

Clean Air Amendment Bill

Public Consultation 2024

Summary of Existing Processes and Proposed Changes:

The purpose of the Clean Air Act 1991 and Clean Air Regulations 1993 is to ensure that the outside air we breathe is safe for people and the environment. Improvements to our understanding of the biological effects of certain pollutants requires periodic refinement of the limit values stipulated in the Regulations. Such refinements help to ensure that people and the environment are not adversely affected by emissions from various polluting sources. The Act provides a mechanism, through licencing, to ensure that polluting facilities use appropriate technologies to ensure that the public and environment are not exposed to pollutants above the stipulated limit-values.

There are over 600 polluting facilities, or 'controlled plants,' that are licenced annually through this Act, including:

- Electrical Generators (BELCO and Standby Units)
- Stone Crushers / Sifters / Cutters
- Incinerators (Tynes Bay, Mediwaste, Crematoria)
- Waste Management Facilities
- Aerated Sewage Treatment Plants
- Concrete manufacture
- Spray Paint Facilities (Vehicles/machinery)
- Asphalt plants
- Dry Cleaners & Boilers
- Hazardous Chemical Storage

DENR manages a range of monitoring stations around Bermuda, through a contract with BIOS, and can also place conditions on licencees of polluting facilities to provide supplemental ambient air monitoring to set standards. All air quality monitoring data is published annually to the Department of Statistics Compendium and is used to inform policy.

Controlling the importation, use and export of 'controlled chemicals' is also addressed under the Regulations and the types of 'controlled chemicals' are also refined as our understanding of their impact on people and the environment improves and safer alternatives become available.

The concentrations of some contaminants in the ambient air may well fall below the limit-values stipulated in the Regulations or may not be listed as controlled chemicals. However, their effects on the public as a nuisance odour can be significant, though challenging to measure and assess.

The purpose of the Clean Air Amendment Bill is to:

1. Refine the limit-values of pollutants stipulated in the Regulations to further reduce the acute and chronic risks to people and the environment. Aligning Bermuda's 'limit-levels' to the most stringent UK Air Quality Objective 'target-levels' will ensure that Bermuda's

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legally-binding limits are more enforceable than the equivalent targets-levels in the UK. One pollutant, PM_{2.5} (Particulate matter less than 2.5 microns in diameter), was aligned to a US National Statute limit-value as it was considered more stringent than the equivalent in the UK.

Limit-values are provided in the Bill for the following pollutants for various time periods:

- Sulphur dioxide
- Nitrogen dioxide
- Carbon monoxide
- Particulate Matter less than 10 microns in diameter (PM₁₀)
- Ozone
- Lead
- Poly-Aromatic Hydrocarbons
- PM_{2.5}
- Hydrogen chloride
- Hydrogen sulphide
- Benzene

2. Require licencees to develop and submit an Air Quality Action Plan (AQAP) for review and approval by the Minister when exceedance of the limit-values in the Regulations necessitates an Emission Control Order to be served. The AQAP will include a schedule of actions and goals to ensure the emissions from the controlled plant improve and meet the Regulations going forward. Public consultations will also be required as part of the AQAP process.
3. Introduce new Odour Regulations to provide limit-values for nuisance odours generated by 'controlled plants.' Trained assessors would be used to dilute odourous air with odour-free air to the point where it is not detected and the Dilution-To-Threshold limit-value would determine whether the odour was considered a nuisance or not.
4. Introduce the concept of 'best available technologies' when addressing abatement of polluting emissions, to ensure that they are economically and technically viable for preventing or minimizing emissions and impacts, including nuisance odours on the environment.
5. Introduce definitions of approved air contaminant measurement methodologies and processes that are either based on, or equivalent to, the US Environmental Protection Agency (EPA) 'reference' or 'equivalent' standards or more 'indicative' methodologies.
6. Expand the list of controlled chemicals to include, amongst other chemicals, many of the replacement refrigerant gases that were introduced under the Montreal Protocol 1987 to address impacts to the ozone layer. The replacement gases have a very high Global Warming Potential (GWP) and these gases are also now in the process of being replaced in various cooling equipment.
7. Redefine certain 'controlled plants', specifically facilities for the spray painting of vehicles and machinery that are not capable of being carried by hand, to include open air spray painting and inflatable spray paint booths that are operated on a retail sale or service basis or by a commercial enterprise.

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