EIA report on "Shatin to Central Link"

A summary of issues discussed by the EIA Subcommittee at the meeting on 9 January 2012

The Environmental Impact Assessment (EIA) Subcommittee discussed the following four EIA reports on "Shatin to Central Link" (SCL) at its meeting on 9 January 2012, namely –

(a) Tai Wai to Hung Hom (SCL(TAW-HUH)) Section;
(b) Mong Kok East to Hung Hom (SCL(MKK-HUH)) Section;
(c) Hung Hom to Admiralty Section (SCL(HUH-ADM)); and
(d) Stabling Sidings at Hung Hom Freight Yard (SCL(HHS)).

2. The issues discussed at the meeting were summarized below.

Site for stabling sidings

3. The project proponent (PP), MTR Corporation Limited, first clarified the status of the proposed sites for the stabling sidings at Hung Hom and Diamond Hill as indicated in the separate EIA reports. They pointed out that the freight yard at Hung Hom was originally not available at the time when they submitted their initial application for an EIA Study Brief under the EIAO. However, following the cessation of operations of various freight facilities thereat since April 2011, the Hung Hom Freight Yard was made available as an option for the stabling sidings of the SCL. As shown in the Government gazette drawings, the direction forward was to pursue the sidings at the former Hung Hom Freight Yard (SCL(HHS)) instead of at Diamond Hill. Since the proposed stabling sidings at Diamond Hill CDA Site (DHS) was covered in the previous application for the EIA Study Brief, the option of using DHS for train stabling had been included in the assessment under the SCL(TAW-HUH) EIA report so as to meet the consistency standard with the EIA Study Brief and the EIAO. Nevertheless, the preferred option would be to use the former Hung Hom Freight Yard to accommodate the train stabling requirements of the SCL.

Tree transplantation and management plan

4. A Member pointed out that a significant number of trees would have to be felled or removed from the construction sites of the four rail projects. He enquired if there were any alternatives to minimize the number of trees to be affected, and whether trees of particular species at the project sites would be temporarily transplanted at the

off-site locations and be re-planted back when the construction phase ended. He also suggested raising the 1:1 compensatory tree planting ratio as the new trees required relatively long time to grow to maturity. Benefits of these newly planted trees on cooling and absorbing air-borne pollutants would be hindered due to reduced tree coverage in the affected areas.

5. In response, PP explained that tree felling could not be totally avoided in any construction projects. Approximately 4 000 trees along the SCL(TAW-HUH) Section would have been affected under the original plan. With the preferred sidings site to be located at Hung Hom, some 1000 trees mainly in the former Tai Hom Village at Diamond Hill could be avoided. This represented the single largest mitigation on the number of trees affected by the whole SCL. The project would follow the compensation ratio of 1:1 as set out in the Works Branch Technical Circular. While it was physically impossible to temporarily remove and then re-plant the exact number of trees back to the project sites after the construction works, they were working with the Government to arrange compensatory re-planting to the maximum extent as far as practicable. Both tree transplantation and compensation plans would be implemented in parallel. The detailed information on any transplantation and compensatory planting would be included in the Tree Removal Application (TRA), which would be submitted to the Director of Lands for approval prior to commencement of the construction works.

6. With regard to the concern over the criteria for identifying the types of trees to be transplanted or felled, as well as whether there would be a detailed transplantation plan to preserve all *Aquilaria sinensis* identified in the SCL(TAW-HUH) EIA report, PP advised that the species were mostly found in Hin Keng area where there were some works around the portal area. Other considerations, e.g. health condition of the trees and their locations would have to be taken into account. It was clear that those located on steep slope would pose great difficulty for transplanting. A more detailed survey would be conducted to identify affected individuals of this species requiring transplantation, and advice from the Lands Department (LandsD) and the Agriculture, Fisheries and Conservation Department would be sought beforehand.

7. In answering Members' concern over any monitoring scheme to ensure that the transplanting rate had been complied with and whether the result would be reported to the general public, PP explained that there were currently tree management reporting. This reporting system should continue in future. The monitoring was not only to ensure the transplantation process was in order, but also as an initiative to improve upon the experience from the South Island Line project.

8. A Member requested PP to provide the TRA to the ACE for comments as the

ACE was obliged to advise the Government on various environmental issues and provide comments on the application if any. PP explained that the TRA was a process for approval by LandsD, and appreciated Members' understanding that the submission would be under tight construction schedule. They had consulted different green groups on tree issues, and these contacts would continue for the benefits of the community.

Visual impacts

9. A Member raised his concern on the visual impacts or residual visual impacts caused by the scars due to removal of trees, in particular for the SCL(TAW-HUH) Section. He asked whether there were any cut slopes involved at the portal area and suggested PP to adopt more innovative design to reduce the visual impacts pertaining to the cut slopes. PP explained that the portal at Hin Keng Station had been moved further away from the country park area to minimize the impacts to this site which was of conservation importance. No permanent or temporary works would be instituted that would cause encroachment into the country park area. Landscaping work with greening measures would be implemented that would give an outlook compatible with the surrounding areas. PP assured that they were conscious of the need to bring environmental design to all sections of the SCL for the benefits of the community.

Noise impacts

10. A Member enquired on the mitigation measures to be implemented in respect of air-borne construction noise impacts on the noise sensitive receivers (NSRs) as they were mainly school users and residents nearby. The situation was further complicated as there would be other constructions works in the area in parallel with the SCL. PP said that they would coordinate among different teams of these projects, for example in the case of Wing Fung Building in Hung Hom which was being affected by impacts of the concurrent construction projects in the vicinity. They would ensure that the contractors would implement the mitigation measures recommended in the EIA report which would also be set out in the contract documents. They would also ensure that the contractors would provide those mitigation measures as listed in the Environmental Monitoring and Audit (EM&A) Manual and the EIA report as far as practicable that entailed the cumulative noise impacts to be controlled at the acceptable level. PP indicated that the noise impact assessment in the EIA report had adopted the practical worst-case scenario in the case of Carmel Secondary School near the Hung Hom Station (HUH) at which exceedance in the cumulative air-borne construction noise would be expected. Nevertheless, they would work closely with the contractors to minimize the environmental impacts based on their construction methodology/methodologies along the rail alignment. The NSR locations highlighted in the EIA report would particularly be taken into account when formulating the project

construction plans.

11. To address another Member's concern on the extent of the exceedance of noise control limits in the NSR locations mentioned in the EIA report despite implementing all the mitigation measures, PP said that the methodology in measuring the noise level of the construction works was based on the time period between 7:00 am to 7:00 pm. Day-time activities were assessed on the 75 decibels (dB(A)) criteria, at which any exceedance was referred to. A construction noise permit under the Noise Control Ordinance was required for any works after 7:00 pm. Apart from the proposed mitigation measures such as putting up noise barriers on the construction sites for abating construction noise, other initiatives would be exhausted to help reduce air-borne construction noise impacts on the NSR locations.

12. In response to a Member's enquiry on whether any indirect technical remedies (ITRs) for the NSRs would be adopted to relieve the exceedance of noise level, PP confirmed that they would look into implementing the necessary noise mitigation measures on a case-by-case basis to resolve the issues before working with the contractors on individual cases to assess the need for providing ITRs.

13. Following a further enquiry on how to ensure the overall noise level of the project was within the assessment criteria, PP explained that the EM&A Manual had already set out the frequency and methodologies for the monitoring programme. Ad hoc monitoring would also be instituted once a complaint was received and the issue would be documented in the monthly EM&A report. There would be adequate monitoring especially for those highlighted areas in the EIA report.

14. A Member enquired how the examination period of the schools affected was defined and whether the Education Bureau would be advised not to use these schools for public examination as the noise level of 60 dB(A) or above would be very disturbing to students. PP replied that there were on-going discussions with these schools relating to their schedule of activities including examinations. They would then arrange with the contractors to reduce the level of construction works if there were either school examinations or public examinations going on in the concerned schools.

15. In reply to the suggestion on the greater use of green elements, e.g. incorporating real plants in the design of vertical barriers for noise attenuation, PP explained that while the detailed design of the types of materials to be used was still under planning, any materials to be used must be adequate for the attenuation purpose. As regards the suggestion to incorporate real plants into the vertical barriers, PP pointed out that experiences gained from previous projects were not always satisfactory as maintenance for the plants, which involved services more than watering and weeding,

had never been easy. The plants would wither and cause unsightly appearance on the barriers. There was concern over the safety aspect of the issue and whether there would be any inadvertent consequential effects if real planting was to be done extensively on the operating rails and on the barrier walls. PP had every confidence that they would come up with a pleasing design which the community should feel proud of.

Community liaison groups

16. In response to a Member's enquiry on whether the stakeholders would be invited to join the discussion groups, especially for Wing Fung Building and Carmel Secondary School, PP said that dialogues/discussions were already in place with the concerned groups. Same as previous rail projects, affected and concerned parties would be engaged before and during the construction phase. These stakeholders would be invited to join regular liaison meetings to raise their concerns while PP themselves would have the opportunity to explain the work progress to them and to address their concerns. These community liaison groups had proved very successful and the arrangement would continue for the current SCL project.

17. Taking on the suggestion on adopting a more proactive approach in the liaison arrangement, PP informed that there would be more extensive public engagement during the SCL project implementation stage. They had also launched a website in both Chinese and English to explain in details the EIA findings in layman terms to facilitate the community's understanding on the project.

Air quality impacts

18. In answering the enquiry regarding the expected air quality impacts of the project to the affect areas, PP assured that with the implementation of the recommended mitigation measures as stated in the respective EIA reports, there would be no exceedance of the 24-hour or annual Air Quality Objectives (AQO) for the SCL. A chart on dust contours (which showed quantities of dust generated by the project) and the annual total suspended particulates (TSP) concentrations was used to illustrate that with the mitigation measures in place, due compliance could be achieved at the affected areas in respect of the air quality requirements as set out in the EIA reports.

19. A Member noted that the air quality impact on some of the air sensitive receivers (ASRs), for example the Sung Wong Toi Playground, was very close to exceedance of the acceptable limits. He was concerned that the limit might actually have exceeded should the model have not been properly formulated. Noting that the exceedance of the annual TSP concentrations at Kai Tak area was due to the operation of Yau Lee CBP rather than this project, he enquired on the duration of the exceedance

viz. the Yau Lee project. PP replied that while recognizing that no study model would give absolute accurate prediction, particular attention would be paid to those areas where the model reported high level of impacts and to draw up corresponding monitoring programme. Taking into account the possible model inaccuracies, they had opted for the conservative side when making the assessment as far as practicable. As regards the exceedance at Kai Tak area, PP pointed out that of the existing sand depots in the area cease operation before the commencement of construction of this project. The impacts brought about by these sources would have been removed and would not have concurrent impacts with the SCL.

20. In response to a Member's enquiry on the type of fuel used by the construction vehicles or marine vessels engaged for delivery of construction and demolition (C&D) materials and other construction machinery on site, the EPD representative advised that fuels for all road vehicles had to comply with Euro V standard, and there was not yet a similar requirement to use cleaner fuels for marine vessels. In this connection, PP expressed that the availability and applicability of the fuel types had to be taken into consideration. Some plants were very specialized equipment and might not be able to run on ultra low sulphur diesel (ULSD). They would endeavour to engage their contractors to use the cleanest fuel available in the market at the time of construction of the project.

Heritage and archaeological conservation at Diamond Hill site

21. Regarding the enquiry on the impacts to the archaeological sites in the Diamond Hill area, PP advised that the proposed stabling sidings at the Diamond Hill CDA Site under the SCL(TAW-HUH) EIA report would be pursued only if the preferred sidings option at Hung Hom Freight Yard described in the SCL(HHS) EIA report was not accepted. If HHS option was to be proceeded, the extent of archaeological site at the former tai Hom Village affected would be reduced and the SCL(TAW-HUH) alignment could totally avoid the Stone House, but the former Royal Air Force (RAF) Hanger (Grade 3 Historical Building) and the Old Pillbox (Grade 2 Historical Building) would still be within the boundary of the temporary works area and be affected to the same extent.

22. A Member pointed out that some built heritage were recommended for relocation and reinstatement, while others would be retained in situ and monitored for vibration impacts. There was concern that any remedial action would come too late when it was eventually found out that the vibration had actually affected the structures. Suggestion was made for instituting reinforcement measures before commencement of works around those sites to be retained in situ. PP quoted the example of a special design adopted in the alignment coming out of the Kai Tak Station for minimizing the

vibration impacts on the Lung Tsun Stone Bridge. The monitoring sensors would give immediate alert to effect the event and action plan should the intensity of vibration exceed the trigger levels. Experience with other heritage structures on other rail lines under construction had proved that the monitoring programme had been adequate in this regard.

23. A Member noted that some disused air raid precaution tunnels at Chatham Road and Valley Road would be backfilled by concrete prior to commencement of construction works. Enquiry was made as whether the fillings would be removed afterwards. PP replied that these tunnels, as part of the EIA recommendation under the EIA for Kwun Tong Line Extension (KTE), were to be filled up for safety purpose and would not be reinstated. Such backfilling works would be properly documented under the KTE project.

Waste management

24. In answering a Member's enquiry about the reduction and management plan on the different classes of waste generated by the project, PP said that they would work to reduce the generation of waste by carefully designing, planning out and implementing the various phases of the project. They would also incentivize the contractor to reuse the waste so generated by allowing them to pocket the proceeds on the sale of materials for re-use while charging them the responsibility to pay for any disposal charges entailed. Experience from the West Island Line project had proved the effectiveness of this approach as over 50% of the predicted 1.3 million cubic metres of waste so generated had been recycled by the contractor.

25. As regards a Member's enquiry on the plan in handling the estimated 4 million cubic metres of C&D materials to be generated by the project, PP explained that they had adopted the "Reduce, Reuse and Recycle" principle during the design stage in 2008 and had been in liaison with the Public Fill Committee (PFC) and the Civil Engineering and Development Department (CEDD) on ways to reuse the materials. The proposed adoption of the HHS option for the stabling sidings had actually reduced the C&D materials by nearly 0.5 million cubic metres as compared to the less preferred DHS option. Besides, about one-tenth of the materials generated could be reused for backfilling in the SCL project. Since 2009, they had started liaison with a number of project offices like those of the Hong Kong-Zhuhai-Macao Bridge Boundary-crossing Facilities (HZMB BCF) and the Tuen Mun to Chek Lap Kok Link (TM-CLK Link), on matching project schedules and assessing the volume/qualities of construction materials required so that they could make ready the materials to their contractors for use in these projects. Among others, they had already scheduled with the HZMB BCF project to receive the C&D materials generated from the SCL project from late 2012

until mid to late 2014. It was estimated that some 4-5 million cubic metres of filling materials would be required for the HZMB BCF project, while another 2 million cubic metres would be taken up by the Hong Kong Link Road and the TM-CLK Link Road.

26. With regard to the enquiry on the disposal of sediments, PP informed that the largest portion of sediments would be generated from the SCL(HUH-ADM) section by the dredging of marine mud across Victoria Harbour for the foundation of the immersed tube tunnel. There was no well-proven method for possible reuse of such marine sediments under current engineering know-how. Most of them would have to be disposed of according to government requirements. There had been continuous dialogues with CEDD to work out the disposal arrangements.

Conclusion

27. After discussion, the Subcommittee agreed to recommend to the full Council that the four EIA reports could be endorsed with some proposed conditions. It had also made a recommendation on the reports. The Subcommittee agreed that there was no need to invite the project proponent to attend the full Council meeting.

EIA Subcommittee Secretariat
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