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4 August 2021

**By Registered Post & Fax**

Hudson Environmental Technology Limited

Dear

**Environmental Impact Assessment (EIA) Ordinance, Cap.499  
Application for EIA Study Brief**

**Project Title: Hudson Environmental Waste Disposal Center (Waste Mineral Oil)  
(Application No. ESB-345/2021)**

I refer to your above application received on 24 June 2021 for an EIA Study Brief under Section 5(1)(a) of the EIA Ordinance.

In accordance with Section 5(7)(a) of the EIA Ordinance and after public inspection of the project profile, I issue the attached EIA Study Brief (No. ESB-345/2021) for your preparation of an EIA report.

Under Section 15 of the EIA Ordinance, the EIA Study Brief will be placed on the EIA Ordinance Register. It will also be placed on the EIA Ordinance website (<http://www.epd.gov.hk/eia/>).

You may submit an application for approval of the EIA report in accordance with Section 6(2) of the EIA Ordinance after its completion. Upon receipt of your application, this department will decide under Section 6(3) of the EIA Ordinance whether the EIA report meets the requirements of the EIA Study Brief and Technical Memorandum on EIA Process, and accordingly advise you under Section 6(4) of the EIA Ordinance whether a submission to the Advisory Council on the Environment (ACE) or its subcommittee is required. In this connection, you are required to provide sufficient copies of the Executive Summary of the EIA report to the Secretariat of the EIA Subcommittee of the Council for selection for submission when you submit the EIA report to this department for approval. Please liaise with Ms. Becky LAM (Tel: 2594 6323) regarding the details in due course.

If the EIA report is selected by ACE for submission and presentation, you are expected to provide ACE with an account of the environmental issues arising from the project, major conclusions and recommendations of the EIA study. In particular, the main environmental

concerns of the general public and interest groups who may be affected by the Project should be identified and addressed in the EIA study. As such, you are strongly advised to engage the public and interest groups during the course of the EIA study. Please find attached a copy of the “*Modus Operandi of the EIA Subcommittee of the Advisory Council on the Environment*” (**Attachment 1**) for your reference.

Please note that if you are aggrieved by any of the content of this EIA Study Brief, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this EIA Study Brief.

The Legislative Council passed the Air Pollution Control (Amendment) Bill 2021 on 28 April 2021 to adopt the new Air Quality Objectives which are scheduled to come into effect on 1 January 2022. I would like to draw your attention to the attached general notice entitled “The new Air Quality Objectives and assessment of air quality impact of a project under the Environmental Impact Assessment Ordinance (Cap. 499)” (**Attachment 2**).

Should you have any queries on the above application, please contact my colleague Mr. Tom TAM at 2835 1107.

Yours sincerely,



(Stanley LAU)

Acting Principal Environmental Protection Officer  
for Director of Environmental Protection

Encl.

c.c. (w/o encl.)

ACE EIA Subcommittee Secretariat (Attn. : Ms. Becky LAM)

**Environmental Impact Assessment Ordinance (Cap. 499), Section 5(7)****Environmental Impact Assessment Study Brief No. ESB-345/2021**

**Project Title: Hudson Environmental Waste Disposal Center (Waste Mineral Oil)  
(hereinafter known as the “Project”)**

**Name of Applicant: Hudson Environmental Technology Limited  
(hereinafter known as the “Applicant”)**

**1. BACKGROUND**

- 1.1 An application (No. ESB-345/2021) for an Environmental Impact Assessment (EIA) Study Brief under section 5(1)(a) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the Applicant on 24 June 2021 with a Project Profile (No. PP-628/2021) (hereinafter referred as the “Project Profile”).
- 1.2 The Project is to construct and operate a facility for recycling waste mineral oil. The Project will handle approximately 20 tonnes of waste mineral oil (including waste lubricating oil and mineral oil) per day. The proposed location of the Project is at DD134, Lot 223, Lung Kwu Sheung Tan, Tuen Mun, as shown in Figure 1.1 of the Project Profile and is reproduced in Appendix A of this EIA Study Brief. The Project mainly comprises the following:
- (i) fractionation and carbonization system;
  - (ii) gas purification system;
  - (iii) nitrogen heat exchanger for reuse of heat generated in the process;
  - (iv) storage for raw materials and products; and
  - (v) chimney.
- 1.3 The Project consists of the following designated project(s) under Part I, Schedule 2 of the EIAO:
- (i) Item K.7 – “An oil refinery” ; and
  - (ii) Any other designated project(s) that may be identified during the course of the EIA study.
- 1.4 Pursuant to section 5(7)(a) of the EIAO, the Director of Environmental Protection (the Director) issues this EIA Study Brief to the Applicant to carry out an EIA study.
- 1.5 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from construction and operation (and decommissioning, if any) of the Project and related activities taking place concurrently. This information will contribute to decisions by the Director on:
- (i) the acceptability of any adverse environmental consequences that are likely to arise as a result of the Project;
  - (ii) the conditions and requirements for the design, construction and operation (and decommissioning, if any) of the Project to mitigate against adverse environmental consequences; and
  - (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.

## 2. OBJECTIVES OF THE EIA STUDY

2.1 The objectives of the EIA study are as follows:

- (i) to describe the Project and associated works together with the requirements and environmental benefits for carrying out the Project;
- (ii) to identify and describe elements of community and environment likely to be affected by the Project and/or likely to cause adverse impacts to the Project, including the natural and man-made environment and the associated environmental constraints;
- (iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
- (iv) to propose the provision of infrastructure or mitigation measures to minimise pollution, environmental disturbance and nuisance during the construction and operation (and decommissioning, if any) of the Project;
- (v) to identify and quantify waste management requirements and to propose measures to mitigate these impacts;
- (vi) to identify and quantify contaminated land within any Project area for development works and to propose measures to avoid disposal in the first instance;
- (vii) to investigate the feasibility, effectiveness and implications of the proposed mitigation measures;
- (viii) to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation (and decommissioning, if any) of the Project in relation to the sensitive receivers and potentially affected uses;
- (ix) to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation (and decommissioning, if any) of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;
- (x) to design and specify environmental monitoring and audit requirements to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted; and
- (xi) to identify any additional studies necessary to implement the mitigation measures or monitoring and proposals recommended in the EIA report.

### **3. DETAILED REQUIREMENTS OF THE EIA STUDY**

#### **3.1 The Purpose**

3.1.1 The purpose of this EIA Study Brief is to set out the purposes and objectives of the EIA study, the scope of environmental issues which shall be addressed, the requirements that the EIA study shall need to fulfil, and the necessary procedural and reporting requirements. The Applicant shall demonstrate in the EIA report whether the criteria in the relevant sections of the Technical Memorandum on Environmental Impact Assessment Process of the EIAO (hereinafter referred to as the “TM”) are fully complied with.

#### **3.2 The Scope**

3.2.1 The scope of this EIA study shall cover the Project and associated works proposed in the Project Profile (No. PP-628/2021) and mentioned in section 1.2 of this EIA Study Brief. For the purpose of assessing whether the environmental impacts shall comply with the criteria of the TM, the EIA study shall address the likely key issues described below, together with any other key issues identified during the course of the EIA study:

- (i) the potential air quality impact on the air sensitive receivers during the construction and operation of the Project, including dust, gaseous emissions, toxic air pollutants and odour (if applicable) from the construction and operation of the facilities and associated works;
- (ii) the potential hazard to off-site population due to the operation of the Project;
- (iii) the potential water quality impact on the water system(s) during the construction and operation of the Project,
- (iv) the potential waste management issues and impacts due to the construction and operation of the Project;
- (v) the potential extent of land contamination within Project area for development works and relevant mitigation measures;
- (vi) the potential noise impact during the construction and operation of the Project;
- (vii) the potential health impacts on human due to air pollution emissions arising from the operation of the Project;
- (viii) potential ecological impact on ecological sensitive areas due to the construction and operation of the Project;
- (ix) potential cultural heritage impact due to the construction and operation of the Project;
- (x) the potential cumulative environmental impacts of the Project and associated works, through interaction or in combination with other existing, committed and planned projects in their vicinity, and that those impacts may have a bearing on the environmental acceptability of the Project; and
- (xi) the potential environmental impacts due to any decommissioning of the Project.

### **3.3 Description of the Project**

#### **3.3.1 Purpose and Objectives of the Project**

The Applicant shall provide information on the purpose and objectives of the Project, and describe the environmental benefits of the Project and scenarios with and without the Project. The Applicant shall provide information on the source(s), classification and composition of wastes to be recycled; the intended uses of the generated oil being produced; the quality of generated oil, the amount of generated oil and storage on site; previous experience in operating any similar plant.

#### **3.3.2 Details of the Project**

The Applicant shall indicate the nature and status of Project decision(s) for which the EIA study is undertaken. The Applicant shall describe the siting, layout, design, construction methods, sequence of construction works and other major activities involved in the Project, using diagrams, plans and/or maps as necessary. The estimated duration of the construction phase and operational phase (and decommissioning, if any) of the Project together with the programme within these phases shall be given. The land taken by the Project site, construction site and any associated access arrangement, and auxiliary facilities shall be shown on a scaled map. The uses of the Project shall be described and the different land use areas shall be demarcated as appropriate.

#### **3.3.3 Background and History of the Project**

The Applicant shall provide information on the site location and site history of the Project, interactions with other projects, and consideration of different options, taking into account the principles of avoidance, minimising and control of adverse environmental impacts. The options might include siting, layout, design, construction methods and sequence of construction works for the Project. The key reasons for selecting the preferred development option and the part environmental factors played in the selection shall be described. The main environmental impacts of different options shall be compared with those of the Project and with the likely future environmental conditions in the absence of the Project.

### **3.4 Technical Requirements**

The Applicant shall conduct the EIA study to address the environmental aspects of the Project as described in sections 3.1 to 3.3 above. The assessment shall be based on the best and latest information available during the course of the EIA study. The Applicant shall include in the EIA report of the construction and operational (and decommissioning, if any) programme and the methodologies for the Project. The Applicant shall clearly state in the EIA report the time frame and works programmes of the Project and other concurrent projects, and assess the cumulative environmental impacts from the Project and the interacting projects as identified in the EIA study. The EIA study shall include the following technical requirements on specific impacts.

#### **3.4.1 Air Quality Impact**

3.4.1.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing air quality impact as stated in Annexes 4 and 12 of the TM.

3.4.1.2 The assessment area for air quality impact assessment shall be defined by a distance of

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500 metres from the boundary of the Project site as identified in the EIA, which shall be extended to include major existing, planned and committed air pollutant emission sources, that may have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, planned and committed sensitive receivers within the assessment area where air quality may be potentially affected by the Project. The assessment shall be based on the best available information at the time of the assessment. The assessment shall also take into account the impacts of concurrent projects within the assessment area, if any.

3.4.1.3 The assessment of the air quality impact arising from the construction and operation of the Project shall follow the detailed technical requirements given in Appendix B of this EIA Study Brief.

### **3.4.2 Hazard to Life**

3.4.2.1 The Applicant shall follow the criteria for evaluating hazard to life as stated in Annex 4 of the TM.

3.4.2.2 The hazard assessment for the operation of the Project shall follow the detailed technical requirements given in Appendix C of this EIA Study Brief.

### **3.4.3 Water Quality Impact**

3.4.3.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing water pollution as stated in Annexes 6 and 14 of the TM.

3.4.3.2 The study area for this water quality impact assessment shall include areas within 500 metres from the site boundary of the Project and shall cover the North Western Water Control Zone as designated under the Water Pollution Control Ordinance (Cap. 358) and the water sensitive receivers in the vicinity of the Project. The study area shall be extended to include other areas if they are found also being impacted during the course of the EIA study and have a bearing on the environmental acceptability of the Project.

3.4.3.3 The water quality impact assessment for the construction and operation of the Project shall follow the detailed technical requirements given in Appendix D of this EIA Study Brief, and shall develop contingency plan for the operation of the Project covering potential scenarios including but not limited to chemical / waste oil spillage, leakage, and accidental spillage.

### **3.4.4 Waste Management**

3.4.4.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing waste management implications as stated in Annexes 7 and 15 of the TM respectively.

3.4.4.2 The assessment of the waste management implications arising from the construction and operation of the Project shall follow the detailed technical requirements given in Appendix E of this EIA Study Brief.

### **3.4.5 Land Contamination Impact**

3.4.5.1 The Applicant shall follow the guidelines for evaluating and assessing potential land contamination issues as stated in Sections 3.1 and 3.2 of Annex 19 of the TM.

3.4.5.2 The land contamination assessment for the Project shall follow the detailed technical requirements given in Appendix F of this EIA Study Brief.

### **3.4.6 Noise Impact**

3.4.6.1 The Applicant shall identify and justify in the EIA study the need for a noise impact assessment associated with the construction and operation of the Project including, but not limited to, noise generated from the night-time operation of the facilities and the plants, and the off-site traffic due to the Project.

3.4.6.2 If a noise impact assessment is needed, the Applicant shall follow the criteria and guidelines for evaluating and assessing noise impact as stated in Annexes 5 and 13 of the TM.

### **3.4.7 Health Impacts**

3.4.7.1 If a significant increase in levels of air pollutants to human receivers due to the project is predicted, the Applicant shall conduct health impact assessment for the increase in the identified air pollutants. For this purpose, the Applicant shall assess the potential health impact on human in relation to pollutants (including toxic substances) in the exhaust gases from the operation of the Project in accordance with the technical requirements given in Appendix G.

3.4.7.2 The health impact assessment shall be based on established practices in countries around the world. A literature search shall be carried out to determine the best approach and methodology for the health impact assessment, including any codes of practices, guidelines, etc. applied locally in Hong Kong and elsewhere in the world. The approach and methodology to be adopted shall be agreed by the Director prior to the commencement of assessment.

### **3.4.8 Ecological Impact (Terrestrial and Aquatic)**

3.4.8.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing ecological impact as stated in Annexes 8 and 16 of the TM respectively.

3.4.8.2 The assessment area for the purpose of the ecological impact assessment shall include areas within 100 metres distance from the boundary of the Project and any other areas likely to be impacted by the Project, including but not limited to nearby aquatic and associated environment.

### **3.4.9 Impact on Cultural Heritage**

3.4.9.1 The Project site is located within the Lung Kwu Sheung Tan Site of Archaeological Interest (SAI). The Applicant shall follow the criteria and guidelines for evaluating and assessing the cultural heritage impact on Lung Kwu Sheung Tan SAI as stated in Section 2 of Annex 10 and Sections 1 and 2 of Annex 19 of the TM respectively.



### **3.4.10 Presentation of Summary Information**

#### **3.4.10.1 Summary of Environmental Outcomes**

The EIA report shall contain a summary of the key environmental outcomes arising from the EIA study, including estimated population protected from various environmental impacts, environmentally sensitive areas protected, environmentally friendly options considered and incorporated in the preferred option, environmental designs recommended, key environmental problems avoided and environmental benefits of the environmental protection measures recommended.

#### **3.4.10.2 Summary of Environmental Impacts**

To facilitate effective retrieval of pertinent key information, the EIA report shall contain a summary table of environmental impacts showing the assessment points, results of impact predictions, relevant standards or criteria, extents of exceedances predicted, impact avoidance measures considered, mitigation measures proposed and residual impacts (after mitigation). This summary shall cover each individual impact and shall also form an essential part of the executive summary of the EIA report.

#### **3.4.10.3 Documentation of Key Assessment Assumptions, Limitation of Assessment Methodologies and related Prior Agreement(s) with the Director**

The EIA report shall contain a summary including the assessment methodologies and key assessment assumptions adopted in the EIA study, the limitations of these assessment(s) methodologies/assumptions, if any, plus relevant prior agreement(s) with the Director or other Authorities on individual environmental media assessment components. The proposed use of any alternative assessment tool(s) or assumption(s) have to be justified by the Applicant, with supporting documents based on cogent, scientific and objectively derived reason(s) before seeking the Director's agreement. The supporting documents shall be provided in the EIA report.

#### **3.4.10.4 Summary of Alternative Mitigation Measures**

The EIA report shall contain a summary of alternative mitigation measures considered during the course of EIA study, including design, scale, extent, layout and mode of operation as well as construction methods, disposal/treatment methods and sequences of works for the Project, with a view to avoiding, minimising and mitigating adverse environmental impacts. A comparison of the environmental benefits and dis-benefits of applying different mitigation options shall be made. This summary shall cover the key impacts and shall also form an essential part of the executive summary of the EIA report.

#### **3.4.10.5 Documentation of Public Concerns**

The EIA report shall contain a summary of the main concerns of the general public, special interest groups and the relevant statutory or advisory bodies received and identified by the Applicant during the course of the EIA study, and describe how the relevant concerns have been taken into account.

### **3.4.11 Environmental Monitoring and Audit (EM&A) Requirements**

- 3.4.11.1 The Applicant shall identify and justify in the EIA study whether there is any need for EM&A activities during the construction and operational phases of the Project and, if affirmative, to define the scope of EM&A requirements for the Project in the EIA study.
- 3.4.11.2 Subject to the confirmation of the EIA study findings, the Applicant shall comply with the requirements as stipulated in Annex 21 of the TM. The Applicant shall also propose reporting of monitoring data for the Project through a dedicated internet website.
- 3.4.11.3 The Applicant shall prepare a project implementation schedule (in the form of a checklist as shown in Appendix H of this EIA Study Brief) containing all the EIA study recommendations and mitigation measures with reference to the implementation programme of the Project.

## **4. DURATION OF VALIDITY**

- 4.1 The Applicant shall notify the Director of the commencement of the EIA study. If the EIA study does not commence within 36 months after the date of issue of this EIA Study Brief, the Applicant shall apply to the Director for a fresh EIA study brief before commencement of the EIA study.

## **5. REPORTING REQUIREMENTS**

- 5.1 In preparing the EIA report, the Applicant shall refer to Annex 11 of the TM for the contents of an EIA report. The Applicant shall also refer to Annex 20 of the TM, which stipulates the guidelines for the review of an EIA report. When submitting the EIA report to the Director, the Applicant shall provide a summary, pointing out where in the EIA report the respective requirements of this EIA Study Brief and the TM (in particular Annexes 11 and 20) have been addressed and fulfilled.
- 5.2 The Applicant shall supply the Director with hard and electronic copies of the EIA report and the executive summary in accordance with the requirements given in Appendix I of this EIA Study Brief. The Applicant shall, upon request, make additional copies of the above documents available to the public, subject to payment by the interested parties of full costs of printing.

## **6. OTHER PROCEDURAL REQUIREMENTS**

- 6.1 If there is any change in the name of Applicant for this EIA Study Brief during the course of the EIA study, the Applicant must notify the Director immediately.

- 6.2 If there is any key change in the scope of the Project mentioned in section 1.2 of this EIA Study Brief and in Project Profile (No. PP-628/2021), the Applicant must seek confirmation from the Director in writing on whether or not the scope of issues covered by this EIA Study Brief can still cover the key changes, and the additional issues, if any, that the EIA study must also address. If the changes to the Project fundamentally alter the key scope of this EIA Study Brief, the Applicant shall apply to the Director for a fresh EIA study brief.

## **7. LIST OF APPENDICES**

- 7.1 This EIA Study Brief includes the following appendices:

- Appendix A – Project Location Plan
- Appendix B – Requirements for Air Quality Impact Assessment
- Appendix C – Requirements for Hazard Assessment
- Appendix D – Requirements for Water Quality Impact Assessment
- Appendix E – Requirements for Assessment of Waste Management Implications
- Appendix F – Requirements for Land Contamination Assessment
- Appendix G – Requirements for Health Impact Assessment of Air Pollutants (including toxic substances)
- Appendix H – Implementation Schedule of Recommended Mitigation Measures
- Appendix I – Requirements for EIA Report Documents

--- END OF EIA STUDY BRIEF ---

August 2021  
Environmental Assessment Division  
Environmental Protection Department

**Appendix A**



Project Title: Hudson Environmental Waste Disposal Center (Waste Mineral Oil)  
(This figure is prepared based on FIGURE 1-1 of Project Profile No. PP-628/2021)

工程項目名稱：德信環保廢物處置中心（廢礦物油）  
（本圖是根據工程項目簡介 PP-628/2021 圖 1-1 編製）

EIA Study Brief No. : ESB-345/2021  
環評研究概要編號 :

Appendix A: Project Location Plan  
附錄 A : 工程項目位置圖



**Appendix B****Requirements for Air Quality Impact Assessment**

The air quality impact assessment shall include the following:

1. Background and Analysis of Activities

- (i) Provision of a detailed background information relating to air quality issues relevant to the Project, e.g. description of the types of activities of the Project, refining processes of waste mineral oil and treatment methods of by-products that may affect air quality during construction and operational phases of the Project.
- (ii) Provision of an account, where appropriate, of the consideration/measures that have been taken into consideration during the planning of the Project to avoid and minimise the air pollution impact. The Applicant shall consider alternative operation processes or methodology to minimise the air quality impact during operational phase of the Project
- (iii) Projection of future year background air quality can be extracted from the “Pollutants in the Atmosphere and their Transport over Hong Kong” (PATH) model released by the Director. If a modification to the emission sources is to be adopted in the PATH model to update the projection of future year background air quality, details of the emission sources adopted in the modification should be clearly presented.

2. Identification of Air Sensitive Receivers (ASRs) and Examination of Emission/Dispersion Characteristics

- (i) Identification and description of existing, planned and committed ASRs that would likely be affected by the Project, including those earmarked on the relevant Outline Zoning Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by Lands Department and any land use and development applications approved by the Town Planning Board. The Applicant shall select the assessment points of the identified ASRs that represent the worst impact point of these ASRs. A map clearly showing the location and description such as name of buildings, their uses and height of the selected assessment points shall be given. The separation distances of these ASRs from the nearest emission sources shall also be given.
- (ii) Provision of a list of air pollution emission sources, including any nearby emission sources which are likely to have impact related to the Project based on the analysis of the construction and operation activities in section 1 above. Examples of operational phase emission sources include emissions of gaseous pollutants from the production processes and facilities of the Project, marine vessel emissions from barges, vehicular emissions from trucks transporting materials and products to and from the Project site, vehicular emission from Lung Mun Road and odour emissions from production processes and facilities, and from transportation, handling and storage of odorous materials at the Project site. Confirmation regarding the validity of the assumptions adopted and the magnitude of the activities (e.g. volume of construction material handled, etc.) shall be obtained from the relevant government departments/authorities and documented. Validity of the traffic flow and traffic speed prediction shall be confirmed with Transport Department and documented in the EIA report.

- (iii) Identification of chimneys and obtainment of relevant chimney emission data in the assessment area by carrying out a survey for assessing the cumulative air quality impact of air pollutants through chimneys. The Applicant shall ensure and confirm the validity of the emission data used in their assessment. Any errors found in their emission data used may render the submission invalid.
- (iv) The emissions from other sources and any concurrent projects identified as relevant during the course of the EIA study shall be taken into account as contributing towards the overall cumulative air quality impact. The impact at the existing, committed and planned ASRs within the assessment area shall be assessed, based on the best information available at the time of assessment.

### 3. Construction Phase Air Quality Impact

- (i) The Applicant shall follow the requirements stipulated under the Air Pollution Control (Construction Dust) Regulation to ensure that construction dust impacts are controlled within the relevant standards as stipulated in section 1 of Annex 4 of the TM.
- (ii) If the Applicant anticipates that the Project will give rise to significant construction dust impacts likely to exceed recommended limits in the TM at the ASRs despite the incorporation of the dust control measures proposed, a quantitative assessment shall be carried out to evaluate the construction dust impact at the identified ASRs. The Applicant shall follow the methodology set out in section 5 below when carrying out the quantitative assessment.
- (iii) Where necessary, the Applicant shall consider and evaluate direct mitigation measures, including but not limited to water-spraying, to minimise dust impacts arising from the construction sites, for fugitive dust control. Any mitigation measures recommended for fugitive dust control shall be well documented in the EIA report.
- (iv) A monitoring and audit programme for the construction phase of the Project shall be devised to verify the effectiveness of the control measures proposed so as to ensure proper construction dust control.

### 4. Operational Phase Air Quality Impact

- (i) Apart from preparing a list of emission sources required in Section 2 (ii) above, the Applicant shall provide the target emission levels for the emission sources from the Project, and compare them with the concentration limits specified in the Guidance Note on the Best Practicable Means for Petroleum Works (Preparation of Used Lubrication Oil for Re-use by Thermal Process), and Gas Works (Carbonization and Gasification of Prescribed Materials other than Plant Biomass) issued by EPD, and other relevant overseas' concentration limits. The target emission levels for the emission sources shall be agreed with the Director prior to the execution of the quantitative assessment on operational air quality impact.
- (ii) The Applicant shall calculate the expected air pollutant concentrations, including criteria pollutants under the AQOs, toxic air pollutants such as heavy metals, dioxins and odour, at the identified ASRs based on an assumed reasonably worst case scenario under normal operating conditions. The evaluation shall be based on the strength of the emission sources identified in sections 2 and 4(i) above. The

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Applicant shall follow the methodology set out in Section 5 below when carrying out the assessment.

- (iii) A monitoring and audit programme for the operational phase of the Project shall be devised to verify the effectiveness of the control measures proposed so as to ensure proper control of operational air quality impacts.

## 5. Quantitative Assessment Methodology

- (i) The Applicant shall conduct the quantitative assessment by applying the general principles enunciated in the modelling guidelines in Appendix B-1 while making allowance for the specific characteristic of the Project. This specific methodology must be documented in such level of details, preferably assisted with tables and diagrams, to allow the readers of the EIA report to grasp how the model has been set up to simulate the situation under study without referring to the model input files. In case of doubt, prior agreement between the Applicant and the Director on specific modelling details shall be sought.
- (ii) The Applicant shall identify the key/representative air pollution parameters (types of pollutants and the averaging time concentrations) to be evaluated and provide explanation for selecting these parameters for assessing the impact of the Project.
- (iii) Calculation of the relevant pollutant emission rates for input to the model and map(s) showing road links and emission sources shall be presented in the EIA report. A summary table of the emission rates shall be presented in the EIA report. The Applicant shall ensure consistency between the text description and the model files at every stage of submission for review. In case of doubt, prior agreement between the Applicant and the Director on the specific modelling details shall be sought.
- (iv) The air pollution impacts of future road traffic shall be calculated based on the highest emission strength from the road vehicles in the assessment area within the next 15 years upon commissioning of the Project. The Applicant shall demonstrate that the selected year of assessment represents the highest emission scenario given the combination of vehicular emission factors and traffic flow for the selected year. The Applicant may use the EMFAC-HK model released by the Director to determine the Fleet Average Emission Factors, taking into account vehicle fleet mix and other necessary data on each road section. Unless otherwise agreed by the Director, the latest version of the EMFAC-HK model shall be used. Use of any alternatives to the EMFAC-HK model shall be agreed with the Director. The traffic forecast flow data and assumptions, such as the hourly traffic volume, average speed, vehicle composition, number of trips and soaking time data, the exhaust technology fractions, vehicle age/population distribution, etc. that are used in the assessment shall be presented.
- (v) Emissions from road traffic, marine traffic, airport, other industrial sources and nearby concurrent projects within the assessment area, which contribute to the cumulative air quality impact of the identified ASRs, should be taken into account and be included in the appropriate air quality models accepted by the Director.
- (vi) For estimating of future background air quality, the Applicant may use EPD's PATH model or results, taking into consideration the major air pollutant emission sources projected for Hong Kong and nearby regions. If any modification is made to the emission sources in PATH model or an alternative model is used, details of

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the emission sources adopted should be clearly presented. In general, major point sources located within 4 km from the identified ASRs shall be reviewed if they have direct contributions of air quality impacts to the ASRs on the concerned pollutants of the assessment. In such case, these point sources shall be simulated by dispersion model to account for their induced sub-grid scale spatial variations in background air quality. The exact approach shall be determined according to the case specific situation and subject to the agreement by the Director.

- (vii) The Applicant shall calculate the cumulative air quality impact at the ASRs identified under section 2 above and compare these results against the criteria set out in section 1 of Annex 4 in the TM. The Applicant shall also calculate the incremental air quality impacts at the identified ASRs arising from the Project. The predicted cumulative air quality impacts (both unmitigated and mitigated) shall be presented in the form of summary table(s) and pollution contours, to be evaluated against the relevant air quality standards and on any effect they may have on the land use implications. Plans of a suitable scale shall be used to present pollution contours to allow buffer distance requirements to be determined properly.

#### 6. Mitigation Measures for Non-compliance

The Applicant shall propose remedies and mitigation measures where the predicted air quality impact exceeds the criteria set in section 1 of Annex 4 in the TM. These measures and any constraints on future land use planning shall be agreed with the relevant government departments/authorities and documented. The Applicant shall demonstrate quantitatively whether the residual impacts after incorporation of the proposed mitigating measures will comply with the criteria stipulated in section 1 of Annex 4 in the TM. Specific reasons for not adopting certain workable mitigation measures to reduce the air quality to a level meeting the criteria in the TM or to maximise the protection of the ASRs as far as possible shall be clearly substantiated and documented in the EIA report.

Upon consideration of mitigation measures, if the mitigated air quality impact still exceeds the relevant criteria in Annex 4 of the TM, the Applicant shall identify, predict and evaluate the residual air quality impacts in accordance with section 4.4.3 and section 4.5.1(d) of the TM.

#### 7. Submission of Model Files

All input and output file(s) of the model run(s) including those files for generating the pollution contours and the calculation of emission rates/factors, shall be submitted to the Director in electronic format together with the submission of the EIA report.



**Appendix B-1**

**Air Quality Modelling Guidelines**

*[The information contained in this Appendix is meant to assist the Applicant in performing the air quality assessment. The Applicant must exercise professional judgment in applying this general information.]*

Air quality modelling guidelines shall refer to the guidelines published on the website of the Environmental Protection Department:

([https://www.epd.gov.hk/epd/english/environmentinhk/air/guide\\_ref/guide\\_aqa\\_model.html](https://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/guide_aqa_model.html))

**Appendix C****Requirements for Hazard Assessment**

1. The Applicant shall investigate methods to avoid and/or minimise risk due to the operation of the Project. The Applicant shall submit a dangerous goods (DGs) inventory of the Project in order to seek the Director's agreement whether a quantitative hazard assessment is required to evaluate potential hazard to off-site population due to the operation of the Project. In the event of a hazard assessment is required, the hazard assessment shall include the following:
  - (i) Identify hazardous scenarios to off-site population associated with the manufacture, storage, use and on-site transport of DGs at the Project and then determine a set of relevant scenarios to be included in a Quantitative Risk Assessment (QRA);
  - (ii) Execute a QRA of the set of hazardous scenarios determined in 1(i), expressing population risks in both individual and societal terms;
  - (iii) Compare individual and societal risks with the criteria for evaluating hazard to life stipulated in Annex 4 of the TM; and
  - (iv) Identify and assess practicable and cost-effective risk mitigation measures.
2. The hazard assessment shall also include a cumulative risk assessment of the Project, through interaction or in combination with other existing, committed and planned developments.
3. The methodology to be used in the hazard assessment shall be consistent with previous studies having similar issues (e.g. Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate (ESB-178/2007)).

**Appendix D****Requirements for Water Quality Impact Assessment**

1. The Applicant shall identify and analyse physical, chemical and biological disruptions of the water system(s) arising from the construction and operation of the Project.
2. The Applicant shall predict, quantify and assess any water quality impacts arising from the construction and operation of the Project. Should quantitative assessment by mathematical modelling is necessary, the proposed modelling shall be approved by the Director before proceeding to modelling assessment.
3. The assessment shall include, but not limited to the water quality impacts of the site runoff generated during the construction stage, the effluent and the emergency discharges from the Project and the spillages of chemicals/feedstocks at site on the water system(s) and the sensitive receivers within the study area.
4. The Applicant shall address water quality impacts due to the construction and operation of the Project. Essentially, the assessment shall address the following:
  - (i) collect and review background information on affected existing and planned water systems, their respective catchments and sensitive receivers which might be affected by the Project;
  - (ii) characterize water quality of the water systems and sensitive receivers, which might be affected by the Project based on existing best available information or through appropriate site survey and tests when existing data are insufficient;
  - (iii) identify and analyse relevant existing and planned future activities, beneficial uses and water sensitive receivers related to the affected water system(s);
  - (iv) identify pertinent water quality objectives and establish other appropriate water quality criteria or standards for the water system(s) and the sensitive receivers identified in (i), (ii) & (iii) above;
  - (v) review the specific construction methods and configurations, and operation of the Project to identify and predict the likely water quality impacts arising from the Project;
  - (vi) identify any alternation of any water courses, natural streams, ponds, wetlands; change of water holding / flow regimes of water bodies, change in underground water table, change of catchment types or areas, erosion or sedimentation due to the Project and any other hydrological changes in the study area;
  - (vii) identify and quantify existing and likely future water pollution sources, including point discharges and non-point sources to surface water runoff, sewage from workforce and polluted discharge generated from the Project;
  - (viii) provide an emission inventory on the quantities and characteristics of those existing and future pollution sources in the study area. Field investigation and laboratory test, shall be conducted as appropriate to fill relevant information gaps;

- (ix) report the adequacy of the existing sewerage and sewage treatment facilities for the handling, treatment and disposal of wastewater arising from the Project ;
- (x) identify and quantify the water quality impacts based on the findings and recommendations from (ix) above. The water quality concerns shall include, but not limited to, possible sewage overflow or emergency discharge from the Project;
- (xi) predict and quantify the impacts on the water system(s) and its/their sensitive receivers due to those alternations and changes identified in (vi) above, and the pollution sources identified in (vii) above. The prediction shall take into account and include possible different construction and operation of the Project;
- (xii) assess the cumulative impacts due to other related concurrent and planned projects, activities or pollution sources within the study area that may have a bearing on the environmental acceptability of the Project;
- (xiii) analyze the provision and adequacy of existing and planned future facilities to reduce pollution arising from the point and non-point sources identified in (vii) above;
- (xiv) develop effective infrastructure upgrading or provision, contingency plan for the operation of the Project covering potential scenarios including but not limited to chemical / waste oil spillage / leakage / accidental spillage, water pollution prevention and mitigation measures to be implemented during construction and operation, including temporary / accidental / emergency discharge from the Project, so as to reduce the water quality impacts to within standards. Requirements to be incorporated in the Project contract document shall also be proposed;
- (xv) investigate and develop best management practices to reduce storm water and non-point source pollution as appropriate; and
- (xvi) evaluate and quantify residual impacts on water system(s) and the sensitive receivers with regard to the appropriate water quality objectives, criteria, standards or guidelines.

**Appendix E****Requirements for Assessment of Waste Management Implications**

The assessment of waste management implications shall cover the following:

1. Analysis of Activities and Waste Generation

- (i) The Applicant shall identify the quantity, quality and timing of the wastes arising as a result of the construction and operational activities of the Project based on the sequence and duration of these activities, e.g. construction and demolition (C&D) materials and other wastes which will be generated during construction and operational stages. The Applicant shall adopt design, general layout, construction methods and programme to minimise the generation of public fill/inert C&D materials and maximize the use of public fill/inert C&D materials for other construction works.

2. Proposal for Waste Management

- (i) Prior to considering the disposal options for various types of wastes, opportunities for reducing waste generation, on-site or off-site re-use and recycling shall be fully evaluated. Measures that can be taken in the planning and design stages e.g. by modifying the design approach and in the construction stage for maximizing waste reduction shall be separately considered;
- (ii) After considering the opportunities for reducing waste generation and maximizing re-use, the types and quantities of wastes required to be disposed of as a consequence shall be estimated and the disposal methods/options for each type of wastes shall be described in detail. The disposal methods/options recommended for each type of wastes shall take into account the result of the assessment in item (iii) below;
- (iii) The impact caused by handling (including stockpiling, labelling, packaging and storage), collection, transportation and re-use/disposal of wastes shall be addressed in detail and appropriate mitigation measures shall be proposed. This assessment shall cover the following areas:
- potential hazard;
  - air and odour emissions;
  - noise;
  - wastewater discharge;
  - public transport; and
  - landscape and visual impact, if any.

**Appendix F****Requirements for Land Contamination Assessment**

The Applicant shall identify the potential land contamination site(s) within the Study Area (Appendix A refers) and, if any, within the boundaries of associated areas (e.g. work areas) of the Project.

The Applicant shall provide a clear and detailed account of the present land use (including description of the activities, chemicals and hazardous substances handled, with clear indication of their storage and location, by reference to a site layout plan) and a complete past land uses history, in chronological order, in relation to possible land contamination (including accident records and change of land use(s) and the like).

If any contaminated land uses as stated in Sections 3.1 and 3.2 of Annex 19 in the TM is identified, the Applicant shall carry out the land contamination assessment as detailed from sub-section (i) to (iii) below and propose measure to avoid disposal:

- (i) During the course of the EIA study, the Applicant shall submit a Contamination Assessment Plan (CAP) to the Director for endorsement prior to conducting an actual contamination impact assessment of the land or site(s). The CAP shall include proposal with details on representative sampling and analysis required to determine the nature and the extent of the contamination of the land or site(s). Alternatively, the Applicant may refer to other previously agreed and still relevant and valid CAP(s) for the concerned site(s).
- (ii) Based on the endorsed CAP, the Applicant shall conduct a land contamination impact assessment and submit a Contamination Assessment Report (CAR) to the Director for endorsement. If land contamination is confirmed, a Remediation Action Plan (RAP) to formulate viable remedial measures with supporting documents, such as agreement by the relevant facilities management authorities, shall be submitted to the Director for approval. The Applicant shall then clean up the contaminated land or site(s) according to the approved RAP, and a Remediation Report (RR) to demonstrate adequate clean-up should be prepared and submitted to the Director for endorsement prior to the commencement of any development or redevelopment works within the Study Area. The CAP, CAR and RAP shall be documented in the EIA report.
- (iii) If there are potential contaminated sites which are inaccessible for conducting sampling and analysis during the course of the EIA study, e.g. due to site access problem, the Applicant's CAP shall include:
  - (a) a review of the available and relevant information;
  - (b) an initial contamination evaluation of these sites and possible remediation methods;
  - (c) a confirmation of whether the contamination problem at these sites would be surmountable;
  - (d) a sampling and analysis proposal which shall aim at determining the nature and the extent of the contamination of these sites ; and
  - (e) where appropriate, a schedule of submission of revised or supplementary CAP, CAR, RAP and RR as soon as these sites become accessible.

**Requirements for Health Impact Assessment of Air Pollutants (including toxic substances)**

1. The Applicant shall conduct health impact assessment if a significant increase in levels of air pollutants to human receivers due to the project is predicted. The health impact assessment regarding air pollutants (including toxic substances) in the exhaust gases from the operation of the Project shall include the following key steps:
  - (i) identification of key components of air pollutants (including toxic substances) in the exhaust gases from the operation of the Project for health impact assessment;
  - (ii) an assessment of the likelihood and consequences of exposure to the identified emissions;
  - (iii) an identification of means by which the health impact could be further reduced; and
  - (iv) recommendation of reasonably practicable measures, if any, to reduce the health impact during the operation of the Project.





**Appendix I****Requirements for EIA Report Documents**

1. The Applicant shall supply the Director with the following number of copies of the EIA report and the executive summary:
  - (i) 30 copies of the EIA report and 30 copies of the bilingual (in both English and Chinese) executive summary as required under section 6(2) of the EIAO to be supplied at the time of application for approval of the EIA report.
  - (ii) When necessary, addendum to the EIA report and the executive summary submitted in item (i) above as required under section 7(1) of the EIAO, to be supplied upon advice by the Director for public inspection.
  - (iii) 20 copies of the EIA report and 50 copies of the bilingual (in both English and Chinese) executive summary with or without Addendum as required under section 7(5) of the EIAO, to be supplied upon advice by the Director for consultation with the Advisory Council on the Environment.
2. To facilitate public inspection of EIA report via EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA report and the executive summary prepared in HyperText Markup Language (HTML) and in Portable Document Format. For the HTML and PDF versions, a content page capable of providing hyperlink to each section and sub-section of the EIA report and the executive summary shall be included in the beginning of the document. Hyperlinks to figures, drawings and tables in the EIA report and the executive summary shall be provided in the main text from where respective references are made. The EIA report, including drawings, tables, figures and appendices shall be viewable by common web-browsers including Internet Explorer 8, Firefox 23, Chrome and Safari 8 or later versions as agreed by the Director, and support languages including Traditional Chinese, Simplified Chinese and English.
3. The electronic copies of the EIA report and the executive summary shall be submitted to the Director at the time of application for approval of the EIA report.
4. When the EIA report and the executive summary are made available for public inspection under section 7(1) of the EIAO, the content of the electronic copies of the EIA report and the executive summary must be the same as the hard copies and the Director shall be provided with the most updated electronic copies.
5. To promote environmentally friendly and efficient dissemination of information, both hardcopies and electronic copies of future EM&A reports recommended by the EIA study shall be required and their format shall be agreed by the Director.

**MODUS OPERANDI OF THE  
ENVIRONMENTAL IMPACT ASSESSMENT SUBCOMMITTEE OF  
THE ADVISORY COUNCIL ON THE ENVIRONMENT**

**Purpose**

This paper sets out the *modus operandi* of the Environmental Impact Assessment (EIA) Subcommittee of the Advisory Council on the Environment (ACE) so as to facilitate smooth proceedings of subcommittee meetings. The current *modus operandi* was last updated and endorsed by ACE in July 2009.

**Background**

2. ACE is the Government's principal advisory body on matters relating to environmental protection and nature conservation. The terms of reference of ACE are –

- (a) to keep under review the state of the environment in Hong Kong; and
- (b) to advise the Government, through the Secretary for the Environment, on appropriate measures which might be taken to combat pollution of all kinds, and to protect and sustain the environment.

3. The EIA Subcommittee is set up under ACE to study EIA reports of major development projects. It also comments on strategic environmental assessment reports of major planning projects. The terms of reference of the EIA Subcommittee are –

- (a) to receive and study EIA reports of major development projects; and
- (b) to report on its deliberations and findings and make recommendations to ACE.

## **EIA Process**

4. ACE and the EIA Subcommittee are involved in three main stages of the EIA process, namely commenting on the project profiles for designated projects, selection of EIA reports for submission to ACE and commenting on selected EIA reports. In accordance with ETWB Technical Circular (Works) No. 13/2003, the statutory gazetting of a project under the relevant ordinances can be done in parallel with the EIA process. Separately, consultation with District Councils and other relevant parties may proceed in advance of or in parallel with the submission of EIA reports to the EIA Subcommittee.

## **Project Profiles**

5. Under section 5 of the EIA Ordinance, ACE and members of the public may comment on the project profile of a designated project within 14 days of it being advertised. It is hence not necessary for the EIA Subcommittee to present to the Director of Environmental Protection (DEP) the collective view of the EIA Subcommittee on project profiles. To ensure that comments on project profiles, if any, are given to DEP within the statutory time limit, individual ACE Members would write to DEP directly. Where necessary, the ACE Member may copy his/her comments to the Chairman and Members for information.

## **Selection of EIA Reports**

6. Project proponents of designated projects will have to present their EIA reports to ACE if they are required to submit the reports to the Council. Members of the EIA Subcommittee will be asked to select those projects which they consider should require a presentation to the EIA Subcommittee by the project proponent. The selection outcome is for internal planning of the schedule of the EIA Subcommittee and will not be divulged to the project proponent. Only those projects selected by half or more of EIA Subcommittee Members will be selected. The project proponent concerned will be notified of the selection outcome only after DEP has decided that the EIA report is ready for public inspection and submission to ACE for advice.

7. During the project selection process, if individual EIA Subcommittee Member has special concerns/comments on a certain project, he/she could draw the EIA Subcommittee Chairman's attention to his/her concerns/comments and the Chairman would consider the need to review the decision on selection of the EIA report for submission to ACE.

8. For projects not selected, the project proponent will be required to send the Executive Summary of the EIA report to the EIA Subcommittee. Members would pass their comments, if any, to DEP directly within the prescribed public inspection period and if necessary, copy his/her comments to the Chairman and Members of the EIA Subcommittee for information. At the ACE meeting immediately following the issue of the Executive Summaries of the EIA reports, the EIA Subcommittee Chairman will report to ACE about the submission of these Executive Summaries for information of Members and record as projects not selected for discussion.

### **Meeting Arrangements**

9. The EIA Subcommittee will basically meet on a monthly basis. Meetings will be held when there is submission of EIA report(s) or issue(s) to be discussed.

10. To facilitate focused discussion, the EIA Subcommittee will generally consider no more than two EIA reports in each meeting. EPD will prepare a paper on each EIA report to be submitted to the EIA Subcommittee highlighting the key environmental issues and major findings of the EIA study. Upon expiry of the report inspection period by the general public, EPD will summarize all public comments received during the period for consideration of the EIA Subcommittee. The project proponent, where applicable, will provide the EIA Subcommittee with a report on the site selection process of the project, setting out the alternative sites that have been considered and the reasons of the selection of the particular site when such information is not provided in the EIA report. The paper, the EIA report and the site report, if any, will normally be issued to EIA Subcommittee Members two weeks before the scheduled meeting. The summary of public comments will also be given to Members before the meeting. Members will be asked to indicate whether it is necessary for the project proponent to attend the meeting or the report could be considered by circulation. Project proponents will be informed accordingly before the scheduled meeting.

11. Summary of the public comments will also be provided to non-EIA Subcommittee Members for reference to facilitate their discussion of the EIA Subcommittee's recommendations at the next ACE meeting before the Council tenders its comments to DEP on the EIA report as provided for under the EIA Ordinance.

12. Members of the EIA Subcommittee may raise questions in writing on an EIA report before the scheduled meeting and the project proponent should provide written response to the Secretariat at least three working days before

the meeting.

13. Each discussion item on an EIA report would include a Presentation Session by the project proponent, a Question-and-Answer Session and Internal Discussion Sessions. The Presentation Session and the Question-and-Answer Session are open up for broadcasting and members of the public can view the sessions real time in the public viewing room. The EIA Subcommittee would allocate as much time to the Question-and-Answer Session as possible.

14. The presentation by the project proponent should cover, inter alia, the major conclusions and recommendations of the EIA study. In addition, the project proponent should provide a concise and objective account of the main concerns of the general public and interest groups made known during the EIA study and the public inspection stages, and explain how these concerns are addressed in the EIA study.

#### **Criteria for Assessing EIA Reports**

15. EIA reports will be assessed by the EIA Subcommittee according to the requirements of the Technical Memorandum on the EIA Process and the study brief of the individual projects issued by DEP.

#### **Recommendations to the Full Council**

16. The EIA Subcommittee can make one of the following recommendations to the full Council –

- (i) endorse the EIA report without condition; or
- (ii) endorse the EIA report with condition(s); or
- (iii) reject the EIA report and inform the proponent the right to go to the full Council.

17. If the EIA Subcommittee cannot reach a consensus (i.e. if two or more Members do not agree with the conclusion of the EIA Subcommittee) during the meeting, it may –

- (i) ask for a second submission to the EIA Subcommittee; or
- (ii) defer the decision to the full Council and highlight issues or reasons for not reaching a consensus for the full Council's deliberation.

18. Other than the scenario in paragraph 17 above or the EIA

Subcommittee Chairman considers it appropriate, the recommendations of the EIA Subcommittee will not be discussed in detail in the full Council.

### **Other Rules that apply to EIA Subcommittee Meetings**

19. Apart from the procedures mentioned above, the following rules also apply to EIA Subcommittee meetings –

- (i) the quorum for EIA Subcommittee meetings should be half of the number of EIA Subcommittee Members, including the Chairman;
- (ii) ACE Members who are not EIA Subcommittee Members may attend EIA Subcommittee meetings and participate in the discussion of the meetings but they shall not vote when votes are taken;
- (iii) Council Members and EIA Subcommittee Members should declare direct and indirect interest before deliberating on agenda items so that the EIA Subcommittee Chairman could decide whether they should take part in the discussion or in the case of EIA Subcommittee Members to vote;
- (iv) the confirmed minutes of the EIA Subcommittee (with Members' names deleted) are uploaded on the ACE's website for public inspection;
- (v) the Presentation Session and Question-and-Answer Session of a discussion item on an EIA report at the EIA Subcommittee meeting requiring the attendance of the project proponent team will be opened to the public. The opening up of these sessions is an administrative arrangement only. The open meeting arrangements are not applicable to internal discussion sessions of a discussion item on an EIA report and all other sessions of the meetings of the EIA Subcommittee;
- (vi) special meetings may be called to consider urgent items. The EIA Subcommittee will consider each case individually should there be requests for direct submissions to the full Council;
- (vii) there will not be a limit on the number of professionals/experts to be invited to each EIA Subcommittee meeting for items requiring their assistance. In these cases and where votes are

taken, these professionals/experts shall not vote; and

- (viii) to facilitate effective deliberation at meetings of the EIA Subcommittee, the EIA Subcommittee may appoint Members to advise the EIA Subcommittee on specific subject areas of EIA reports. The appointed Members would consider the assigned subjects of an EIA report, and seek advice from the relevant authorities designated under the EIAO as necessary before EIA Subcommittee meetings.

20. The revised *modus operandi* of the EIA Subcommittee has taken effect in April 2013 upon endorsement of ACE.

**EIA Subcommittee Secretariat  
April 2013**

**The New Air Quality Objectives  
and assessment of air quality impact of a project under  
the Environmental Impact Assessment Ordinance (“EIAO”) (Cap. 499)**

The Legislative Council passed the Air Pollution Control (Amendment) Bill 2021 on 28 April 2021 to –

- (a) adopt the new Air Quality Objectives (“AQOs”), at **Annex 1**, with effect from 1 January 2022 in respect of the Air Pollution Control (Amendment) Ordinance 2021 and EIAO;
- (b) in relation to the EIAO, provide a transitional period to the effect that, for a project in respect of which an environmental permit (“EP”) has been issued under the EIAO before 1 January 2022, the new AQOs will not apply to an application for variation of an EP submitted within 36 months from 1 January 2022;
- (c) introduce an administrative measure that **new Government projects** for which EIA studies have not yet commenced should endeavour to adopt the new AQOs as far as practicable; and
- (d) on a best endeavours basis, a more stringent standard of 24-hour AQO for fine suspended particulates (FSP/PM<sub>2.5</sub>) at a concentration level of 50 µg/m<sup>3</sup> and the number of allowable exceedances of **18 days** per calendar year (in lieu of 35 days per calendar year as set out in the Amendment Bill) as the benchmark for conducting air quality impact assessment under the EIA studies.

2. As a general principle, a public officer shall apply the law prevailing at the time when he makes a decision. Hence, the Environmental Protection Department (EPD) will make the relevant decision under the EIAO based on the AQOs prevailing at the time of the decision. Some examples of decisions made under the EIAO are the decisions under –

- (a) section 5(9), 5(10) and 5(11) as to whether to grant the permission to apply directly for an EP;
- (b) section 6(3) of the EIAO as to whether an EIA report meets the requirements of the study brief and the Technical Memorandum (“TM”) issued under the EIAO;
- (c) section 8(3) of the EIAO as to whether to approve an EIA report;
- (d) section 10(3) of the EIAO as to whether to issue an EP; and
- (e) section 13 of the EIAO as to whether to grant a variation of an EP (subject to the transitional provision referred to in paragraph 1(b) above).



Application for approval of EIA report, permission to apply directly for an EP, EP, and variation of EP

3. It is important to note that the decision of EPD under the EIAO would be based on the AQOs prevailing **at the time of the decision**, not the time when the study brief of a project is issued or the time when an application under the EIAO is submitted. After an EIA report has been submitted to EPD, we may need to consult the relevant authorities pursuant to section 9.1 of the TM. Where EPD considers that the EIA report meets the requirements of the study brief and the TM, the EIA report will need to be exhibited for public inspection and may need to be sent to the Advisory Council on the Environment. Usually it takes about 6 months before EPD decides whether to approve an EIA report. The time taken will be longer if EPD needs to seek additional information from the applicant. Hence it is possible that an EIA report submitted to EPD before the new AQOs come into operation on 1 January 2022 may be considered suitable for public inspection under the existing AQOs, but the decision as to whether to approve the EIA report will be made based on the new AQOs if and when EPD makes that decision on or after 1 January 2022 as to whether to approve the EIA report. The same applies to cases where an application for permission to apply directly for an EP is submitted to EPD before the new AQOs come into operation on 1 January 2022, but the decision as to whether to grant the permission will be made based on the new AQOs if and when EPD makes that decision on or after 1 January 2022.

4. There may also be cases where the EIA report of a project has been approved or the permission to apply directly for an EP has been granted under the existing AQOs, but EPD will make the decision as to whether to issue the EP for the construction and / or operation of the project based on the new AQOs, if that decision is made on or after 1 January 2022.

Similarly, there may also be cases where the EP of a project has been issued under the existing AQOs, but EPD will make the decision as to whether to grant a variation of the EP based on the new AQOs if that decision is made on or after 1 January 2022 (subject to the transitional provision referred to in paragraph 1(b) above).

5. If you are (or you are involved in) preparing or planning to prepare an application for approval of an EIA report, permission to apply directly for an EP, EP or variation of EP under the EIAO, you may wish to bear in mind the above and consider carefully whether your project may require decisions under the EIAO to be made after the new AQOs come into operation on 1 January 2022. If such an application is submitted after the new AQOs have come into operation, it has to contain adequate information demonstrating meeting the new AQOs. If an EIA report is submitted before the new AQOs come into operation, having regard to the possibility that decisions in relation to your project under the EIAO may be made after the new AQOs have come into operation (i.e. on or after 1 January 2022), you may consider including in the EIA report additional information to demonstrate meeting the new AQOs so that the EIA report will remain adequate for supporting future decisions of this department which may be made after the new AQOs have come into operation. Otherwise, you may be required to prepare a new EIA report with the information needed to demonstrate meeting the new AQOs.

### Air quality impact assessment

6. To help those who wish to carry out an air quality assessment using the new AQOs as the criteria, this department has updated the guidelines on air quality modelling and vehicle emission calculation. They are available together with other existing guidelines at the following links:

[http://www.epd.gov.hk/epd/english/environmentinhk/air/guide\\_ref/guide\\_aqa\\_model.html](http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/guide_aqa_model.html)

[http://www.epd.gov.hk/epd/english/environmentinhk/air/guide\\_ref/emfac.html](http://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/emfac.html)

7. If you have any question on air quality impact assessment using the new AQOs as the criteria, you are welcome to contact our Ms. Emily Cheng at 2835 1221.

### Enquiry

8. For matters on application for approval of EIA report, EP, and variation of EP, please feel free to contact our Ms. Clara U at 2835 1837.

**The New Air Quality Objectives for Hong Kong**

<b>Pollutants</b>	<b>Averaging Time</b>	<b>Concentration (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>No. of exceedances allowed per calendar year</b>
Sulphur Dioxide ( $\text{SO}_2$ )	10-minute	500	3
	24-hour	<u>50</u>	3
Respirable Suspended Particulates (RSP/ $\text{PM}_{10}$ )	1-year	50	Not applicable
	24-hour	100	9
Fine Suspended Particulates (FSP/ $\text{PM}_{2.5}$ )	1-year	<u>25</u>	Not applicable
	24-hour	<u>50</u>	<u>35</u>
Nitrogen Dioxide ( $\text{NO}_2$ )	1-year	40	Not applicable
	1-hour	200	18
Ozone ( $\text{O}_3$ )	8-hour	160	9
Carbon Monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
Lead (Pb)	1-year	0.5	Not applicable