LEGISLATIVE COUNCIL BRIEF

Air Pollution Control Ordinance (Cap.311)
Air Pollution Control (Fuel Restriction) (Amendment) Regulation 2008

INTRODUCTION

The Secretary for the Environment has made the Air Pollution Control (Fuel Restriction) (Amendment) Regulation 2008 (the "Regulation") (see **Annex)** under section 43 of the Air Pollution Control Ordinance (Cap. 311) to impose restrictions on the use of fuel in order to control, among others, the emissions of sulphur dioxide ("SO_2").

JUSTIFICATIONS

2. To improve Hong Kong's air quality, the Government has implemented a wide range of measures over the years to lower the concentrations of air pollutants. In particular, we have given high priority to controlling the emissions of SO_2, which is an air pollutant resulting from combustion of fuels containing sulphur. It can cause respiratory illness, reduce lung function, and increase morbidity and mortality at high concentration levels. It also reacts with other chemicals in the atmosphere and transforms into fine sulphate particles which impair visibility and contribute to smog formation.

3. Since 1990, we have banned the use of high sulphur heavy fuel oil in industrial and commercial processes. The Air Pollution Control (Fuel Restriction) Regulations (Cap. 311 sub. leg. I) (the "principal Regulations") stipulate that only industrial diesel with a sulphur content of less than 0.5% by weight should be used. This measure has brought substantial reduction in concentrations of SO_2 in the vicinity of industrial areas such as Kwai Chung and Kwun Tong. SO_2 emissions from industrial and commercial processes account for 3.4% of the total emissions in Hong Kong in 2006.

Mandating the Use of Ultra Low Sulphur Diesel ("ULSD")

4. To further reduce air pollution, we have been promoting the use of ULSD which has a substantially lower sulphur content of not more than 0.005% by weight. Since 2002, we have been mandating ULSD for vehicle use. The Government has also taken further steps by using ULSD in its marine fleet since 2001 and requiring all machinery in public works projects to use ULSD since 2006.

5. Mandating the use of ULSD by the industrial and commercial sectors will have immediate benefits on the environment. It will reduce SO_2 emissions from the two sectors by 99%, thereby reducing Hong Kong's total SO_2 emissions by about 2,480 tonnes which is equivalent to about 3.4 % of the total SO_2 emission in 2006 in Hong Kong. Moreover, the use of ULSD will have the additional benefit of reducing smoke and particulate emissions.

Allowing the Use of Alternative Fuels and Technologies

6. There are alternative fuels and technologies which could be used to reduce emissions from industrial and commercial processes to achieve the same or even better standards than using ULSD. For example, emission reduction devices such as flue gas desulphurisation units and low nitrogen oxides ("NOx") burners may be used by large fuel users. Other clean fuels such as biodiesel or Euro V diesel may also be used in certain processes to achieve the purpose.

7. Whether using ULSD or other alternative fuels and technologies to control emissions is more economical would depend on individual business processes. To provide maximum flexibility to the trade, we propose to allow them to decide on the best options so long as the specified emission limits as stated in paragraph 8(b) below are met. The specified emission limits for SO_2 and respirable suspended particulate ("RSP") are lower than corresponding emissions from industrial diesel by 90% and 50%, respectively. NOx emissions could also be reduced by as much as 17% depending on the size of the boiler used.

THE REGULATIONS

8. The Regulation contains the following key provisions -

(a) Subject to the exception in new regulation 4B, new regulation 4A prohibits the use of liquid fuel with a sulphur content of more than 0.005% by weight or a viscosity of more than 6 centistokes at 40°C (referred to as "restricted liquid fuel" in the Regulation) in any relevant plant (including any furnace, engine, oven or industrial plant).

(b) New regulation 4B(1) permits restricted liquid fuel to be used in relevant plants if the plants have been issued with certificates of compliance certifying that, among others, the level of pollutants emitted from the plants does not exceed the following specified emission limits (set out in Schedule 1).

Specified pollutant	Emission limit (gram pollutant per litre fuel)
Sulphur dioxide	0.864
Nitrogen oxides	2.4
Respirable suspended particulates	0.12

(c) New regulation 4B(2) and (3) sets out the conditions under which a competent examiner may issue certificates of compliance in respect of relevant plants using restricted liquid fuel, the information to be included in certificates of compliance and testing methods for determining the compliance status (set out in Schedule 2).

(d) Regulation 4C sets out the continuing duties that fuel users and owners of relevant plants are required to carry out for using restricted liquid fuel in relevant plants.

(e) Section 3 of the Regulation makes consequential amendments to regulation 4 of the principal Regulations to continue to require the use of gaseous fuel only in the Sha Tin fuel restriction area.

LEGISLATIVE TIMETABLE

9. The Regulations will be published in the Gazette on 16 May 2008 and tabled at the Legislative Council for negative vetting on 21 May 2008. The requirements in the Regulations will come into operation on 1 October 2008.

BASIC LAW AND HUMAN RIGHTS IMPLICATIONS

10. The Regulations are in conformity with the Basic Law, including the provisions concerning human rights.

BINDING EFFECT OF THE LEGISLATION

11. The Regulations will not affect the current binding effect of the Air Pollution Control Ordinance (Cap. 311) and its subsidiary legislation.

FINANCIAL AND STAFF IMPLICATIONS

12. There are no financial and staffing implications as the Regulations will be implemented with existing resources.

ECONOMIC IMPLICATIONS

13. The proposed measures are effective in reducing air pollution. It will help improve public health, thereby raising labour productivity.

14. The impact of switching the use of industrial diesel to ULSD on the industrial and commercial sectors should not be significant. Based on the recent import prices of fuels, it is expected that the overall impact of the proposal on business operating expenses should be less than 1%. Moreover, as fuel users could choose to adopt alternative fuels or emission control technologies, they will have the flexibility in controlling their operating expenses in light of their own circumstances.

ENVIRONMENTAL IMPLICATIONS

15. The Regulations will help cut the local SO_2 emissions by some 2,480 tonnes and will have additional benefit of reducing smoke and particulate emissions. For some appliances such as internal combustion engines, a reduction in particulate matters of about 10% could be achieved. The reduction in these emissions will help alleviate the visibility impairment, smog as well as acid rain problems in Hong Kong and its neighbouring region.

CONSULTATION

16. The Administration has undertaken extensive consultation with the stakeholders including major chambers of commerce, and industrial and trade organizations during the past two years. They are generally supportive of our determination to improve air quality, although some have expressed concerns on the financial impact of this proposal. Consultations with the Legislative Council's Panel on Environmental Affairs and Advisory Council on the Environment on the proposal were made in December 2007 and January 2008, respectively. Both have rendered their support to the proposal.

PUBLICITY

17. We shall issue a press release and write to advise the affected trades when the Regulation is published in the Gazette.

ENQUIRIES

18. For any enquiries, please contact Mr. PANG Sik-wing, Principal Environment Protection Officer (Air Policy), on 2594 6300.

Environmental Protection Department
May 2008