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**ACE Paper 19/2011**

*For advice on 30 December 2011*

**Report on the 118<sup>th</sup>  
Environmental Impact Assessment Subcommittee Meeting**

**PURPOSE**

At the meeting on 5 December 2011, the Environmental Impact Assessment Subcommittee (EIASC) considered the EIA report on “Development of Integrated Waste Management Facilities Phase 1 (IWMF) (hereafter known as “the Project”) submitted by the Nature Conservation and Infrastructure Planning Division of the Environmental Protection Department (EPD) (ACE-EIA paper 6/2011 refers).

**ADIVCE SOUGHT**

2. Members are requested to consider the views of the EIASC and to advise on the EIA report.

**BACKGROUND**

3. The EIA report on the Project was first submitted in January 2011 for approval under the EIA Ordinance (EIAO) and was exhibited for public inspection from 17 February 2011 to 18 March 2011. The EIASC discussed the EIA report on 21 March 2011 and recommended to the Advisory Council on the Environment (ACE) that the report be approved with conditions. The ACE subsequently discussed and endorsed the EIA report with conditions (**Annex 1**) on 11 April 2011.

4. In the light of the Court of First Instance's judgment for the Hong Kong- Zhuhai-Macao Bridge (HZMB) EIA, the EIA report was withdrawn on 11 May 2011. With the handing down of the Court of Appeal's judgment on 27 September 2011, the EIA report was re-submitted on 24 October 2011 under the EIAO with some minor updating, mainly on maximizing the use of local public fills for reclamation as previously recommended by the ACE as well as incorporating the project proponent's responses to the public comments on the Project.

## **NEED FOR THE PROJECT**

5. The Project is to provide the facilities to reduce the bulk of municipal solid waste (MSW) requiring landfill disposal and to recover energy from MSW. It will help alleviate the pressure on the precious space of the existing landfills which are anticipated to reach their maximum capacities in early to mid 2018. The Project will also provide electricity for use in Hong Kong.

## **DESCRIPTION OF THE PROJECT**

6. The Project is proposed to be located at the Middle Tsang Tsui Ash Lagoon (TTAL) in Tuen Mun (*Figure 1*) and/or an artificial island near Shek Kwu Chau (SKC) (*Figure 2*) with a size of about 16 hectares (ha). Incineration technology will be adopted for the treatment of MSW. The Project will mainly comprise a thermal incineration plant with a design capacity of 3 000 tonnes per day (tpd) and a mechanical sorting and recycling plant with a design capacity of 200 tpd.

7. For the proposed TTAL site, the Project will also include the decommissioning of a part of the lagoon previously used for disposal of pulverized fuel ash.

8. For the proposed SKC site, reclamation will be required to form land for accommodating the Project.

9. The Project constitutes a Designated Project by virtue of the following items in Schedule 2 of the EIAO –

In respect of TTAL & SKC sites

- (i) Item G.3, Part I – an incinerator with an installed capacity of more than 50 tpd;
- (ii) Item G.4, Part I – a waste disposal facility for refuse;
- (iii) Item D.1, Part I – public utility electricity power plant;
- (iv) Item G.6 Part I – a waste disposal facility for pulverized fuel ash or furnace bottom ash;
- (v) Item F.4, Part I – reuse of treated sewage effluent from on-site wastewater treatment plant;

In respect of TTAL site

- (vi) Item 8, Part II – decommissioning project: a waste disposal facility for pulverized fuel ash or furnace bottom ash;

In respect of SKC site

- (vii) Item C.1, Part I – reclamation works (including associated dredging works) of more than 5 ha in size; and
- (viii) Item C.12, Part I – a dredging operation exceeding 500 000 m<sup>3</sup> .

## **VIEWS OF THE DIRECTOR AND RELEVANT AUTHORITIES**

10. The Director of Environmental Protection (DEP), in conjunction with the relevant authorities, considers that the EIA report meets the requirements of the EIA Study Brief and the Technical Memorandum on EIA Process (TM). Comments from the public and the ACE will be taken into account by DEP in deciding whether or not to approve the EIA report under the EIAO.

## **CONSIDERATION OF ALTERNATIVE OPTIONS**

11. The project proponent has identified a number of potential sites for the Project, including Tseung Kwan O Area 137, ex-Lamma Quarry, Ha Mei Wan in Lamma Island, Tuen Mun Area 38, Middle TTAL and an artificial island near SKC. Considering various factors which include remoteness from major population clusters, planning and land use constraints, potential ecological and visual impacts, the proposed sites in Middle TTAL and an artificial island near SKC are assessed to be more suitable for the Project.

12. The EIA study has also evaluated the latest incineration technologies for MSW treatment, including fluidized-bed, rotary kiln, eco-co-combustion, gasification, plasma gasification and pyrolysis. The study indicates that moving grate incineration is the most preferable option, mainly in view of its capability and reliability in treating the required 3 000 tpd of MSW.

## **VIEWS OF THE SUBCOMMITTEE**

13. Members noted that the public inspection of the EIA report would be from 18 November 2011 to 17 December 2011. 110 sets of public comments received by EPD (at 4 December 2011) were circulated to Members for reference before the meeting. Separately, nine submissions addressed to the Council or the Subcommittee were circulated to Members before the meeting or tabled at the meeting for Members' information. Written response of the project proponent to a Member's question was circulated to Members for information before the meeting. Another written response of the project proponent to the comment raised in a public submission was also tabled for Members' information at the meeting.

14. Since the EIASC had given a thorough deliberation of the EIA report in March 2011 and that the present report contained only some minor updating, Members focused their discussion on the new information made available and any clarifications which they require from the project proponent.

15. A summary of issues discussed at the meeting is at **Annex 2**.

## **RECOMMENDATIONS OF THE SUBCOMMITTEE**

16. Having regard to the findings and recommendations of the EIA report and information provided by the project proponent, the EIASC agreed to recommend to the full Council that the EIA report could be endorsed with proposed conditions. The Subcommittee has also made the proposed recommendations as follows –

**In respect of the Tsang Tsui Ash Lagoon (TTAL) site**

**(A) Proposed Conditions**

- (a) The project proponent should submit a detailed proposal on enhancement of air quality monitoring in Tuen Mun District to Director of Environmental Protection (DEP) for approval before commencing the construction of the project. The proposal should include the setting up of air quality monitoring station(s) and devising air quality monitoring programme(s) to keep track of the air quality impacts of the project. The proposal should include the air monitoring parameters and their respective frequencies, and the results should be made known to the public;
- (b) The project proponent should submit a plan, in consultation with Agriculture, Fisheries and Conservation Department (AFCD), for the compensatory permanent pond habitat within the project site and the interim habitat enhancement work at the unoccupied Middle Lagoon on the southern side of the project site to DEP for approval before commencing the construction of the project;
- (c) The project proponent should include in the Environment Monitoring & Audit (EM&A) programme a monitoring mechanism on potential ash leakage from the ash lagoon; and
- (d) The project proponent should set up community liaison group(s) comprising representatives from the concerned and affected parties to facilitate communications, enquiries and complaints handlings on all environmental issues;

**(B) Proposed Recommendations**

- (a) To put in place a Woodland Enhancement Plan for areas in the vicinity of the project site which are sparsely vegetated to achieve carbon off-setting;
- (b) To recycle and reuse bottom ash generated by the waste incineration process with a view to maximizing its beneficial use before disposal to the landfills;

- (c) To formulate plans on developing communal facilities, with considerations on the potential to promote local employment opportunities, by using the energy and electricity generated by the project gainfully; and
- (d) To build on the experience of the first phase of the IW MF and take into account the progress of the effectiveness of waste reduction measures in assessing the need for further development of similar facilities and the way forward.

**In respect of the Shek Kwu Chau (SKC) site**

**(A) Proposed Conditions**

- (a) The project proponent should submit a detailed proposal on enhancement of air quality monitoring in Cheung Chau to DEP for approval before commencing the construction of the project. The proposal should include the setting up of air quality monitoring station(s) and devising air quality monitoring programme(s) to keep track of the air quality impacts of the project. The proposal should include the air monitoring parameters and their respective frequencies, and the results collected should be made known to the public;
- (b) The project proponent should advance the preparation works for the designation of the marine park in the waters between SKC and Soko Islands, including a study on the details of the designation, consultation with stakeholders and incorporation of enhancement measures such as deploying artificial reefs and releasing fish fry, on the understanding that the designation of the marine park would immediately follow the completion of the project construction work;
- (c) The project proponent should submit a fisheries enhancement programme, in consultation with AFCD, to enhance fisheries resources in the vicinity of the project area to DEP for approval before the commencement of the construction of the project;
- (d) The project proponent should submit a detailed monitoring

programme, in consultation with AFCD, on Finless Porpoise during the construction and operational phases to DEP for approval before commencing the construction of the project;

- (e) The project proponent should submit a detailed plan on the on-site wastewater treatment plant based on realistic assessment of various sources of sewage, including those generated from the sanitary facilities of the proposed Environmental Education Centre and potential surface runoff, to DEP for approval before commencing the construction of the project; and
- (f) The project proponent should set up community liaison group(s) comprising representatives of concerned and affected parties, including the fishery sector, to facilitate communications, enquiries and complaints handling on all environmental issues.

**(B) Proposed Recommendations**

- (a) To maximize the use of local public fills, including construction and demolition materials, for reclamation of the artificial land;
- (b) To formulate a programme with a view to promoting activities such as eco-tourism and recreational fishing;
- (c) To complete the designation of the marine park in the waters between SKC and Soko Islands before the completion of the project construction work;
- (d) To recycle and reuse bottom ash generated by the waste incineration process with a view to maximizing its beneficial use before disposal to the landfills;
- (e) To formulate plans on developing communal facilities, with considerations on the potential to promote local employment opportunities, by using the energy and electricity generated by the project gainfully; and
- (f) To build on the experience of the first phase of the IWMP and take into account the progress of the effectiveness of waste reduction measures in assessing the need for further development of similar

facilities and the way forward.

17. Members also agree that the project proponent team will not be required to attend the full Council meeting scheduled for 30 December 2011.

**EIA Subcommittee Secretariat  
December 2011**