

Revised

立法會

Legislative Council

LC Paper No. CB(1) 1412/00-01
(These minutes have been seen
by the Administration)

Ref: CB1/PL/EA/1

LegCo Panel on Environmental Affairs

**Minutes of meeting held on
Monday, 19 March 2001, at 8:30 am
in Conference Room A of the Legislative Council Building**

Members present : Prof Hon NG Ching-fai (Chairman)
Hon Cyd HO Sau-lan (Deputy Chairman)
Ir Dr Hon Raymond HO Chung-tai, JP
Hon Martin LEE Chu-ming, SC, JP
Hon Bernard CHAN
Hon Mrs Miriam LAU Kin-yee, JP
Hon Emily LAU Wai-hing, JP
Hon CHOY So-yuk
Hon Abraham SHEK Lai-him, JP
Hon Henry WU King-cheong, BBS
Hon Tommy CHEUNG Yu-yan, JP
Hon Albert CHAN Wai-yip
Dr Hon LO Wing-lok
Hon Audrey EU Yuet-mee, SC, JP
Hon Michael MAK Kwok-fung
Hon WONG Yung-kan
Hon LAW Chi-kwong, JP

Member attending : Hon Andrew WONG Wang-fat, JP

Member absent : Hon LAU Ping-cheung

**Public officers
attending**

: For all agenda items

Environment and Food Bureau

Mr Kim SALKELD
Deputy Secretary

For agenda item IV

Environment and Food Bureau

Mr Donald TONG
Principal Assistant Secretary (B)1

Drainage Services Department

Mr W H KO
Assistant Director/Projects & Development

Mr W T YEUNG
Chief Engineer/Consultants Management

Mr S K WONG
Senior Engineer/Consultants Management

Environmental Protection Department

Mr C C TSANG
Senior Environmental Protection Officer/
Sewage Infrastructure Planning

For agenda item V

Environment and Food Bureau

Mr Donald TONG
Principal Assistant Secretary (B)1

Drainage Services Department

Mr C H LAM
Assistant Director/Sewage Services

Mr C K HON
Chief Engineer/Strategic Sewage Disposal Scheme

Mr K L TSANG
Senior Engineer/SSDS

For agenda item VI

Environment and Food Bureau

Ms Annie CHOI
Principal Assistant Secretary (B)2

Health and Welfare Bureau

Miss Angela LUK
Principal Assistant Secretary (Medical)

Environmental Protection Department

Mr Benny WONG
Assistant Director (Waste & Water)

Department of Health

Dr Cindy LAI
Acting Assistant Director (Special Health Services)

Mr K M CHENG
Senior Physicist i/c

For agenda item VII

Environment and Food Bureau

Mr Donald TONG
Principal Assistant Secretary (B)1

Drainage Services Department

Mr C H LAM
Assistant Director/Sewage Services

Environment Protection Department

Mr Rob LAW
Director

Mr Benny WONG
Assistant Director (Waste & Water)

Clerk in attendance : Miss Becky YU, Chief Assistant Secretary (1)1

Staff in attendance : Mrs Mary TANG, Senior Assistant Secretary (1)2

I Confirmation of minutes of meeting

(LC Paper No. CB(2) 1061/00-01 -- Minutes of meeting held on
1 December 2000

LC Paper No. CB(2) 1062/00-01 -- Minutes of meetings held on 1 and
5 December 2000)

The minutes of the meetings held on 1 and 5 December 2000 were confirmed.

II Information papers issued since last meeting

2. Members noted the following information papers which had been issued since the last meeting-

LC Paper No. CB(1) 596/00-01 -- Circular regarding a publication entitled
“A Swedish-Asia Forum on the Future of
Asia’s Urban Environment” provided by
the Swedish Consulate General;

LC Paper No. CB(1) 675/00-01 -- Circular on short course on Biological
Aerated Filters organized by the Civil
Engineering Department of The
University of Hong Kong; and

LC Paper No. CB(1) 727/00-01 -- Extracts from the Report of the Hong
Kong Special Administrative Region in
the light of the International Covenant on
Economic, Social and Cultural Rights

III Date of next meeting and items for discussion

(LC Paper No. CB(1) 801/00-01(01) -- List of follow-up actions arising
from discussion

LC Paper No. CB(1) 801/00-01(02) -- List of issues to be considered)

3. Members agreed to discuss the following items at the next meeting of the Panel

Action

- 5 -

scheduled for Tuesday, 3 April 2001, at 2:30 pm -

- (a) Trade Effluent Surcharge;
- (b) Report of the HKSAR in the light of the International Covenant on Economic, Social and Cultural Rights (ICESCR);
- (c) Appointment of members of the Advisory Council on the Environment; and
- (d) Change of ownership of waste management companies.

(Post-meeting note: As there was insufficient time to discuss the agenda item on “Way forward for sewage treatment for the harbour area” at the meeting, members agreed to include the subject in the agenda for the meeting on 3 April 2001 and to defer discussion on (c) and (d) to the meeting in May 2001.)

4. Regarding (b), members requested the Administration to update and re-package the ICESCR Report so that it would reflect the latest development in Hong Kong in respect of its progress and achievements made in relation to the protection of the environment before it was submitted for discussion by the United Nations Committee on Economic, Social and Cultural Rights on 27 and 30 April 2001.

5. Referring to the list of issues to be considered (LC Paper No. CB(1) 801/00-01(02)), members agreed that the subject on “Problem of emission of oil fumes from restaurants in composite commercial/residential buildings” be referred to the Panel on Food Safety and Environmental Hygiene while the subject on “Landscaping/Greening policy” be referred to the Planning, Lands and Works Panel.

IV 125DS - Tolo Harbour sewerage of unsewered areas, stage 1, phases 1D and 2B

(LC Paper No. CB(1) 801/00-01(03))

6. With the use of a computer power point, the Senior Engineer/Consultants Management, Drainage Services Department gave a presentation on the Administration’s proposal to upgrade part of the Public Works Project Item 125 DS, Tolo Harbour sewerage of unsewered areas, stage 1, phase 1D and 2B to Category A. The estimated cost for implementing sewerage works in unsewered areas in the Tolo Harbour catchment was \$170 million in money-of-the-day (MOD) prices.

7. While acknowledging that the proposed works had the support of the then Tai Po and Shatin Provisional District Boards, Mr WONG Yung-kan enquired about the improvements to the quality of effluent as a result of the proposed works and the impact of discharging the effluent on the water quality of the Tolo Harbour. The Chief Engineer/Consultants Management, Drainage Services Department (CE/CM) explained that the project aimed at constructing public sewers and pumping stations to convey sewage flows from the unsewered areas into the existing reticulation systems in

Sha Tin and Tai Po. There would not be much impact on the water quality of the Victoria Harbour since the pollutants from these sewage flows would be removed through secondary treatment before their discharge into the harbour through the Kai Tak Nullah.

8. Ms Cyd HO was concerned that some affected villagers might not be aware of the proposed works. She enquired about the means of consultation as she considered the publication of gazette or posting of notices an ineffective means of notification. CE/CM said that prior to the implementation of the project, the Administration, together with the design consultant, would visit the villagers including the village representatives to explain to them about the project and consult their views on the alignment of the sewers and connections. When a consensus had been reached, the Administration would consult the District Councils and other affected parties. After obtaining their support, the Administration would then proceed to gazette the plans. Copies of gazette notices would be placed in conspicuous places within the villages concerned. Measures would be taken to address any objections raised and the agreed option would be put forward for funding application.

9. While indicating support for the proposed works, Miss Emily LAU expressed concern about the long duration of the project which was expected to complete in 2009. In reply, CE/CM emphasized the need to consult the affected residents. Since the project was first gazetted in February 1999, numerous objections had been received. It was not until late 2000 had consensus been reached on the implementation of the project. While agreeing on the need for consultation, Miss LAU remained of the view that the design and consultation period of almost two years was too long. CE/CM explained the difficulties in arranging meetings with the affected villagers and their frequent change of requirements. For example, in addressing one of the objections, a total of three options had been worked out before a final scheme was agreed. Miss LAU considered that the Administration should strike a balance on all views received during consultation, and that it should adhere to the work schedule and make timely decisions to avoid delay to the well-intended project which aimed to improve the quality of the surrounding waters. CE/CM advised that as the proposed works involved excavation in many narrow alleys in the village areas, consensus had to be reached with the affected villagers to avoid confrontation at the commencement of works.

10. Expressing similar concern over the long process for consultation, Mr WONG Yung-kan said that the Administration should have planned for the sewerage network before approving the building of village houses. Instead of making expedient connections to specific sites on a piecemeal basis, consideration should be given to drawing up a comprehensive plan for the overall sewerage network. CE/CM affirmed that the village sewerage network had made allowance for the sewerage needs of future village houses.

11. Miss Emily LAU enquired about the population which would be served by the proposed sewerage system and the measures to abate the odour and noise problems arising from the works. CE/CM advised that the estimated population served by each

phase of the sewerage works was set out at Annex A to the information paper. In fact, a large percentage of the population in unsewered areas had already been covered under stage 1 of the project. The odour and noise from the sewerage works would not be a problem with the provision of underground pumping stations and the corresponding mitigation measures.

12. Ms Cyd HO asked if similar sewerage improvement works would be extended to other rural districts such as the unsewered areas in Sai Kung and Sai Sha. Sharing the same concern, Mr WONG Yung-kan also pointed out that some densely populated areas such as Nai Chung and Sam Pui Chau in the Tai Po district had not been included in the catchment area. He urged the Administration to include these areas in the sewerage network. The Senior Environmental Protection Officer/Sewage Infrastructure Planning (SEPO) advised that the Administration planned to provide sewerage facilities in over 200 villages in the rural districts after the completion of the trunk sewers. At present, some of the works had been completed in certain parts of the unsewered areas in Sai Kung. CE/CM added that consideration would be given to including unsewered areas in stage 2 project.

13. Responding further to Ms HO about the sewage discharge in the unsewered areas in Sai Sha and Nai Chung, SEPO said that there were at present no trunk sewers in these areas. The question of whether the catchment could be extended to these areas would depend on the topography of the area. Ms HO expressed concern that the proposed works would not be able to bring about an overall improvement in the surrounding waters since some unsewered areas would continue to discharge untreated sewage directly to the Tolo Harbour. Referring to Annex B to the information paper, SEPO said that the catchment would extend as far as Lok Wo Sha subject to a further review of the stage 2 project.

14. Referring to the updated cost estimate and implementation plan at Annex A to the information paper, Mr Henry WU questioned the need for setting aside \$40 million for the design consultancy for stage 2 of the project when the said fees for phases 1 and 2 of stage 1 were only \$12.5 and \$11.6 million respectively. He opined that in the light of experience from stage 1, one would expect that the fees for stage 2 should be less. CE/CM said that the expenditure for stage 2 works was only a rough estimate. Pending the outcome of the Review of the North District and Tolo Harbour Sewerage Master Plans (the Review) which would take into account the latest development within the catchment and the experience gained in stage 1 works, the Administration would update the scope and the catchment programme of stage 2 works. Notwithstanding, as stage 2 project would mainly involve works in more remote areas where longer lengths of trunk sewers to individual unsewered areas than that of stage 1 works were expected, a higher cost would be required for stage 2 works. The Chairman remarked that the cost could be reduced if the information gathered and the materials used for stage 1 could be re-applied to stage 2. Mr WU considered that the Administration should re-calculate the expenditure for stage 2 project before the relevant proposal was submitted to the Finance Committee for approval.

15. As regards the timetable for implementation of stage 2 project, SEPO said

that upon the completion of the Review by end 2001, the Administration would be able to provide a more definite timetable for the stage 2 project. At members' request, the Administration undertook to make available its plans for providing sewage services to unsewered areas in the Tolo Harbour Catchment as well as the time-table for stage 2 of 125DS and the location of the unsewered areas under stage 2 project upon completion of the Review.

(Post meeting note: The required information was circulated to members vide LC Paper No CB(1)1006/00-01.)

V Increase in approved project estimate for “301DS - East Kowloon Sewerage, Stage 2”

(LC Paper No. CB(1) 801/00-01(04))

16. The Senior Engineer/Strategic Sewage Disposal Scheme gave a power-point presentation on the Administration's proposal to increase the approved project estimate (APE) for “301DS - East Kowloon Sewerage, Stage 2” from \$162.5 million by \$63 million to \$225.5 million in MOD prices.

Performance of the first contractor and actions taken by Government against the contractor

17. Miss CHOY So-yuk queried why, despite the persistently poor performance of the first contractor, the Administration had failed to take action, thereby allowing the situation to drag on until November 1998 when the contractor went into voluntary liquidation. In response, the Chief Engineer/Strategic Sewage Disposal Scheme (CE/SSDS) explained as follows -

- (a) The inadequate deployment of resources on site by the contractor had led to the deterioration of performance of the contractor since the end of 1996. The Drainage Services Department (DSD) had taken all possible contractual and administrative measures to urge the contractor to improve his performance and to mitigate delays. The contractor did improve his performance from time to time but was not able to maintain consistency.
- (b) In early 1998, there were signs that the contractor was suffering from cashflow and financial difficulties which apparently were not being resolved. DSD did consider taking re-entry action and a warning letter to that effect was issued in March 1998. On that occasion, the contractor had successfully brought in a major investor to inject funds and it appeared that the new financial support was able to revive the company and effect substantial improvement in progress.
- (c) The contractor's performance was assessed regularly in every

reporting period. The Consulting Engineer and DSD had issued warning letters, including adverse reports and interviewed the contractor on several occasions. The contractor responded by improving his performance every time actions were taken by DSD. However, the contractor could not sustain the momentum of improvements and performance would again deteriorate shortly afterwards. DSD maintained pressure on the contractor for improvements until the end of 1998 when the contractor finally went into voluntary liquidation. As a result, the Government had to re-enter the sites on 11 December 1998.

- (d) Although the overall progress of the contract had been unsatisfactory, the contractor had been able to complete 9.5 kilometres of sewers and rectified 130 expedient connections prior to liquidation.

18. Miss Emily LAU sought explanation on the reasons for awarding 301DS to the forfeited contractor in the first place and whether the contractor was able to meet the financial requirements. CE/SSDS explained that there were established guidelines for tendering of contracts. The first contractor was accredited in the Approved List of Contractors and was able to meet the financial requirements when he submitted his tender application in early 1996. The contractor suffered from cashflow and financial difficulties in 1997-98. In April 1998, the contractor was suspended from tendering for further public works on financial grounds in order for the contractor to concentrate on existing contracts with the Government.

Policy on re-entry of sites

19. Ms Audrey EU said that in monitoring contract performance, programmed achievements should be set so that action could be taken to forfeit the contract and re-enter the sites if the contractor could not be able to adhere to the schedule of works. She considered it necessary that the Works Bureau should include such terms in its contracts so as to protect the interest of the Government in the event that contractors failed to deliver the works on time.

20. CE/SSDS confirmed that such conditions had already been provided in the contract. He however pointed out that as a general policy, the Government would only forfeit a contract as a last resort if there was no other better alternative. This was because Government would incur substantial additional costs after expulsion of contractor and re-entry of sites. The poor performance of contractors would not by itself warrant a re-entry action which would only be taken when there was a clear sign that the contractor was unable or unwilling to fulfil his obligations under the contract. A long period of delay would be expected for re-tendering the remaining works and mobilizing a new completion contract to re-commence the works. In the case of 301DS, the progress of works had not been satisfactory and a series of contractual and administrative measures had been taken to urge the contractor to improve his performance. The contractor had attributed the slow progress partly to inclement

weather and unforeseen obstructions encountered during excavation and requested for extensions of time. As drastic contractual action of forfeiting the contract and re-entering the site might result in legal actions on the part of the contractor, resulting in lengthy litigation and exorbitant claims, the Administration decided that it was more preferable to urge the contractor to complete the contract and seek liquidated damages for any delays caused by the contractor. The Assistant Director/Sewage Services (AD/SS) supplemented that although the overall progress of the contract had been unsatisfactory, he was able to achieve at least 50% of the programmed works during most of the reporting periods. The slow progress itself would not justify the re-entry of sites in view of the works being done. The subsequent re-entry action was taken upon the voluntary liquidation of the contractor in 1998.

21. Ir Dr Raymond HO enquired about the average percentage increase in contract cost for re-tendering of 301DS. CE/SSDS advised that the remaining works upon forfeiture were included in a completion contract which was re-tendered and awarded in June 1999. The awarded contract sum was \$99.8 million but the part of the works funded by 301DS was estimated to cost \$86.5 million. The increase in expenses included the cost of emergency works arising from the re-entry of sites and consultants' fees. Ir Dr HO held the view that the Administration should review the terms of current contracts relating to conditions of re-entry. Consideration should be given to adopting milestone payments and specifying the number of adverse reports to be issued before re-entry of sites would be contemplated. He added that in re-tendering completion contracts, the Administration should clearly state in the new contracts that the inheritance of used machines from the forfeited contractors should not be in any way an excuse for delay in the completion of contracts or for subsequent claims. The contractors should be well aware of the performance of used machines before the award of contracts. CE/SSDS said that while milestone payments were commonly adopted in some building contracts, there might be technical difficulties in setting milestones for drainage projects having regard to the nature of works. DSD would nevertheless take the proposal into consideration. He also undertook to relay the suggestion on review of the conditions of re-entry to the Works Bureau.

Measures to prevent similar recurrence

22. Noting that quite a number of drainage works contracts had been forfeited in the past, Ms Cyd HO considered it necessary for the Administration to review the situation. AD/SS said that the policy on the award of contracts had been regularly reviewed by the Works Bureau. DSD handled about 90 drainage works contracts each year. During the period from 1996 to 2001, about nine contracts had been forfeited. At members' request, the Administration undertook to provide a table listing out the contracts which were forfeited by DSD in the past three years and the time and cost squandered as a result.

23. Mr WONG Yung-kan remarked that the Administration should also review the financial requirements for contractors in the tendering process. Moreover, as the problems with the contractor had surfaced at an early stage, the Consulting Engineer and his resident site staff should be well aware of the situation. They should be held

responsible for the non-performance of the contractor and thus should not be allowed to take part in the completion contract. AD/SS clarified that the problem with the first contractor rested with his cashflow and financial difficulties which had led to insufficient resources being deployed by the contractor, resulting in poor work progress. The role of the Consulting Engineer and his resident site staff was to supervise the delivery of works and they had discharged their duty in taking contractual and administrative measures to urge the contractor to perform. Since the Consulting Engineer was familiar with the project, it would be more effective to continue to employ his service under the new completion contract. At present, good progress had been made with the new completion contract which was expected to complete by the end of 2001. Mr Martin LEE held the view that the design and supervision of the project should not be carried out by the same entity. Miss Emily LAU requested the Administration to include in the information paper referred to in the preceding paragraph the reason why approval had not been sought for the funding for the completion contract.

(Post meeting note: The information requested by members was provided by the Administration and was circulated to members under LC Paper No. CB(1)966/00-01).

24. Mr WONG Yung-kan and Mr Albert CHAN considered that measures should be in place to prevent recurrence of 301DS and to ensure the satisfactory completion of projects. To protect the interest of Government, actions to re-enter the sites should be taken in the event of non-performance of contractors. CE/SSDS reiterated that the problem with 301DS was mainly related to work progress and not quality, and that the contractor did manage to achieve progress at some stages. Therefore, re-entry of sites was not considered appropriate then.

Financial position

25. Miss Emily LAU enquired about the financial position and cost breakdown of 301DS. CE/SSDS explained as follows-

- (a) 301DS was originally funded under the Sewage Services Trading Fund (SSTF) at an estimated cost of \$262.0 million. SSTF was wound up on 31 March 1998 before the project was completed. A total of \$107.7 million was spent under SSTF before its closure. The Finance Committee approved the creation and direct inclusion of the project on 27 February 1998 for completing the remaining works upon closure of SSTF. The approved project estimate (APE) for 301DS at the time was \$162.5 million.
- (b) The contract sum of the first contract was \$144.5 million. The first contractor went into liquidation on 27 November 1998. Based on the Consulting Engineer's latest estimate, the total cost of works completed under the forfeited contract was about \$108.1 million. \$103.2 million had so far been paid to the contractor and

further payment was withheld in Government's deposit account to set-off the debt incurred in relation to the forfeiture of the contract. Legal advice indicated that, given the liquidation of the contractor, it was extremely unlikely that there would be any monies available from the contractor to satisfy Government's claims for the additional costs arising from the forfeiture of contracts.

- (c) The awarded contract sum of the completion contract was \$99.8 million.
- (d) An increase in APE for the project by \$63.0 million to \$225.5 million in MOD prices was necessary to provide the necessary funding for completing the project.

Admin To facilitate members' understanding, CE/SSDS agreed to provide a detailed account of the financial position of 301DS before and after the award of the completion contract.

Delays due to inclement weather

26. Referring to paragraph 6 of the paper, Ms Audrey EU queried whether the delay of 28 months due to poor performance and liquidation of the first contractor and a further delay of 5 months due to inclement weather should be calculated on a cumulative basis. CE/SSDS clarified that the 5-month delay due to inclement weather was independent from the 28-month delay as the contractor was allowed to apply for extension in time for delays due to inclement weather according to the terms of contract. In response to Ir Dr Raymond HO and Mr Henry WU, CE/SSDS confirmed that the rainfall in 1996-97 was excessive which had affected the progress of works.

27. Mr Tommy CHEUNG noted with concern that Government was held responsible for the additional costs arising from delays caused by inclement weather. He considered it necessary to review the terms of contract in the light of past experience so that delays arising from inclement weather conditions could be included as part of the contract period. CE/SSDS advised that under the terms of contract, contractors were not allowed to claim against delays due to inclement weather. However, as provisions had been made for extension of time for inclement weather, the Government would have to pay for the additional cost for resident site staff during the extended period. As regards payment for contractors, CE/SSDS said that since they were paid in accordance with the delivery of works, payment would be effected if the works were not delivered on time. Noting that the resident site staff was provided by the Consulting Engineer, Mr WU considered that the relevant staff costs should be included as part of the consultancy fees, the details of which should be subject to closer scrutiny in future.

Nightworks

28. Responding to Mr Henry WU on the percentage of nightworks completed by

the forfeited contractor, CE/SSDS said that of the 2.5 kilometres of sewers to be completed as nightworks in the original contract, the forfeited contractor had completed 1.3 kilometres. The implementation of nightworks was more time consuming as consultation with the affected parties was required. Mr WU emphasized the need for closer supervision on progress of works in future as it was evident that the first contractor had not been proceeding on schedule, in particular on the nightworks.

Sewage charging and the Sewage Services Trading Fund

29. Mr Tommy CHEUNG sought elaboration on the use of sewage charges under SSTF. He held the view that construction costs for sewerage infrastructure projects should not be borne by SSTF. AD/SS said that before the closure of SSTF in 1998, implementation of capital works was financed by SSTF was funds injected from the Capital Investment Fund. The capital works account was kept separate from the operating and maintenance account for the provision of sewage services under SSTF. At members' request, the Administration undertook to provide information on the use of sewage charges under SSTF.

Admin

(Post meeting note: The required information was circulated to members vide LC Paper No CB(1) 966/00-01).

VI Removal of low-level radioactive waste

- (LC Paper No. CB(1) 801/00-01(05) -- Expert views from Professor Jonathan SHAM, The University of Hong Kong
- LC Paper No. CB(1) 801/00-01(06) -- Expert views from Mr C L CHAN, Chairman of Hong Kong Association of Medical Physics
- LC Paper No. CB(1) 801/00-01(07) -- Expert views from Dr Sherry NG, Chairman of Hong Kong Radiation Protection Society
- LC Paper No. CB(1) 801/00-01(08) -- Information paper provided by the Administration)

Background

30. Mr Martin LEE considered that it was the responsibility of the Government to ensure proper storage of radioactive wastes. He recalled that the proposal of constructing a purpose-built storage facility at Siu A Chau had the in-principle support from members. The tender for the facility was put up in 1995 but it was subsequently cancelled after failing to reach an agreement with the tenderer on tender price in 1997. Since then, not much progress had been made except for the recent negotiation with the Mainland authorities on the technical feasibility of storing the wastes in a purpose-built facility in the Mainland. He expressed concern about the impact of the storage of radioactive waste in the air-raid shelter at Queen's Road East in Wan Chai on the health of students of the Wah Yan College (WYC) and queried why no positive action had been taken since 1997.

31. The Principal Assistant Secretary for the Environment and Food, (B) 2 (PAS/EFB (B)2) assured members that the low-level radioactive wastes stored in the air-raid shelter at Queen's Road East in Wan Chai would not pose health or safety hazards to people nearby. She added that since the cancellation of the tender exercise for the purpose-built storage facility at Siu A Chau in 1997, there had been a substantial decrease in the volume of low-level radioactive wastes produced because a

major manufacturer had stopped its production line in Hong Kong. Notwithstanding, it remained the Government's intention to relocate these wastes to a purpose-built storage facility in the long run. In 1998, the Administration put forward the proposal of storing the radioactive wastes in purpose-built facilities in the Mainland. It was in late 1999 that the Mainland was able to nominate the responsible authorities to co-ordinate the matter. Two meetings with the relevant authorities on the technical feasibility of storing the radioactive wastes in purpose-built facilities in the Mainland were held in 2000. It was hoped that with more information collected within this year, the Administration could consider this option together with the Siu A Chau option before making a decision.

32. Miss CHOY So-yuk expressed grave dissatisfaction at the delay in resolving the problem arising from storage of low-level radioactive wastes. She did not accept the Administration's assertion that the radioactive wastes posed no safety hazard and demanded that a target date be set for the removal of these wastes from its existing storage in Wan Chai. She said that if these wastes could not be removed by the target date, consideration should be given to storing them in the Central Government Offices. Referring to the letter from Professor SHAM of the University of Hong Kong (CB(1) 801/00-01(05)), the Deputy Secretary for the Environment and Food (DSEF) noted that despite the wastes were packaged in a way which posed no safety threat, there were psychological concerns on the effects of radiation. He agreed that it would be best to relocate the wastes to places away from human habitation. In fact, the Administration had gone to great lengths in the 1990s in finding a place which was away from human habitation and unlikely to be so occupied in the future. Although a site had been identified, the cost of building a purpose-built storage facility was very high. This warranted the need to look for other alternatives, particularly when the amount of radioactive wastes had been decreasing due to a reduction in industrial activity. After the handover in 1997, the Administration had been discussing with the Mainland authorities on the feasibility of storing the radioactive wastes in purpose-built facilities in the Mainland. The timetable for the removal of wastes from Wan Chai would depend on whether the Mainland authorities were prepared to accept the wastes. If so, the removal could be effected quickly as facilities for storage were readily available in the Mainland. It would however take about two and a half years if Hong Kong were to build its own storage facility.

33. The Senior Physicist i/c(SP) added that in storing the radioactive wastes, care had been taken to ensure that there would be no adverse impact on those working in the storage facility nor on the surrounding environment. The air-raid shelter provided an extremely effective shielding of radiation from the wastes. On the basis of an inverse square reduction by distance and that every 30 millimetres of rock could reduce the intensity of even the highest energy gamma rays emitted from the wastes to one-tenth of its initial intensity, the air-raid shelter in Wan Chai with a minimum rock-wall thickness of 20 metres should be able to reduce the intensity of gamma rays by 10^{75} times. The residual emission was practically close to zero. The storage of radioactive wastes at the present location would pose no health impact on those working in the facility nor on the surrounding environment.

34. Ir Dr Raymond HO however pointed out that there remained the concern on exposure as the radiation intensity was only close to but not actually zero. He added that the public had legitimate concerns about radiation, particularly when its effects were not entirely known. Expressing similar views, Mr Henry WU said that while there had been sufficient shielding within the air-raid shelter to prevent radiation leaking to the surrounding environment, efforts should be made to step up security control to guard against unauthorized entry to the store. In the long run, a system should be installed to monitor the level of radiation within the store 24 hours a day so that those who were required to enter the store would have sufficient warning about their extent of exposure to radiation. SP said that the wastes in the air-raid shelter had very low radiation and were stored in new standard stainless steel containers lined with resin. Although the radiation level inside the store was higher than the outside, it was still too low to have effect on the health of the operators of the store. As regards security control, SP said that since the last time the store was broken in, the Department of Health (DH) had strengthened the security by replacing the original single mild steel shackle and bolt with two separate sets of enlarged welded mild steel shackles each guarded by a stainless steel hasp and locked up with a stainless steel padlock. Additional security installations would be put in place on the advice of the Police to prevent trespassing.

Disposal of radioactive wastes

35. Given the lack of a permanent facility for storage of radioactive wastes, Dr LO Wing-lok expressed concern that the Administration would have no choice but to store all the wastes in the air-raid shelter in Wan Chai during the interim. PAS/EFB(B)2 clarified that no additional radioactive waste had been placed in the air-raid shelter since 1990 nor would there be any increase in the amount of wastes to be stored in future. Consequent upon the implementation of the Radiation Ordinance (Cap. 303), there were established guidelines governing the disposal of radioactive wastes. SP added that there were few industries in Hong Kong which generated radioactive wastes. Besides, users of sealed radioactive sources would have to return the sources to the manufacturers concerned when these were no longer in use. As for unsealed radioactive substances used in the medical sector, they were mostly of very short half-lives and would lose their radioactivity within a short time frame, after which they could be disposed of as normal wastes. The average annual volume of radioactive wastes generated in Hong Kong was about 0.26 cubic metres. As to how the 0.26 cubic metres of radioactive wastes were disposed of, SP advised that some of these wastes would be returned to the manufacturers and others being used in medicine, education and research. Licensed users were required to file returns on the details of radioactive substances in their possession. If there were problems in locating the manufacturers, the Administration would try to assist in the disposal of the wastes.

36. Ms Cyd HO enquired about the number of licensed users of radioactive substances. SP advised that the Radiation Board had granted 520 licences for the manufacture, sale, possession or use of radioactive substances or irradiating apparatus. The main users of radioactive substances were hospitals, tertiary institutions and manufacturing companies. As to whether the polluter-pays principle would apply in

the disposal of radioactive waste, AD(SHS) said that under the Radiation (Control of Radioactive Substances) Regulation, the proprietor of the undertaking concerned was required to cause all radioactive wastes to be removed from the workplace and to be disposed of in accordance with the provisions of the Regulation.

37. In response to Miss Emily LAU's enquiry about the international practice on the disposal of radioactive wastes and the propriety to export these waste for disposal, PAS/EFB(B)2 said that there was as no international covenant on the disposal of radioactive wastes. The Administration had explored the possibility of sending the wastes to other countries with storage facilities but none of the 22 countries contacted agreed to accept the wastes from Hong Kong. Noting that the Mainland also had storage facilities for radioactive wastes, discussion between the two sides on the technical feasibility of sending the wastes to the Mainland was underway. As the Deputy Chairman of the Guangdong Daya Bay Nuclear Plant Safety Consultative Committee, Ir Dr Raymond HO said that he was aware that there was sufficient expertise in the Mainland to handle radioactive wastes. He asked whether the Mainland was approached only after the 22 countries had rejected the proposal and whether such a proposal was made before 1997. PAS/EFB(B)2 confirmed that the 22 countries were contacted in 1997 while the Mainland was approached in 1998.

38. Mr Albert CHAN expressed concern that the effects of radiation had often been under-estimated. The radioactive wastes would not have been rejected by all the 22 countries if they were harmless. He stressed that he could not tolerate the storage of these wastes in the centre of the city, and that such wastes should be removed as soon as possible. He cautioned that the Government would be culpable for the serious consequences if the radioactive wastes were later found to have detrimental effects on health.

Health concerns

39. Ms Cyd HO expressed concern about the impact of radiation on the health of users of radioactive substances. SP responded that the public should not be overly alarmed about the effects of radiation. Those who had to be exposed to radiation in their course of work were required to be equipped with personal radiation monitoring devices to measure the dosage of radiation which they were exposed to. The average annual occupational exposure was about 0.14 millisievert (mSv), which was roughly equivalent to the radiation exposure from the taking of two simple chest X-ray examinations or a few long distance flights. This was not at all significant as compared to an average annual exposure of 2 to 3 mSv to the natural background radiation and the statutory annual occupational exposure limit of 20 mSv. While acknowledging that those who were exposed to radiation in their work were aware of the need for protection, Ms HO pointed out that the general public might not have such an awareness, particularly when they were inadvertently exposed to radiation. She considered it necessary to enhance the transparency in dealing with radioactive wastes. SP said that all licensed users of radioactive substances were required to display their licences, put up warning notices on radiation outside their workplaces and restrict entry by the general public. As to how those working in the same building of licensed users

of radioactive wastes would be protected against radiation, AD(SHS) said that guidelines on responsibilities of licensees, requirements for protection of workers and public, storage of radioactive substances and disposal of wastes were given in the conditions of licence. This should provide adequate protection for those working in the vicinity.

40. Miss Emily LAU was not convinced of the Administration's response. She pointed out that the occurrence of blood cancer among students of WYC had aroused public concern over the correlation between the storage of wastes and the disease. The Acting Assistant Director (Special Health Services) (AD(SHS)) said that according to the information provided by the Principal of WYC, there were five students who had cancer. Two of the students contracted the disease before joining WYC while the remaining three had the disease after they joined WYC. In the light of the recent concern, DH had installed additional monitoring devices at WYC to measure the radiation level which was found to be the same as the background radiation level. It was concluded that the radioactive wastes at the store could not have contributed to an increase in radiation nor to the occurrence of cancer. At a meeting with parents of WYC students in mid February 2001, DH had called on the parents of those students who had contracted the disease to provide more information on the situation of their children. So far, the parents concerned had not been in touch with the Department. Notwithstanding, DH would continue to provide the monitoring results of the radiation level of the surrounding environment to the WYC students and the Wan Chai District Council with a view to allaying the psychological concern. Miss LAU agreed that pending the early removal of wastes, a more scientific analysis should be provided to convince the public that the storage of wastes would pose no adverse impact on public health. Given that the radioactive wastes had been stored since 1965, she said that it might be worthwhile for those who considered their health being affected to approach DH for advice.

41. Mr MAK Kwok-fung remarked that while there might not be adverse effects arising from radiation, the stress imposed on the students and their parents could be detrimental to the psychological well-being to the extent that their health would also be affected. AD(SHS) said that as there might be different causes of cancer, DH was prepared to analyze any information provided by the parents regarding their children's sickness. However, DH had to respect the families' privacy.

The way forward

42. Mr Martin LEE said that he was very dissatisfied with the whole situation. He requested that members of the Panel should also be notified of the monitoring results of the radiation level in the vicinity of the store. As the parents of WYC students were very concerned about the effect of radiation arising from the waste stored, efforts should be made to expedite the preparatory arrangements for the removal of wastes vis-à-vis liaising with the relevant authorities on the transfer of wastes to the Mainland and planning for a purpose-built storage facility in Hong Kong.

43. Miss CHOY So-yuk recalled that at the meeting with parents of WYC

students in February, SP had given the same assurances about safety from exposure to radiation. However, his views were challenged by an expert in the field of radiology who had made reference to some latest findings on the effects of radiation. She expressed disappointment that SP had been maintaining his stance and misleading the public. She urged for the removal of these potentially dangerous radioactive wastes from their existing storage place in Wan Chai within two and a half years.

44. DSEF referred members to the three letters provided by the radiological experts which set out the effects of radiation, the contents of which were broadly similar to what was stated in the Administration's paper. He recognized that there was a psychological effect on exposure to radiation but the degree of radioactivity at the store was no greater than the background levels. The Administration was prepared to make arrangements for the removal of these wastes but the question was how much the community was prepared to pay. As the tender price for a purpose-built storage facility was much too high, it made sense to look at other alternatives. He undertook to expedite the negotiation with the Mainland authorities for the transfer of wastes and to report to members as soon as a decision was reached. At the Chairman's request, the Administration agreed to provide the Panel with the latest development on the transfer of radioactive wastes.

VII Way forward for sewage treatment for the harbour area

(Legislative Council Brief issued by the Environment and Food Bureau (Ref: EFB 9/55/07/69(2000) Pt.2) and LC Paper No. CB(1) 801/00-01(09))

45. Owing to time constraints, members agreed to defer the discussion of the subject to the next regular meeting scheduled for 3 April 2001. DSEF said that the Administration would miss the Public Works Subcommittee (PWSC) meeting for the funding of the trials and studies for the Harbour Area Treatment Scheme as a result of the deferral, thereby leading to a delay in funding. He asked if the Administration could submit the relevant funding proposals to PWSC in parallel with the discussion of the subject by the Panel. Mr Tommy CHEUNG and Miss CHOY So-yuk did not agree with the Administration's suggestion as they had reservations on some of the funding proposals.

VIII Any other business

46. There being no other business, the meeting ended at 11.35am.