringent sulphur level requirements for vehicles, engines and fuels in order to align with the Tier 3 requirements of the United States Environmental Protection Agency (U.S EPA).

Expected outcome: The expected outcome of the *Sulphur in Gasoline Regulations* is the efficient and effective operation of advanced vehicle emission control systems. There has been a significant reduction of nitrogen oxide emissions from off-road vehicles and traditional transportation vehicles from 1,856.3 kilotonnes in 1990 to 1,049.2 kilotonnes in 2014. Additionally, carbon monoxide emissions have been decreasing substantially since 1990. Approximately 12,461 kilotonnes of carbon monoxide was emitted in 1990 while only approximately 3,736.7 kilotonnes of carbon monoxide was emitted in 2014 from off-road vehicles and traditional transportation vehicles.

Partners: Canadian Border Services Agency (CBSA), Provinces/Territories, industry associations, non-governmental organizations

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title: Sulphur in Diesel Fuel Regulations (BACA Action 11)

Description: The *Sulphur in Diesel Fuel Regulations* place limits on the sulphur concentration in diesel fuel that is produced, imported, sold or offered for sale in Canada. The sulphur concentration requirements are based on the intended use of diesel fuel.

The *Sulphur in Diesel Fuel Regulations* also specify the acceptable analytical methods for determining the concentration sulphur.

Expected outcome: The expected outcome of the *Sulphur in Gasoline Regulations* is the efficient and effective operation of advanced vehicle emission control systems. There has been a significant reduction of nitrogen oxide emissions from off-road vehicles and traditional transportation vehicles from 1,856.3 kilotonnes in 1990 to 1,049.2 kilotonnes in 2014.

Carbon monoxide emissions have been decreasing substantially since 1990. Approximately 12,461 kilotonnes of carbon monoxide was emitted in 1990 while only approximately 3,736.7 kilotonnes of carbon monoxide was emitted in 2014 from off-road vehicles and traditional transportation vehicles.

Partners: Canadian Border Services Agency (CBSA), provinces/territories, industry associations, non-governmental organizations

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Multi-Sector Air Pollutants Regulations (MSPAR) (BACA Action 8)

Description: Finalized in June 2016, these regulations require owners and operators of specific industrial facilities and equipment types to meet consistent performance standards across the country. The objectives of the Regulations are to:

- Limit the amount of nitrogen oxides (NO_x) emitted from gaseous-fuel-fired non-utility boilers and heaters used in many industrial facilities;
- Limit the amount of NO_x emitted from stationary spark-ignition gaseous-fuel-fired engines used by many industrial facilities; and
- Limit the amount of NO_x and sulphur dioxide (SO₂) emitted from cement kilns

For further information please visit:

<http://www.ec.gc.ca/lcpecepa/eng/regulations/detailReg.cfm?intReg=220>

Expected outcome: The regulations will mean healthier communities for Canadians. It is estimated that the regulations will prevent hundreds of premature deaths, approx. 350,000 days with asthma, and more than 1 million days of activity restricted by poor air quality by 2035.

The regulations will contribute significantly to reducing emissions that contribute to smog and acid rain including 2,000 kilotonnes of nitrogen oxide emission reductions in the first 19 years.

Partners: Provinces, Territories, Industry Associations and Environmental Non-Governmental Organizations in Canada

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Reducing VOC Emissions in the Downstream Oil and Gas Sector (BACA Action 8)

Description: Canada intends to publish proposed regulations to reduce releases of volatile organic compounds (VOCs) from petroleum refineries, upgraders and certain petrochemical plants in Spring 2017.

Expected outcome: The proposed Regulations would establish nationally-consistent measures to reduce fugitive emissions of VOCs, including petroleum and refinery gases, from equipment leaks at petroleum refineries, bitumen/heavy oil upgraders and certain petrochemical facilities. Since VOCs have adverse impacts on both human health and the environment, the proposed regulations are expected to improve human health and environmental quality.

Partners: Indigenous peoples; provincial, territorial and municipal governments; petroleum and petrochemical industries; non-governmental organizations.

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Code of Practice for the Reduction of Volatile Organic Compound (VOC) Emissions from Cutback and Emulsified Asphalt (BACA Action 8)

Description: The application of asphalt causes emissions of volatile organic compounds (VOC) and contributes to the creation of ground-level ozone and particulate matter, which are major components of smog. In 2013, some jurisdictions in Canada have adopted practices to control the level of VOC emissions from this sector. All of the jurisdictions include restrictions of cutback asphalt (CA) during the ozone season, which is typically the summer months, while many of the jurisdictions also include restrictions of VOC content in both emulsified asphalt (EA) and/or CA product manufacturing. Some jurisdictions also prohibit CA throughout the year.

Expected outcome: This was published in the Canada Gazette, Part I on February 25. This measure could result in up to 5000 tonnes VOC reduction per year.

Partners: Provinces/Territories, industry associations, non-governmental organizations

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Volatile Organic Compound (VOC) Concentration Limits for Automotive Refinishing Products Regulations, 2009 (BACA Action 8)

Description: The objective of the Regulations is to protect the environment and health of Canadians from the effects of air pollution. The Regulations establish VOC concentration limits for 14 categories of automotive refinishing products for use in Canada. These products are required to meet the established concentration limits before they can be manufactured, imported, offered for sale or sold in Canada.

Expected outcome: It is estimated that over 5 kilotonnes of VOCs are emitted each year from coatings and surface cleaners used in automotive refinishing operations in Canada. The VOC concentration limits for automotive refinishing products regulations are expected to reduce the annual VOC emissions from these sources by approximately 40%.

Partners: Provinces/Territories, industry associations, non-governmental organizations

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Canada's Air Pollutant Emission Inventory (APEI) (BACA Actions 1, 6, 17)

Description: Canada's Air Pollutant Emission Inventory (APEI) is a comprehensive inventory of air pollutant emissions at the national and provincial/territorial levels. The APEI is prepared and published by Environment and Climate Change Canada (ECCC) and serves many purposes, including the following:

- Support to the development of domestic air quality management strategies, policies and regulations;
- Contribute to tracking and quantifying air pollutants according to Canada's domestic and international reporting obligations;
- Inform Canadians about pollutants that affect their health and the environment; and
- Provide data to support air quality forecasting.

Expected outcome: The APEI is compiled and published on an annual basis. The latest update was released in February 2017 and is available at:

<http://ec.gc.ca/pollution/default.asp?lang=En&n=E96450C4-1>

Partners: Provinces/Territories, industry associations, non-governmental organizations, general public

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Code of Practice for Residential Wood Burning Appliances, CCME (BACA Action 9)

Description: The Code of Practice for Residential Wood Burning Appliances has been developed to enhance governmental approaches to air pollution caused by residential wood burning. The goal of the Code of Practice is to provide federal, provincial, territorial, and municipal governments with tools and information to support their wood smoke management activities.

Expected outcome: The tools and information in the Code of Practice have been designed to improve local air quality by providing municipalities in by-law and program development to help drive exchange programs for conventional wood burning appliances in favour of advanced technology (certified) appliances and fireplaces.

Partners: Federal government in collaboration with provinces and territories

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

**Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations
(BACA Action 8)**

Description: The *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations* set a stringent performance standard of 420 tonnes CO₂ per gigawatt hour (420t/GWh) for new coal-fired electricity generating units, and for existing units that reach a defined period of operating life (generally 50 years after their commissioning date). The performance standard came into force in 2015. In effect, the regulations ban the construction of traditional coal-fired units and will lead to the gradual phase-out of existing units without carbon capture and storage. In December 2016, the Government of Canada announced its intention to amend the regulations to accelerate the phase out of traditional coal-fired electricity generation across Canada. Amendments would require all coal-fired units to meet a 420t/GWh emission limit by 2030. More information on the current regulations, and the planned regulatory amendments, is available online at <https://ec.gc.ca/cc/default.asp?lang=En&n=C94FABDA-1> and <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-12-17/html/notice-avis-eng.php>.

Expected outcome: In addition to 214 Mt of cumulative GHG emission reductions by 2035, the regulations for coal-fired electricity are also projected to result in important co-benefits such as improved air quality by reducing emissions of air pollutants that lead to the formation of fine particulate matter (PM_{2.5}) and ozone. Between 2015 and 2035, the regulations are projected to reduce Canada's electricity-sector emissions of sulphur oxides (SO_x), nitrogen oxides (NO_x) and total particulate matter (TPM) by 22%, 10% and 14% respectively. The announced regulatory amendments will lead to additional reductions of GHGs, as well as additional co-benefits through reductions in emissions of air pollutants in Canada.

Partners: Provincial and territorial governments; utilities and power companies; and non-governmental organizations.

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**Batumi Action for Cleaner Air (BACA)
Actions by Canada**

Country: Canada

Title:

Regulations for Stationary Compression-Ignition Engines (BACA Action 8)

Description: The proposed regulations would reduce air pollutant emissions from stationary compression-ignition (generally diesel fueled) engines by establishing emission standards and test procedures that are aligned with those of the United States Environmental Protection Agency. The proposed regulations would affect manufacturers and importers of stationary compression-ignition engines. Draft regulations are planned for publication in the Canada Gazette, Part I, in 2018. More information is available online at www.ec.gc.ca/default.asp?lang=En&n=DF9C1A4C&offset=1&toc=show#X-2016081711262767.

Expected outcome: The regulations would ensure that new stationary diesel engines meet a stringent emission standard, similar to Canadian regulations already in place for on and off-road engines.

Partners: Provincial and territorial governments; Indigenous organizations; remote communities; utilities and other “end users” of stationary diesel engines; stationary engine manufacturers and importers.

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