香港工業總會
Federation of
Hong Kong Industries

20 November 2004

Dr Sarah Liao
Secretary for the Environment, Transport and Works
Government Secretariat
10/F., Citibank Tower
3 Garden Road
Central
Hong Kong

Dear Dr Liao,

Public Consultation on the Harbour Area Treatment Scheme Stage 2

In respect of the above consultation, the Federation of Hong Kong Industries would like to submit the following views and recommendations for your consideration.

Preamble

A clean and healthy Victoria Harbour is a valuable asset to Hong Kong and is something that the whole community should treasure and preserve. Based on the information given in the consultation document, water quality in the Victoria Harbour remains a cause for concern despite the fact that Stage 1 of the Harbour Area Treatment Scheme (HATS) has brought down pollution levels in the harbour area. It is particularly worrying that some 450,000 cubic metres of sewage generated daily on the northern and western sides of Hong Kong Island is being discharged into the harbour without treatment.

With a growing population in the harbour area, it is likely that the pollution loads and the resultant stress on Hong Kong's overall water quality will see a corresponding increase. In order to prevent the harbour water quality from deteriorating further, we agree that Hong Kong's wastewater treatment system needs to be expanded and upgraded to handle the increasing volume of trade and domestic effluent.

Further Improvement on HATS Stage 1

Nothwithstanding HATS Stage 1 has brought about some improvements to the water quality of Victoria Harbour, further works may help enhance its effectiveness.

They include the following items:

1. The biological activities that may take place within the tunnel as sewage flows through should be closely monitored.

2. The biological treatment (notably nitrification by which nitrogen compounds primarily ammonia compounds will be reduced) at Stonecutters Island Sewage Treatment Works should be adopted. Whether de-nitrification process is necessary should be carefully considered having regard to the cost implication.

Financial Implications of HATS Stage 2

As estimated by the Government, the annual running costs of HATS will increase by over four times from $0.32 billion to $1.48 billion when both Stages 2A and 2B come into full operation. At present, about half of the operating and maintenance costs of sewage treatment are borne by water users through the sewage charging and trade effluent surcharge schemes. We are concerned that if the current percentage of cost sharing continues to apply upon completion of Stages 2A and 2B, the hefty increases in sewage charges would become a heavy financial burden on many households and SMEs.

Since the consultation paper has failed to provide a full assessment of the financial implications for domestic and commercial users of HATS Stage 2, it is difficult, if not impossible, for the community to judge how far Hong Kong should pursue the proposals presently made by the Government. Insofar as affordability is a major issue in evaluating the feasibility and practicability of HATS Stage 2, it is imperative that the Government makes available to the public detailed information on the likely additional expenses, for example, the estimated additional charges to households and companies. With such information, the community will be able to understand the actual financial implications on them when considering the best way to deal with Hong Kong's sewage problem. In any case, the Government must strive to ensure that the whole HATS project is as cost-effective as possible and every dollar is well spent.

Site Options of HATS Stage 2

Of the four site options proposed in the consultation document, Option A is preferable to us. Since the major work of Option A primarily involves expanding and upgrading existing sewage treatment facilities at Stonecutters Island, the capital costs incurred should be lower than the other three options involving the construction of new treatment plants.

According to the Government's proposals, HATS Stage 2 will be implemented in two phases, with Stage 2B costing much more than Stage 2A. Although the building of Stage 2B might be desirable in the long run if harbour water quality is to be returned to a high standard, it would be financially more prudent to commence Stage 2A first and then to assess its effectiveness after a few years of operation before

determining the timing to proceed to Stage 2B. Delaying the commencement of Stage 2B would slow any increase in sewage charges, thus making it easier for households and companies to absorb the added costs. We also hope that by the time Stage 2A is completed and functioning, harbour water quality would have improved to such an extent that the necessity for urgent implementation of Stage 2B will be lessened.

Considerations Regarding the Proposed Deep Tunnels

Whether to further build the deep tunnels under HATS Stage II should be carefully considered. These tunnels may fail to relieve the sewage loading of the existing tunnels erected under Stage I since future population growth will mainly take place in the Stage I catchment areas. In addition, the tunnels network will be extended to the Central and Western parts of Hong Kong Island, largely reclaimed land and landslide zones. The risks posed to the high-rise buildings in these areas should be thoroughly assessed.

To cope with relatively small quantities of sewage in isolated areas, decentralized treatment plants are recommended. If these facilities are to be erected, construction of the deep and long tunnels may become unnecessary.

Consideration should also be given to adopt Deep Shaft Sewage Treatment Systems on the Hong Kong Island if decentralized sewage plants are used, some of the existing deep shafts may be converted as the Deep Shaft Treatment instead. The Deep Shaft Biological technology has been well proven in Canada, Japan, US and is being used in the Mainland for space saving.

Other suggestions

Treatment infrastructure alone is not enough to tackle all the ills of harbour pollution. Other environmental protection measures should be adopted as soon as possible to reduce pollution in our harbour and to ensure HATS meets its objectives. In this regard, we would like to suggest two viable measures:

1. The use of grey water (i.e. discharges from floor drains, washing machines, bathtubs, hand-wash basins but excluding kitchen dish-wash water) should be encouraged. With some basic treatment like ultra-filtration and some disinfection, grey water is suitable for toilet flushing and landscape irrigation, which are being adopted in the Mainland, US and many major cities around the world. The use of grey water instead of seawater for toilet flushing will result in low salinity in the foul sewage, relieving the workload of biological treatment work. Separate drain pipes for foul sewage and cleansing water will help reduce the risks of spreading pathogenic diseases through dry pipes. Net volumes of raw sewage reaching the sewage treatment works will be much reduced. In short, use of grey water will enhance effectiveness of water utilization and treatment of the foul sewage and will improve public health condition. Eliminating seawater flushing will also reduce a huge amount of hidden costs in repair and maintenance expenses which is borne by businesses and households due to corrosion and pipes and fittings from seawater.

2. Environmental awareness among the public is also a crucial factor in protecting the harbour from pollution. The Government should step up its promotional efforts to cultivate a sense of responsibility among local people and motivate them to care for the environment. More resources should also be allocated to educate younger generations about environmental protection and the need to keep the Victoria Harbour clean, so that this symbol and invaluable asset of Hong Kong will restore its fragrance.

Yours sincerely,

Kenneth Ting
Chairman