

Development application guidelines

Air quality report

What is the purpose of this?

An **air quality report** is used to determine if a proposed use or facility is suitable for its location, to assess impacts to human health and the natural environment, and to indicate mitigation measures for any adverse impacts the development may cause.

Who should prepare this?

The report should be completed by a qualified environmental professional.

When is this required?

An **air quality report** may be required as part of the following applications:

- Official Plan Amendment
- Zoning By-law Amendment
- Draft Plans of Subdivision / Condominium
- Consents

Why do we need this?

The rationale for the report is to ensure that air quality levels are maintained, improved, or kept within the appropriate concentration levels as determined by the Ministry of the Environment (MOE) and other Town By-laws, and that land use compatibility issues relating to human health and air quality have been considered, mitigated, and resolved.

This report may also be prepared to support or extend an application for a Certificate of Approval through the MOE in conjunction with other required reporting for Certificates of Approval.

The primary objective of this report is to:

- determine if a proposed land use is suitable for a site
- determine if the proposal meets human health and air quality criteria, including the Town's Health Protection Air Quality By-law 2010-035
- assist staff with their analysis and report preparation

How should this be prepared?

When an **air quality report** is being prepared in conjunction with an application for a Certificate of Approval, the report should be consistent with the guidelines published by the MOE. These guidelines include, among others, the procedure for preparing an Emission Summary and Dispersion Modeling (ESDM) Report.

An ESDM Report should:

- describe the proposed facility
- identify pollution sources and contaminants
- assess the significance of the sources of contaminants
- describe the operating conditions, emissions estimation and data quality
- include source summary tables
- include a site plan and dispersion modeling
- provide an emission summary table and interpretation of results

When required, an **air quality report** should also:

- describe the proposed use/facility
- describe the short term actions and long term goals of the use/facility
- describe any odorous emissions that may be present
- include a site location plan
- include a site plan with roof layout and sources of emissions identified with distances to nearest incompatible use identified
- identify any plume conditions which may occur at varying environmental conditions
- explain how the proposal meets the MOE land use compatibility guidelines D-1 through D-6, as applicable
- explain how the proposal meets the Town's Health Protection Air Quality By-law 2010-035 to assess and control health effects of major emissions of fine particulate matter
- explain how the proposal will address the requirements of the Ministry of Environment's Toxics Reductions Act
- describe the mitigation measures to be implemented and their intended outcome

If it is suspected that some of the above noted requirements cannot be satisfied, additional information may be required:

- background air concentrations levels (existing levels before the proposed new use/facility is introduced)
- cumulative air emission concentration levels with the new use/facility introduced
- frequency analysis of modeled concentrations
- justification for the proposed use based on the data collected

What else should we know?

Detailed 'Benchmark and Threshold Air Impact Assessment Guidelines' are being done at Halton Region. These Terms of Reference are subject to change in accordance with the Region's guidelines. The objective of these guidelines is to identify when air quality studies are needed when distance separation criteria for developments cannot be met.

In addition, the MOE has developed land use compatibility guidelines and procedures. Many of these focus on air quality in the context of land use compatibility and should be addressed as part of any air quality report, where applicable.

When preparing an air quality report for the purposes of obtaining a Certificate of Approval, additional criteria is required including an Emission Summary and Dispersion Modelling (ESDM) Report. Please contact the MOE, or visit their website, for additional information and guidance.

Regarding the ESDM report content requirements of Ontario Regulation 419/05: Air Pollution - Local Air Quality.

What other resources are available?

Town of Oakville - Health Protection Air Quality By-law – guidance documents and support materials:

<http://www.oakville.ca/environment/health-protection-air-quality.html>

Ministry of the Environment Land Use Publications – refer to Land Use Publications, Documents D-1 – D-6:

<http://www.ene.gov.on.ca/en/publications/forms/index.php>

Ministry of the Environment - Procedure for Preparing an ESDM Report (March 2009):

<http://www.ene.gov.on.ca/envision/gp/3614e03.pdf>

Ministry of the Environment - An ESDM Report should be structured to correspond to each of the items listed in the MOE Emission Summary and Dispersion Modelling Report Checklist:

<http://www.ene.gov.on.ca/envision/gp/5357e.pdf>

Ministry of the Environment Toxics Reductions Act, 2009:

http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_09t19_e.htm