

13 March, 2001

Miss Becky Yu
Clerk to Panel
Legislative Council
Hong Kong SAR, PRC

Dear Miss Yu,

Re: LegCo Panel on Environmental Affairs, Meeting on 19 March, 2001

Thank you for your letter dated 8 March, 2001 inviting me to comment on “risk to health from exposure to low-level radioactive wastes” in relation to the public concern over storage of low-level radioactive wastes in the disused tunnel at Queen’s Road East.

Exposure to radiation, irrespective of sources of radiation, has the potential harm of inducing cancer and producing abnormalities in fetuses in the womb of pregnant mothers. Theoretically, there is no threshold dose below which one would not expect such harmful effects. Therefore, there is the fundamental principle of radiation protection to keep the exposure to as low as possible, unless there is good reasons for using radiation – such as using of Xray in making medical diagnosis.

However, in real life everyone is exposed to radiation. The sources of radiation include the background from the earth, from other parts of the universe, and particularly in the context of Hong Kong from the marble and stone used in the construction and furnishing of buildings and homes. Radiation from these sources together constitutes the “background irradiation” to which everyone is exposed.

When one talks about exposure to radioactive wastes, one is talking about the radiation penetrating through the protective containers and measures, as it is technically not possible to shield radiation completely to “zero dose”. In the context of the storage of low-level radioactive wastes in the disused tunnel at Queen’s Road East, I understand that the Radiation Health Unit of the Department of Health had measured the radiation dose in the school close by, and confirmed that it was comparable to the “background radiation” measured

in other parts of Hong Kong. As such, there is no practical ways to reduce the radiation dose further.

As a clinician by training, I would venture further to comment on the effects of the present issue on other aspects of health. Whilst there is no evidence to suggest adverse effects directly from the radiation, the stress imposed on the students and their parents are so great that it would be detrimental to their psychological well being. It would therefore be prudent for the relevant authorities to plan to relocate the radioactive waste to some other more remote areas far away from other inhabitants.

Yours sincerely

Professor Jonathan Sham, MD, FRCR, FHKCR, FHKAM, JP