

A Foreign Investor's Guide to the Environmental Legal Regime of Hong Kong

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I. INTRODUCTION

On the occasion of the opening of the 1988-1989 session of the Legislative Council, the Governor Sir David Wilson presented the following challenge:

One unfortunate by-product of our economic success and population growth has been serious environmental pollution. Many major cities have suffered similar problems. Water quality at our gazetted beaches has deteriorated. Discharges of industrial wastes are an increasing threat to public health. Our harbour is now heavily polluted.

I am increasingly convinced that one of our major priorities must be to halt this decline and to do more to improve our environment. This will require better planning; major initiatives to control pollution discharges; and large scale investment in facilities for the proper disposal of sewerage and municipal and industrial wastes. Work has already begun on all these areas. More comprehensive and far reaching plans are now required.¹

In a move to address Hong Kong's environmental problems, the government commissioned its first major study on the environment. *The White Paper: "Pollution in Hong Kong - A Time To Act"* (the White Paper)² unveiled a ten year, HK³ \$20 billion dollar plan to

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1. Address by the Governor Sir David Wilson to the Hong Kong Legislative Council, opening of the 1988-89 session (Oct. 12, 1988).

2. THE HONG KONG GOV'T, THE WHITE PAPER: "POLLUTION IN HONG KONG - A TIME TO ACT" (1989) [hereinafter THE WHITE PAPER].

3. HK indicates Hong Kong dollars. The rate of exchange to United States (U.S.)

improve Hong Kong's pollution control infrastructure and strengthen environmental legislation. Major projects proposed by the White Paper included a HK \$12 billion sewerage system and the construction of landfills and refuse transfer stations at a projected cost of around HK \$5 billion.⁴ In very general terms, prior to the White Paper the main aim of legislation introduced in Hong Kong was to arrest the growth in pollution and no onerous obligations were placed on existing operations, regardless of the fact that many of these were major polluters.

This article discusses the existing environmental legal regime of Hong Kong. It attempts to provide the foreign investor with a brief background to Hong Kong's political, legal, and economic structure. It also discusses in some detail the four major areas (air, water, noise, and waste disposal) of pollution control legislation.

II. GENERAL POLITICAL, LEGAL, AND ECONOMIC STRUCTURE

A. *An Introduction to Hong Kong*

Situated on the southern edge of the People's Republic of China (PRC), Hong Kong stands in stark contrast to its mainland cousin. This thriving centre of trade, industry, and finance, with a population of 5.8 million, covers a mere 409 square miles.⁵ The areas of Kowloon and Hong Kong Island are the most densely populated, housing the majority of the population. The major centre for commercial and financial activity is concentrated near Victoria Harbour. Increasing growth in both population and economic activity, coupled with a lack of environmental awareness, has resulted in pollution and waste problems of a magnitude that can no longer be ignored.

In 1984, Britain and the PRC signed the Sino-British Joint Declaration on the future of Hong Kong (Joint Declaration). The Joint Declaration constitutes the PRC's declared policy towards Hong Kong. In the Joint Declaration the governments of the United Kingdom and China declared that China would resume the exercise of sovereignty over Hong Kong on July 1, 1997. However, Hong Kong is guaranteed that its existing capitalist system will be maintained for fifty years, until 2047.⁶

On April 4, 1990, after nearly five years of drafting and consultation, the National People's Congress of China enacted the Basic Law

dollars in October 1988 was roughly 1 HK dollar for every 1 U.S. dollar. The rate of exchange in January 1992 was 7.76 HK dollar for every 1 U.S. dollar. THE HONG KONG GOV'T, HONG KONG MONTHLY DIGEST OF STATISTICS (1988 & 1992).

4. THE WHITE PAPER, *supra* note 2, at 4.

5. Connor & Marcovici, *Business Operations in Hong Kong*, 526 TAX MGMT. (BNA) A-1 (1986).

6. The Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China, art. 5 [hereinafter Basic Law].

of Hong Kong. The Basic Law, which will take effect on July 1, 1997, will govern the constitutional relationship between China and Hong Kong and the constitutional structure of Hong Kong after 1997.

Under the Basic Law, on July 1, 1997, Hong Kong will be established as the Hong Kong Special Administrative Region (SAR) of China in accordance with Article 31 of China's Constitution. Article 31 states: "The state may establish special administrative regions when necessary. The systems to be instituted in special administrative regions shall be prescribed by law enacted by the National People's Congress in the light of the specific conditions."⁷

The specific conditions relating to Hong Kong stem from the fact that it has been a capitalist society and will remain so for fifty years after 1997. The establishment of the Hong Kong SAR is the detailed realisation of China's stated general principle of "one country, two systems."

Accordingly, the Hong Kong SAR is intended to be a largely autonomous region of China.⁸ It is not fully autonomous as the Central government retains certain powers and responsibilities, for example, in relation to Hong Kong's foreign policy⁹ and defence.¹⁰

Currently, most of the legislation applicable in Hong Kong is enacted by the Hong Kong government and consists of Ordinances and subsidiary regulations. In addition, some English laws are applied to Hong Kong, either directly or by order of Her Majesty in Council. The Basic Law guarantees that the system of law currently in place in Hong Kong will remain in force after 1997.¹¹

B. General Economic Climate

In making an investment decision, a potential foreign investor should be aware of the unique economic climate in Hong Kong.

1. Commerce and Trade

Hong Kong has experienced vast economic growth over the past two decades. Its industrious, versatile, and innovative workforce, low

7. *Id.* art. 31.

8. *Id.* art. 2.

9. *Id.* art. 13.

10. *Id.* art. 14.

11. *Id.* art. 8.

taxation rate and efficient infrastructure, along with the government's commitment to free trade, have led to its recognition as a major international business centre. Recently, Hong Kong's rate of export growth has slowed down,¹² partly due to concerns arising from the June 4, 1989, Tian An Men Square massacre and the uncertainties surrounding the 1997 changeover. The slow down in Hong Kong's growth has not been significant and is not expected to continue. Many foreign investors continue to thrive in Hong Kong's financial market.

Manufacturing is the single largest contributor to Hong Kong's economy both in terms of gross domestic product and employment. In 1989, manufacturing accounted for 28% of the total workforce and 18% of the gross domestic product. Textiles, clothing, electronics, watches, clocks, and plastics are the major industries. Notably, however, because of its small physical size and the scarcity of natural resources, Hong Kong has become largely dependent on imports of raw materials,¹³ primarily from China, Japan, and the United States.¹⁴

Hong Kong's most important natural resource after its people is its exceptional harbour. The port of Hong Kong is one of the world's busiest, with some 120,000 ocean-going vessels calling at its port. It handled 5.04 million TEUs¹⁵ of containerised cargo¹⁶ in 1990 and re-exports increased by 20% in value terms in the same year. China is the largest source of, as well as the largest market for, Hong Kong's re-exports.¹⁷

2. *Property*

There are no restrictions placed on the ownership of property in Hong Kong. Property in all freehold land is vested in the Crown which grants leasehold interests in land to the private sector under Crown Leases.¹⁸

3. *Commercial Law*

In Hong Kong, business may be carried on through a private or public company, a partnership, a sole proprietorship, or through a trust. Hong Kong has no anti-trust laws or exchange controls, and its

12. ENVTL. PROTECTION DEP'T, ENVIRONMENT HONG KONG 1991 A REVIEW OF 1990 R53 (1990).

13. *Id.* at 55.

14. Connor & Marcovici, *supra* note 5, at A-1.

15. TEU is the abbreviation for Twenty-Foot Equivalent Unit. ERIC SULLIVAN MARINE DICTIONARY (2nd ed.).

16. "Containerised cargo" is cargo buried in containers.

17. ENVTL. PROTECTION DEP'T, *supra* note 12, at 60.

18. Connor & Marcovici, *supra* note 5, at A-2.

consumer protection legislation is not as stringent as that of other industrialized countries.¹⁹ However, the Control of Exemption Clauses Ordinance²⁰ was passed in 1989 which requires exclusion clauses in certain contracts to be reasonable. The Ordinance is modelled on the English Unfair Contract Terms Act.

4. *International Agreements*

Hong Kong maintains its philosophy of free trade, but also fulfills obligations under international agreements. It adheres to the rules of General Agreement on Tariffs and Trade (GATT), and is a signatory to several bilateral trade agreements.²¹

5. *Intellectual Property*

The laws relating to intellectual property rights are largely modelled on English law. There is no system for the registration of designs or patents in Hong Kong. However, these can be registered in the United Kingdom (U.K.) which has the effect of providing protection in Hong Kong.²² Trademarks and recently service marks can be registered in the Trade Mark Registry of Hong Kong.²³ Copyright law in Hong Kong is largely based on the U.K. Copyright Act of 1956. Hong Kong is a party to the Universal Copyright Convention and to the Berne Convention, both of which provide reciprocal protection of copyrights in works created by nationals of member countries.²⁴

6. *Tax*

Although not a tax haven, Hong Kong enjoys relatively low tax rates with no capital gains tax. Hong Kong companies are often used

19. *Id.* See also V. STOTT, HONG KONG COMPANY LAW (1987); Z.E. LI, AN INTRODUCTION TO HONG KONG COMPANY LAW (1986).

20. LAWS OF HONG KONG ch. 71.

21. HONG KONG ATT'Y GEN. CHAMBERS, BILATERAL TREATIES APPLICABLE TO HONG KONG 82 (3d ed. 1984).

22. United Kingdom Designs (Protection Ordinance), LAWS OF HONG KONG ch. 44 (1928); Registration of Patents Ordinance, LAWS OF HONG KONG ch. 42 (1932).

23. Trade Marks Ordinance, LAWS OF HONG KONG ch. 43 (1955). The Hong Kong Trademark Registry is strict on disallowing marks which either (i) do not possess one of several characteristics required of marks before they can be registered or (ii) are deemed to be confusingly similar to existing marks. Connor and Marcovici, *supra* note 5, at A-6.

24. Copyright Ordinance, LAWS OF HONG KONG ch. 39 (1973). See also Connor & Marcovici, *supra* note 5, at A-7.

as a base for offshore operations without exposure to Hong Kong taxes as the tax system is territorially based. Additionally, concepts of residence and citizenship are of minimal importance in determining liability for taxes to Hong Kong. Hong Kong has no tax treaties with other countries save for a limited treaty with the United States regarding the taxation of shipping operations.²⁵

There has, until recently, been little in the way of legislative environmental regulation in Hong Kong, thereby allowing industries to expand without concern for environmental restrictions. However, this has gradually changed with a body of relevant legislation being enacted within the last decade. The majority of such legislation has been enacted within the last five years. There has been a growing concern that urgent measures are needed to arrest the alarming level of pollution currently existing in Hong Kong.

III. HONG KONG'S ENVIRONMENTAL LEGISLATION AND REGULATIONS

All legislation in Hong Kong, whether it is an Ordinance enacted by the Hong Kong government or English laws being applied to Hong Kong, are of the same status. There are no constitutional provisions dealing with environmental regulations. Accordingly, more recent legislation amends pre-existing legislation and there is no conflict between different levels of legislation.

Due to the fact that most environmental regulation in Hong Kong is comparatively recent, there is very little in the way of case law or established administrative interpretation which could be regarded as a source of environmental law. The four major areas of pollution which the existing environmental legislative scheme covers are air, water, noise and waste disposal.

A. Air Pollution

Air quality in Hong Kong has deteriorated significantly in the last decade. Pollution caused by exhaust from industry, incinerators, power stations, and vehicle emissions, combined with often oppressive heat and humidity, has led to unpleasant and unhealthy air conditions. To redress this deterioration of the air environment, significant legislation has been enacted.

25. Connor & Marcovici, *supra* note 5, at A-8. See also P. WILLOUGHBY, HONG KONG REVENUE LAW: TAXATION OF INCOME (1990); A. YOUNG, TAXATION IN HONG KONG (1989); D. FLUX, HONG KONG TAXATION: LAW AND PRACTICE (1990). For the tax treaty, see Double Taxation Relief (Income from Shipping Operations) (United States of America), LAWS OF HONG KONG ch. 112, § 49 (1989).

1. *Air Pollution Control Ordinance*

The principal legislation dealing with air pollution is the Air Pollution Control Ordinance (APCO).²⁶ APCO provides the framework for the control of air pollution in Hong Kong. The Ordinance seeks to control air pollution through the establishment of air control zones, a licensing system, and the common law action of nuisance. Recent amendments²⁷ to the legislation have initiated the use of unleaded petrol in motor vehicles. It is now an offence for a petrol retailer to refuse to comply with a request from any person to sell unleaded petrol, with the maximum fine being HK \$50,000.²⁸

a. *Air Control Zones*

A network of monitoring stations that measure ambient air quality has been systematically established over the past decade to provide air quality readings in ten different regions of Hong Kong. There are now ten air control zones defined in Hong Kong. The air control zones are:

- Harbour Air Control Zone
- Tsuen Wan-Kwai Chung Air Control Zone
- Lantau Air Control Zone
- Junk Bay Air Control Zone
- Fanling - Sha Tau Kok Air Control Zone
- Port Shelter Air Control Zone
- South Hong Kong Island - Lamma Air Control Zone
- Tolo Air Control Zone
- Tuen Mun Air Control Zone; and
- Yuen Long Air Control Zone.²⁹

The Air Control Zone (Consolidation) Statement of Air Quality Objectives³⁰ sets out the specific air quality objectives for each of the air control zones in Hong Kong. However, the average 1990 pollutant concentration levels in four control zones continued to exceed the legislated objectives.³¹

The Tsuen Wan and Kwai Chung Zones exceeded total suspended particulates level objectives, while the Kwun Tong and Sham Shui

26. LAWS OF HONG KONG ch. 311 (1983) [hereinafter APCO].

27. Air Pollution Control (Amendment) Ordinance, LAWS OF HONG KONG ch. 311 (1991).

28. *Id.* § 26C.

29. Air Pollution Control (Air Control Zone) (Declaration) (Consolidation) Order, LAWS OF HONG KONG ch. 311, § 7 (1987).

30. *Id.*

31. ENVTL. PROTECTION DEP'T, ENVIRONMENT HONG KONG 109 (1991).

Po Zones registered excessive concentrations of total suspended particulates and respirable suspended particulates. This situation may change very soon since the Environmental Protection Department (EPD), which has been promised more personnel by the government,³² will be in a better position to rigorously enforce minimum emission standards. Further, amendments to the Town Planning Ordinance,³³ which came into force recently, introduces the protection of the environment as a factor to be taken into consideration in the systematic preparation and approval of plans for the future layout of existing and potential urban areas. These measures will hopefully contribute significantly to the improvement of Hong Kong's air pollution problem.

b. Specified Process

The government has targeted twenty-three "specified processes"³⁴ with high pollution potential to be regulated through a licensing or registration scheme.

The effect of designating a particular industry as a "specified process" is three-fold: to impose a duty to use the "best practicable means" to prevent discharge of noxious or offensive emissions; to compel registration of premises to be used as a "specified process;" and in some cases to license such premises.³⁵ The terms and conditions of such licences are used to control a wide range of activities, from smoke stack pollutant levels to inspection requirements.³⁶ However, the scope of the scheme is limited, as many of the existing "specified process" operations are exempted from the need to apply for licences. Exemptions are granted to those industries with a "specified process" in operation at the commencement of the licensing scheme.³⁷ In addition, several operations such as certain electricity, cement, chlorine, petrochemical, and gas works are exempted from the licensing scheme.³⁸

To facilitate monitoring, those exempt from the licensing requirement nonetheless need to give notice to the relevant authority that

32. Hong Kong Standard, Dec. 28, 1990.

33. LAWS OF HONG KONG ch. 131, ordinance 4 (1991).

34. APCO, LAWS OF HONG KONG ch. 311, First Schedule (1983). These are acrylates works, aluminum works, cement works, ceramic works, chlorine works, copper works, electricity works, gas works, iron and steel works, metal recovery works, incinerators, petrochemical works, sulphuric acid works, tar and bitumen works, frit works, lead works, amines works, asbestos, mineral works, chemical incineration works, hydrochloric acid works, hydrogen cyanide works and sulphide works.

35. *Id.* §§ 12, 13, 19, 20.

36. *Id.* Second Schedule.

37. *Id.* § 20(1). Out of 133 premises which operate a "specified process," 27 are licensed and 106 are exempted. ENVTL. PROTECTION DEP'T, *supra* note 31, at 99.

38. APCO, LAWS OF HONG KONG ch. 311, Third Schedule (1983).

the premises are used for a "specified process." The authorities may immediately cancel the exemption if it is decided the "specified process" is prejudicial to health.³⁹

As part of this control requirement, all new power stations will be required to use some form of sulphur dioxide control. All new electricity gas turbine works will also be subject to nitrogen oxide limits.⁴⁰

In APCO, "best practicable means," where used with respect to the emission from a premises of an air pollutant, has reference not only to the provision and the efficient maintenance of appliances adequate for preventing such emission, but also to the manner in which such appliances are used and to the proper supervision by the owner of the premises of any operation in which such an air pollutant is evolved.⁴¹

The definition focuses on the "means" rather than the factors for deciding whether a particular method is the best practicable. It is therefore up to the courts to decide on the relevant factors and conduct the ultimate balancing exercise. There has been no case law interpreting this section, and it will be interesting to see what relevance and weight the Hong Kong courts give to factors such as financial ability of the owner of the "specified process," cost of pollution to the society as a whole, and degree of harm to any class of person.

Persons failing to comply with any of the requirements relating to a "specified process" are liable for a fine of up to HK \$50,000 and an additional HK \$5,000 for each day that the offence continues.⁴²

c. Pollutants Giving Rise to Nuisance

Under the APCO, an officer of the Air Pollution Control Board has the power to require the abatement of any industrial activity which is, or is imminent, in causing "air pollutant nuisance."⁴³ Upon

39. *Id.* § 22(2).

40. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 5.12, at 100.

41. APCO, LAWS OF HONG KONG ch. 311, § 2 (1983).

42. *Id.* § 13(2).

43. *Id.* § 9(1). Air pollutant nuisance is defined in the APCO to mean any emission of air pollutant which either alone or in conjunction with any other such emission:

(a) is prejudicial health; or

(b) is a nuisance to the inhabitants of the neighbourhood; or

(c) imperils or is likely to imperil the safety of or otherwise interferes with the normal operation of aircraft using or being about to use any airport within Hong Kong.

the issue of a pollution abatement notice where abatement is deemed necessary for the protection of health or aircraft safety, the owner of the premises must remedy the problem within a prescribed time period or face fines of up to HK \$50,000.⁴⁴ The offence is a continuous offence with the penalty of HK \$100.00 imposed for every one quarter of an hour during the whole or any part of which the offence continues.⁴⁵

d. Regulations Under the APCO

Pollution from stationary sources is controlled by several regulations made under the APCO. A 1990 amendment to the Air Pollution Control (Smoke) Regulations⁴⁶ has limited the darkness of smoke emissions from Ringelmann shade number 2 to Ringelmann shade number 1.⁴⁷ To strengthen the deterrent effect, the penalties have recently been increased from a maximum fine of HK \$5,000 to HK \$20,000 for breaches of the APCO Regulations. In addition, where it is a subsequent conviction, the owner of the premise is liable to be imprisoned for three months.⁴⁸

Poor land use planning in the past and continuous industrial development in Hong Kong means that high levels of sulphur dioxide, nitrogen oxides, and particulates from industrial areas have become a serious problem. The Air Pollution Control (Fuel Restriction) Regulations⁴⁹ came into operation on July 1, 1990, and applies to virtually all non-domestic fuel users. The Regulations prohibit the use of fuel oils with a sulphur content of more than 0.5% by weight or a viscosity of more than 6 centistokes. It is estimated that over one thousand factories will need to spend approximately HK \$500 million a year to modify their operations by using a low sulphur fuel in order to comply with the new regulations.⁵⁰ Since the implementation of the regulations, sulphur dioxide levels have decreased by an average of 40% throughout the territory.⁵¹

Control over the installation of new chimneys is exercised by a prior approval system under the Air Pollution Control (Furnaces,

Id. § 2. Thus, the concept of nuisance as embodied in the common law is given statutory force in the environmental regime.

44. APCO, LAWS OF HONG KONG ch. 311, § 10(1)(a)(1983).

45. *Id.* § 10(1).

46. LAWS OF HONG KONG ch. 311 (1983).

47. *Id.* reg. 2. The Ringelmann shade number system is a visual test by which an EPD officer can check smoke emission compliance.

48. *Id.* reg. 3.

49. CAP. 311 (1990), Vol. 20, pg. 11, L.H.K.

50. *Hong Kong Officials Torn Between Industry, Friends of Earth*, 22 INT'L BUS. ASIA 244 (July 16, 1990).

51. PLANNING, ENV'T AND LANDS BRANCH, GOV'T SECRETARIAT, SAVING OUR ENVIRONMENT: FIRST REVIEW OF PROGRESS OF THE 1989 WHITE PAPER: POLLUTION IN HONG KONG - A TIME TO ACT 25 (1991).

Ovens and Chimneys) (Installation and Alteration) Regulations.⁵² A computerised enforcement management system is used to handle applications and approvals to improve the effectiveness of EPD's limited enforcement staff.

2. Other Statutory Controls

Hong Kong's air pollution is produced not only by stationary industrial sources, but also by a wide array of other activities such as shipping, automobile use, and construction. A growing base of legislation is now in place to deal with these pollution sources.

(i) The Ozone Layer Protection Ordinance⁵³ was passed in 1989 to give effect to Hong Kong's international obligation under the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. The Ordinance absolutely prohibits the manufacture of five types of chloroflourocarbons (11, 12, 113, 114, 115) and three types of halons (1211, 1301, 2402)⁵⁴ under the threat of a fine of up to HK \$1,000,000 and two years imprisonment.⁵⁵ The import or export of these substances is also prohibited without a licence, with similar penalties for non-compliance.⁵⁶

ii) Vehicle pollution is regulated by the Road Traffic Ordinance⁵⁷ and Road Traffic (Construction and Maintenance of Vehicles) Regulations.⁵⁸ The Road Traffic (Amendment) Ordinance which came into force on October 1, 1991,⁵⁹ requires motor vehicles to be tested at authorised vehicle emission centres as a method of controlling the emission of air pollutants from motor vehicles. The Commissioner of Transportation has the power to refuse an application for a licence if a vehicle fails to be tested or is found not to comply with vehicle emission standards which are set out in a code of practice.⁶⁰ The Road Traffic (Amendment) Ordinance also makes provision for the regulation and control of vehicle emission testing centres.⁶¹ A police officer has the power to examine a vehicle on the road if he believes that it does not comply with vehicle emission standards and to remove the vehicle to a testing centre.⁶² Further, the Road Traffic (Construction and Maintenance of Vehicles) Regulations requires vehicles to be constructed and maintained such that no excessive smoke, visible vapour, or gaseous pollutants are emitted.⁶³

(iii) The EPD currently uses the provisions of the Factories and Industrial Undertakings Ordinance to exercise control over asbestos removal from

52. CAP. 311 (1972), Vol. 20, pg. A1, L.H.K.

53. LAWS OF HONG KONG ch. 403 (1989).

54. *Id.* Schedule.

55. *Id.* S.4.

56. *Id.* §§ 2, 3.

57. LAWS OF HONG KONG ch. 374 (1989).

58. LAWS OF HONG KONG ch. 374 (1983).

59. Laws of Hong Kong ordinance 3 (1991).

60. Road Traffic Ordinance, LAWS OF HONG KONG ch. 374, § 25(1) (1989).

61. LAWS OF HONG KONG ordinance 3, §§ 77C, 77D, 77E, 77F, 77G (1991).

62. *Id.* § 80.

63. LAWS OF HONG KONG ch. 374, §§ 31, 32 (1983).

public buildings.⁶⁴ Further, conditions in works contracts with the government stipulate that removal of asbestos be carried out safely. Close monitoring is also carried out in government projects where asbestos is involved. However, the need to develop a legislative framework is essential to deal comprehensively with all aspects of the removal and maintenance of asbestos materials in private and public buildings. Work has commenced to prepare drafting instructions for this legislation.⁶⁵

(iv) Other legislation of note is the Shipping and Port Control Ordinance which controls smoke emissions from vessels at sea and in port.⁶⁶ The Building (Demolition of Works) Regulations were brought into force to prevent dust nuisance caused by building demolition.⁶⁷

B. Water Pollution

Increasing water pollution in all parts of Hong Kong has given rise to major concerns: red tides in Tolo Harbour, livestock waste in streams in the New Territories, polluted beaches and falling dissolved oxygen levels in Victoria Harbour are some of the many water pollution problems. Over two million tonnes of sewage and industrial wastewaters are generated daily by the community in Hong Kong. This volume would fill one thousand Olympic size swimming pools daily. The government has initiated a two-pronged attack to deal with the problem of water pollution. First, to improve the provision of sewerage and sewage treatment and disposal facilities, the Hong Kong government has planned the construction of a new sewerage system at an estimated cost of over HK \$14 billion (at 1989 prices). Second, the Hong Kong government will adopt laws to control wastewater discharges to the sewage system or directly to the environment by monitoring and controlling industrial polluters. The following discussion focuses on the legislative control initiated by the government to deal with the problem of water pollution.

1. Water Pollution Control Ordinance

The Water Pollution Control Ordinance (WPCO), enacted in 1981, is the main legislation for the regulation of industrial waste effluents in Hong Kong.⁶⁸ It prohibits the discharge of any poisonous or noxious matters into the waters of Hong Kong;⁶⁹ establishes water

64. Factories and Industrial Undertakings, LAWS OF HONG KONG ch. 59 (1955). See LAWS OF HONG KONG ch. 59 (1986).

65. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 5.26-5.33, at 103-04.

66. LAWS OF HONG KONG ch. 313 (1986).

67. LAWS OF HONG KONG ch. 123, § 38 (1981).

68. LAWS OF HONG KONG ch. 358 (1980) [hereinafter WPCO].

69. This goal was only achieved with the amendments to the WPCO. See Water Pollution Control Ordinance Amendment, LAWS OF HONG KONG ordinance 67, § 12A (1990).

control zones with water quality objectives in each zone so as to protect the beneficial uses of the various zones; and requires all discharges of pollutants be licensed so as to enable the monitoring, regulation, and control of both existing and future industrial pollution. Further, the WPCO provides for government to issue orders from time to time creating an offence to discharge any waste or polluting matters into the waters in a water control zone or any matter into waters in a water control zone likely to impede the proper flow of the water in a manner leading to or likely to lead to the substantial aggravation of pollution.⁷⁰ It is also an offence to discharge any poisonous or noxious matter into any of the waters of Hong Kong, regardless of whether the discharge is made in a water control zone.⁷¹

The WPCO also provides for government to issue orders creating offences to discharge waste into a communal sewer or drain in a water control zone other than a discharge of domestic sewage into public foul water drains or sewers or unpolluted water into surface water drains or sewers.⁷²

A person does not commit an offence in respect of such discharge if the discharge is licensed.⁷³ Until recently, the potential effectiveness of the WPCO in controlling the territory's water pollution was severely limited as the WPCO exempted existing polluters from the control of the Ordinance. Further, it allowed for a 30% increase in discharge over and above the amount discharged at the time controls were implemented in water control zones. Additionally, many of the controls in the Ordinance only applied in water control zones. Thus, until a water control zone was established in a particular area, discharge of pollutants was outside the scope and control of the Ordinance.

However, recent amendments to the Ordinance through the Water Pollution Control (Amendment) Ordinance (Amendment Ordinance) abolished the exemptions discussed above.⁷⁴ The Amendment Ordinance has also made it an offence to discharge any noxious or poisonous matter into the waters of Hong Kong notwithstanding that there may not have been a water control zone declared.⁷⁵

70. WPCO, LAWS OF HONG KONG ch. 358, § 7(2) (1980).

71. WPCO, LAWS OF HONG KONG ch. 358, § 8(1A) (1987).

72. *Id.* § 7(2)(c).

73. *Id.* § 10A(1B) (a).

74. LAWS OF HONG KONG Ordinance 67 (1990).

75. *Id.*

The Amendment Ordinance has also increased the maximum penalties for offences under the WPCO from HK \$50,000 to HK \$100,000 for a first offence and from HK \$100,000 to HK \$200,000 for subsequent offences.⁷⁶ It has also made company directors, managers, secretaries, and partners liable in certain circumstances for employees' offences.⁷⁷

a. Water Control Zones

The government aims to establish water control zones covering all territorial waters in Hong Kong with controls under the WPCO coming into full effect in all zones by 1995. Currently, the provisions of the WPCO are in force in six water control zones. Four additional water control zones will be established by April 1993.⁷⁸ Each of the zones has or will have water quality objectives and the authorities have a statutory duty to see that they are met.

The WPCO has provisions for the issue of technical memoranda which set out the permissible limits of the physical characteristics and chemical components of discharges and deposits in a water control zone.⁷⁹ The first memorandum was issued in January 1991. The standards set out by the memorandum require factories to eliminate toxic metals in effluent before discharge. It is estimated that this would, for example, cost a medium-sized printed circuit plating factory HK \$130,000 to \$180,000 every year to eliminate toxic metals by using a lime precipitation method. The first factories that are required to meet the standards are those in the Deep Bay and Mirs Bay Water Control Zones.⁸⁰ The Deep Bay Water Control Zone has the largest number of effluents among the water control zones. As it is a commercial oyster fishery, the pollution poses serious risks to human health and requires urgent attention and control. Mirs Bay includes the best of Hong Kong's remaining unspoilt coastline and an area which may become the Territory's first Marine Park.⁸¹ As such, control of pollutants being discharged into the waters is vital if the plan for a Marine Park is to materialize.

76. *Id.* § 11.

77. *Id.* § 10A.

78. PLANNING, ENV'T AND LANDS BRANCH, GOV'T SECRETARIAT, *supra* note 51, at 17.

79. WPCO, LAWS OF HONG KONG ch. 358, § 21 (1980).

80. ENVTL. PROTECTION DEP'T, *supra* note 31, at 51.

81. *Id.* at 60.

b. Licensing

The WPCO requires all new developments and persons discharging pollutants into Hong Kong waters, which fall within a water control zone, to apply for a licence.⁸² The terms and conditions of the licence regulate, among other matters, the time and place of discharge, the rate of discharge, and the treatment of matter before it is discharged.⁸³ Existing polluters are deemed to be operating under a licence save that the licence cannot, in the case of a discharge or deposit measurable by a flow rate, authorise a maximum flow rate less than the existing discharge or deposit.⁸⁴ The licences expire every two years whereupon the terms and conditions can be varied with greater restriction imposed on the level of discharge allowed.⁸⁵

The authorities have the power to refuse to grant and/or revoke a licence if it is found that the discharge endangers or is likely to endanger public health; is likely to be harmful to the health or safety of any person engaged in the operation or maintenance of a drainage or sewerage system, or is likely to be harmful to a drainage or sewerage system.⁸⁶

To minimize the authority's workload, the EPD is now working on a scheme to include self-monitoring as a licensing condition. Hopefully, this will allow the department to enforce the legislation more effectively, and possibly earlier in the densely industrialized control zones around Victoria Harbour. Licencees will be required to submit analytical details of their effluents to the authority at specified intervals. The frequency of reporting and the level of detail required will depend on the complexity and flow rate of the effluent. In addition to the normal penalties for failure to meet licensing conditions, it is the intention that a specified senior officer of the licensee will be held responsible for ensuring that the data supplied meets accuracy requirements.⁸⁷

82. WPCO, LAWS OF HONG KONG ch. 358, § 19 (1980).

83. *Id.* First Schedule.

84. *Id.* § 15(4).

85. *Id.* § 16.

86. *Id.* §§ 15, 20(3).

87. PLANNING, ENV'T AND LANDS BRANCH, GOV'T SECRETARIAT, *supra* note 51, at 19.

2. Other Statutory Controls

In addition to the WPCO, the government relies on the Buildings Ordinance to regulate water pollution. The Buildings Ordinance requires building plans to provide for the discharge of domestic and industrial waste waters in designated sewers and for rainwater to be discharged to the stormwater drains. The Building Authority also has the power to require that waste treatment facilities be constructed in any new development where no suitable sewers exist.⁸⁸

To prevent pollution from ships, there are international regulations that forbid discharging oil and refuse into the sea. In Hong Kong, every ocean going vessel must have an oil water separator aboard. Water containing oil must be treated before discharge. The vessel's registration authority is responsible for inspecting the equipment periodically.⁸⁹ Further, compulsory insurance for oil pollution along with contributions by oil importers to a compensation fund is required by the Merchant Shipping (Liability and Compensation for Oil Pollution) Ordinance which was enacted in 1990.⁹⁰ As for marine dumping, the Dumping at Sea (Overseas Territories) Order requires a licence to be obtained from the EPD where terms and conditions are imposed to prevent and control indiscriminate dumping.⁹¹

C. Noise Pollution

1. Noise Control Ordinance

In 1989, the White Paper stated that approximately two million people in Hong Kong were exposed to excessive noise from construction, industrial, commercial, or domestic activities.⁹² The Noise Control Ordinance (NCO),⁹³ which took effect in November 1989, and its associated regulations, provide statutory controls to restrict and reduce the annoyance caused by such environmental noise. The NCO regulates noise from domestic premises, construction sites, commercial premises, and the manufacture of products which emit noise.⁹⁴ The following discussion will focus on the legislation control on noise emitted from the latter three sources.

88. Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regs., LAWS OF HONG KONG ch. 123 (1985).

89. Merchant Shipping (Prevention and Control of Pollution) Ordinance, LAWS OF HONG KONG ordinance 37 (1990).

90. LAWS OF HONG KONG Ordinance 38 (1990).

91. App. III, DK1, LAWS OF HONG KONG (1975).

92. THE WHITE PAPER, *supra* note 2, at 31.

93. LAWS OF HONG KONG ch. 400 (1988) [hereinafter NCO].

94. *Id.* at Parts II & III.

a. Construction Noise

Under the NCO, general construction noise arising from the use of powered mechanical equipment, including percussive piling, is controlled by means of a construction noise permit system.⁹⁵ Percussive piling between the hours of seven p.m. and seven a.m. and at any time on a general holiday is prohibited altogether.⁹⁶ The Noise Control Authority (NCA), appointed by the Governor, issues permits and may impose any conditions he deems appropriate (i.e. such as limitations on the number and type of equipment used).⁹⁷ In the exercise of his discretion, the NCA is guided by Technical Memoranda setting out principles, procedures, guidelines, standards, and limits for the issuing and variation of conditions in relation to the permits.⁹⁸ The Technical Memoranda are published in the Government Gazette⁹⁹ and are easily accessible to a potential investor.¹⁰⁰ Application procedures for such permits are prescribed in the Noise Control (General) Regulations.¹⁰¹ A breach of any condition of the permit renders the person committing the offence liable to a maximum fine of HK \$50,000 on a first conviction and a fine of up to HK \$100,000 on second or subsequent convictions. In any case there will be a maximum fine of HK \$10,000 for each day during which the offence continues.¹⁰²

As the only control on construction noise during day time is on percussive piling, disturbance caused by other construction equipment remains a problem. The government plans to introduce controls on hand-held pavement breakers and portable compressors. Regulations, which are expected to be in place next year, intend to phase out such forms of equipment by encouraging developers and contractors to use quieter forms of equipment.¹⁰³

b. Noise from Industrial and Commercial Premises

The NCO governs not only construction site noise, but also noise from industrial and commercial premises. The NCA may serve a

95. *Id.* § 8.

96. *Id.* § 6 (3-4).

97. *Id.* § 8(1).

98. *Id.* § 9(1).

99. *Id.* § 11(5).

100. *Id.* §§ 9(3), 11(5).

101. LAWS OF HONG KONG ch. 400, regs. 1-8 (1989).

102. NCO, LAWS OF HONG KONG ch. 400, §§ 6(5), 7(2) (1988).

103. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 6.13, at 122.

noise abatement notice where noise emitted from a non-domestic, non-public place is a source of annoyance or does not comply with standards and limits prescribed. In making a decision as to whether to issue such a notice, the NCA is again guided by such Technical Memoranda as may be issued from time to time.¹⁰⁴

A noise abatement notice may require the person on whom it is served (either the person making, causing, or permitting the noise, or the owner, tenant, occupier, or person in charge of the place from which the noise is emanating) to abate the noise within a specified period. Any person served with a notice who fails to comply with any requirements therein commits an offence. Fines are similar to those for construction noise permit offences.¹⁰⁵

c. Manufacture of Products Which Emit Noise

The NCO also penalizes those who manufacture, import, or supply for trade or business products which emit noise that exceed standards prescribed by noise regulations.¹⁰⁶ Again, offences are punishable by fines similar to those for construction noise permit offences.¹⁰⁷ It is an offence if a product, when tested within the warranty period, emits noise that does not comply with prescribed standards.¹⁰⁸ Recognized defences for a person include proof that there has been an intermediate modification to the goods, the product has been subject to unusual wear and tear or it has been used in a manner other than intended.¹⁰⁹ The NCA may serve a notice on the manufacturer, importer, or supplier for the products to be tested at his own expense.¹¹⁰ Failure to comply with a notice is an offence and may lead to a maximum fine of up to HK \$50,000 for a first offence and HK \$100,000 on second or subsequent convictions.¹¹¹ Any person who uses or causes to be used any product which does not comply with noise emission regulations also commits an offence punishable by fines of a similar level.¹¹²

104. NCO, LAWS OF HONG KONG ch. 400, § 13(1) (1988). *See also id.* § 10.

105. *Id.* § 13.

106. *Id.* §§ 14-15.

107. *Id.* §§ 14(5), 15(5).

108. *Id.* § 15(1).

109. *Id.* § 15(4).

110. *Id.* § 16(1).

111. *Id.* § 16(6).

112. *Id.* § 17.

2. Other Statutory Controls

Hong Kong has an airport virtually in the centre of the city and nearly half a million people are exposed to aircraft noise.¹¹³ Regulation of aircraft noise falls within the regime of the Civil Aviation (Aircraft Noise) Ordinance and its subsidiary regulations.¹¹⁴ All subsonic jet take-offs or landings must be certified in accordance with the International Convention on Civil Aviation.¹¹⁵ The Ordinance empowers the Director of Civil Aviation to restrict the time of landing and take-off of aircrafts.¹¹⁶ This power has been exercised to prohibit landing or taking off at night unless this is unavoidable due to technical reasons which are not reasonably foreseen by the aircraft operator or owner.¹¹⁷ Further, regulations are in place which limit the noise emission from ground operations at night.¹¹⁸ Planning standards have also been initiated by the EPD which prescribe that new developments containing residential, medical, or educational uses should not be located within 30 Noise Exposure Forecase contour from the airport.¹¹⁹

Noise from motor vehicles is another major concern in a place as small and crowded as Hong Kong where flyovers (highway overpasses) are within a few metres of bedroom windows. The Road Traffic (Construction & Maintenance of Vehicles) Regulations makes it an offence to drive a motor vehicle with no silencer or a modified or defective silencer.¹²⁰

There are no regulations in place controlling railway noise. The EPD however provides advice to rail companies and to those planning developments adjacent to rail routes on measures that can be taken to control the level of noise pollution.¹²¹

113. HONG KONG GOVERNMENT INFORMATION SERVICE, HONG KONG 1991 357.

114. LAWS OF HONG KONG ch. 312 (1986).

115. *Id.* § 3(1). See also Civil Aviation (Aircraft Noise) (Certification) Regs., LAWS OF HONG KONG ch. 312 (1987).

116. Civil Aviation (Aircraft Noise) Ordinance, LAWS OF HONG KONG ch. 312, § 6(1) (1986).

117. Civil Aviation (Aircraft Noise) (Limitation on Landing or Taking Off of Aircraft Notice), LAWS OF HONG KONG ch. 312, § 6 (1989).

118. Civil Aviation (Aircraft Noise) (Limitation on Operation of Engines and Auxiliary Powers Units) Regs., LAWS OF HONG KONG ch. 312, § 9, regs. 3-5 (1989).

119. THE WHITE PAPER, *supra* note 2, at 33.

120. LAWS OF HONG KONG ch. 374, reg. 30 (1983).

121. THE WHITE PAPER, *supra* note 2, at 33.

D. Waste Disposal

1. Waste Disposal Ordinance

Faced with the increasing problem of waste disposal in a densely populated territory, the government set out specific policy objectives in the White Paper. These objectives are designed to create facilities for the cost-effective and environmentally satisfactory disposal of all wastes. The facilities would be supplied either by the private or public sector. The policy objectives also aim to introduce relevant legislation, the enforcement of which will safeguard the health and welfare of the community from any adverse environmental effects associated with the storage, collection, treatment, and disposal of all wastes.¹²²

The Waste Disposal Ordinance (WDO)¹²³ sets the statutory framework for the management of all waste in Hong Kong. Generally, it provides for the licensing of waste collection and disposal services, the control of livestock waste, and the restriction of hazardous wastes.¹²⁴ The Waste Disposal (Amendment) Ordinance which was enacted in July 1991, and came into force on November 23, 1991, makes specific provisions dealing with chemical waste with stringent measures on enforcement.¹²⁵ Tough controls on chemical waste were not introduced before because there were no proper means to dispose of the waste. However, a HK \$1.3 billion chemical waste treatment plant is due to come into operation on Tsing Yi Island by the end of 1992 making it timely for the introduction of legislative control on the disposal of chemical waste.¹²⁶

a. Authority to Collect Waste

The WDO authorizes the relevant collection authority to provide, or licence others to provide, collection and scavenging services.¹²⁷ The licence may specify the place and method of disposal, thereby ensuring that waste disposal is properly carried out.¹²⁸ Unauthorized collection of waste is prohibited, with offenders facing a fine.¹²⁹ The maximum fine was increased dramatically by the Waste Disposal (Amendment) Ordinance from HK \$2,000 to HK \$100,000.¹³⁰

122. *Id.* at 5.

123. LAWS OF HONG KONG ch. 354 (1987) [hereinafter WDO].

124. *Id.* Part III, IIIA, IV & V.

125. LAWS OF HONG KONG Ordinance 86 (1991).

126. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 4.33-4.36, at 83-84. *See infra* note 143 and accompanying text.

127. WDO, LAWS OF HONG KONG ch. 354, § 9-10(1) (1987).

128. *Id.* § 10(2).

129. *Id.* § 11.

130. LAWS OF HONG KONG ch. 354, § 15 and First Schedule (1987).

b. Control of Livestock Waste

The WDO makes it an offence, with a fine of HK \$10,000, to keep livestock on any premises in a livestock waste prohibition area.¹³¹ Moreover, no person is permitted to keep livestock on any premises in a livestock waste control area unless that person complies with regulations in relation to the collection, storage, treatment, and disposal of livestock waste.¹³² Any contravention of these provisions is an offence and renders the person liable to a fine of up to HK \$10,000.¹³³ Additionally, the Director of the EPD may seize, detain, and dispose of any livestock that he has reasonable cause to suspect is being kept in contravention of the above restrictions.¹³⁴

The Waste Disposal (Livestock Waste) Regulations¹³⁵ sets out precautionary measures in handling livestock waste to minimize public health risks. It also stipulates specific requirements for the treatment and disposal of waste arising from pig and poultry rearing.¹³⁶

c. Disposal of Waste

Except for specified purposes, a person is not allowed to use any land for the disposal of waste unless he has a licence from the Director of the EPD.¹³⁷ It is also an offence, attracting a fine of up to HK \$50,000, to import into Hong Kong any waste for the purpose of disposing it in Hong Kong without the permission of the Director of the EPD.¹³⁸

Amendments to the WDO are being formulated to allow tighter controls on the collection, transport, treatment, and disposal of all waste types. The major proposals include extending the licensing provisions to cover all major waste treatment and disposal facilities operated by both the public and private sector. The amendment bill is expected to be submitted to the Legislative Council during the 1991-92 session.¹³⁹

131. WDO, LAWS OF HONG KONG ch. 354, § 15 and First Schedule (1987).

132. *Id.* § 15A(1) and Second Schedule.

133. *Id.* § 15A(2).

134. *Id.* § 15D(1). *See also id.* § 15B.

135. Waste Disposal (Livestock Waste) Regs., LAWS OF HONG KONG ch. 354 (1988).

136. *Id.* reg. 7.

137. WDO, LAWS OF HONG KONG ch. 354, § 16(1-2) (1987).

138. *Id.* § 20(1).

139. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 4.19, at 79.

d. Chemical Waste

The Waste Disposal (Amendment) Ordinance deals specifically with chemical waste. Any disposal of chemical waste must be pursuant to a licence granted by the relevant authority. The licensing authority is only allowed to grant chemical waste disposal licences if there are satisfactory waste disposal facilities on the premises. The amendments also empower the Director of Environmental Protection to make regulations controlling the disposal of chemical waste.¹⁴⁰

Regulations for the control of chemical waste will come into force on May 1, 1992.¹⁴¹ The regulations will set out the specific requirements for packaging, labelling, storing, collecting, treating, and disposing of chemical waste and will state which chemicals are covered. They introduce "cradle to grave" controls under which the EPD is able to control chemical waste from the source to final disposal.¹⁴² The regulations will be in full operation during the next two years to tie in with the development of the Chemical Waste Treatment Centre.¹⁴³

2. Other Statutory Controls

The Public Health and Municipal Services Ordinance¹⁴⁴ provides for the control of the discharge of hazardous materials into sewers and for the control of littering.¹⁴⁵ It also places restrictions on the storage of waste in buildings.¹⁴⁶

The Buildings Ordinance¹⁴⁷ allows the Building Authority to require adequate waste treatment facilities to be constructed in any new building and provides for control over the design of refuse chutes within buildings and oil storage facilities.¹⁴⁸

The Country Parks Ordinance¹⁴⁹ and Summary Offences Ordinance¹⁵⁰ contain provisions relating to littering offences.

140. LAWS OF HONG KONG ordinance 86, §§ 9, 12 (1991).

141. Waste Disposal Ordinance, LAWS OF HONG KONG ch. 354 (1992).

142. ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 4.20, at 79.

143. *Id.* ¶ 4.34-4.36, at 84. Full operation of this plant is expected by the end of 1992. The contractors are required to provide a collection service for chemical wastes including oily and noxious wastes from ships, a high temperature chemical waste incinerator for the destruction of organic chemical wastes, and physical/chemical treatment units for the treatment of inorganic chemical wastes.

144. LAWS OF HONG KONG ch. 132.

145. *Id.* Part II & III.

146. *Id.* § 20.

147. LAWS OF HONG KONG ch. 123 (1962); Building (Refuse Storage Chambers and Chutes) Regs., LAWS OF HONG KONG ch. 123.

148. Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations, LAWS OF HONG KONG ch. 213 (1960).

149. LAWS OF HONG KONG ch. 208 (1976).

150. LAWS OF HONG KONG ch. 228 (1933).

The Pharmacy and Poisons Ordinance¹⁵¹ provides for the control and authorised disposal of specified medicines and poisons.

The Dangerous Drugs Ordinance¹⁵² provides for the authorised disposal of dangerous drugs and the Radiation Ordinance¹⁵³ controls the use and disposal of radioactive substances.

IV. ENFORCEMENT

A. Scheme of Enforcement of Environmental Regulations

There is no unified scheme for the enforcement of environmental regulations. A multiplicity of government departments are involved in environmental control. Each department is involved in specific areas and responsibility for legislative enforcement is shared among the various relevant departments. Most legislative enforcements, however, fall within the responsibility of the EPD which has published a set of target performance measures for enforcement.

B. Enforcement Powers Under the Legislation

Wide powers are granted by the various environmental legislation. These include the power to enter and search without a warrant, to carry out inspection, to obtain information from any person, to revoke licences or permits, and to impose fines and imprisonment sentences.

1. Air Pollution Control Ordinance

The Air Pollution Control Ordinance gives the authorities the power to:

- (i) obtain information from relevant people. Failure to furnish information is an offence liable to HK \$5,000 fine.¹⁵⁴
- (ii) enter industrial premises without a warrant in order to carry out inspections, tests, etc. for pollution. To refuse entry is an offence and carries a fine of up to HK \$15,000.¹⁵⁵
- (iii) demand the modification, etc. of any polluting factories (with reasonable time). This includes preventing the use of any materials which are deemed to be polluting the environment. Refusal to comply with the authorities' requirements is an offence liable to a fine of up to HK \$30,000 as well

151. LAWS OF HONG KONG ch. 138 (1970).

152. LAWS OF HONG KONG ch. 295 (1956).

153. LAWS OF HONG KONG ch. 303 (1957).

154. Air Pollution Control Ordinance Amendment, LAWS OF HONG KONG Ordinance 2, § 28 (1991).

155. *Id.* §§ 28, 29.

as HK \$5,000 per day for a continuing offence.¹⁵⁶

A licensee who contravenes any condition of his licence commits an offence and is liable for a fine of up to HK \$20,000 as well as HK \$5,000 per day if it is a continuous offence and faces the risk of having his licence revoked.¹⁵⁷

2. Water Pollution Control Ordinance and Waste Disposal Ordinance

Under both these Ordinances the authorities have the power to:

- (i) obtain information from any relevant person.¹⁵⁸
- (ii) enter any place or premises or stop and board any vessel or vehicle which is suspected of discharging pollutants into Hong Kong Water or is being used in connection with the production, collection, storage, treatment, transportation, or disposal of any waste.¹⁵⁹
- (iii) inspect any plant or equipment which is believed to be causing pollution.¹⁶⁰

3. Noise Control Ordinance

The authorities have the power under this Ordinance to enter and search any premises where they believe an offence is or will be committed and carry out various tests and inspections.¹⁶¹ No warrant is required. Penalties for offences under the Ordinance are fines of up to HK \$50,000 for a first conviction and for a second conviction of up to HK \$100,000.¹⁶² Furthermore, licences granted under the Ordinance may be revoked if the terms and conditions of the licence are not complied with.¹⁶³

4. Dangerous Goods Ordinance

Under this Ordinance the authorities have the power to imprison and fine any person breaking the law relating to the conveyance, storage, packaging, and manufacture of dangerous goods which include explosives, volatile gases, corrosive substances, poisons, inflammable liquids, etc.¹⁶⁴ Furthermore, the licence required for the

156. *Id.* § 30.

157. *Id.* § 30A.

158. WPCO, LAWS OF HONG KONG ch. 358, § 35 (1981); WDO, LAWS OF HONG KONG ch. 354, § 23D (1987).

159. WPCO, LAWS OF HONG KONG ch. 358, § 37 (1981); WDO, LAWS OF HONG KONG ch. 354, § 23C (1987).

160. WPCO, LAWS OF HONG KONG ch. 358, § 38 (1981); WDO, LAWS OF HONG KONG ch. 354, § 23D (1987).

161. NCO, LAWS OF HONG KONG ch. 400, § 25 (1988).

162. *Id.* §§ 6(5), 7(2), 13(7), 14(5), 15(5), 17(5).

163. *Id.* § 8(10).

164. Dangerous Drug Ordinance, LAWS OF HONG KONG ch. 295, § 9(7) (1956).

storage and transport of dangerous goods can be revoked if an offence against this Ordinance is committed.¹⁶⁵ Lastly, the police have the power of entry into a building to search for any evidence of such offences and to take samples if necessary. The same power of entry applies in respect of ships or lorries.¹⁶⁶

C. Basis of Liability

Liability imposed by the environmental legislation is strict in that once the act or omission is committed, an offence is constituted without the need to prove any intention, knowledge or negligence. The WPCO expressly makes all breaches of its provisions a strict liability offence.¹⁶⁷

Liability is often imposed on persons committing the act or omission, including the owners, occupiers, and licencees of the premises.¹⁶⁸ In some instances, liability may be extended to a director, manager, or partner of a corporation, or a partnership when it is proved that the offence was committed with his consent or connivance.¹⁶⁹

D. Defence

Since environmental offences are strict liability offences, the scope for defence is limited. The general defence available are exemptions, licences, and permits, if any, granted under the relevant legislation. Under the WPCO a defence is available where the commission of the offence occurred in an emergency.¹⁷⁰ Further, under the APCO, it is a defence to prove that the best practicable means had been adopted to minimise the emission of the air pollutant.¹⁷¹

E. Enforcement Personnel

The EPD currently employs 840 staff members and the government has promised an increase of up to 1,470 staff by 1995. This

165. *Id.* § 9(2).

166. *Id.* § 12.

167. WPCO, LAWS OF HONG KONG ch. 358, § 10 (1981).

168. See definition of "owner" in APCO, LAWS OF HONG KONG ch. 311, § 2 (1983).

169. WPCO, LAWS OF HONG KONG ch. 358, § 10A (1981); Waste Disposal (Amendment) Ordinance, LAWS OF HONG KONG Ordinance 86, § 13 (39) (1991).

170. LAWS OF HONG KONG ch. 358, § 12(1A) (1981).

171. LAWS OF HONG KONG ch. 311, § 12 (1987).

injection of personnel into the department stands as a notable exception to the government's zero growth policy, illustrating the government's commitment to cleaning up the environment. Yet, even with more personnel, Martin Lewis, Deputy Secretary in charge of Environmental Policy in the Planning, Environment and Lands Branch, notes that the Branch will still have to find ways to streamline the enforcement of anti-pollution controls.¹⁷² For example, the EPD has recently proposed legislative changes requiring self-analysis and reporting of waste water effluent by industry as a condition to licensing.¹⁷³ This change is expected within the next year.

F. Prosecution

The imposition of fines is by far the most common method adopted in the legislation to deter polluters. The EPD has recently taken an aggressive stance towards polluters and has stepped up enforcement measures.¹⁷⁴ The attitude of the Hong Kong courts has also progressively turned "green" with heavier penalties being imposed for repeated violations of the WPCO. The Pollux Bleaching and Dying Works ("Pollux") have been pouring effluents into the Ho Chung River in the New Territories for years. After repeated warnings to stop excessive polluting, the government terminated its lease and took possession of the land. The lease was re-granted to Pollux under the condition that it conduct only "non-effluent producing" operations. Pollux was in breach of this condition and upon prosecution was fined HK \$4 million, plus a requirement to contribute HK \$20,000 towards the clean-up of the river.¹⁷⁵ The courts have also imposed the maximum penalty for contravention of environmental legislation. The maximum fine HK \$20,000 was imposed on a factory belching out dark smoke in contravention of the Air Pollution Control (Smoke) Regulations. Similarly, the maximum penalty was recently imposed on a laundry service.¹⁷⁶ The Regulations also authorize a three month imprisonment sentence for subsequent convictions.¹⁷⁷ This, however, has never been imposed.

172. Hong Kong Standard, *supra* note 32.

173. PLANNING, ENV'T AND LANDS BRANCH, GOVT SECRETARIAT, *supra* note 51, at 19.

174. The EPD issues Target Performance Measures for Enforcement which lay down guidelines and time-tables for inspection. PLANNING, ENV'T AND LANDS BRANCH, GOVT SECRETARIAT, *supra* note 51, at 48-49. Also, 6,224 discharge inspections were conducted, 49,954 premises surveyed and 26 prosecution cases completed in 1990 under the WPCO. This is a dramatic increase when compared to 11,370 investigations and 9 prosecutions in 1989. ENVTL. PROTECTION DEP'T, *supra* note 31, at 61.

175. Pollux has now been shut down by the authorities. See South China Morning Post, Sept. 18, 1991 [hereinafter SCMP].

176. *Id.*

177. Air Pollution Control (Smoke) Reg., LAWS OF HONG KONG ch. 311, reg. 3(b) (1989).

In most cases the level of fine imposed is considerably below the maximum level. A major shipping line was fined HK \$30,000 for importing chlorofluorocarbons without a licence. The maximum fine for the offence is HK \$1 million. A restaurant was fined HK \$35,000 for failing to comply with a noise abatement notice on its second offence.¹⁷⁸ The maximum fine for the offence is HK \$100,000.¹⁷⁹ The EPD releases, on a monthly basis, a list of companies found guilty under the various environmental legislation and the level of fines imposed. While the fine imposed was on average in the region of HK \$5,000, which does not seem likely to prove as a significant deterrent to industrial polluters, the trend seems to be moving towards imposition of higher fines as seen from some of the cases mentioned above. Further, the authorities have actively prosecuted polluters resulting in eighty-two cases being brought before the courts in April 1991, alone.¹⁸⁰

V. PLANNING

A. *Environmental Impact Assessment Studies*

Environmental Impact Assessment Studies (EIA) are presently required to be carried out as a condition of granting a Crown lease or a government construction contract, especially for the new projects arising from the Port and Airport Development.¹⁸¹

The task of the EIA Study is

- a) to assess the state of the environment in which the new project will be built and operated.
- b) to estimate the additional impact which will be imposed on the environment by the new project.
- c) to identify measures to contain or minimise the impacts so that the overall resulting environmental quality is acceptable. . . .
- d) to develop a monitoring programme to assess the performance of the project during construction and operation and verify the predictions of pollution levels made in the study.¹⁸²

The EIA process for a major development project focuses on the construction and operational phases. The need for, and scope of, the

178. SCMP, May 22, 1991.

179. *Id.*

180. Envtl. Protection Dep't Press Release (May 21, 1991).

181. SCMP, June 4, 1991; ENVTL. PROTECTION DEP'T, *supra* note 31, ¶ 2.12-2.13, at 34.

182. J.P. Rockey and W.J. Farrell, *EPD's Evolving Policy on Implementing Environmental Performance Requirements in Government Contracts & Their Need, Their Form & Their Enforcement*, published by the ENVTL. PROTECTION DEP'T., at ¶ 4.2.

process is determined by an initial review. Formal government administrative procedures apply to public works projects and provide for an environmental review by the EPD. If the project is categorised as having significant or serious impact on the environment, a formal study is conducted to determine the mitigation methods available to render acceptable the environmental impact. The methods adopted tend to include the recommended use of process design modifications, environmental protection and pollution control equipment or systems with particular specifications as special conditions of contract.¹⁸³

However, the EPD has little power to ensure that they are done or that they are done properly. The EPD is presently preparing legislation to give it greater power over developers to prepare EIAs and to carry them out effectively. One of the proposed provisions would be the power to veto a project considered environmentally unsound.¹⁸⁴ Further, it is government policy that the EIA process be applied to all developments including private sector projects in Hong Kong which have the potential to cause significant environmental impact.¹⁸⁵

B. Standard Conditions in Leases and Contracts

The EPD has promoted the use of standard environmental protection conditions in land lease documents and works contracts to provide for additional and more specifically tailored controls to supplement statutory requirements.¹⁸⁶ Developers and industrialists however have lobbied against such inclusion on the grounds that legislation should be the sole means of controlling pollution. However, the EPD has argued that standard conditions are at times more effective and appropriate in tackling pollution matters. One argument put forward in favour of such conditions is the general ineffectiveness of the permit and licence system under the existing legislation. These are generally inappropriate in dealing with temporary activities of any kind because legal action against a licensee for failure to comply is generally a lengthy process and the fine imposed is often trivial in comparison with the cost of overcoming the problem.

The conditions which may be included in contracts may take different forms depending on the nature of the contract. The conditions may stipulate specific environmental performance standards or the use of specific equipment.

To ensure that the environmental conditions are not breached, the

183. ENVTL. PROTECTION DEP'T, *supra* note 12, ¶ 2.42, at 39.

184. SCMP, June 4, 1991.

185. Env'tl. Protection Dep't, *supra* note 12, ¶ 2.14, at 34.

186. *Id.* ¶ 2.12, at 34.

EPD has suggested default payment clauses in contracts. Thus, the contractor has a certain percentage deducted for non-compliance. For ease of reference, what amounts to non-compliance of such conditions may be set out in detail in a schedule to the contract.¹⁸⁷

The issue inevitably arises as to whether such clauses amount to penalty clauses. If so, they will be unenforceable. This will depend on whether the percentage deducted is a genuine estimate of the loss suffered by the government, which will ultimately be responsible for cleaning the pollution damage.

Apparently, both the conditions and default payment clauses have been included in two works contracts¹⁸⁸ with the Attorney Generals Chambers having voted and approved the legal validity of such clauses. The private sector, however, has expressed doubts as to the legal validity of such clauses. However, there are no cases pending before the courts for determination on this issue and the matter remains to be settled by the courts.

VI. INVESTMENT CONSIDERATIONS

Environmental legislation is of considerable importance and relevance to a foreign investor for two main reasons. First, if the investor is interested in any of the existing businesses in Hong Kong, it is important to be familiar with the full body of existing environmental legislation, the amendments to such legislation, and the constant and rapid introduction of new legislation. In this manner, the investor can apprise himself of the extent to which the relevant business concern has complied with the environmental legislation. Second, if the investor is planning to develop new industries in Hong Kong, understanding the existing legislative regime will allow the investor to realise the potential of investigating in industries which specialise in combatting pollution.

A. Investing in an Existing Business Concern

The foreign investor may either want to acquire a business, buy a substantial share in it, or lend money to it. In all cases, it is vital that the investor knows the value of the business. The value of the business will be affected by its environmental policies. Account must also be taken of the outlay of cost required to conduct any "cleaning

187. *Id.* Table 1.

188. Conditions of Contract for Kowloon Bay Refuse Transfer Station and Conditions of Contract for Island East Refuse Transfer Station.

up" process. It is therefore important to include warranties and representations in documents governing the relevant investment to ensure that the foreign investor is not saddled with fines, penalties, and the cost of remedying the situation. The relevant representations and warranties which may be included are: (i) that all relevant permits, approvals, and licences, if necessary, have been obtained under the relevant environmental legislation; (ii) that no notice of revocation or variation of the conditions of the licence, permit, or approval has been served; (iii) that there is no pending environmental suit.

It may also be appropriate at certain instances to have the local party undertake a survey to establish whether there are any inherent environmental problems. Declarations may be obtained from individual directors stating that, to the best of their knowledge and belief, there are no environmental problems relating to the business. Warranties relating to environmental insurance coverage may be possible in the near future when insurance companies start providing such a coverage in Hong Kong.¹⁸⁹

B. Potential Investment

"Where there is muck, there is profit" seems to be the saying. With the recent environmental drive in Hong Kong, there is tremendous potential of investing in industries and consulting services which produce environmentally friendly equipment or give advice to mitigate and combat pollution. These industries and services will gain increasing prominence especially if "green clauses" become common in both government and private works contracts. New government regulations require environmental impact assessments for all major infrastructural projects. This therefore creates a need for companies with technical expertise in the field of environmental consulting. The multi-billion dollar Port and Airport Development Strategy will provide sales opportunities for international suppliers of environmental equipment. The EPD, for example, will need monitoring and testing equipment to oversee construction of the new airport and that the noise emission standards are complied with. In the future, there will be legislation comprehensively governing the use and removal of asbestos. This should create a whole new market in the environmental sector. The Hong Kong government has budgeted for an extensive development on infrastructure to deal effectively with the territory's sewage problem. Therefore, there is tremendous potential for the construction industry. The government's long-term strategy for solid waste disposal is based on the construction of three

189. ENVIRONMENTAL LAWS IN HONG KONG AS THEY RELATE TO CREDITORS AND CREDITORS' REPRESENTATIVES (July 25, 1991) (paper submitted to INSOL for INSOL International Environmental Project).

landfills and several refuse transfer stations estimated at US \$650 million. These will be built by private firms on a build-operate-transfer basis. A government Sewerage Strategy Study, completed in 1989, recommends that more than US \$1 billion be spent on a central network and US \$770 million on master plan studies, rehabilitation schemes, and treatment plants.¹⁹⁰ Planning, design, and environmental studies are now being commissioned and land formation and construction of facilities are scheduled to begin in January, 1993. The potential for investment in a "green industry" is hence tremendous.

VII. CONCLUSION

This article has aimed to give a general overview of the main environmental legislation currently in force in Hong Kong and those which are known to be enacted in the near future. It is hoped that this will enable a foreign investor to make a preliminary assessment of the impact of such legislation on a potential investment. Clearly, more fine tuned analysis will be required and will only be possible where a concrete proposal for a transaction is put forward. Suffice to say that Hong Kong is clearly becoming more environmentally conscious and environmental issues are gaining increasing prominence in the commercial and legal fields. With this comes greater potential for a wide range of foreign investment. A corresponding development is the need to scrutinise business deals and contracts for "green" clauses. Negotiation of such clauses will inevitably be of importance and will soon be on the checklist or standard form of all relevant commercial agreements.

190. *Hong Kong: Environmental Business Opportunities*, East Asian Business Intelligence 5 (Apr. 10, 1991).

