9.7 DG Godown

9.7.1 In the current Outline Master Development Plan, the area where the DG Godown is located has been planned for residential use. From the point of view that this is a Feasibility Study which deals with the feasibility of planned uses, the DG Godown will no longer exist within the SEKD.

9.7.2 Moreover, with reference to a letter from the owner of the DG Godown site who indicated that they have already submitted a rezoning request to Town Planning Board (TPB) to redevelop the site into residential use. Although the TPB approval is still pending, there is clear indication that the planning intention and the site owner's interest are to redevelop the site into non-industrial use. With reference to the current layout plan, the tunnel of Trunk Road T2 will be crossing Area 5K where the DG Godown is located. In order to realise the construction of Trunk Road T2, it is apparent that the existing uses in Area 5K will be redeveloped. Hence, the potential hazard associated with the DG Godown would not be a constraint on the SEKD. If in any case, the layout plan is changed so that co-existence of the DG Godown and the SEKD population will happen, then we will review the need to conduct a QRA to address the risk issue.

9.8 Impacts Summary

9.8.1 *Ma Tau Kok Gas Works*

9.8.1.1 For the Ma Tau Kok Gas Works, the main risk contributors to affect the existing population surrounding the site and the South East Kowloon Development are naphtha spills in the bund and in the process area, rupture of gas outlets at the Ma Tau Kok North Works and rupture of gas pipes at the off-take/pigging station.

9.8.1.2 The levels of individual risk for the current and mitigated current cases do not exceed the "Acceptable" limit (10^{-5} per year) of the Hong Kong Risk Guidelines and therefore no parts of the development lie within any unacceptable areas of individual risk.

9.8.1.3 The 10^{-7} and 10^{-8} individual risk contours around the works extend to cover areas including Site 3Vand Wyler Garden (both residential). 10^{-8} contour around the pigging station extends to cover areas including the district open space in Site 3Y2 and the community facilities in Site 3N5. Site 3Y3 (school) is on the fringe of the contour and is barely affected. The district open space acts as a buffer zone around the pigging facilities to minimise the risk.

9.8.1.4 The mitigation measure results in a smaller area covered by the individual risk contours and consequently a smaller area covering the new development. The influence of the gas export pipework near to the gas holder is reduced considerably and persons in the development are now barely affected by the risk from the works site. The contours around the pigging station remain unchanged. Since the areas around the pigging station are relatively low population, this layout is considered favourable from a risk point of view.

9.8.1.5 With the risk mitigation measure at the gas works, there is virtually no risk to the SEKD. However, it is unusual for a planning study to result in mitigation at a hazardous site, rather the development should accommodate the areas of risk in its layout. Hence the Project must liase with HKCG to ensure that the mitigation measure is implemented particularly before occupation of the residential blocks adjacent to the gas works.

9.8.1.6 There is uncertainty regarding the timing of relocation of the MTK Gas Works. If before the South East Kowloon Development is complete when the works is closed or relocated no mitigation measures will be necessary.

9.8.1.7 The proposed South East Kowloon Development for the mitigated case should be permitted to proceed, subject to the recommendations below:

- The Project must liase with HKCG to ensure that the mitigation measure is implemented particularly before occupation of the residential blocks adjacent to the gas works. However, there is uncertainty regarding the timing of relocation of the MTK Gas Works. If before the South East Kowloon Development is complete when the works is closed or relocated no mitigation measures will be necessary.

- Since the proposed naphtha jetty would be located very close to the marina (offshore population), a minimum safety distance of 100 m between the naphtha jetty and the marina population is recommended.

- No further development resulting in population increases nearby the site should be permitted unless supported by a hazard assessment, to be submitted to relevant government departments for consultation.

9.8.2 *Relocation of DG Vehicular Ferry Pier*

Conclusions

9.8.2.1 The additional risk for the relocated DG ferry pier for LPG and hydrocarbons transport has been assessed using SAFETI Expert. Both individual and societal risks to residents, third party workers, road users and any other exposed people have been assessed for the present usage and location of the ferry pier (2001) and the proposed location and predicted usage for the year 2012.

9.8.2.2 The proposed location of the relocated DG ferry pier would be more than 100m from nearby high rise residential buildings. The route to the relocated DG ferry pier would follow the same road to the existing DG ferry pier and then an additional 0.7km on a new waterfront road through the Hoi Bun Road Extension, with limited population adjacent to this road. This route is consider optimal for the proposed location but has not been assessed in detail since it is beyond the scope of this study.

Individual Risk (IR)

9.8.2.3 For the current (2001) and future (2012)case, the maximum level of individual risk is less than the " Acceptable Limit of the HK Risk Guidelines for individual risk (1×10^{-5} per year).

9.8.2.4 The IR is less than 10^{-5} per year and so is considered acceptable.

F-N Results

9.8.2.5 The FN curves for all materials and the combined trade lie in the acceptable region of the HKRG. Therefore the societal risk is acceptable.

Potential Loss of Life

9.8.2.6 The PLL results show an increase from 8.1×10^{-7} for the existing location to 7.3×10^{-6} and 7.9×10^{-6} per year for the proposed location for the year 2001 and year 2012 cases respectively. Whilst this is roughly an order of magnitude increase in risk it is not significant since the level of societal risk is acceptable.

Risk Mitigation

9.8.2.7 Since the societal risk for the proposed DG ferry pier lies in the acceptable region of the HK RG and the individual risk does not exceed the acceptable limit, no mitigation is necessary and the proposed relocation should be permitted to proceed.

9.8.3 *Chlorine Unloading Point*

9.8.3.1 GSD is planning to relocate the chlorine unloading point outside the SEKD area permanently. If it can be confirmed with GSD that permanent relocation of the chlorine unloading point outside SEKD will take place prior to population intake of the SEKD, risk associated with the co-existence of the interim chlorine unloading point and the SEKD population will no longer exist. On the other hand, if in any circumstances there is a need for co-existence of the chlorine dock and the future SEKD population, a detailed QRA would be required and the results are very likely to be unfavourable.

9.8.4 *DG Godown*

9.8.4.1 In the current Outline Master Development Plan, the area where the DG Godown is located has been zoned to residential use. From the point of view that this is a Feasibility Study which deals with the feasibility of planned uses, the DG Godown will no longer exist within the SEKD.