

**Confirmed Minutes of the 192<sup>nd</sup> Meeting of  
the Advisory Council on the Environment  
held on 22 April 2013 at 2:30 pm**

**Present:**

Prof Paul LAM, JP (Chairman)  
Prof CHAU Kwai-cheong, JP (Deputy Chairman)  
Dr Dorothy CHAN, BBS  
Mr Oscar CHOW  
Dr Billy HAU  
Dr HUNG Wing-tat, MH  
Mr Anthony LOCK  
Prof John NG  
Miss Yolanda NG  
Prof Nora TAM, BBS, JP  
Dr Eric TSANG  
Prof Jonathan WONG, MH  
Ms Pansy YAU  
Prof Ray YEP  
Dr Eric YIP  
Prof Ignatius YU  
Mr Andrew LAI (Secretary)

**Absent with Apologies:**

Dr Gary ADES  
Prof FUNG Tung  
Prof LI Xiang-dong  
Dr Alfred TAM  
Dr Carrie WILLIS, SBS, JP  
Mr Luther WONG

**In Attendance:**

Ms Anissa WONG, JP                      Permanent Secretary for the Environment/  
Director of Environmental Protection

Mr Y K CHAN	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr LING Chi-tack	Assistant Director of Planning/Technical Services, Planning Department (PlanD)
Ms Esther LI	Principal Information Officer, Environmental Protection Department (EPD)
Miss Evelyn LEUNG	Chief Executive Officer (CBD), EPD
Ms Joanne CHIN	Executive Officer (CBD), EPD
Ms Daicie TONG	Executive Manager (CBD), EPD

**In Attendance for Item 3:**

Mr Richard KWAN	Environment Manager, MTR Corporation Limited (MTRC)
Ms Lisa POON	Senior Environmental Engineer, MTRC
Ms Felice WONG	Senior Environmental Engineer, MTRC
Ms Natalie IP	Senior Environmental Engineer, MTRC
Ms Jenny TAM	Projects Communications Manager, MTRC
Mr Horace LEUNG	Public Relations Manager - Projects & Properties, MTRC

**In Attendance for Item 4:**

Mr W C MOK	Assistant Director (Air Policy), EPD
Mr Tony LEE	Senior Environmental Protection Officer (Air Policy)5, EPD

**In Attendance for Item 5:**

Mr K F TANG	Assistant Director (Environmental Assessment), EPD
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Action

**Item 1 : Confirmation of the draft minutes of the 191st meeting held on 18 March 2013**

The draft minutes were confirmed without amendments.

**Item 2 : Matters arising from the minutes of the 191st meeting held on 18 March 2013**

2. Subsequent to the discussion of the proposed Producer Responsibility Scheme on glass beverage bottles at the last meeting, the Chairman informed Members that the Legislative Council (LegCo) Panel on Environmental Affairs (EA Panel) invited the Council to provide a written submission for its deputation meeting on 22 April 2013. A submission based on the draft minutes of the meeting was forwarded to the EA Panel on 12 April 2013 for reference.

3. The Chairman advised Members that, being one of the advisory bodies to the Government, ACE would occasionally receive invitations from LegCo to give views on certain environmental issues or topics. For matters that had been discussed at Council meetings, the Secretariat would prepare written submissions based on the minutes of meetings. On specific topics, the Chairman or Deputy Chairman might represent ACE to give presentations. Members could obtain a copy of the submission from the Secretariat.

4. Concerning the suggestion on the operation of the Council raised by a Member, the Chairman proposed to deal with the matters under “Any other business”

**Item 3 : Briefing by MTRC on "New Railway Projects and Associated Post-EIA Follow-Up Programme"**  
*(ACE paper 5/2013)*

5. The Chairman welcomed Mr Richard Kwan and his team from MTRC to the meeting. Mr Kwan briefed Members on the post-Environmental Impact Assessment (EIA) follow-up programme on five on-going railway projects, namely Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link; Shatin to Central Link; West Island Line; South Island Line (East) and Kwun Tong Line Extension. He also gave a presentation on MTRC’s measures to oversee the implementation and environmental performance of the projects.

6. The Chairman advised Members that as the EIA reports of the relevant railway projects had been approved and their construction was underway, the discussion should focus on reviewing the environmental performance of these projects. He then enquired on the nature and number of environmental

complaints which MTRC received. Ms Jenny Tam confirmed that complaints received were mainly on noise and dust issues. MTRC had carried out prompt investigation, and where necessary liaised with the contractors on appropriate measures to address the concerns raised by the complainants. The complaint MTRC statistics received would be provided for Members' reference after the meeting.

7. A Member asked about the effectiveness of the public engagement programmes conducted by MTRC and how the effectiveness could be assessed, as well as how public comments had been incorporated into the project plan(s) and whether the results were communicated to the proposers. Mr Richard Kwan replied that it was difficult to quantify the effectiveness of public engagement programmes. However, he quoted a recent case which raised concerns on the noise and dust nuisance generated during the construction works which were confirmed to be within the requirements of the Environmental Permit (EP) issued by EPD. Mr Kwan remarked that MTRC was well aware that compliance with the relevant requirements would not mean zero complaint. He would take public comments as a challenge for further improvement so that the construction works could progress in compliance with all relevant requirements while meeting expectations from the public in parallel.

8. Mr Richard Kwan said that MTRC had taken a responsive approach to take on board public comments in the works programmes where practicable. He quoted the example that taking into account the high landscape and historical value of the tree walls at Forbes Street, MTRC had re-aligned the location of Kennedy Town Station underneath Forbes Street so as not to disturb the tree walls. Ms Tam supplemented that, to minimize the noise impact to sensitive noise receivers, MTRC had liaised with the contractors and deferred noise-producing works from 7:00 am to 8:00 am. She remarked that these responsive measures had been communicated to stakeholders through meetings of the Community Liaison Groups (CLGs) and MTRC newsletters.

9. Two Members enquired on whether there were cases of non-compliance whereby MTRC had been charged or fined, and whether tree replanting plans had been formulated. Mr Richard Kwan replied that there was no non-compliance incident in relation to the requirements as set out in the EPs. For situations related to guideline/limits on monitoring and managing noise and dust impacts, Mr Kwan admitted that there had been individual cases that the construction noise exceeded the 75 dB(A) limit. For these incidents, MTRC

had conducted prompt investigation to evaluate the project-related activities and equipment which attributed to the exceedances and took appropriate rectification measures for improvement.

10. Regarding tree management, Mr Richard Kwan said that some trees had to be removed to accommodate the construction works. Tree transplanting and protection plans had been devised according to the guidelines approved by EPD. He remarked that MTRC was fully aware of the value of the tree community to local residents and had avoided Old & Valuable Trees (OVT). Hence, most of the trees removed were of common local species. A specified number of trees would be replanted at suitable sites as a compensatory measure. Mr Kwan admitted that the incident of tree felling by mistake in the Pat Heung conservation area, Yuen Long was due to a technical mis-alignment of the drawing of the site boundary. MTRC had since strengthened control of the operation procedures to prevent recurrence of similar incident.

11. Regarding air quality impacts, a Member suggested MTRC to tighten the monitoring levels to include PM10 and PM2.5 on top of Total Suspended Particulates (TSP) as currently required under the EP. Mr Richard Kwan was appreciative of the Member's comments, and advised that MTRC was considering the scope of monitoring to move towards the international standard, including the proposed new Air Quality Objectives to be adopted in Hong Kong.

12. In response to a Member's question on the improper handling of asbestos rubble in a works site of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link project, Mr Richard Kwan said that MTRC had engaged registered asbestos contractors and followed the statutory requirements for carrying out the demolition works. Ms Natalie Ip supplemented that reports and plans of the demolition works had been submitted in accordance with the statutory requirements to EPD for approval before demolition commenced. The Member reiterated his concern as asbestos was a cancer-causing material and the laboratory test had confirmed asbestos content in the demolition waste. The community had a legitimate expectation on MTRC to have better control and handling of the material. Mr Kwan assured Members MTRC that he would look into the matter and report relevant findings to ACE for information.

13. A Member opined that MTRC could consider providing in its next

progress report more information relating to compensatory measures arising from impacts to ecology. MTRC could also consider taking the lead to conduct carbon audit for railway projects and to devise corresponding compensation. Mr Richard Kwan replied that MTRC had embodied the concept of carbon audit in the construction of the Shatin to Central Link. A “Life Cycle Analysis” had also been applied on new train compartments to gain more information of carbon footprint/emission. By accumulating sufficient data/information from the measures taken, MTRC could identify more carbon reduction opportunities in design, operations and procurement matters.

14. Regarding the Member’s further comments on MTRC pioneering to improve the level of civil engineering technology in Hong Kong, Mr Richard Kwan advised that MTRC had been organising regular workshops for its staff and contractors to share experience learnt from different railway projects. As MTRC had developed extensive relationship with most of the construction companies and contractors in Hong Kong, he was confident that the exchange fora could help improve the standard and practices of local civil engineering works as a whole.

15. A Member enquired on the challenges faced by MTRC in the course of the engineering projects. Mr Richard Kwan said that his team had encountered many challenges. Taking the example of compliance with noise limit, he pointed out that great efforts had been put in sourcing and examining appropriate design and materials for the noise barriers which were used in Hong Kong for the first time. MTRC had closely engaged the contractors and manufacturers to test the viability and effectiveness of the noise barriers. Mr Kwan saw good opportunities for MTRC to forge ahead with the vision to out-perform the normal benchmarks on these projects.

16. On the Member’s further question on the Environmental Management System adopted by MTRC, Mr Richard Kwan advised that ISO 14000 standard was taken. MTRC was committed to following the respective environment assessment adopted for these projects, and continued improvement had been reflected in the conformity assessment conducted in the past years.

17. A Member suggested MTRC to include more concrete information and statistical data in its next report to better elaborate on the effectiveness of the monitoring and mitigation measures. She opined that information such as

whether the number and nature of complaints received from the project hotlines had decreased or varied over time; the number, frequency and particulars of exceedances and the kind of mitigation measures being applied would all be useful parameters for review.

18. A Member was concerned about tree replanting/transplanting plan of the projects as replanting areas might not be available nearby. In addition, she suggested MTRC to give a separate session to share with Members how public comments had been incorporated into the project plans that helped bring positive impacts to the environment. The experience would be beneficial to ACE when reviewing similar EIA projects in future.

19. A Member commented that MTRC should adopt a more proactive approach in reporting incidents or challenges, e.g. the case of Pat Heung and other exceedance cases to Members and explained the remedial measures adopted in tackling these issues.

20. A Member was concerned about the composition of the CLGs and the profile of local organizations being involved. He suggested MTRC to provide a summary of concerns/comments raised at CLG meetings and the following measures to address those concerns for Members' reference.

21. The Chairman summarized Members' views that MTRC should provide more concrete information and statistical data in its future report to illustrate the effectiveness of the environmental monitoring and mitigation measures being implemented. Furthermore, MTRC should take the initiative to report to ACE on issues which were of clear public concerns such as tree planting plans and handling of asbestos waste. MTRC was also suggested to conduct trend analysis on the number and nature of complaints received during the project progress which would be useful in measuring the effectiveness of its plans. Lastly, MTRC should also give an account of how best public concerns had been addressed in its future reports.

22. Mr Richard Kwan thanked Members for the useful comments. He advised that this was the first time for MTRC to report its post-EIA follow-up programme, and his team had selected a number of issues to report to ACE. Mr Kwan said that the supplementary information requested during the discussion would be prepared for Members' reference after the meeting.

**Item 4 : Upgrading the Diesel Standard for Local Vessels**

*(ACE paper 6/2013)*

23. Mr Tony Lee briefed Members on the proposal to upgrade the quality of local marine light diesel with a view to reducing emissions from local vessels. It was proposed that for fuel that was put on sale, supply or distribution on Hong Kong market for use by vessels, it should not contain sulphur more than 0.05% by weight.

24. The Chairman enquired about the cost implications arising from the switch from the current high sulphur diesel (HSD, with sulphur content of 0.5%) to low sulphur diesel (LSD, with a sulphur limit of 0.05%). Mr Tony Lee replied that at present LSD was more expensive than HSD. However, with growing supply of LSD and declining demand for HSD in the Asian market, the fuel cost differential between HSD and LSD was narrowing. Mr W C Mok supplemented that in response to an increasing demand for LSD in Asia arising from governments' increasing concern for the environment, Platts, a leading global provider of benchmark price for diesel market, had replaced HSD by LSD since January 2013 as the benchmark for light diesel oil. Oil refineries in Asia had also been increasing the supply of LSD while reducing the supply of HSD.

25. A Member asked for clarification of the discrepancy in the price difference between LSD and HSD estimated at \$0.07/litre by the Government but \$1/litre reported by the shipping trade. Mr W C Mok explained that oil companies had to make special arrangement for the supply of LSD and incurred additional handling costs to individual vessel operators due to its relatively low demand in the local market. As such, the trade got from oil companies a price difference of \$1/litre. As the proposed across-the-board fuel upgrade would incur no extra fuel handling cost, the price difference between LSD and HSD would be essentially reflecting the difference in material costs. The Government had referred to the free on-board (FOB) fuel price data in Singapore in coming up with its estimated differential by \$0.07/litre.

26. A Member asked further for the Government's response to the suggestions on opening up the fuel market for competition and providing subsidies for vessel engine replacement. Mr W C Mok replied that fuel

upgrade was the first step to reduce emissions from local vessels. Engine replacement would be considered at a later stage. As the supply of LSD had been growing in the region and local oil companies had all confirmed they would supply LSD, healthy competition in the local market was expected.

27. In response to a Member's question on the openness of the fuel market in Hong Kong, Mr W C Mok replied that local oil companies had no difficulty sourcing LSD. The market was open to all. Taking note that marine vessels were the largest source of local air emission, the Member expressed concern that any rise in the number of vessels could offset the benefits brought about by the switch to LSD. Mr Mok said that statistics had not shown a significant rise in the number of vessels over the years. Marine vessels had become the largest local air emission source largely as a result of the successful reduction in emissions from vehicles and power plants. It was essential to tackle marine emissions to further improve air quality for protection of public health.

28. A Member supported the proposal. However, in view that the Government had been using Euro V diesel with sulphur content at 0.001% without experiencing major problems, he considered that the reduction proposal should be two-tiered, i.e. newer or more advanced vessels should be required to use diesel with even lower sulphur content (i.e. less than 0.05% as currently proposed) if such was compatible with their engines. Mr W C Mok replied that the shipping trade had expressed concern that the engines of the majority of local vessels were aged and designed to old standards; and that lowering the sulphur content might reduce the fuel lubricity and cause problems for engines. The Marine Department also considered it risky for a vessel's engine to break down and lose power in the open seas. The Government considered it prudent to adopt a progressive approach in upgrading fuel quality. Having secured the general consensus in the trade, it was proposed to require oil companies to supply diesel with a sulphur content capped at 0.05% as a start. Adopting a blanket approach to upgrade fuel quality would avoid additional fuel handling costs. Further, it would be difficult for the Government to enforce the legislation if different classes of diesel were stipulated for use by different categories of vessels or according to the ages of their vessel engines. After putting the proposed upgrading in place, the Government would monitor closely the situation for tightening the standard progressively in future. To lead by example, the Government vessel fleet would continue using Euro V diesel after the fuel upgrade.

29. A Member agreed to set the statutory sulphur limit at 0.05% for better enforcement, but suggested making available diesel of even lower sulphur content in the market. Another Member shared this view. Mr W C Mok confirmed that while the sulphur content of marine light diesel was proposed to be capped at 0.05% by legislation, vessel operators could choose to use diesel with lower sulphur content. He reiterated that the current proposal to reduce the sulphur content to 0.05% was the first step in upgrading the quality of local marine diesel, and the Government would seek to further upgrade local marine light diesel afterwards.

30. Responding to a Member's concern on whether local vessel operators would have a financial incentive to refill diesel outside Hong Kong in view of a possible price differential between LSD and HSD, Mr W C Mok said that local vessels are required by law to operate within Hong Kong waters. As such, they would have to refill diesel locally. Besides, he learnt from the trade that diesel in Hong Kong was of higher quality and more price-competitive as compared with that available in the Mainland. Local vessel operators should have little incentive to refill diesel outside Hong Kong.

31. A Member supported early implementation of the proposal. He opined that the environmental benefits brought about by a further reduction beyond the 0.05% cap might not be that significant. He also asked on the control on river vessels coming into Hong Kong waters which presumably would use diesel of a higher sulphur content. Mr W C Mok agreed that the environmental benefits brought about by a reduction in sulphur content from 0.5% to 0.05% would be much higher than a corresponding reduction from 0.05% to 0.005%. He added that the proposal only controlled the sale and supply of diesel on local market. There was no control on fuel used in vessels supplied outside Hong Kong. Ms Anissa Wong supplemented that the same enforcement principles also applied to diesel used by vehicles. Mr Mok pointed out that it was impracticable to require vessels to pump out diesel and get refilled with LSD before entering Hong Kong waters. Moreover, as advised by the trade, river vessels preferred to fill fuel in Hong Kong in consideration of the higher fuel quality and competitive prices.

32. Replying to a Member's enquiry on how the diesel standard in Hong Kong compared with that of the Mainland, Mr W C Mok said that diesel of

different standards were available on the Mainland market, among which the National Standard specified a sulphur content of 0.035%. The source of diesel for Hong Kong and the Mainland were different. Hong Kong imported oil mainly from Singapore, where diesel with 0.035% sulphur content was not a norm.

33. A Member remarked that there was insufficient information for assessing the practicability of going beyond the 0.05% sulphur limit. The types of marine engines used in Hong Kong and their performance when running on diesel with different sulphur contents, worldwide experience in adopting different diesel standards, the numbers of local vessels and incoming vessels and their emissions should be assessed. Mr W C Mok replied that addressing the concerns of the trade was a prerequisite for taking the proposed legislation through LegCo. The trade was very concerned about the possible adverse impact on engine performance and fuel costs arising from the switch to LSD. In this regard, capping the sulphur limit at 0.05% would help alleviate the above concerns of the trade, thereby leading to the early implementation of the proposal (i.e. early reduction of the emissions from local vessels). After the proposal had been put in place, the Government would seek progressive upgrading of marine light diesel. He also added that the proposed sulphur cap of 0.05% for marine light diesel was more stringent than that of Singapore.

34. A Member asked if the Government could provide the trial findings to Members for reference before they tendered further comments on the proposal. The Secretary explained that there had been great hesitation from the trade over compatibility with engines and increase in fuel costs arising from the proposed switch to LSD. The Government had taken two years to conduct different technical trials and consulted the trade before they came to a consensus to adopt LSD with a sulphur limit of 0.05%. The switch from the current HSD to the proposed LSD would help achieve a 90% reduction in emission of sulphur dioxide (SO<sub>2</sub>) for most local vessels. If the Government was to withhold the current proposal but to explore further reduction in the sulphur content of LSD, it had to start again a new trial, assessment of fuel market (including fuel price, supply and demand), and trade consultation exercise. This would result in delay and even uncertainty in implementation of the new policy. It would be more practicable to adopt a sulphur limit of 0.05% as a first step to achieve an immediate and significant SO<sub>2</sub> emission reduction, and to tighten the standard progressively in future when the situation warranted.

35. Mr W C Mok supplemented that a Working Group on Upgrading the Quality of Marine Light Diesel comprising representatives of local marine trades, relevant government departments, as well as a marine engineering expert from a local university had been set up to examine the technical feasibility of this fuel upgrade exercise. It had been a lengthy process for the trade representatives to reach a consensus on the technical arrangements for the trial. Subject to ACE's endorsement, the Government aimed to table the legislation for approval by LegCo in late 2013 and to implement the control requirements in 2014. A Member agreed to proceed with the current proposal and suggested that there should be follow-up studies with a view to further tightening the diesel standard in future.

36. A Member recognized the great resistance from the trade in the fuel upgrade proposal and that it had already taken a long time for the Government and the trade to reach a compromise in adopting a sulphur cap of 0.05%. The trade would not rely on scientific findings but their practical experience when accepting that LSD was feasible in terms of both operation and cost implications. She supported the Government to start at sulphur content of 0.05% and prepare a road map for further tightening the standard in future.

37. A Member was supportive of the proposal but remarked that the Government should attend to potential difficulties of small and medium enterprises in complying with the new requirement.

38. The Chairman concluded that Members were supportive of the proposal to upgrade the quality of local marine light diesel by reducing sulphur content from 0.5% to 0.05%, and suggested the Government to further tighten the diesel standard in future.

#### **Item 5: Report of the 121<sup>st</sup> EIA Subcommittee Meeting**

39. The Chairperson of the Environmental Impact Assessment Subcommittee (EIASC) reported on the recommendations of the Subcommittee on updating the *Modus Operandi* of EIASC made at the meeting on 25 March. She highlighted the following key proposed improvements to the *Modus Operandi* for Members' consideration –

## Action

- (a) EIASC Members would be invited to consider selection of an EIA report for submission to ACE after it was submitted to EPD for approval for public inspection. Members would be provided with updated information on the project before they were to exercise their choice of selection;
- (b) EIASC meeting would be convened to consider a selected EIA report after completion of the public inspection period. EPD would summarize the public comments on the report received during the inspection period for Members' reference before the meeting;
- (c) The project proponent would be required to provide a concise and objective account of the main concerns which the general public and interest groups had made on the project during the EIA study and the public inspection stages, and how these concerns had been addressed in the EIA report. This would encourage the proponent to be more transparent and responsive to views in the community on the project during the EIA study stage; and
- (d) EIASC Members were assigned to consider various subject areas of an EIA report. This would facilitate a more structured and focused discussion of the report at the meeting. The "lead" Members would work in pairs on each subject area in case one of them could not attend the meeting. Generally not more than two EIA reports would be discussed at an EIASC meeting so as to allow in-depth discussion at the meeting.

40. The Chairperson of the Environmental Impact Assessment Subcommittee added that issues on public engagement and operational transparency of ACE were also brought up at the EIASC meeting. She had agreement from Members that EIASC was to provide technical support/ advice to ACE on EIA matters, and the *Modus Operandi* was revised from that angle. Issues falling outside the Subcommittee's purview should be raised for deliberation at the full Council meeting.

41. The revised *Modus Operandi* of EIASC was endorsed subject to a few formatting amendments proposed by two Members. The Council noted that the revised *Modus Operandi* would take immediate effect.

**Item 6: Any other business**

Hong Kong – Taipei Intercity Forum (6 June – 8 June 2013)

42. The Chairman drew Members' attention to the invitation for joining the Hong Kong delegation for the "Hong Kong-Taipei Intercity Forum" on waste management to be held in Taipei on 7 June. Site visits to various waste facilities and a visit to the Environmental Protection Agency of Taiwan had also been planned between 6 and 8 June in addition to the discussion forum.

*[Post-meeting notes: The visit to Taipei was arranged between 6 and 7 June 2013.]*

Suggestions on the operation of ACE

43. A Member thanked Members for discussing his suggestions on the operation of the Council at the last meeting. He agreed that when a Member planned to raise a discussion topic or submitted a paper for discussion at a meeting, he/she should forward the paper to the Secretariat which would assist the formulation of paper for discussion after collecting information from relevant bureaux and/or departments.

44. Regarding the arrangement for the Chairman to bring up issues for discussion on behalf of a Member who was absent from the meeting but made a submission to the meeting, the Member expressed concerns that the Member's views might not be fully reflected. He counter-proposed for the Secretariat to refer the submission to the relevant parties to address the concern direct. This could also facilitate the smooth operation of the meeting as the presenting party/project proponent could be better prepared to provide responses at the meeting. The meeting agreed to the revised arrangement.

45. As regards the proposal to add a note in the minutes of meeting indicating that a Member was absent but had made a submission, the Chairman reiterated his reservation and stated that only issues discussed at the meeting should be recorded in the minutes. This was echoed by two Members. One of the Members suggested adopting the practice of other advisory boards where a submission and the relevant response would be tabled at the meeting for

Members' reference. If Members at the meeting were interested in the issues raised, they could pick up the discussion which would be recorded in the minutes of the meeting. Members agreed to the approach.

ACE – Arrangements on operational transparency

46. The Chairman proposed and Members agreed to defer the subject for discussion at the next meeting.

**Item 7 : Date of next meeting**

47. The Chairman informed Members that the next meeting was scheduled on 20 May 2013 (Monday). Members would be informed of the agenda in due course.

*[Post-meeting note: The meeting on 20 May was cancelled and the next ACE meeting was scheduled on 17 June 2013.]*

**ACE Secretariat**  
**April 2013**