

SUBJECT: Canadian Air Quality Management System (AQMS)

SUBMITTED BY: Environment Committee

BACKGROUND

Canada is adopting new air quality standards for industry and other emitters. The Air Quality Management System (AQMS) will continue to set consistent ambient air quality and industrial emissions standards across the country. It is designed to deliver flexibility to address regional differences in air quality issues Canada-wide. AQMS has established regional air sheds and local air management zones, and allows Canadians access to air quality information through public reporting, modeling, and monitoring mechanisms.

The Canadian Council of Ministers of the Environment (CCME) approved AQMS in October 2010. CCME continues to work with industry, government, and non-government organizations to implement it. Stakeholders in the regulated community support this approach to air management.

ISSUE

The AQMS is comprehensive and outcome-based, defining the desired ambient air quality through the setting of Canadian Ambient Air Quality Standards (CAAQS). It is also a place-based system with air zones for management established within air-sheds across provinces and territories, providing joint action in resolving trans-boundary air quality issues. AQMS is comprehensive because it will deal with all sources of air pollutants and requires a base level of environmental performance by key industrial sectors. It 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. AQMS uses the air pollution control regulatory schemes already used in the Provinces. The key components of AQMS are:

1) Canadian Ambient Air Quality Standards (CAAQS)

The CAAQS are shown in the table below. Fine (less than 2.5 microns in size) Particulate Matter standards are based on a 24-hour Average and the annual 98th percentile value over 3 consecutive years. Ground Level Ozone (O₃) standards are based on an 8-hour average and are based on the annual 4th highest, averaged over 3 consecutive years.

Pollutants	Standards	
	2015	2020
PM _{2.5} Annual	10 µg/m ³	8.8 µg/m ³
PM _{2.5} for 24-hours	28 µg/m ³	27 µg/m ³
Ozone for 8-hours	63 parts per billion	62 parts per billion

Canada is currently working to develop CAAQS for sulphur dioxide (SO₂) and oxides of nitrogen (NO_x)

2) Place-based air quality management

Regional air-sheds - Six regional air-sheds have been established covering all of Canada. The federal government will continue working to understand regional air quality issues and coordinate action to address air pollution, including trans-boundary pollution from the United States and elsewhere. The federal government will help to coordinate the resolution of provincial and international trans-boundary air quality issues.

Air zones - Provinces and territories will manage air quality in air zones that they have established within their boundaries, and work to ensure that ambient air standards are met in all air zones. Saskatchewan has now established all six of its planned air zones. Monitoring is well established in three of the zones, and being actively developed in the remaining three. The federal government also facilitates monitoring and analysis under its National Air Pollution Surveillance Program. Provinces and territories are expected to prioritize local actions to impose more stringent emission limits on sources.

3) Base-Level Industrial Emissions Requirements (BLIERS)

AQMS will establish BLIERS in major industrial sectors, initially for SO₂, NO_x, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total particulate matter (TPM), and ammonia (NH₃). BLIERS are intended to ensure that all significant industrial air emissions sources in Canada meet a good base-level of environmental performance. BLIERS are to be based on what leading jurisdictions are requiring of industry in areas achieving their air quality standards, adjusted as needed for Canadian circumstances. AQMS is to provide regulatory assurance that the BLIERS are applied effectively everywhere in Canada. Provinces and territories will implement the BLIERS and federal regulatory assurance would be achieved through CEPA.

The first BLIER has been issued for the Iron and Steel and Ilmenite Sector, to reduce NO_x, SO₂ and VOC emissions by 2020 – 2027. When fully implemented, BLIERS is expected to reduce industrial emissions by 19 percent for NO_x, 24 percent for SO₂, and 9 percent for TPM. With AQMS, greater reductions from all sources could be achieved in air zones over time.

4) Other key areas

In Canada, the transportation sector is the most significant contributor to ambient air concentrations of NO_x and VOCs, and also contributes to SO₂. Addressing transportation emissions will be a key component of air zone management in every heavily populated area. The CCME Mobile Sources Working Group (MSWG), in consultation with stakeholders, identified the priority areas to reduce emissions as:

- a. using advanced transportation technologies;
- b. using proper vehicle maintenance;
- c. managing in-use diesel vehicles, and engines; and
- d. “greening” of fleets.

The federal government has also developed and published the Multi-Sector Air Pollutants Regulations to limit NO_x and SO₂ emissions. These regulations include requirements for large industrial boilers and heaters, stationary spark-ignition engines, and cement manufacturing facilities.

The AQMS collaborative federal, provincial, territorial, and stakeholder framework will continue to:

- a. Focus on air quality and all the sources that contribute to it.
- b. Ensure that a common standard of industrial performance exists across Canada.
- c. Provide for increasingly stringent measures where local conditions require them.
- d. Continue collaborative partnership with governments and stakeholders.
- e. Provide greater public transparency and stronger assurance of action on air quality.

The Air Chapter of the Saskatchewan Environmental Code for ambient air quality standards adopt the CAAQS through “Table 20–Saskatchewan Ambient Air Quality Standards.” It is proposed to have another Table that would align with the national BLIERS. Saskatchewan will work to ensure that the jurisdictional roles and responsibilities fit with its results-based regulatory model and the provincial government’s air-shed management approach.

RECOMMENDATIONS

- 1) That the Government of Saskatchewan continue to support AQMS, and also continue to actively implement it.
- 2) That the Government of Canada continue its involvement in AQMS through CCME as the preferred model for managing air quality in Canada, and that the federal role be focused on the CAAQS, BLIERS, air-zones development and establishment, controls related to transportation, and not create separate control of air emissions under CEPA that would be duplicative of the provincial controls in place.
- 3) That the Government of Canada be asked to increase its national ambient air monitoring network, integrating to provincial and municipal systems, and establish prompt and public reporting of the resulting data.

DATE OF POLICY RESOLUTION RATIFICATION

This policy resolution was ratified by the Saskatchewan Chamber of Commerce Board of Directors on September 14, 2017.