

**For information
On 28 October 1999**

Legislative Council Panel on Environmental Affairs

**Progress on Actions Taken to Address Y2K Induced
Environmental Pollution Concerns**

Purpose

1. This paper summarises the progress to date in addressing environmental pollution incidents which might arise from Y2K-induced disruption in private sector businesses.
2. The primary concerns are associated with businesses and industrial plants with automated production and/or pollution treatment processes which may be affected by Y2K-induced disruption. The main scenarios identified include complete or partial power failure across the territory; Y2K disruption to the controls on production and/or treatment processes; and Y2K-induced failure of major plant or equipment. Such disruptions or failures could, under some circumstances, result in discharge of excessive pollutants or substandard effluent, as well as pollution incidents caused by spillage of chemicals or waste.
3. This paper reports on:
 - (a) EPD's efforts in identifying those target businesses and in checking their progress on Y2K compliance and contingency planning;
 - (b) the continuing publicity and monitoring actions to reinforce Y2K awareness amongst the target businesses, in particular those medium sized enterprises; and
 - (c) the preparatory work in hand on emergency response plans to handle possible pollution incidents during the Y2K rollover.

Y2K Compliance of Target Businesses

4. Based on the licensing controls under the environmental ordinances, EPD has identified 11 major industrial plants which have large-scale automated production and/or pollution treatment processes with the potential to generate significant pollutants in case of Y2K-induced failures. They are specifically controlled under the Air Pollution Control Ordinance as specified processes (SP), together with statutory licensing of effluent discharge and chemical waste disposal under the Water Pollution Control Ordinance and the Waste Disposal Ordinance respectively.
5. EPD has approached these major plants directly to seek information on their Y2K status and obtained written confirmation on their completion of Y2K compliance actions as well as the formulation of contingency plans. EPD is satisfied with the Y2K rectification work as well as the contingency measures in place for dealing with possible Y2K-induced disruption at these facilities.

6. EPD had also targeted some 750 chemical waste producers (CWPs) including 35 licensed treatment plants for chemical waste which might employ computerised control systems in handling and processing their chemical wastes. EPD issued advisory letters to these businesses to draw their attention on possible environmental impacts arising from Y2K-induced disruption of their operation and to inform them the sources for obtaining technical advice and assistance. Follow-up site visits were made by EPD control staff during their routine compliance inspections. Information on Y2K rectification work and contingency planning for the businesses was collected by means of questionnaires and face to face discussion with the managers or owners. EPD staff also checked on records of Y2K rectification as well as any preventive measures and contingency plans to minimise pollution risk in the event of system failure. The findings of the survey are summarised in Annex 1.

7. From the survey results, it is noted that a relatively small number of CWPs have computer systems and equipment which are directly employed for pollution control operation. All these critical CWPs^{Note 1} have completed their Y2K rectification work and have appropriate contingency plans in place. The main contingency arrangements include provision of standby generators in case of power outage; arranging trained staff for tackling Y2K-induced environmental pollution; manual work-around in case of failure of equipment and processes as well as provision of additional temporary storage facilities for holding increased quantity of chemical waste or effluents. In the event of prolonged system failure, the production processes would be suspended temporarily to reduce the generation of wastes or effluent. For the other non-critical CWPs^{Note 2} which have not yet completed their Y2K work, EPD will continue to provide them with necessary advice and assistance as far as possible under their routine surveillance programme so that they can complete their Y2K rectification work before the millennium rollover.

8. As regards the 35 chemical waste treatment plants licensed under the Waste Disposal Ordinance (WDO), they are already required to prepare an emergency response plan as one of the licence requirements. EPD's survey findings also indicated that these licensed facilities have completed their Y2K rectification work. In the event of chemical spillage due to Y2K-induced failure, or otherwise, the established spillage response procedures will be followed. Where the spillage is contained in the enclosed chemical waste storage area, the waste can be transferred back into suitable storage containers. For incidents where the spillage may result in contamination of the site area or risk of pollution outside the premises, EPD together with concerned departments including Fire Services Department would immediately activate the well-established response plan on chemical spillage to deal with the emergency situations.

Continuing Publicity and Monitoring Action

9. On Y2K publicity efforts, EPD staff would continue the present efforts to relay the Y2K concerns to the local industry during routine inspections to these establishments in particular the medium-sized enterprises which use or handle chemicals in their businesses. EPD has also written to 11 concerned industrial associations to enlist their support in drawing

Note 1 Critical CWPs are those identified CWPs with pollution and monitoring systems/equipment driven by computers, including those 11 major industrial plants with large scale automated systems.

Note 2 Non-critical CWPs are those CWPs who either have not employed computer systems/equipment or the computer systems they are using have no relation to pollution control and monitoring.

their members' attention to the potential pollution problems associated with Y2K induced failures.

10. In addition, the environmental pollution concerns associated with Y2K problems are also highlighted in the form of "Frequently Asked Questions" under the Government's Y2K web site (http://www.year2000.gov.hk/english/index_1.html) currently maintained by ITBB. EPD has also developed a Y2K web page (<http://www.info.gov.hk/epd>) on the progress of the Y2K work by the department which is now accessible by the general public on the Internet.

11. On compliance inspections, EPD officers in the Local Control Offices will follow up to monitor the situation in particular to those target businesses above. Stepped-up surveillance and enforcement action will be arranged towards the end of the year to deter environmental non-compliance due to, inter alia, Y2K problem.

Emergency Response on Environmental Pollution Incidents

12. Notwithstanding the progress made so far in the above-mentioned activities, we are conscious of the need to plan for pollution incidents which may arise from any significant Y2K-induced disruption.

13. In this regard, EPD is actively preparing for the implementation of various Emergency Response Plans (ERPs) for handling environmental pollution emergencies including chemical spillage and pollution incidents due to uncontrolled discharge and emissions. During the millennium rollover date, EPD plans to deploy 30 staff on duty at EPD's Y2K Command Centre as well as in the major waste facilities sites such as Chemical Waste Treatment Centre and landfills etc. In addition, designated officers under the respective ERPs and front line officers from Local Control Offices would be on standby to provide speedy response and co-ordination in the event of pollution incident.

14. In the remaining months before the millennium transition, EPD will be working closely with the Y2K Environment-sector Co-ordinating Centre and other concerned departments and bureaux in carrying out a series of command post exercises and drills, with a view to testing out the readiness of the ERPs under various Y2K-induced risk scenarios.

Results on Y2K Survey to Chemical Waste Businesses
Carried out from July to September 1999

Information Collected during the Survey	<i>Yes</i> # of CWPs (%)	<i>No</i> # of CWPs (%)
(1) Of the 750 identified Chemical Waste Producers (CWPs) with computer system and equipment, no. of them who are affected by Y2K problem	120 (16%)	630 (84%)
(2) Of those 120 CWPs with computer system and equipment affected by Y2K problem, number of CWPs with Y2K problem on pollution and monitoring systems/equipment	18 (15%)	102 (85%)
(3) Of those 18 CWPs with Y2K problem on pollution and monitoring systems/equipment, number of which have completed Y2K rectification with contingency plan in place	18 (100%)	0 (0%)
(4) Of those 120 CWPs with computer system and equipment affected by Y2K problem, number of CWPs who have completed the Y2K rectification work	85 (71%)	35 (29%)
(5) Of those 120 CWPs with computer system and equipment affected by Y2K problem, number of CWPs with contingency plans in place	79 (66%)	41 (34%)