

**For discussion on
8 May 2007**

LegCo Panel on Food Safety and Environmental Hygiene

**Control of Environmental Nuisances Caused by the Operation of
Tsuen Wan Slaughterhouse**

PURPOSE

This paper briefs Panel Members on control measures taken to address environmental nuisances caused by the operation of the Tsuen Wan Slaughterhouse (TWSH) and the results of the architectural study on the feasibility of centralizing pig slaughtering in Hong Kong.

BACKGROUND

2. At the meeting on 28 October 2003, Panel Members were informed of the control measures taken over the past years in response to complaints lodged by local residents regarding the operation of TWSH. The Administration was asked to closely monitor the operation of TWSH and its noise and odour levels.

3. In November 2006 when LegCo Members met Tsuen Wan District Council (TWDC) members, the latter reflected the concerns of local residents over the effectiveness of the mosquito preventive measures in the TWSH for guarding against the transmission of Japanese encephalitis virus from infected live pigs to humans. TWDC members also requested the Administration to consider relocation of the TWSH in the long term so as to resolve the nuisance problems affecting the nearby residents.

NOISE AND ODOUR NUISANCES

4. To address the concerns of Panel Members, TWDC members and local residents, the Administration has over the past years monitored

closely the implementation of improvement measures by the TWSH management to minimize noise and odour. Staff of the Environmental Protection Department (EPD) carry out regular inspections to assess the noise and odour levels. According to the findings of the EPD, the odour and noise generated from the TWSH remain well within the statutory limits provided under the Air Pollution Control Ordinance (Cap. 311) and the Noise Control Ordinance (Cap. 400). Records show that, in the past 12 months, the Food and Environmental Hygiene Department (FEHD) and EPD received a total of 23 complaints (5 and 18 respectively for the two departments) against noise and odour nuisances generated from the operation of the TWSH in the past 12 months. This is a significant drop compared with the number of complaint cases received during the corresponding period in 2003 – 04 (85 in total).

CONTROL AND PREVENTION OF JAPANESE ENCEPHALITIS (JE)

5. Since 2004, the Administration has implemented comprehensive JE vector prevention and control measures.

6. FEHD conducts annual territory-wide anti-mosquito campaigns and large-scale thematic operations in addition to regular inspection and enforcement by pest control workers. As a standing preventive measure against the possible spread of JE in the community, FEHD staff conduct weekly anti-JE vector work in areas within a 100-metre radius of pig farms and slaughterhouses (including TWSH). Moreover, FEHD staff working in slaughterhouses closely monitor the situation to ensure that the slaughterhouse management takes positive steps to eliminate potential mosquito breeding grounds. So far, mosquito preventive measures taken by the TWSH management are considered effective.

FURTHER IMPROVEMENT MEASURES

7. FEHD has since early 2007 required the TWSH management to further upgrade slaughterhouse facilities and provisions in many aspects including noise and odour prevention, mosquito control and hygiene enhancement. A summary of the improvement measures are provided at **Annex** for reference. We will consider stipulating such requirements when the TWSH licence is due for annual renewal. In the meantime, the TWSH management has already taken steps to implement some of the

improvement measures recommended by FEHD.

FEASIBILITY OF CENTRALIZING PIG SLAUGHTERING AT THE SHEUNG SHUI SLAUGHTERHOUSE (SSSH)

8. In May 2006, the Architectural Services Department (Arch SD) engaged a consultant to examine the feasibility of modifying the SSSH and increase its slaughtering throughput of pigs to enable centralization of pig slaughter in SSSH alone¹. The study took into account the findings of a study commissioned by FEHD to forecast the slaughtering throughput of livestock in Hong Kong, the details of which were presented to Members at the Panel Meeting held on 29 June 2004. Arch SD's consultant (the consultant) completed the feasibility study in December 2006.

9. In the study, the consultant has reviewed the existing operations and facilities of pig slaughtering for making outlined proposals to address the issues including incoming livestock handling by trucks and train, lairage arrangement and capacity, slaughter including offal and by product processing, product dispatch, solid and liquid waste processing, environmental mitigations such as noise and odour, electrical and mechanical services and additional supporting facilities such as administration and amenities due to increase in pig slaughtering. Major findings of the consultancy study are summarized in the ensuing paragraphs.

10. The existing installations on slaughter lines, solid and liquid waste processing and electrical and mechanical services can accommodate an increase in the slaughtering throughput with minor modifications. However, the key concern is the necessity to increase the lairage capacity and to add supporting facilities to cope with the increase as there is no spare lairage capacity and supporting facilities in the existing SSSH. In the preliminary findings, the consultant concluded that it is not possible to build all the additional facilities within the existing boundary of the SSSH. It further proposed the following three options for consideration -

- (a) Conversion of the existing lairage to cater for additions, with construction of new supporting building outside the site boundary;
- (b) Addition of new lairage building within site boundary, with

¹ The study did not cover the slaughterhouse in Cheung Chau, which only handle about 20 live pigs per day.

construction of new supporting building outside the site boundary;
or

- (c) Addition of new lairage building and supporting building outside the site boundary.

11. During further detailed study, it is noted that option (a) and (b) above will pose serious technical difficulties in overcoming the entailed ventilation problem to the existing and the enlarged lairage areas and cause major disruption to daily operation (hence the normal supply of live pigs) during construction. Option (c) is technically only viable if additional land adjacent to the eastern side of the SSSH is acquired for the construction of the proposed supporting buildings.

WAY FORWARD

12. Taking into consideration the views of the consultant, it is apparent that the capacity of the existing SSSH site is not able to cater for the total daily pig slaughtering throughput if slaughtering is to be centralized at the SSSH, unless expansion work beyond the confines of the existing site boundary is done.

13. To further assess the feasibility of option (c), we need to proceed to the next stage of study and look into a number of other factors, such as the likely financial requirements arising from the closure of TWSH before its land lease expires in 2047, the construction costs of building an additional new lairage building and supporting building in SSSH and the strategic risk of using a single slaughterhouse to supply fresh pork, beef and mutton in Hong Kong, etc. We will report to the Panel after considering the above factors and put forward a policy proposal.

Health, Welfare and Food Bureau
Food and Environmental Hygiene Department
May 2007

MEASURES FOR IMPROVEMENT TO TWSH

(I)	Measures completed / implemented	
	(a)	To install suitable noise absorptive materials to existing wooden or metal blanking panels in the passage between the stunning area and waiting lairage.
	(b)	To install transparent acoustic curtain at the aperture between the waiting lairage and the stunning area.
	(c)	To add suitable noise absorptive materials to the sound barrier panels installed in the waiting lairage and to completely seal up any seams.
	(d)	To overhaul the scalding tanks of the 3 slaughter lines including replacement of motors, driving gears, rakes and dehairing drums.
	(e)	To effect pest-proofing measures to the storage area for animal feeds.
	(f)	To replace wall tiles in the passageway between the waiting lairage and the stunning area by stainless steel material.
	(g)	To appoint a pest control contractor to implement a comprehensive weekly inspection programme in the context of mosquito prevention and control. Remedial measures should be taken whenever irregularity is identified.
	(h)	To install high pressure water jets in enhancing the cleanliness of the meat dispatch area.
(II)	Measures to be implemented	
	(i)	To replace bumper guards in the meat dispatch area.
	(j)	To use odour neutralizing agent at the livestock unloading area, refuse collection area and areas surrounding sewage

		treatment plant.
	(k)	To use odour neutralizing agent along the site boundary of the TWSH facing Riviera Gardens when prevailing south or south-easterly wind is blowing from the Slaughterhouse towards Riviera Gardens.
(III)	Measures to be implemented after confirming with the consultant	
	(l)	To replace all manhole covers of sewage treatment plants by double-sealed covers.
	(m)	To use automatic dispensing facilities for releasing odour neutralizing agent spray to extracted air from lairage extraction fans at ground floor.
	(n)	To install mosquito traps inside the TWSH and in the compound outside the Slaughterhouse.
	(o)	To use suitable equipment such as bunging machine to remove faecal matters in rectum to minimise the risk of cross-contamination.
	(p)	To install automatic/semi-automatic machines for splitting the pig carcasses on the slaughter lines.