Confirmed Minutes of the 79th Meeting of the Environmental Impact Assessment Subcommittee of the Advisory Council on the Environment held on 2 July 2003 at 4:00pm

Present:

Mr. Otto Poon, BBS (Chairman)
Mr. Peter Y C Lee
Dr. Ng Cho-nam
Mrs. Mei Ng, BBS
Miss Petula Poon (Secretary)

Absent with Apology:
Prof. Ho Kin-chung (Deputy Chairman)
Mr. Lin Chaan-ming
Prof. Wong Tze-wai

In Attendance:

Mr. Elvis Au	Assistant Director (Environmental Assessment & Noise), Environmental Protection Department (EPD)
Mr. C C Lay	Assistant Director (Conservation), Agricultural, Fisheries and Conservation Department (AFCD)
Mr. Eddie Cheng	Executive Officer (E), Environment, Transport and Works Bureau

In Attendance for Agenda Item 4:

Mr. Talis Wong	Chief Engineer/Kowloon, Territory Development Department (TDD)
Mr. Harry C K Louie	Senior Engineer/ District Monitoring Group on Housing Sites & Special Duties (Kowloon), TDD
Mr. Keith Tsang	Executive Director, Maunsell Consultants Asia Ltd.
Mr. Johnny Leung	Resident Engineer, Maunsell Consultants Asia Ltd.
Mr. Matthew Ko	Associate, Maunsell Environmental Management Consultants Ltd.

In Attendance for Agenda Item 5:

Mr. Talis Wong	Chief Engineer/Kowloon, TDD
Mr. Andy Yau	Senior Engineer/Kowloon, TDD
Mr. Wilfred Lau	Director, Arup-Scott Wilson Joint Venture
Mr. Richard Owen	Associate Director, Arup-Scott Wilson Joint Venture

Mr. Peter C T Lee	Environmental Consultant, Environmental Management Ltd.
Ms. Jeanne Ng	Environmental Consultant, Environmental Management Ltd.

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Agenda Item 1: Confirmation of Minutes of the 78th Meeting held on 29 April 2003

Members confirmed the draft minutes without amendment.

Agenda Item 2: Confirmation of Notes of Informal Dialogue held on 19 May 2003

2. Members confirmed the draft notes without amendment.

Agenda Item 3: Matters Arising

Matters arising from the minutes of the 77th meeting
Quorum and voting matters

3. The Chairman referred to the decision of the 77th meeting that four Members would form the quorum of meetings and that four votes (not counting that of the Chairman) would be sufficient for making a decision. He pointed out that such an arrangement would give rise to situations that a meeting with sufficient quorum (four Members including the Chairman) would not be able to make a decision, as there were only three votes. After some discussion, Members agreed that the Chairman's vote should also be counted.

4. A Member pointed out that it was quite rare that the Subcommittee was required to make a decision by means of voting. Indeed it had become a practice that if the Subcommittee had divergent views on an EIA report, the views of Members would be reported to the Council for it to make a decision. Members agreed that such a practice should continue. Another Member also suggested that in case the Subcommittee needed to consider a controversial issue, Members should be reminded to attend the meeting.

Matters arising from the minutes of the 78th meeting
Para. 14: To provide the location of rare plant species to MTRC for taking mitigation measures

5. The Chairman informed Members that EPD had notified MTRC of the location of the rare plant species for necessary follow up

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actions.

Para. 28: To circulate the report of the 78th meeting of the EIA Subcommittee to the Council for endorsement

6. The Chairman informed Members that the report was endorsed in May by circulation.

Tung Chung to Ngong Ping Cable Car Project

7. A Member expressed concern about MTRC's recent plan to change the project proposal (i.e. divert a stream course at Ngong Ping) by applying directly for a separate environmental permit under the EIA Ordinance right after the environmental permit of the project was issued. He was worried that in future project proponents might adopt the same approach to avoid dealing with sensitive issues of the project in the EIA report and discussing it with the Subcommittee. He asked if MTRC would need to report to the Subcommittee on the direct application. In response, Mr. Elvis Au said that EPD was now considering the case and would conduct a site meeting with MTRC on 4 July (Friday). If the proposed changes would not result in significant impacts, the project proponent could pursue the route to seek permission to apply permit direct and publicize the changes and necessary remedial measures in the format of a project profile on newspapers and the Internet, and the public could comment on the project profile within 14 days. If, however, significant impacts were involved, the project proponent might need to conduct another EIA study to assess the impact of the changes.

8. In response to a Member's enquiry on how to determine whether the changes were significant, Mr. Elvis Au explained that the assessment would be made according to the guidelines laid down in the EIA Ordinance and the technical memorandum of the Ordinance. EPD had, in its monthly return to the Subcommittee, reported the progress and outcome of applications received. On the other hand, the Subcommittee could request the project proponent to submit a report to Members, if necessary. A Member said that whether the changes were regarded as significant would solely depend on the interpretation of EPD. The public would have little chance to monitor such applications. In response, Mr. Elvis Au said that the provision of the EIA Ordinance was very clear and well defined. All applications and decisions were placed on the public register, and reflected in the monthly report to the Subcommittee. Another Member said that such a provision in the EIA Ordinance was necessary since it allowed flexibility for project proponents. In his view, project proponents would unlikely abuse the provision in view of the risk of delaying the projects if the changes would subsequently require a fresh EIA study.

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9. A Member requested EPD to alert the Subcommittee when direct applications involving significant changes to the original project were received. In that connection, Mr. Elvis Au undertook to provide more information about such applications in future monthly updates. EPD

Agenda Item 4 : Kai Tak Airport North Apron Decommissioning Report on the Final Soil Quality of the Previously Contaminated Areas ***(ACE-EIA Paper 4/2003)***

10. The Chairman welcomed the project proponent team to the meeting. Mr. Talis Wong started off the presentation with the background of the report and Mr. Keith Tsang briefed Members on the report.

11. In reply to the Chairman' enquiry, Mr. Keith Tsang confirmed that the treated soil was being stockpiled in a site on the runway and would be handed over to the Civil Engineering Department (CED) as fill materials for future reclamation projects. He also confirmed that treatment of the soil had been completed.

12. In response to a Member's question on who certified the status of the decontaminated soil, Mr. Keith Tsang explained that the treated soil had to satisfy various quantitative remediation targets stipulated in the EIA report before the proponent could certify the completion of treatment. The treated soil had been taken to an accredited laboratory for testing. In addition, EPD had closely monitored the decontamination work by taking duplicated samples from the treated soil and performing their own testing. The relevant statistics were then included in the Report of the Final Soil Quality for endorsement by EPD.

13. In reply to the Chairman's enquiry on the figures in page 6 of Appendix H, Mr. Keith Tsang clarified that the target concentration for Total Petroleum Hydrocarbon (TPH) was 1000 ppm and TPH concentration below 252 TPH was not detectable. Treated soil with TPH concentration over 1000 ppm had to be treated again until it reached the target level.

14. A Member asked whether the same set of standards for treating contaminated soil in other part of the site would be adopted for the remediation work of the ex-Passenger Terminal Building. In response, Mr. Talis Wong said that a site investigation would be conducted next year once the site was handed over to them. A Contamination Assessment Plan and a Contamination Assessment Report would be prepared and submitted to EPD for consideration as to whether decontamination was required. If decontamination were required, a Remediation Action Plan

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would be prepared and agreed with EPD. The procedures to be adopted would be the same as other contaminated sites in the Kai Tak Airport North Apron. However, having regard to the usage of the ex-Passenger Terminal Building, soil contamination was not expected.

15. In response to a Member's question on the treatment of contaminated groundwater, Mr. Keith Tsang explained that as required by EPD, groundwater samples had also been collected and tested. In-situ approach had been adopted for treating the groundwater and active carbon had been used to absorb benzene in the groundwater. Post remediation monitoring had been conducted on the soil and groundwater for 18 months and no rebound of contamination was found which showed that the treatment on the soil and groundwater was successful and appropriate.

16. A Member asked whether the treated soil could be used as topsoil for planting purpose. In response, Mr. Keith Tsang explained that the decontamination process had removed the pollutants from the soil. However, whether the soil could be used for planting purpose would depend on the other properties of the soil concerned.

17. In reply to a Member's question on the cost-effectiveness of the decontaminated work, Mr. Keith Tsang pointed out that the objective of the project was to remove contaminants from the sites so that they would be suitable for future development. Hence, the effectiveness and reliability of the decontamination work were primary concerns. Based on the quantity of the contaminated soil treated and the concentration of contamination, they had used the most cost-effective and efficient decontamination method for each site.

18. In response to a Member's enquiry on whether the experience gained in the project could be transferred to other projects, Mr. Talis Wong said that although different projects might require different treatment methods, the experience gained in the present project would be useful for future reference.

19. In rely to the Chairman's enquiry on the need for post remediation monitoring, Mr. Keith Tsang explained that post remediation monitoring was conducted to see if there were any migration of contamination from other areas to the sites and to make sure that no rebound had occurred. It was a double guarantee measure to make sure that the sites were safe for development.

20. The Chairman thanked the presentation team for briefing Members on the report.

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Agenda Item 5 : South East Kowloon Development
Kai Tak Approach Channel Reclamation
Remediation of Contaminated Sediment
(ACE-EIA Paper 5/2003)

21. The Chairman welcomed the project proponent team to the meeting. Mr. Talis Wong started off the presentation with the background of the project and Mr. Wilfred Lau briefed Members on the paper. Mr. Talis Wong pointed out that the three remediation methods proposed in the EIA report had assumed retaining the sediments within the site and they had not departed from the agreed line. While a field trial was proposed for the encapsulation method, other on-site treatment methods would not be ruled out.

(Mr. Peter Y C Lee left the meeting at this point.)

22. In response to the Chairman's enquiry, Mr. Wilfred Lau said that sand (completely decomposed granite) was the major component used for the sand blanket.

23. In reply to the Chairman's enquiry on the term "credible source-receptor pathways" which was mentioned in TDD's response to Prof. Lam Kin-che's third question, Mr. Richard Owen clarified that for the encapsulation option, 6 to 10 m of clean materials (with 3 m of sand blanket) would be placed on top of the contaminated layer to contain the movement of the contaminants. According to overseas experience, the contaminants would only migrate a few tens of centimeters upwards through the sand blanket and so there was not a "credible source-receptor pathway" from the contaminated layer to the surface. He then presented to Members several development projects in the USA, Europe and Japan, in which encapsulation was successfully adopted in treating contaminated mud.

24. In response to a Member's question on the sampling adopted for the incubation test and whether hot spots were identified for performing the test, Mr. Wilfred Lau said that 42 sediment samples were taken from six locations at different depths of the site. These included locations shown in previous site investigations to have the thickest contaminated mud layer and highest concentrations of total organic carbon (TOC) and contaminants, such as near the mouth of the Kai Tak Nullah, as well as other locations of average contaminated mud thickness and lower concentrations of TOC and contaminants. Mr. Richard Owen then presented to Members the test result of the samples which indicated that, as expected, samples closer to the surface had a higher concentration of TOC and contaminants.

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25. In reply to a Member's enquiry, Mr. Talis Wong said that the proponent would not rule out the possibility of combining different treatment methods to tackle the contaminated sediments. He stressed that the reason for carrying out an on-site measurement of methane generation was to confirm the findings of the laboratory test. Mr. Wilfred Lau added that if the result of the pilot trial indicated that encapsulation was not working ideally or if there were hotspots that demand other kinds of treatment methods, they would certainly consider combining different treatment methods.

26. A Member asked if the encapsulation method was selected due to its relatively lower cost compared with the other two options. In response, Mr. Talis Wong pointed out very clearly that safety and environmental acceptability of the treatment method were the first priorities of the project and only when those two criteria were comparable then the cost-effectiveness of the option would come into play.

27. A Member said that given a more relaxed time frame for housing development and the relatively low methane emission rate, he would support the encapsulation option because it had the least environmental impact. In-situ treatment (including encapsulation) should have a higher priority than ex-situ treatment because the latter would create secondary impacts elsewhere. He also objected to marine disposal, as its impacts on the environment were more serious and difficult to control.

28. In response to the Chairman's enquiry, Mr. Richard Owen said that the trials would be carried out in two cofferdams, each 10m x 10m in area, in two locations, one where the mud was the thickest and the other with average thickness of mud. He also confirmed that the cofferdam test cells would simulate full reclamation conditions.

29. A Member pointed out that the encapsulation option would require a large quantity of sand which in turn would create ecological problems. She asked where and how the sand would be procured. In reply, Mr. Wilfred Lau explained that the sand blanket layer would be required for reclamation irrespective of the remediation option to be adopted, although the layer required for the encapsulation option might be thicker. Sand was a conventional building material and was obtained from sources such as sea dredging in Mainland waters.

30. In response to the Chairman's enquiry on whether the ex-situ option would be tested in parallel with the encapsulation option, Mr. Talis Wong explained that since they had a more relaxed housing programme

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and in view of the apparent advantages of the encapsulation method, they chose to defer the field trial for the ex-situ method. If the encapsulation method were effective, the field trial for the ex-situ method would not be required and the money could be saved. However, he stressed that they were open to the various options.

31. Referring to the suggested provision of a membrane with low gas permeability underneath the buildings in TDD's response to Prof. Lam's fourth question, the Chairman said that gas might accumulate underneath the membrane and a large amount of biogas would be released if the membrane was damaged. In response, Mr. Richard Owen explained that it was a common practice in similar projects in Europe and USA to use membranes with low gas permeability in addition to gas collection layers and vent pipes so that gas could be emitted from the ground safely, slowly and under a controlled manner. If the contaminated mud generated large volumes of gas, then it would not be safe to proceed with development, at least until the rate of biogas generation and emission reduced to safe levels. But according to the result of the sediment incubation test, he considered that it would be safe to use that kind of membrane, together with passive venting measures if necessary, for the project.

32 A Member asked whether buildings constructed on the encapsulated mud could have underground structures such as underground car parks. In response, Mr. Richard Owen explained that the concentration and emission rate of methane in the cofferdam during the field trial would give a good indication of what would happen if encapsulation were adopted. Before the construction of a building in the site, an investigation had to be conducted to measure the gas and geo-technical properties of the site, and the types of buildings that could be constructed would depend on the measurements. For underground car parks, very good ventilation within the building would be required for removing emissions from the cars and hence no additional special membranes or venting layers would be needed. He stressed that the project proponent would aim at producing a site of low risk which could be safely developed as other similar sites in the world.

33 In response to the Chairman's enquiry, Mr. Talis Wong said that the field trial would start in September 2003 and would last for one year. Initial results from the first five months of testing would be available early next year.

34 The Chairman thanked the presentation team. He said that although they were only three Members at the latter part of the meeting, he hoped that the project proponent team would take their views into account.

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Agenda Item 6 : Monthly Updates of Applications under Environmental Impact Assessment Ordinance

35 Members noted the updates.

Agenda Item 7: Any Other Business

Tentative items for discussion at the 80th meeting

36 The Chairman informed Members that according to EPD's monthly update, the EIA report on "Outlying Island Sewerage Stage 1 Phase 2 Sok Kwu STW and Submarine Outfall" was suitable for public inspection and likely to be submitted to the EIA Subcommittee at the next meeting.

Meeting in August

37 A Member informed the Chairman that he would not be able to attend the meeting in August. After further discussion, Members agreed to cancel the meeting in August if there were no urgent matters for discussion.

Review of the EIA Process

38 A Member suggested conducting another review of the EIA process. The Chairman noted the suggestion and recalled that some comments on the effectiveness and the operation of the EIA process were raised at a recent discussion with Legislative Councilors. Mr. Elvis Au said that after the conclusion of the Spur Line appeal case, a review of the EIA process was conducted by EPD and subsequently a paper was submitted to the Council. The Legco had also reviewed the operation of the EIAO in 2001 and 2002 and held two public hearings. Various issues were discussed during the review and the major observation was that better communication among parties concerned would facilitate the EIA process. Subsequent measures taken included the forming of four user liaison groups; introduction of informal dialogues between project proponents and the EIA Subcommittee; promotion of the Continuous Public Involvement approach to resolve conflicts at an early stage; and issue of more guidance notes to parties concerned.

39 In reply to a Member's suggestion to incorporate the Council on Sustainable Development in the EIA process, Mr. Elvis Au commented that the Advisory Council on the Environment was playing a very active role in the EIA process.

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40 A Member pointed out that there were misunderstandings about the objectives of the EIA process. Some people thought that the EIA process could bring about improvements to the environment, but actually the process could only help minimize the impacts of developments on the environment. He also said that although measures mentioned by Mr. Au had resulted in better communication among parties concerned, the effectiveness of the EIA process should be further reviewed. Some remediation measures recommended by EIA studies were later found to be ineffective or to have resulted in adverse impacts. An example was the visual impacts of noise barriers. Mr. Elvis Au said that with EM&A reports being uploaded on the Internet for public inspection, the EIA process had become more transparent and it would be easier to learn from earlier experience. On the other hand, the effectiveness of remediation measures recommended by EIA studies had also improved as time passed though fine-tuning was always possible.

41 A Member said that in general the standard of EIA studies had improved in recent years. For instance, some EIA studies had conducted simulation of the visual impacts of the projects. After further discussion, the Member said if the Subcommittee wished to conduct site visits to compare the simulations with the actual visual impacts of the projects upon completion, he could identify two projects which had adopted such simulation method for the Subcommittee's consideration.

Agenda Item 8: Date of Next Meeting

42 The next meeting was scheduled for 23 July 2003.

EIA Subcommittee Secretariat
July 2003