

**Confirmed Minutes of the 107th Meeting of
the Advisory Council on the Environment
held on 14 July 2003 at 2:30 p.m.**

Present:

Prof. LAM Kin-che, J.P. (Chairman)
Mr. Peter Y. C. LEE
Mr. LIN Chaan-ming
Prof. LUNG Ping-yee, David, S.B.S., J.P.
Dr. NG Cho-nam
Mrs. Mei NG, B.B.S
Mr. Michael J. D. RUSHWORTH
Ms. Iris TAM, J.P.
Prof. WONG Tze-wai
Prof. WONG Yuk-shan, J.P.
Ms. Jessie WONG (Secretary)

Absent with Apologies:

Prof. Peter HILLS
Prof. HO Kin-chung
Mr. Otto L. T. POON, B.B.S.

In Attendance:

Mrs. Rita LAU, J.P.	Permanent Secretary for the Environment, Transport and Works (Environment and Transport)
Ms. Doris CHEUNG	Deputy Secretary (E)1, Environment, Transport and Works Bureau (ETWB)
Mr. Thomas CHOW	Deputy Secretary (E)2, ETWB
Mr. Michael STOKOE, J.P.	Director of Environmental Protection (Acting)
Mr. C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr. Jimmy LEUNG	Assistant Director/Technical Services Planning Department
Dr. Constance CHAN	Assistant Director, Department of Health
Miss Konnie KONG	Senior Information Officer (Environment and Works), ETWB
Ms. Polly LEUNG	Principal Information Officer, Environmental Protection Department (EPD)
Miss Petula POON	Chief Executive Officer (E), ETWB
Mr. Eddie CHENG	Executive Officer (E), ETWB

In Attendance for Agenda Item 4 :

Mr. C W TSE Principal Assistant Secretary for the Environment,
Transport and Works (Environment & Transport)E3,
ETWB
Dr. Alain LAM Principal Environmental Protection Officer (Air
Policy), EPD

In Attendance for Agenda Item 5 :

Mr. CHOW Ying-shun, J.P. Deputy Director (Special Duties), Civil Engineering
Department (CED)
Mr. PANG Wai-shing Senior Engineer/Works 4, CED
Mr. Matthew KO Senior Resident Engineer, Maunsell Consultants
Asia Limited
Mr. John HUNT Technical Adviser, Leighton Asia Environmental
Services
Mr. Michael GLASS Health and Safety Manager, Leighton Asia
Environmental Services
Mr. David LAU Senior Project Manager, China State Construction
Engineering (Hong Kong) Ltd
Mr. Brian KAM Project Environmental Manager, China State
Construction Engineering (Hong Kong) Ltd
Mr. John DUPAS Senior Thermal Technology Manager, Maxymillian
Technologies
Mr. Arthur CHU Principal Environmental Protection Officer (Urban
West & Islands), EPD

Action

On behalf of Members, the Chairman congratulated Mr. Otto Poon and Mrs. Mei Ng who were awarded the Bronze Bauhinia Star on 1 July 2003.

Agenda Item 1 : Confirmation of Minutes of the 106th Meeting held on 9 June 2003

2. The draft minutes were confirmed without amendment.

Agenda Item 2 : Matters Arising

Para. 7: Request for further information on clinical waste

3. The Chairman informed Members that EPD had contacted the Member concerned to clarify the information he required. The Member was content with EPD's explanation and no further action was

required.

Para. 34: The progress of the Sheung Shui to Lok Ma Chau Spur Line project

4. The Chairman informed Members that the Kowloon-Canton Railway Corporation (KCRC) had agreed to brief Members on the progress of the Spur Line project including the tunneling work at the next meeting. Subject to confirmation from KCRC, a site visit would also be arranged on either 1 September (Monday) or 5 September (Friday). Members would be informed of the details in due course.

[Post-meeting note : The ACE meeting scheduled for 11 August 2003 was cancelled. The briefing cum site visit would be held on 5 September 2003.]

Agenda Item 3 : Report on the 79th meeting of the Environmental Impact Assessment Subcommittee
(ACE Paper 20/2003)

5. Since both the Chairman and Deputy Chairman of the Environmental Impact Assessment (EIA) Subcommittee were unable to attend the meeting, a Member of the Subcommittee was invited to present the report on the Subcommittee meeting held on 2 July 2003.

6. Members noted the contents of the report. The Chairman suggested and Members agreed that the project proponent should be requested to submit a further report to the EIA Subcommittee upon completion of the post remediation monitoring at Hotspots A and B of Kai Tak Airport North Apron in December 2003.

Secretariat

Agenda Item 4 : A proposal to require installation of vapour recovery system at petrol filling stations
(ACE Paper 21/2003)

7. The Chairman welcomed the presentation team. Mr. C W Tse briefed Members on the proposal.

8. In response to the Chairman's question, Mr. C W Tse said that volatile organic compound (VOC) vapour generated during refuelling of petrol vehicles constituted about 2% of the total VOC emissions in Hong Kong. Since the vapour recovery system would recover 95% of the VOC vapour, the proposal would result in a reduction of about 2% of VOC emissions in Hong Kong. Mr. Tse further pointed out that VOC was emitted from a large number of small sources. In comparison, petrol

filling stations were large emitters. Hence, controlling VOC vapour emitted during refuelling of petrol vehicles was necessary. Mr. Tse also confirmed that the Bureau was considering proposals to control other sources of VOC emissions such as paints, the printing process and various consumer products. The Council would be consulted once the proposals were ready.

9. A Member supported the proposal to install vapour recovery system at petrol filling stations rather than to equip vehicles with Onboard Refuelling Vapour Recovery (ORVR) system because that system was not quite compatible with right-hand drive petrol vehicles and there were far more vehicles than petrol filling stations. However, he believed that the benefit of the proposal on the environment would be relatively small, as it would only lead to a reduction of 1% of ozone generated locally.

10. A Member commended the Bureau and EPD for the proposal. Noting that petrol filling stations could actually utilize the recovered petrol vapour, she asked if it was possible to speed up the three-year installation schedule. In response, Mr. C W Tse explained that since the installation work would affect the underground storage tank, some stations might need to stop operation during installation. If the scheme were to be implemented within a shorter time frame, many petrol filling stations would have to stop operation at the same time and that would cause inconvenience to drivers. A three-year time frame was considered reasonable.

11. In response to a Member's request to monitor the health of petrol station workers, Mr. C W Tse said that he could discuss with the Labour Department to see if they would conduct some health surveys before and after the introduction of the scheme. Another Member informed other Members that he had conducted a study on the level of exposure of such workers to benzene and the finding was that the level was quite low. He believed that with the implementation of the proposed scheme, the level would be even lower.

ETWB

12. In reply to a Member's enquiry, Mr. C W Tse clarified that vapour recovery during refuelling of petrol vehicles was not a waste oil recycling process. The petrol recovered from the vapour recovery system was of high quality and could be readily used while much processing was required to recycle waste oil into reusable motor oil. Mr. Thomas Chow suggested and Mr. Michael Stokoe agreed to provide more information on waste oil recovery. Another Member informed the meeting that there were dealers collecting and recycling waste oil in Hong Kong and waste oil collection service was provided at certain petrol filling stations.

EPD

13. In response to a Member's question on whether the effectiveness of ORVR installed in vehicles in other countries would deteriorate after usage for a long time, Mr. C W Tse said that the ORVR technology was relatively new as compared to the vapour recovery system installed at petrol filling stations and hence there was not much experience in that area. Considering that and other factors, the Government had decided to proceed with the proposed vapour recovery system.

14. The Chairman thanked the presentation team and concluded that the Council supported the proposal.

Agenda Item 5 : An update on the decommissioning of the former Cheoy Lee Shipyard at Penny's Bay
(ACE Paper 22/2003)

15. The Chairman welcomed the presentation team to the meeting. Mr. Chow Ying-shun briefed Members on the progress of the project including incidents related to the transportation of contaminated soil reported by the press and Mr. John Hunt outlined the operation of the thermal desorption plant at To Kau Wan.

16. Noting that the incidents were reported in the monthly EM&A reports, a Member asked about the time lapse between the incidents and their reporting to the relevant departments and how the seriousness of the incidents was classified. In response, Mr. Chow Ying-shun explained that an Environmental Team and an Environmental Project Office had been set up on site and any incident would be reported to them immediately. Actions would be taken as soon as possible and reports would be made to the relevant departments after actions had been taken. The monthly EM&A reports were usually prepared at the end of the month or the beginning of the following month and submitted to the relevant departments including EPD. The seriousness of the incidents was classified by the Independent Environmental Checker in consultation with EPD if necessary.

17. In response to a Member's enquiry, Mr. Chow Ying-shun confirmed that the same environmental monitoring team would monitor both the transportation of dioxin-contaminated soil from the site at the ex-Cheoy Lee Shipyard to To Kau Wan and the transportation of the dioxin residues from To Kau Wan to the Chemical Waste Treatment Centre (CWTC), using the same monitoring mechanism. In addition, a coordination centre with representatives from the Police and Fire Services Department had been set up on site to monitor the transportation process. The management of the Tsing Ma Control Area Co. Ltd would also be

alerted before each trip. Mr. Chow assured Members that parties concerned would join hands to make sure that the conditions stipulated in the Environmental Permit were strictly followed.

18. In reply to a Member's question on whether the contractor that transported the contaminated soil would also be responsible for the transportation of the dioxin residues to CWTC, Mr. Chow Ying-shun said that a designated transport agent from CWTC would be responsible for the work. The agent had the necessary expertise and equipment and was considered the only qualified party in the territory to handle the work. The Member further asked whether the agent was a sole agent and whether tendering had been conducted. In response, Mr. Chow Ying-shun explained that the transportation of dioxin residues was part of the project and the transport agent was appointed by the main contractor. Mrs. Rita Lau informed Members that all Government departments were required to comply with the established tendering procedures for procurement of goods and services and she believed that the arrangements in the present case were made in accordance with proper guidelines. She suggested CED to further brief the Member on the arrangements adopted in appointing the qualified agent after the meeting.

CED

19. In response to the Chairman's enquiry, Mr. Chow Ying-shun confirmed that the environmental performance of the contractor and its sub-contractors were one of the criteria for evaluating the tenders.

20. A Member asked whether the drivers transporting the dioxin residues would have sufficient rest and receive proper training and whether the escort team would be provided with safety equipment. He also commented that with only one to two trips to CWTC per week, it might mean that a large quantity of dioxin residues was stored up in the desorption plant. In addition, the speed limit of 30km/hr was too low and other drivers on the road might attempt to overtake the vehicle and that could cause accidents. In response, Mr. Chow Ying-shun explained that the drivers would need to attend courses on environmental protection and industrial safety and would have sufficient rest before work. The escort team would be provided with safety equipment. The number of trips required for each week would be planned on the basis of the amount of dioxin residues produced by the desorption plant. He also clarified that the speed limit of 30km/hr applied to the trip from the work site to To Kau Wan only. As regards the trip from To Kau Wan to CWTC, the speed level of the respective roads would apply. In addition, the Police and the Fire Services Department would be alerted beforehand and the former would help escort the transportation team for the first few trips to make sure that all safety requirements were met.

21. A Member pointed out that since it was the first time that thermal desorption was adopted in Hong Kong to treat dioxin-contaminated soil, there should be continuous monitoring of the health of the workers on site. In response, Mr. Chow Ying-shun said that according to the approved EIA report, the continuous monitoring of the health of workers was not necessary since dioxin would be hazardous to health only if it was consumed. As dioxin was involatile, insoluble in water and non-flammable, the risk imposed on the workers was very low. Nonetheless, the workers were required to wear protective clothing when working inside the desorption plant and take showers before leaving the plant. They would also be required to conduct physical check-up.

22. In response to the Chairman's enquiry, Mr. Chow Ying-shun clarified that all contaminated soil had already been transported to Tau Kau Wan and the dioxin level in ambient air was monitored once a month. In reply to a Member's enquiry, Mr. Matthew Ko said that the safety standard of dioxin concentration in ambient air was 33pg/m³ and no exceedance had been recorded since the monitoring work commenced last year.

23. In response to a Member's enquiry, Mr. Michael Glass said that initially, soil samples would be sent to a laboratory in Canada for analysis but subsequent samples would be sent to local accredited laboratories for testing.

24. In reply to a Member's enquiry concerning the decommissioning of the thermal desorption plant, Mr. Chow Ying-shun explained that the decommissioning process would comprise decomposing the equipment and cleaning up the site. The site would be decontaminated according to the requirements set out in the approved EIA report before it was used for other purposes.

25. The Chairman thanked the presentation team for briefing the Council. He suggested CED to consider arranging a site visit to the desorption plant for Members if appropriate.

CED and
Secretariat

Paper from the Friends of the Earth

26. A Member circulated to other Members a paper entitled "Why Hong Kong needs a land contamination law: A case study of Hong Kong Disney Theme Park" prepared by the Friends of the Earth. She said that the penalties imposed on offences relating to land contamination under the Waste Disposal Ordinance were too low. The Chairman alerted Members that since legal proceedings involving the Cheoy Lee Shipyard was in progress, Members' discussion on the subject should avoid pre-empting the outcome of the legal proceedings. In response to the

Member's points, Mr. Michael Stokoe explained that offences committed against the Waste Disposal Ordinance were usually minor in nature. Examples included disposing of small amount of waste or using the wrong label for chemical waste. The Ordinance in fact empowered the Court to impose a higher penalty for serious offences. The level of penalties imposed in the past reflected that the offences concerned were not serious in nature. He also cautioned that the charge made in page 7 of the paper that the decision in endorsing the EIA report of the Disney theme park was "unlawful" was very serious and its implication should be considered carefully.

Agenda Item 6 : After SARS: environmental agenda for a sustainable future – a brainstorming session on how to prevent, control and manage similar outbreaks in future from the environmental angle

27. The Chairman said that Hong Kong had gone through a difficult time during the outbreak of SARS. The objective of the brainstorming session was to explore ways to prevent, control and manage similar outbreaks in future, if any, from the environmental angle.

28. A Member suggested that indoor air quality policy should be revisited to prevent similar outbreaks in future.

29. A Member declared interest as the Hong Kong Productivity Council had developed some indoor disinfection systems that could disinfect air in hospital vaults. He suggested that consideration should be given to disinfecting indoor air in hospitals because germs and virus could get trapped in air-conditioning systems. He also pointed out that the sewage systems in hospitals could transport germs and virus to the sewage treatment plants, which usually had no disinfection system and as a result the germs and virus could spread out. He suggested disinfecting sewage discharged from hospitals.

30. A Member said that the Urban Renewal Authority was considering new building designs for future projects such as separating the soil stack from waste water stack, and connecting the drainage from the water basin to the floor drain directly so that the floor drain would always remain wet. He informed Members that the University of Hong Kong was conducting a workshop on building index and he would forward the information to the Secretariat for distribution to Members, as they might be interested in attending the workshop.

Secretariat

31. Mr. Jimmy Leung said that the Planning Department was working on urban and building designs that could improve ventilation of buildings. Various professional bodies were being consulted. He further

pointed out that Hong Kong had a highly dense living environment and it was worth exploring whether it would be possible to lower the density through better urban design. Although it was not considered that there was any relationship between density and disease, it was believed that high density would pose a greater risk when a disease was spreading.

32. A Member said that the Institute of Planners and the Institute of Architects had formed an urban designer alliance to review the current planning control measures. She pointed out that in the old urban areas, land lots were generally small in size, which made it relatively easier to improve local area ventilation. In the new development areas, land lots were very large and without large site reduction factor, the resultant GFAs were enormous. Coupled with stringent planning controls, the resultant built forms might work against good ventilation. The alliance was currently looking at those issues with a view to drawing up better planning controls. It would also examine how urban renewal projects could help improve ventilation in old urban areas.

33. A Member suggested reviewing the ventilation problems arising from non-openable windows in buildings fitted with glass curtain walls. She also considered that in strategic environmental assessments, more emphasis should be placed on health impact assessment.

34. A Member said that controls imposed on the plot ratio of a building limited the number of ventilation facilities that could be provided. He suggested that public facilities such as staircases, lobbies and ventilation systems should not be included in calculating the plot ratio so that there would be more incentives for developers to provide better living environment. He also commented that buildings in new towns were very close to one another thereby affecting the ventilation of the buildings. Another Member agreed with the above Member that building regulations should be reviewed to provide more flexibility for developers. He also considered that developers should provide landlords with building operating manuals so that they could make best use of the units and that any change to the internal partitions and fittings of the units would not affect the ventilation and sewage facilities of the building as a whole.

35. A Member pointed out Hong Kong was very densely populated, especially in the urban areas, and buildings were very massive under the current plot ratio system. If public areas were not included in calculating the plot ratio, buildings could get even bigger and might cause more ventilation problems. She considered that instead of relaxing the plot ratio, some indexes should be introduced to indicate how environmentally friendly the buildings were and thus provide incentives for developers to adopt better designs. Mr. Jimmy Leung added that even if

public areas were not included in calculating the plot ratio, developers would still limit the public areas because of the high construction cost. In some areas, building height was limited to reduce visual impact. The Member proposed that where stringent building height control was imposed due to visual concern, the plot ratio for the site should be reduced (particularly for the land sales sites) in order to avoid poor building design which might result in poor ventilation.

36. The Chairman pointed out that poor maintenance and management of buildings was one of the major causes of environmental hygiene problems in the territory. The hygiene conditions of some back lanes were very poor and clearly the maintenance and management of buildings should be stepped up to address the problem. A Member agreed with the Chairman and said that in some buildings the central air-conditioning systems had been installed for over 30 years and should be replaced to avoid spreading disease. He suggested that buildings owners should be required to clean the central air-conditioning systems regularly, and in addition to the filters, the internal lining of the air ducts should also be cleaned as germs and virus could accumulate there. He also proposed to set up a maintenance trust for each new building to provide funding for future maintenance.

37. Dr. Constance Chan said that SARS was a new disease and more research had to be done to better understand its characteristics. She informed the meeting that the Director of Building had formed a working group to discuss the designs of buildings and sewage systems, and the Department of Health was represented in the working group. They would work with experts from other sectors to see how environmental factors contribute to the spreading of SARS.

38. A Member pointed out that to prevent the spreading of SARS or other similar diseases, removing the source of the disease was very important. As there was evidence that the SARS virus originated from wild animals, controlling direct contact between human beings and wild animals would help prevent the spreading of the disease. In places such as the "Bird Street", there were frequent direct contacts between human beings and birds, and many birds sold there and other places of the territory were caught in the wilderness of the Mainland. Such birds were ideal media for importing diseases into Hong Kong. Although the Mainland had imposed restriction on the export of wild birds and animals, the restriction did not apply to the territory. He suggested stepping up control over wild birds and animals. Mr. C C Lay said that AFCD had close contact with the Mainland authorities and would step up control over the import of prohibited wild birds and animals from the Mainland.

39. The Chairman said that during the SARS episode, country parks had provided an outlet for people and hence, it was important to preserve and protect them from pollution. A Member informed the meeting that according to some recent researches, some plants would secrete disinfectant. She suggested planting more greenery in urban areas to help prevent the spread of disease.

40. The Chairman thanked Members for their input and concluded that the problem should be considered from many different angles. He suggested sending Members' views to the relevant authorities for reference.

Secretariat

Agenda Item 7 : Any Other Business

Tentative items for discussion at the next meeting

41. The Chairman informed the meeting that two items were tentatively scheduled for the next meeting, namely an update on the Third Comprehensive Transport Study and the progress of the Sheung Shui to Lok Ma Chau Spur Line project.

Agenda Item 8 : Date of Next Meeting

42. As some Members were unable to attend the next meeting scheduled for 11 August 2003, the Chairman asked the Secretariat to check Members' availability so that he could consider whether the meeting date should be changed.

[Post-meeting note : the meeting scheduled for 11 August 2003 was cancelled.]

**ACE Secretariat
July 2003**