

## Attachment 1 Air Quality Study Terms of Reference

<b>Study</b>	<b><i>Air Quality Study</i></b>
<b>Description</b>	<p>A technical report that provides a written description of the impact of air emissions, including odour and dust, by the surrounding environment on the proposed development as well as mitigation measures to reduce any negative impacts.</p> <p>The report:</p> <ol style="list-style-type: none"> <li>1. Provides a written description of the impact of air emissions from the surrounding environment on the proposed development.</li> <li>2. Provides details of all measures proposed to mitigate or reduce the anticipated negative air emission impacts.</li> </ol> <p>This Air Quality Study is to be prepared, on behalf of the applicant, by a Consultant that is either an Air Quality expert or a qualified Professional Engineer.</p>
<b>When Required</b>	<p><i>Application Type</i></p> <p>Air Quality (Feasibility and/or Detailed Assessment) Studies may be required to support the following applications for developments that include sensitive uses:</p> <ul style="list-style-type: none"> <li>• Zoning By-law Amendment</li> <li>• Site Plan Control</li> <li>• Plan of Subdivision</li> <li>• Consent to Sever</li> </ul> <p>Sensitive land uses include residential land uses, schools, day cares, hospitals, places of worship, and other uses identified as sensitive by the City.</p> <p>If the proposed development is determined not to include a sensitive land use, assessment of nearby industrial uses is not required unless requested by the City.</p> <p>Air Quality Studies may also be a requirement of a site specific zoning by-law.</p> <p>Air Quality Studies will be required for applications that include sensitive uses, depending on their proximity to sources of emissions or areas with permissions for employment uses that may emit in the future. That area is defined by the 'area of influence' in the Province's D-6 Guidelines (currently 1000m from the property line of the emitting use).</p> <p>The requirement for an Air Quality Study may already be a condition of initial approval of the proposed development.</p> <p><i>Type or Level of Assessment</i></p> <p>Different levels of analysis are required depending on the types of sensitive uses included in the proposed development, and the character and proximity of nearby industrial uses to the proposed development.</p> <p>The Air Quality Study process uses a tiered, risk-based approach. This minimizes the effort required for proposed developments that are unlikely to be impacted by air, odour, or dust emissions, while ensuring adequate assessment when situations with higher potential impacts are identified.</p>

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	<p>If the development includes a sensitive land use, the proximity of the sensitive land use to any industrial land use should be evaluated. Proximity to industrial land uses should be assessed based on the principle of potential influence areas outlined in the Ministry of the Environment and Climate Change (MOECC) Guideline D-6 “Compatibility between Industrial Land Uses” (the Guideline). The Guideline provides a classification system for industrial facilities, from Class I (facilities with the lowest potential for emissions) to Class III (facilities with the highest potential for emissions).</p> <p>Nearby industrial land uses (within 1000 metres of the proposed development) should be classified according to this classification system and listed in the Air Quality Study.</p> <p>If the separation distance for one or more nearby industrial land uses is lower than the potential influence distance in the Guideline (70, 300, and 1000 metres for Class I, II, and III industrial uses respectively), then further assessment is required. Note that separation distance should be evaluated from property line to property line unless ancillary land uses or mandatory setback distances are present, in which case these may be included in the separation distances.</p> <p>If further assessment is required due to the proximity of industrial land uses, the consultant shall obtain a copy of any Environmental Compliance Approvals (ECAs; previously known as Certificates of Approval) issued to the subject industrial facilities.</p> <p>If these ECAs include an air emission component, the consultant shall obtain a copy of the emission summary table from each of the industrial facilities. These emission summary tables should be examined to evaluate the presence of common contaminants emitted by nearby industrial facilities. If the combined facility ground-level concentrations of any particular compound exceed 100% of the MOECC limit for that compound, further analysis with respect to that contaminant may be required to assess cumulative impacts from multiple facilities. This analysis could include dispersion modelling or long-term air sampling and monitoring in advance of application approval. The applicant should submit a proposed monitoring plan for the City’s approval, and finalize the plan in consultation with the City. The applicant should not commence monitoring until the City has approved the monitoring plan.</p> <p>If the nearby industrial facilities have operations that emit odours, as determined by the character of the operations or the presence of odour assessment in the ECA, a community odour survey in the vicinity of the proposed development is required. The applicant should submit a proposed community odour survey plan for the City’s approval, and finalize the plan in consultation with the City. The applicant should not commence the community odour survey until the City has approved the plan.</p> <p>Additionally, if nearby facilities have significant levels of particulate matter emissions, or a fugitive dust management plan is a condition in the ECA, or the industrial land use contains unpaved roads or outdoor storage piles, a dust monitoring program may be required as part of the Air Quality Study.</p>
<b>Rationale</b>	<p>Official Plan Section 2.2.4 (Policy 6) requires that development adjacent to or nearby <i>Employment Districts</i> should be appropriately designed, buffered, and/or separated from industries as necessary to mitigate adverse effects including those from air emissions, odour, and dust to promote safety and security.</p> <p>Official Plan Section 3.4 (Policy 21) requires major facilities such as airports, transportation/rail infrastructure, corridors and yards, waste management facilities</p>

<p><b>Study</b></p>	<p style="text-align: center;"><b><i>Air Quality Study</i></b></p> <p>and industries adjacent to sensitive land uses such as residences, educational and health facilities to appropriately design, buffer, and/or separate the facilities and uses from each other to prevent adverse effects from air emissions.</p> <p>To assist in identifying potential impacts and mitigative measures, the applicant may be required to prepare air quality studies in accordance with guidelines established for this purpose. The proponent will be responsible for implementing any required mitigative measures.</p> <p>In addition to sensitive land uses, the Official Plan in Section 4.6 policies 6 and 7 deals with mitigation of the effects of air emissions among other things in order to create competitive, attractive, highly functional <i>Employment Areas</i>.</p>
<p><b>Required Contents</b></p>	<p>During pre-application consultation, City Planning staff will work with the applicant's consultant to determine if such a report is required and, if so, the specific requirements of the Study, based on the nature of the proposed application and the context of the study area.</p> <p>The Study should include, but is not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• A list of industrial land uses within 1000 metres of the proposed development</li> <li>• Classifications per MOECC Guideline D-6 of nearby industrial land uses and their distances to the proposed development</li> <li>• For industrial facilities whose area of influence includes sensitive land uses associated with the proposed development, copies of any issued Environmental Compliance Approvals</li> <li>• Copies of any emission summary tables required as part of the Study process</li> <li>• Methodology and results of air sampling, odour community surveys, and dust sampling required as part of the Study process</li> <li>• Identification and analysis of the impact of air emissions, odour, and dust generated from the immediately surrounding area, including without limiting the foregoing, the operations of airports, transportation/rail infrastructure, corridors and yards, waste management facilities, industries and other air emissions-generating uses on the proposed development</li> <li>• Identification and analysis of the impact of air emissions generated within the proposed development on itself</li> <li>• Recommendations for air emission mitigation, including both potential emission control upgrades at sources and any adjustments to the site plan and architectural design as are necessary to minimize exposure to air emissions, odour, and dust, and to comply with relevant regulations and standards including, if necessary, applying for Environmental Activity and Sector Registry (EASR) registrations or Environmental Compliance Approvals (ECAs) to the Ontario Ministry of the Environment and Climate Change</li> </ul> <p>NOTE: The City may hire an outside consultant to review air quality studies submitted in support of a development application and the cost of any such services will be paid for by the applicant.</p>