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13 May 2002

Clerk to Panel
LegCo Panel on Environmental Affairs
Legislative Council
Legislative Council Building
8 Jackson Road
Central
Hong Kong

(Attn. : Mrs. Mary TANG)

Dear Mrs. Tang,

Re : Meeting on 10 April 2002
Decommissioning of Cheoy Lee Shipyard (CLS)
Environmental Impact Assessment (EIA)

I refer to paragraph 13 of the draft minutes of meeting and provide our written reply as requested. The matter was also briefly discussed at a subsequent EAP meeting on 19.4.02.

First of all the list of aerial photos that Mr Leverett referred to is apparently Table 12.4b in Page 12-5 of the Northshore Lantau Development Feasibility Study EIA report completed by Civil Engineering Department (CED) in February 2000. We have consulted the exact photos listed and while the photos might suggest stockpiling of materials it is not apparent that those photos could be regarded as “evidence” pertaining to waste burning.

Mr. Leverett seems to be saying in the second last paragraph of his letter that Government has ignored the aerial photos. The fact of the matter is that the EIA that contained those aerial photos did conclude (section 12.8.1) that :

/.....

> "*Contaminated land issues have not been identified as a major concern for the Study Area, with the exception of the Cheoy Lee Shipyard (CLS) site.*"

There is therefore no reason to believe that Government has ignored the aerial photos referred to in the EIA.

Mr. Leverett also suggested in the same paragraph that Government might not want LegCo to know how contaminated the land is. The truth is, as Mr Leverett has pointed out, the EIA (hence the conclusion stated above) is a public document accessible through EPD's EIA Ordinance Website. A summary of the EIA findings was even presented to the LegCo ES Panel by CED in an information paper in March 2000. In the attachment to that paper the potential contamination problem at Cheoy Lee Shipyard site was clearly stated under the Land Contamination section.

LegCo was also advised in the information paper that a separate EIA study will be completed prior to the decommissioning of CLS. One of main objectives of this EIA would be to determine the precise extent of the land contamination problem and recommend an appropriate remediation proposal.

It is also noted that the Director of Civil Engineering has explained at the LegCo EAP meeting on 19.4.02 and other occasions that they could not have fully anticipated the dioxin contamination as dioxin is not normally associated with shipyard operations.

Yours sincerely,

(Mike Stokoe)
Deputy Director of Environmental Protection

MJS/SH/rc

For information

Legislative Council Panel on Economic Services

Environmental Impact Assessment for the Development of Hong Kong Disneyland

Purpose

This paper briefs Members on progress of the Environmental Impact Assessment (EIA) studies in connection with the development of Hong Kong Disneyland (HKD).

EIA Studies

2. In accordance with the Environmental Impact Assessment Ordinance (EIAO), the Civil Engineering Department has completed the following EIA studies and submitted the reports to the Director of Environmental Protection (DEP) on 1 March 2000 -

(a) an EIA study under the Northshore Lantau Development Feasibility Study (NLDFS) which looked at, among other things, the cumulative environmental impacts of the proposed developments at north-east Lantau, including Penny's Bay, Tsing Chau Tsai East and Yam O, and the construction of the Chok Ko Wan Link Road; and

(b) an EIA study for the construction of an International Theme Park at Penny's Bay of North Lantau and its essential associated infrastructures, including reclamation, a water recreation centre, roads, a pedestrian walkway, a rail link, a public transport interchange, piers, stormwater drainage system, sewerage facilities, irrigation, water supply and utility services, slope formation and stabilization, screening and landscaping works.

3. Findings are set out in -

(a) Highlights of the two reports at Annexes I and II;

(b) Executive Summaries of the two reports at Annexes III and IV; and

(c) the full reports which have been deposited with the Secretariat.

Position To-date and Way Forward

4. On 11 March 2000, DEP decided that the two EIA reports had met the requirements of their respective Study Briefs and the Technical Memorandum of the EIAO. Following this, the reports have been made available for public inspection since 13 March 2000 for a period of 30 days. Members of the public can provide their comments to DEP within this period.

5. The two EIA reports are scheduled to be presented to the EIA Sub-Committee of the Advisory Council on the Environment (ACE) in early April 2000 and the ACE full Council in mid April 2000.

6. After receiving the comments of the public and the ACE, DEP will decide whether the EIA reports should be approved and Environmental Permits (EPs) should be issued. The reclamation contract for Penny's Bay will only be awarded after the EPs have been issued.

Civil Engineering Department
March 2000

Northshore Lantau Development Feasibility Study
Environmental Impact Assessment

1. Highlights

1.1 In 1998, the Civil Engineering Department (CED) of the Hong Kong Special Administrative Region Government commissioned the Northshore Lantau Development Feasibility Study (NLDFS). As part of the Study, an Environmental Impact Assessment (EIA) report was prepared.

1.2 The Project is an integrated planning and engineering feasibility study which consists of two development packages, the Northshore Lantau Development and the preliminary design of Chok Ko Wan Link Road (CKWLR). NLDFS itself is a Designated Project under Schedule 3 of the Environmental Impact Assessment Ordinance (EIAO) as an engineering feasibility study of urban development with a Study Area of more than 2600 ha. CKWLR is an expressway, hence is classified as a Schedule 2 Designated Project under the EIAO.

1.3 A Draft Recommended Outline Development Plan (RODP) has been prepared in January 2000. The predominantly recreational and tourism proposals are largely to be built on reclaimed lands to be formed between 2000 to 2028. A plan showing the proposed developments is attached. An International Theme Park has been proposed at Penny's Bay under the Draft RODP. The Theme Park and its associated developments have been assessed under a separate EIA for their Environmental Permits application.

1.4 The air and noise impacts assessment predicted no exceedance of the statutory criteria for cumulative air pollutant and noise levels during either construction or operational stages of NLDFS and CKWLR at any of the identified Sensitive Receivers (SRs), after the provision of the recommended mitigation measures.

1.5 The water quality and hydrodynamic assessment concluded that the NLDFS developments could cause changes in tidal current patterns but that these changes in combination with the discharge of sewage effluent and stormwater would not result in adverse impacts to water quality.

1.6 Reclamation for the NLDFS development and CKWLR require large amounts of fill materials and therefore offers a very good opportunity to utilise the public fill generated in the HKSAR. The intention to maximise the use of public filling material has thus been incorporated, to the greatest degree, into the engineering design of the reclamation. Operationally, with incorporation of recommended waste avoidance and recycling measures, it is considered that the solid waste arising from the Draft RODP developments will not cause insurmountable impacts.

1.7 The proposed developments associated with the NLDFS and CKWLR will generally lead to a loss of terrestrial habitats with low ecological value. Mitigation measures for the development are recommended to avoid or reduce the potential impacts on the secondary woodlands, backshore vegetation, natural streams, rare/restricted/protected plant species, Rice Fish and the White-bellied Sea Eagle. Loss of woodland and stream habitats would be compensated with woodland planting and stream recreation.

1.8 The cumulative impacts to benthic, subtidal and intertidal habitats and capture fisheries as a result of the NLDFS developments will be mitigated through the deployment of specially designed sloping seawalls which allow recolonisation, with Artificial Reefs (AR) recommended as an additional enhancement measure. Review of monitoring data shows the waters near the proposed NLDFS reclamation sites are not highly utilized by Chinese White Dolphins, though mitigation and monitoring have been recommended to prevent any construction and operation impacts on marine mammals. The Ma Wan Fish Culture Zone is also not predicted to be impacted by adverse water quality impacts as a result of either the Project construction or operation.

1.9 Based on the identified potential hazard sources and their distance from the proposed developments, and taking into account the additional population due to the developments, it is considered that the proposed developments do not contribute to any significant increase in overall risks from the hazard sources and are compatible with Hong Kong Risk Guidelines.

1.10 Following implementation of the recommended mitigation measures, the impacts to the cultural heritage resources are considered acceptable and in accordance with statutory criteria. Similarly, the residual landscape and visual impacts are acceptable after mitigation.

1.11 Cheoy Lee Shipyard (CLS) has been identified as the only industrial operation that has the potential to cause soil and groundwater contamination within the Project Area. A separate subsequent EIA Study will be completed prior to the decommissioning of the CLS to satisfy all the EIAO requirements. After the remedial measures prescribed by the CLS site Schedule 2 EIAO are conducted in accordance with appropriate protocols, there will be no potential residual negative impacts, and no insurmountable conditions for the future use of the former CLS site for the proposed developments.

1.12 An Environmental and Audit (EM&A) Manual has been prepared for the Project which contains detailed monitoring and audit arrangements for the construction of CKWLR. As it is envisaged that there may be multiple contracts underway in the area during the construction of CKWLR an Environmental Projects Office (ENPO) will be set up to integrate EM&A with the concurrent reclamation and construction works in the Penny's Bay area.

1.13 Overall, the EIA Final Report for NLDFS and CKWLR has concluded that the Projects will comply with all environmental standards and legislation after the proposed construction and operational stage mitigation measures are implemented and has thus demonstrated the acceptability of residual impacts. The EIA has also recommended statutory means to ensure the implementation of necessary mitigation during Project construction and operation. The EIA has concluded the acceptability of any post mitigation impacts from the Project and has made recommendations for the protection of the population and environmentally sensitive receivers. Comprehensive EM&A has been recommended to verify the accuracy of the EIA predictions and the effectiveness of recommended mitigation measures. The EIA has also concluded that the preferred CKWLR alignment and its associated reclamation at Tsing Chau Tsai East are considered to be environmentally acceptable.

Hong Kong Disneyland
Environmental Impact Assessment (EIA)

Introduction

The Theme Park EIA study is one of the most comprehensive and thorough ever completed in Hong Kong. The Report is over 1,500 pages, covering 16 separate sections, and 13 annexes.

2. The Project site has been analysed at length over the past seven years due to the Government's previous plans to develop container terminals in the area. Four separate container terminal EIA Reports on the project site, which were endorsed by the Environmental Pollution Advisory Committee (EPCOM) and its successor the Advisory Council on the Environment (ACE), confirmed that the land reclamation was possible with appropriate mitigation measures. Despite the previous EIA Reports, a new EIA Report for the Theme Park has been prepared because of the change of land use.

Project Description

3. The Project encompasses 290 hectares of land to be formed in and adjacent to Penny's Bay in the Northeast area of Lantau Island. On completion of the two phases of the Project, the development will include two theme parks, individually themed hotels and a retail, dining and entertainment complex. In addition to these primary land use areas, the Project includes a water recreation centre and other public service facilities.

4. As a part of the Project, infrastructure improvements to the water, sewer, electric, gas, and transportation networks will be constructed to ensure the Project has the necessary utilities. Through an integrated transportation network guests will be able to access the Project site via rail, ferry, bus, motor coach or private car. The majority of the guests to the Theme Park will utilise rail and bus. The North Lantau Highway and MTR Tung Chung Line and Penny's Bay Rail Link will help transport guests and employees to the site without substantial additional transportation investment.

Environmental Impacts

5. The EIA Report evaluates the Project's impacts on the environment as well as the cumulative impacts of the infrastructure and related projects that support the theme park. Where impacts were considered significant, feasible mitigation measures were recommended. The findings in the EIA Report are summarised below.

Air Quality

- The assessment of air quality concluded that during both construction and operation the standard would meet Hong Kong Air Quality Objectives.
- Specifically, emissions from firework shows and Project-related vehicular trips were not significant.

Noise

- Disney have designed a special mid-level fireworks display to meet Hong Kong's noise standards.
- There will be stringent noise monitoring during construction and operations to ensure that noise standards are met.

Water Quality

- The existing Sewage Treatment Works in Siu Ho Wan has the capacity to accommodate the Project's waste water, which will be properly treated at the facility before being discharged. (Additional capacity will be required later.)
- The water quality impact assessment demonstrated that, even under the worst case construction scenario, the predicted cumulative increases in suspended sediment concentrations would not cause adverse effects.
- The assessment also determined that the discharges from the operation of the Theme Park would have no adverse impacts on tidal current patterns or marine water quality.

Solid Waste

- The existing North Lantau Transfer Station will be able to accommodate the Project's solid waste.
- The Report recommends Hongkong International Theme Parks Limited (HKITP) implement a significant recycling programme as part of the Theme Park operations.

Terrestrial Ecology

- The potential disturbance to a pair of White-bellied Sea Eagles near the Theme Park area would be minimised through controlling construction practices and maximising the distance between the nesting site and the Theme Park. A buffer zone comprising an area of open water of about 10 hectares surrounding the woodland, where the White-bellied Sea Eagles were found, is also recommended.
- The behaviour of the sea eagles will be monitored once reclamation and construction commences.

Marine Ecology

- The waters near the proposed Theme Park are not highly utilised by Chinese White Dolphins but dolphins will be monitored during the land reclamation and project construction phases.
- Construction will be designed and implemented to minimise any potential impacts on dolphins.

Fisheries

- An artificial reef will be created to enhance the ecological and in-shore fisheries resources.
- Sloping seawalls will be designed which can be colonised by marine resources.

Hazards

- With the incorporation of the design and operating safety measures suggested in the Report, the risks due to dangerous goods (fireworks and sodium hypochlorite) storage, transport and use would be acceptable.

Cultural Heritage

- The construction works, including the temporary access road from Yam O to Penny's Bay, will be planned to an alignment to preserve any potential archaeological resources.

Landscape and Visual Impact

- The EIA indicates that there are no significant impacts from the Project in terms of landscape and visual impact, subject to suitable mitigation measures.
- There would be some losses of natural coastline and natural features. However, the creation of new landscape character based on a suburban, tourist and resort setting would enhance the attractiveness of the area.

Land Contamination

- Cheoy Lee Shipyard (CLS) has been identified as the only industrial operation that has the potential to cause soil and groundwater contamination within the Project area.
- A separate subsequent EIA Study will be completed prior to the decommissioning of the CLS to satisfy all the EIAO requirements.
- After the remedial measures prescribed by the CLS site Schedule 2 EIAO are conducted in accordance with appropriate protocols, there will be no potential residual negative impacts, and no insurmountable conditions for the future use of the former CLS site for the proposed developments.

Fill Material

- Reclamation for the Theme Park and its associated development will provide a prime opportunity to utilise the inert construction and demolition material (public fill) generated in the HKSAR. This will not only alleviate the demand for fill material but also reduce the pressure of disposing such materials at the strategic landfills.
- Both the Penny's Bay Stage II and Yam O reclamation will use over 50% public fill.

Conclusion

6. Overall, the Report concluded that, even under the worst case scenario, there would be full compliance with all relevant environmental standards/legislation after the proposed mitigation measures are implemented.

Table 12.4b - Aerial Photograph Review - Penny's Bay Area

Date	Photographs	Height	Key Issues
7 Nov 1998	A48861 / A48862 A48932 / A 48933 A48934	5,000 ft	No changes from 1997; current CLS and neighbouring CLP Penny's Bay Gas Turbine Plant (GTP) operations noted.
15 Aug 1997 10 Sept 1997	A45575 / A45576 A45577 A46039 / A46040	2,000 ft 4,000 ft	"Current" refuse pit noticeable in SE corner of property, with evidence of burning of waste.
24 Apr 1996 12 Oct 1996	A42362 / A42361 CN 14753 / CN14752	2,000 ft 5,000 ft	Former, smaller refuse pit #3 noted at SE corner of site in April 1996, near edge of seawall; Pit #3 no longer visible in October 1996, when "current" refuse pit excavated.
23 Jun 1993	A34904 / A34903	2,500 ft	CLP GTP is built. Small ditch or pit (#2) noted along SE seawall, apparently for refuse disposal.
12 May 1992	A31057 / A31058 (oblique photos)	6,000 ft	Above ground storage tanks (ASTs) installed at neighbouring CLP GTP as construction continues; some storage of construction materials in vacant SE portions of the CLS site.
24 Oct 1991	A28671 / A28672 A28673 / A28674	2,000 ft	Concrete batching activities at the lot on southeast corner of site. CLP Penny's Bay GTP site under construction; Evidence of possible refuse disposal or surface pile of burned refuse in SE portion of site.
6 Dec 1990	A24941 / A24942	4,000 ft	Construction in Progress at CLP Penny's Bay GTP. Adjacent portions of SE corner of CLS site used for quarry and sand/gravel batching plant. Additional expansion of hull and mould storage area in SE portion of site.
6 Dec 1985	A03956 / A03957	4,000 ft	First evidence of storage of ship hulls and moulds along SE portion of site. Neighbouring CLP site still vacant.
22 Nov 1984	57254 / 57255	6,000 ft	Most of SE portion of site area still vacant. Slipways built into seawall at CLS site.
7 Dec 1978	23958 / 23959	4,000 ft	All reclamation work appears completed, with increased number of CLS buildings and development of seawall. Quarry activity and piles of sand/gravel along SE portion; neighbouring CLP GTP site vacant and undeveloped. Evidence of refuse dumping at edge of reclamation on SE portion of site (in former stream drainage area).
13 Dec 1964	2614 / 2615	12,500 ft	Most of seawall and small reclamation at head of Penny's Bay completed; Increased number of warehouse buildings indicates CLS business operations underway.
25 Jan 1963	4663 / 4664	3,900 ft	Most of Penny's Bay area is not reclaimed; original shoreline exists, however, at least six CLS warehouse buildings noted at head of Bay on small reclaimed portion.
22 Jan 1962	F42/642-97 F42/642-96	N/A	Construction of seawall jetty at very head of Penny's Bay, with marine reclamation/filling underway. New warehouse building in place.
1954	V81A/RAF/553-72 V81A/RAF/553-73	N/A	No reclamation noted. Original Penny's Bay shoreline is present and appears untouched.
Note: No aerial photos available for 1995-94, 1989-85, 1983-80, 1975, 1970, 1969, 1968, 1967, 1964			

Extract from Northshore Lantau Development Feasibility Study
Environmental Impact Assessment Final Report - Volume 2, 2/00 (Page 12-17 & 12-18)

12.8 CONCLUSIONS

12.8.1 Contaminated land issues have not been identified as a major concern for the Study Area, with the exception of the Cheoy Lee Shipyard (CLS) site. However, the NLDFS EIA comprises Schedule 3 level coverage of the environmental impacts arising from shipyard decommissioning, although access to the shipyard site was not available as part of the Schedule 3 NLDFS EIA, due to its present operation and private ownership. A separate and subsequent EIA Study will be commissioned by CED before the decommissioning of the CLS. This subsequent decommissioning EIA, which, due to access requirements can only commence after the shipyard property has become available, will include detailed site investigation and formulation of appropriate remedial methods and procedures, if required, to decontaminate the shipyard site. CED presently expect this decommissioning EIA to be completed and submitted under the EIAO to DEP for approval in 2002. More importantly, this decommissioning EIA will need to be approved under the EIAO, and an Environmental Permit issued by the DEP before any construction work can commence in the shipyard area.

12.8.2 As a result of the CLS site Schedule 2 EIA described above, appropriate remediation will be performed in accordance with EPD guidelines for the decommissioning of the shipyard site, future potential negative impacts are not expected. The concerns for potential impacts of land contamination are reduced further as there have been no documented spillages or confirmed leakages from this shipyard site, or any other facilities within the Study Area according to Government sources. Where shipyard facility operations are noted to be a concern for causing potential contamination, it is noted that standard mitigation measures will be employed, thereby reducing the need for contact with any potentially contaminated soils during construction works. In order to provide quantitative information to the limited extent possible, a preliminary sampling programme was conducted along a stream bed discharging from the southeastern boundary of the CLS site. The results of five soil samples indicated that, whilst low concentrations of total petroleum hydrocarbons (as gasoline) and 11 heavy metal compounds were detected in some samples, the concentrations were not a major concern. Almost all of the detected metal compounds were noted to be below the respective Dutch "A" Value concentrations, which would imply clean, uncontaminated soil. Likewise, there was also no sign of elevated levels of contamination in the marine sediment samples taken from outside the seaward boundary of the shipyard. Therefore, assuming that remedial measures prescribed by the CLS site Schedule 2 EIA are conducted in accordance with appropriate protocols and the *Guidance Notes* (this will be verified in the CLS site Schedule 2 EIA), there will be no potential residual negative impacts, and no insurmountable conditions for the future use of the former CLS site for road and railway access to the Theme Park (Phases I and II) and associated developments.