

**Appendix 1****Quantitative Assessment Methodology**

- (a) The Applicant shall assess the air pollutant concentrations, where necessary, with reference to the Guidelines for Local-Scale Air Quality Assessment Using Models issued by the Modeling Section, Air Policy Group, Environmental Protection Department, HKSAR dated March, 2000 (Reference: EPD's home page under items for Air - <http://www.epd.gov.hk/epd/>) or other methodology as agreed by the Director.
- (b) The Applicant shall apply the general principles enunciated in the modelling guidelines stated in (a) above while making allowance for the specific characteristic of each project. This specific methodology must be documented in such level of details (preferably with tables and diagrams) to allow the readers of the assessment report to grasp how the model is set up to simulate the situation at hand without referring to the model input files. Details of the calculation of the emission rates of air pollutants and a map showing all the road links for input to the modelling shall be presented in the report. The Applicant must ensure consistency between the text description and the model files at every stage of submission. In case of doubt, prior agreement between the Applicant and the Director on the specific modelling details shall be sought.
- (c) The Applicant shall, based on the nature of the activities analysed in S.3.4.3.3 (i) and (ii) of this Study Brief, identify the key/representative air pollutant parameters (types of pollutants and the averaging time concentration) to be evaluated and provide explanations for choosing these parameters for the assessment of the impact of the Project.
- (d) The Applicant shall assess the expected cumulative air pollutant concentrations at the identified ASRs and compare these results against the criteria set out in section 1 of Annex 4 in the TM. The predicted air quality impacts (both unmitigated and mitigated) shall be presented in the form of summary table and pollution contours, for comparison with relevant air quality standards and examination of the land use implications of these impacts. Plans of suitable scale shall be used for presentation of pollution contour to allow proper determination of buffer distances requirements.
- (e) All input and output file(s) of the model run(s), if any, shall be submitted to the Director in electronic format.