Confirmed Minutes of the 84th Meeting of the Environmental Impact Assessment Subcommittee of the Advisory Council on the Environment held on 23 February 2004 at 4:00pm

Present:

Mr. Otto POON, BBS (Chairman)
Prof. HO Kin-chung (Deputy Chairman)
Dr. NG Cho-nam
Mrs. Mei NG, BBS
Prof. POON Chi-sun
Miss Petula POON (Secretary)

Absent with Apology:

Mr. LIN Chaan-ming
Mr. Peter Y C LEE
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), Agriculture, Fisheries and Conservation Department
Mr. Eddie CHENG	Executive Officer (E), Environment, Transport and Works Bureau

In Attendance for Agenda Item 3:

Mr. S W CHOW	Senior Project Manager, Architectural Services Department (Arch SD)
Mr. S H MAK	Senior Buildings Services Engineer, Arch SD
Mr. Thomas CHEUNG	Electrical & Mechanical Engineer, Arch SD
Mr. T Y LAU	Senior Architect, Arch SD
Mr. YEUNG Shun-kui	Assistant Director (Operations)2, Food and Environmental Hygiene Department (FEHD)
Mr. LEUNG Sui-sum	Superintendent (Cemeteries & Crematoria), FEHD
Mrs. Christine FUNG	Chief Executive Officer (Planning), FEHD
Miss Alice NG	Staff Officer (Planning)4, FEHD
Mr. Raymond FONG	Principal Consultant, Hong Kong Productivity Council (HKPC)
Mr. Eric CHING	Principal Consultant, HKPC
Ms. Suzanne CHEUNG	Consultant, HKPC
Mr. Grant CHAU	Consultant, HKPC

Mr. David COX	Senior Environmental Protection Officer (Urban Assessment), EPD

In Attendance for Agenda Item 4:

Mr. Augustine NG	Assistant Director, Territorial & Sub-Regional, Planning Department
Ms. Amy CHEUNG	Senior Town Planner/Strategic Planning 4, Planning Department

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Agenda Item 1: Confirmation of Minutes of the 83rd Meeting held on 19 January 2004

Members confirmed the draft minutes without amendments.

Agenda Item 2: Matters Arising

Para. 3: Waste figures

2. The Chairman reported that the Secretariat had written to EPD for more information on waste figures. The additional information would be circulated to Members once available.

Agenda Item 3 : EIA Report on the Reprovisioning of Diamond Hill Crematorium
(ACE-EIA Paper 2/2004)

3. The Chairman welcomed the presentation team to the meeting. Mr. S W Chow introduced the project and Mr. Raymond Fong briefed Members on the findings of the EIA report.

Site search

4. In response to the enquiries of the Chairman and a Member, Mr. Yeung Shun-kui informed the meeting that FEHD and the former Urban Services Department, with the help of the Planning Department, tried to identify in 1998 and 2000 respectively a suitable site for the project but without success. He said that Hong Kong was too small and it was difficult to find a new site which was easily accessible, had the necessary infrastructure and acceptable to its residents. In response, the Chairman pointed out that the crematorium at Cape Collinson was not easily accessible. He asked whether a new crematorium could be built in places similar to Cape Collinson. Mr. Yeung replied that FEHD and Planning

Department were unable to find a site similar to Cape Collinson.

5. A Member said that the existing crematorium was set up in 1979. With the growing concerns on environmental issues, it would be difficult to justify the present site at Diamond Hill. She suggested exploring the feasibilities of using disused quarries, industrial sites and landfills, etc. She and another Member said that the Planning Department was conducting a study to identify sites for hazardous and nuisance facilities for the next 30 years. The inability to find a suitable site for a crematorium was quite disappointing. In response, Mr. Yeung Shun-kui said that all sites had a designated use. Even if a site was suitable, the relevant District Council had to be consulted and strong public objections would be anticipated. The Chairman said that while site searching was outside the purview of the Subcommittee, he hoped that the project proponent would note Members' concern on the issue.

Expansion plan

6. In response to a Member's enquiry on the general expansion of crematoria, Mr. Yeung Shun-kui said that FEHD planned to increase the throughput of the existing crematoria by replacing and upgrading the old cremators. They had replaced the cremators in Kwai Chung and Fu Shan, and those in Wo Hop Shek would be replaced later. In reply to the Member's suggestion of a centralized crematorium, Mr. Yeung said that there were 29 cremators in the existing six crematoria which were scattered in various parts of Hong Kong. If those cremators were to be centralized in one place, the pollution problem would be difficult to mitigate. The centralised crematorium would also be inconvenient to the public.

Health risk assessment

7. In response to a Member's question on health risk assessment, Mr. Raymond Fong explained that they had conducted land contamination assessment to assess the health risk during the decommissioning stage of the project and had submitted a Contamination Assessment Plan to EPD. According to the site investigation, there was no contamination except for some places where the heavy metal level marginally exceeded the critical limit. A Remediation Action Plan which set up a framework on handling different types and levels of contamination was submitted to EPD. If the guidelines were strictly followed, the health risk would be under control. Ms. Suzanne Cheung added that under the waste management section of the EIA report, mitigation and health protection measures for workers and the public were recommended.

Environmental Monitoring and Auditing and contingency plan

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8. In reply to a Member's enquiry on contingency plan, Mr. Raymond Fong said that although there was no specific contingency plan, they had considered in detail how to handle contaminated materials and land contamination during the decommissioning stage. Mr. Eric Ching added that the environmental management plan of the EM&A had set out a plan-do-check-act cycle. If the operation were not in accordance with the procedures, a review process would be initiated to make rectification. The check and review process in place would ensure that mitigation measures would be implemented to minimise the occurrence of malfunctioning or mishandling.

Waste figures and land contamination

9. A Member pointed out that in paragraph 7.5.4 of the EIA report, the generation rate of construction waste for demolition should be 0.7 m^3 per $1m^2$ of GFA instead of 0.1 m^3 per $1m^2$ of GFA. He also noted that since the cremators were still in operation, no samples had been collected for the soil under the cremators. In reply, Mr. Eric Ching explained that the 0.1 m^3 figure was used because it had been adopted in other similar studies. As regards the soil samples, Ms. Suzanne Cheung said that though the land contamination survey could not be conducted for soil under the cremator room, they had made reference to the contamination data of similar facilities. They had drawn up different handling procedures for various levels of contaminations. For moderate to serious contamination, the decommissioning work would be conducted with enclosed demolition methods and precautions including decontamination of workers' clothing, etc, were also recommended.

Monitoring of the air quality impact of the existing cremators

10. In view of the lack of air monitoring data of the existing crematorium, a Member asked how the air quality impact of the new crematorium could be assessed. In response, Mr. Raymond Fong said that the assessment could be made by comparing the performance of the existing and the new cremators, the number of complaints received on dark smoke emission and odour, the failure rate, etc. In 2002, about 10 complaints on emission of dark smoke and odour were received and a 4.7% failure rate was recorded. On the other hand, the new cremators would be required to comply with the best practical means required under the Air Pollution Control Ordinance. In addition, EPD had laid down the minimum emission standards in terms of the levels of various pollutants including dioxin. Since the new crematorium would have to comply with those standards and requirements, it could be concluded that the quality of the air discharged from the new crematorium would be greatly improved.

11. The Chairman asked whether there were target figures for emissions from cremators and whether figures of similar equipment could be used for comparison. In response, Mr. Raymond Fong said that the new cremators had to comply with the minimum standards for air pollutants including dioxin, and also the Best Practicable Means (BPM) required by the Air Pollution Control Ordinance. In addition, the proposed type of cremators had been operating in other places. The data could be compared with those of the new cremators in Diamond Hill when they started operation.

Operation of the crematorium under atmospheric stability class E and class F

12. Quoting the figures of odour assessment in table 4.15 of the EIA report, a Member said that while the figures would meet the air quality criteria, they were subject to variation. Under atmospheric stability class E and F, the odour figures were quite high and would affect certain sensitive receivers. In view of the relatively rare occurrence of class E and F atmospheric stability, he suggested stopping the operation of the cremators during such periods. In reply, Mr. Raymond Fong said that the predicted odour level at class E and F atmospheric stability was 3.63, which was well below the allowed level of 5 with a reasonable margin in between. Also, since class E and F atmospheric stability would seldom occur in daytime during which the cremators would operate, the problem would not be significant. Mr. Yeung Shun-kui added that since the crematorium accepted bookings of two weeks in advance and that the Hong Kong Observatory could not provide weather forecast for such a long period, the proposal was not feasible. Mr. Fong pointed out that an effective means to prevent odour was to ensure complete combustion in the combustion chamber. He suggested that during class E and F atmospheric stability, the operator could step up monitoring of the combustion chambers so as to reduce the odour level.

Pathogenic emission and epidemiological monitoring

13. A Member pointed out that the cremators might not be able to handle epidemiological disasters which would be more serious than the Severe and Acute Respiratory Syndrome. If combustion was incomplete, some pathogens might still be emitted. In response, Mr. Raymond Fong explained that pathogen was not included in land contamination assessment and health risk assessment because they would be destroyed during the cremation process at 850℃ of high temperature. No monitoring would hence be needed. The Member understood that pathogens would be destroyed at 850℃ but in view of the public concern, epidemiological

monitoring might still be required.

Additional loading of dioxin emission

14. In response to a Member's question on additional loading of dioxin emission, Mr. Raymond Fong explained that the new cremators would be subject to the emission limits of specified process licensing control. In addition, continuous monitoring would be conducted on vital operating parameters such as temperature, oxygen level and carbon monoxide level in the combustion chamber. Furthermore, under the specified process licensing requirements, regular stack monitoring had to be conducted for air pollutants including dioxin. The frequency of stack monitoring would be imposed by the authority but the EIA report suggested once per year. In reply to the Chairman's question on the adequacy of monitoring, Mr. Fong clarified that the continuous monitoring of vital parameters would ensure that the emission would meet the standards required. The stack monitoring would only serve to confirm the findings of the continuous monitoring. According to their experience, once per year would be sufficient. In addition, the system would go through a commission stage and sufficient test would be conducted to ensure that the cremator would operate as designed.

Treatment of the residual ash

15. A Member pointed out that dioxin would exist in the ash if it were not emitted. He asked about the quantity of such ash and whether it had to be treated before disposal in landfills. In reply, Mr. Raymond Fong explained that as suggested by the EIA report, lime would be used in the air pollution control system to absorb dioxin and would be collected in the bag filter as ash. The disposal of the ash might be subject to the Waste Disposal Ordinance and if so, would be treated in the same manner as chemical waste before disposal. Ms. Suzanne Cheung confirmed that the ash was classified by the EIA as chemical waste. It was estimated that about 93kg of ash would be generated per day.

Operation hour

16. In reply to a Member's enquiry, Mr. Yeung Shun-kui said that the operation hour of the new crematorium would be the same as the existing crematorium.

Cumulative impact

17. A Member asked whether the cumulative impact of the project, the impact of adverse weather conditions and wind directions etc

had been assessed. In response, Mr. Raymond Fong informed Members that as required by EPD, they had to assess the emissions of the cremator, the emission loading from other sources in the surrounding, the background air pollutant as well as the potential impact of nearby projects. It was confirmed that there were no major development projects in nearby areas except an MTR project and some water works which would only have impact on the level of particulate. As regards the new cremators, the emission level could be quantified because it had to comply with the BPM standard. The conclusion was therefore that the cumulative impact was within the acceptable limit after the implementation of the control measures.

Landscape

18. A Member suggested that a more proactive approach should be adopted for the landscape mitigation measures, as the facility was near residential area. Mr. Raymond Fong noted the suggestion.

Requests for the project proponent

19. A Member suggested the following points of conditions-

a) the frequency of stack monitoring should be increased to more than once per year;

b) epidemiological monitoring should be conducted;

c) the result of epidemiological monitoring should be released to the public; and

d) continuous monitoring of cumulative impacts on air quality due to weather conditions should be conducted.

20. In response, Mr. Raymond Fong said that the frequency of stack monitoring was subject to the specified process licensing requirements and EPD would determine a suitable frequency. The monitoring on cumulative impact would also be included in the requirements and usually a regular monitoring would be required. As regards epidemiological monitoring, Mr. Fong said that since it would involve a new monitoring parameter, FEHD had to consider it and respond to the Subcommittee. Mr. Elvis Au said that according to the current practice, all EM&A data would be available to the public for information. The data of epidemiological monitoring should be dealt with in the same manner if epidemiological monitoring was to be conducted.

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Conclusion

21. The Chairman hoped that the project proponent would consider Members' comments and concluded that the Subcommittee would recommend endorsement of the report to the full Council on the basis of the conditions suggested.

(Post meeting note : the Chairman received a letter from FEHD after the meeting and in view of the advice of the Department of Health provided in the letter, the proposed conditions were revised as follows-

(a) to step up the frequency of monitoring work particularly stack monitoring and monitoring on dioxin emission; and

(b) to monitor the cumulative air pollution impact under varying weather conditions.)

Agenda Item 4 : Broadbrush environmental comparison of development options
(Working paper no. 30)

22. The Chairman welcomed the presentation team to the meeting. Mr. Augustine Ng briefed Members on the working paper.

Consolidation versus decentralization

23. The Chairman commented that the development options of decentralization and consolidation were only different in the medium term. In the long run, both options would be similar as a result of population growth. He was worried that beyond 2030 when the population continued to grow how could Hong Kong accommodate an ever increasing population. In reply, Mr. Augustine Ng said that according to overseas experience, the population of a city would not grow indefinitely but would reach a relatively stable level after the initial growth period. The population growth of a city would depend on its economic conditions, with an increase in population in good times and vice versa. In the light of uncertainties over population growth over the medium to long term, the consolidation option had more advantages due to its greater flexibility in the development of the New Territories.

24. A Member remarked that in the past, new towns were meant to be self-contained with job opportunities but it turned out that many people had to go to work in the urban areas. Mr. Augustine Ng explained that due to availability of sizable and contiguous piece of land and other constraints, there was at present less opportunity for developing new towns

with the size of the existing ones. Instead, much smaller areas, having population capacity of about 100,000, were being planned and were called "New Development Areas" (NDA). Within the NDAs, some job opportunities would be provided but the amount was rather limited. That was because as Hong Kong's economy became more service and financial oriented, there was less propensity to decentralise office jobs to the NDAs. Nevertheless, all NDAs were planned as rail-based community such that residential areas would be largely with walking distance of railway stations to facilitate commuting by rail. In response to the Member's enquiry, Mr. Ng explained that some existing container storage areas would be affected by the Hung Shui Kiu NDA but they would be reprovisioned and the new storage areas would not be close to the railway station.

Port development

25. A Member pointed out that the development of a new port in Lantau Island would require a lot of infrastructure and supporting facilities. On the other hand, the Tsing Yi option would require fewer additional facilities. Such a point should be considered when comparing the two options and the assessment should be made on a like-for-like basis. In response, Mr. Augustine Ng said that according to the port development strategy review conducted in 2001, Hong Kong had the potential for further port development. The current port study entitled "Study on Hong Kong Port – Master Plan 2020" would assess the various port development options and the assessment would be made on a like-for-like basis. In response to the Chairman's enquiry on the suitability of port development in Hong Kong, Mr. Augustine Ng said that the Pearl River Delta was developing rapidly. It was estimated that there would be increasing demands for container port facilities in Hong Kong even though new ports were developing in other parts of the Pearl River Delta.

26. A Member pointed out that the development options of the Hong Kong 2030 Study had assumed that a port would be developed. He asked if there were any scenarios in which no port development was assumed. In response, Mr. Augustine Ng clarified that the port development was not an assumption. It was included in the scenarios because according to the port development strategy review, there would be sufficient cargo to support the development of a new port in Hong Kong in view of its position as a trade, transportation and logistics hub. However, whether a new port would be developed would depend on many factors such as whether the environmental problems could be overcome in the selection of a suitable location.

The relationship between planning and transport

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27. Noting that new roads and railway systems could affect the population distribution, a Member asked how that would affect the scenarios. Mr. Augustine Ng said that the Planning Department had close working relation with ETWB and their development options had taken into account the major new roads and railway systems.

28. The Chairman asked whether the Hong Kong 2030 study would affect the policy of the Government. In reply, Mr. Augustine Ng said that strategic planning and policy making were in many ways interactive. For example, the aspirations and views expressed by the public during stage I and II of the Hong Kong 2030 Study had been submitted to the Administration for consideration. One of the views expressed at that time was that strategic planning would be difficult if there was no population policy. It was believed that the subsequent announcement of the population policy was to a certain extent due to the interaction mentioned.

Population projection

29. In response to a Member's question, Mr. Augustine Ng said that population projections were sensitive to policy changes. The population assumption of the Hong Kong 2030 Study had made reference to the Hong Kong census, the Chief Secretary's population policy announced in 2002 and other considerations e.g. vision for Hong Kong promulgated by the Chief Executive.

Zoning of agriculture land

30. A Member pointed out Hong Kong was one of the economies in which agriculture played a very small role in their economic growth. However, most of the lands in the New Territories were zoned as agriculture land and such zoning had given rise to a lot of problems. He considered that the zoning of agricultural land in the New Territories was a major outstanding planning issue to be dealt with by the Government. In reply, Mr. Augustine Ng said that the consultation document had slightly touched upon land use and land management problems in the New Territories and the Government hoped to know the public's view before making any new proposals. The management of rural and urban land was totally different. While urban land would be developed, rural land required proper management. At present, the Government mainly made use of the zoning mechanism to manage rural land. If a more proactive management approach was to be adopted, both the institutional management (including Government powers) and resources availability had to be reviewed.

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Strategic environmental analysis

31. In response to a Member's question, Mr. Augustine Ng confirmed that more quantitative analysis would be conducted in the strategic environmental assessment in stage four of the Hong Kong 2030 Study, i.e. strategy formulation stage. The Member said that the absorption capacity of the ambient air and water should be analyzed. In response to another Member's enquiry, Mr. Elvis Au said that the strategic environmental assessment and the Hong Kong 2030 Study would be conducted in parallel. Public opinions collected during the consultation process would be incorporated into the final stage of the study as far as practicable.

City health and planning

32. A Member enquired how city health, lighting and ventilation would affect the development options. In reply, Mr. Augustine Ng said that one of the guiding principles of the study was quality living environment. The factors mentioned above would be taken into account in the study. As regards the location of a centralized slaughterhouse, Mr. Ng said that the Planning Department conducted an initial site search in 1997 but at that time there was no consensus on the proposal. If the Administration were to go ahead with the proposal, a suitable site would be identified.

33. The Chairman thanked the presentation team for attending the meeting.

Agenda Item 5 : Any Other Business

Tentative items for discussion at the 85th meeting

34. The Chairman informed Members that according to the tentative schedule provided by EPD, there was no EIA report scheduled for the next meeting to be held on 22 March 2004. The Secretariat would liaise with EPD nearer the time and notify Members in due course.

Representative for attending the Subcommittee meeting

35. The Chairman informed Members that a non-Subcommittee Member of ACE had enquired about the possibility of nominating a representative outside the Council to attend Subcommittee meetings on his behalf. After discussion, it was agreed that the proposal was not feasible in view of the statutory role of the Council in advising EPD on EIA reports.

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Agenda Item 6: Date of Next Meeting

36. The next meeting would be held on 22 March 2004.

EIA Subcommittee Secretariat
March 2004