



Inland Revenue Department
Hong Kong

DEPARTMENTAL INTERPRETATION AND PRACTICE NOTES

NO. 5 (REVISED)

PROFITS TAX

DEDUCTIONS FOR EXPENDITURE ON –

- (A) RESEARCH AND DEVELOPMENT**
- (B) TECHNICAL EDUCATION**
- (C) PATENT RIGHTS, ETC.**
- (D) BUILDING REFURBISHMENT**
- (E) PRESCRIBED FIXED ASSETS**
- (F) ENVIRONMENTAL PROTECTION FACILITIES**

These notes are issued for the information of taxpayers and their tax representatives. They contain the Department's interpretation and practices in relation to the law as it stood at the date of publication. Taxpayers are reminded that their right of objection against the assessment and their right of appeal to the Commissioner, the Board of Review or the Court are not affected by the application of these notes.

These notes replace those issued in February 2011.

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Commissioner of Inland Revenue

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INTRODUCTION

It is a canon of taxation that capital expenditure is not normally an allowable deduction in ascertaining the assessable profit of any trade, profession or business. Various sections were added to the Inland Revenue Ordinance (“the Ordinance”) over the years which gave important exceptions to the normal principle of allowing tax deductions. They are –

<u>Section</u>	<u>Relating to</u>	<u>Year enacted/amended</u>
16B	Scientific research	1965
16C	Technical education	1965
16E	Patent rights	1983
16F	{ Hotel refurbishment	1996
	{ Non-domestic buildings	1998
16G	Prescribed fixed assets	1998
16H to 16K	{ Environmental protection facilities	2008
	{ Environment-friendly vehicles	2010

(A) RESEARCH AND DEVELOPMENT – SECTION 16B

2. Section 16B was enacted to allow expenditure incurred by a person carrying on a trade or business for scientific research related to that trade or business as a deduction. The deduction allowable included capital expenditure on plant or machinery but excluded capital expenditure on land or buildings. In 1998, the section was extended to a person in a profession. At the same time the definition of scientific research was expanded to include feasibility studies and market research. In 2004, the scope of the deduction was further extended to include expenses incurred on “research and development”.

3. Expenditure on research and development may be either in the form of a payment to an approved research institute or expenditure on in-house research and development undertaken by a person.

Meaning of research and development

4. For the years of assessment up to and including 1997/98, the term “scientific research” was defined to mean “any activities in the fields of natural or applied science for the extension of knowledge” [the then section 16B(4)(a)]. Scientific research is generally regarded as embracing the application of new scientific principles in an existing area of research, or the application of existing principles in a new area of research. This covers research work to develop new products, new lines and also the improvement of existing products.

5. With effect from the year of assessment 1998/99, the definition of “scientific research” was expanded to cover any systematic, investigative or experimental activities carried on for the purposes of any feasibility study or in relation to any market, business or management research [section 16B(4)(a), definition as amended in 1998].

6. From the year of assessment 2004/05 and onwards, the references to “scientific research” are replaced by the references to “research and development” [section 16B(4)(a), definition as amended in 2004], and deduction is allowed on expenses incurred on research and development. The term “research and development” has a wider scope. It embraces all the activities that are referred to as scientific research. In addition, it includes original and planned investigations into new scientific or technical knowledge and understanding, as well as the application of any research findings or knowledge to a plan or design for production or introduction of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of their commercial production or use. These activities are in line with those that are regarded as “research” and “development” in the Hong Kong Accounting Standard 38.

Research and development related to a trade, profession or business

7. Research and development is to be treated as related to a trade, profession or business if it may lead to or facilitate an extension, or an improvement in the technical efficiency, of that trade, profession or business [section 16B(5)(b)(i)], or is medical research which has a special relation to the welfare of workers employed in that trade or class of trade [section 16B(5)(b)(ii)].

8. Thus research and development undertaken by a trader with the object of branching out into a new line of business or of improving the technical efficiency of his existing business will be treated as related to the trade; also expenditure by a trader for research into an occupational disease peculiar to his industry would be treated as related to his trade. “Research and development” can therefore be described as working for tomorrow to develop new products, new lines and improvements to present production. It does not, however, cover “quality control” which is more aptly described as working for today and today’s production to ensure that what has been produced is up to standard [see *Australian Board of Review Decision in 12 CTBR (NS) Case 5*]. Deductibility of expenses relating to quality control activities should be tested under the normal rules for deduction under sections 16(1) and 17, that is, the expenses are deductible if they are incurred in the production of chargeable profit of the taxpayer and that they are not capital in nature.

Payments to approved research institutes

9. Payments to approved research institutes are allowable if the payments are for specific research and development related to that person’s trade, profession or business, or for general research if the object of the institute is the undertaking of research and development related to the class of trade, profession or business to which that person belongs.

10. An approved research institute is defined in section 16B(4)(a) as (a) any university or college; or (b) any institute, association or organization which is approved in writing for the purposes of this section by the Commissioner as an institute, association or organization for undertaking research and development which is or may prove to be of value to Hong Kong. Prior to 1 April 1996, the Director of Education was responsible for granting the approval. An approval operates from a date, whether before or after the date of approval, specified in the instrument of approval, and can be withdrawn at any time. A list of approved institutes is provided in the **Appendix**.

11. The deduction is allowed irrespective of the actual usage of the funds by the approved institute for either capital or revenue purposes. Thus, payments for establishing or extending an approved research institute, payments towards the administration of the approved research institute and payments for the actual carrying out of the research and development are

allowable as long as the object of the approved institute is the undertaking of research and development related to the class of trade, profession or business to which that person belongs.

Capital expenditure on plant and machinery

12. Capital expenditure on plant or machinery purchased by a taxpayer for research and development related to his trade, profession or business is allowable in full as a deduction for the basis period during which it was incurred. If the expenditure is incurred before the trade commences, it should be treated as incurred in the first basis period.

13. Under section 16B(3)(a), when such plant or machinery ceases to be used for research and development and is then sold, the sale proceeds, to the extent that they are not otherwise chargeable to profits tax and do not exceed the amount of deduction previously allowed, are treated as a trading receipt accruing at the time of the sale or the date immediately preceding the cessation of business if the sale occurs on or after the date of cessation. The time of sale is the time of completion of the sale or the time when possession is given, whichever is the earlier.

14. Where any such plant or machinery is destroyed, it shall for the purposes of section 16B(3)(a) be treated as if it had been sold immediately before the destruction. Any insurance money, compensation money or money received shall be treated as if it were the proceeds of that sale and be assessed as a trading receipt.

Capital expenditure on land or buildings

15. No deduction is allowable under section 16B in respect of any capital expenditure incurred by a taxpayer on land or buildings or on alterations, additions or extensions to buildings. Where such expenditure results in a relevant interest in a building, then Industrial Building Allowances under section 34 can be granted on the capital expenditure on a building used for research and development purposes, irrespective of the nature of trade carried on [section 40].

Capital expenditure in acquiring rights in, or arising out of, research and development

16. It is specifically provided in section 16B(5)(a) that no deduction is allowed for any expenditure incurred in acquiring rights in, or arising out of, research and development. Effective from the year of assessment 1998/99, a reference to rights includes a reference to a share or interest in such rights. However, if the rights acquired are patented rights, the expenditure can amount to an allowable deduction under section 16E.

Expenditure outside Hong Kong

17. Where any payment or expenditure, which qualifies for deduction under section 16B, is made or incurred outside Hong Kong, it is necessary to consider whether it is allowable in full. If the trade, profession or business is carried on solely in Hong Kong, then the full amount of the expenditure is allowable as a deduction in arriving at the chargeable profits.

18. Where the trade, profession or business is carried on partly in and partly out of Hong Kong, it is necessary to consider the whole of the activities of the trade, profession or business to arrive at a reasonable deductible proportion of such expenditure, which relates to the production of chargeable profits. This is a question of fact to be determined in the light of the circumstances of each case.

Subsidies and grants received

19. Where a person incurs expenditure on research and development and part of such expenditure is, or is to be, met directly or indirectly by the Government of Hong Kong, or by any government or public or local authority, or by any other person, only the net amount qualifies for deduction under section 16B.

Sale of rights in or arising out of research and development

20. With effect from the year of assessment 1998/99, where any rights in, or arising out of, research and development, the expenditure on which has been allowed as a deduction under section 16B, are sold, the sale proceeds not

otherwise chargeable to profits tax shall be treated as trading receipts. Where the scenario in paragraph 18 applies, the sale proceeds will be restricted to such part as proportionate to the extent of the deductible proportion of the expenditure on research and development. The amount assessable shall not exceed the amount of deduction previously allowed.

21. The sale proceeds accrue as income at the time of sale, which is the time of completion of the sale of the rights. If, however, the sale occurs on or after the date of permanent cessation of the trade, profession or business, the sale proceeds accrue as income immediately before the cessation.

(B) TECHNICAL EDUCATION – SECTION 16C

22. Section 16C was introduced to allow payments made by a person carrying on a trade or business for technical education. Effective from the year of assessment 1998/99, the section was extended to a person carrying on a profession.

23. Under section 16C, a person carrying on a trade, profession or business in Hong Kong is allowed a tax deduction for any payment to be used for the purposes of technical education related to that trade, profession or business at (a) any university, university college or technical college; or (b) any other similar institution which is approved by the Commissioner. The recognition of the institution for this purpose shall start from whatever date is specified in the approval. This may be before or after the date of approval [section 16C(3)(a)]. Prior to 1 April 1996, the approval was given by the Director of Education. The approval given can be withdrawn at any time. A list of approved institutes is provided in the **Appendix**.

Deductible payments

24. For the purposes of section 16C, technical education is deemed to be related to a trade, profession or business if and only if it is of a kind specially requisite for persons employed in that class of trade, profession or business.

25. The deduction applies to any payment to an approved institution to be used for the purposes of technical education related to a particular trade,

profession or business. It does not have to be directly for the education of any person or persons actually employed in the particular business at the time of payment. The deduction extends to a payment to establish a unit or for the general maintenance of a unit at an approved institution so as to provide technical education of a kind specially suited or requisite to a particular class of trade, profession or business. However, contributions in response to appeals made for funds to be used on purchase of capital equipment would not be allowable.

26. Where payments are made for the technical education of particular persons, the payment may be made to either such persons or the approved institution.

27. The intention of section 16C is to broaden and not to restrict what would ordinarily be allowable deductions. So expenditure by an employer on the technical training or education of any of his employees may be allowed under section 16(1) even if the institution is not an approved institution.

(C) PURCHASE AND SALE OF PATENT RIGHTS, RIGHTS TO KNOW-HOW – SECTION 16E

28. Section 16E was introduced to provide an incentive to promote technological progress in local industry by allowing as a deduction the capital cost of acquiring patent rights, trademarks or designs. This deduction is additional to that for the royalty or recurrent payment in connection with the use of the patent right, trademark or design which continue to be allowable under section 16(1).

29. As a measure to prevent exploitation, section 16E was amended in 1992. One amendment was to substitute the term “trade mark or design” by “know-how” so as to restrict the deduction to expenditure on industrial information and techniques on manufacturing of goods. Another amendment was to deny a deduction for transactions between associated parties. The Inland Revenue (Amendment) (No. 3) Ordinance 2011 (“the 2011 Amendment Ordinance”) came into effect on 16 December 2011. It gives effect to the 2010-11 Budget proposal to extend the profits tax deduction to cover capital expenditure incurred on the purchase of copyrights, registered designs and

registered trade marks. Opportunity was also taken to modify some of the provisions of section 16E. For details, please refer to Part A of Departmental Interpretation and Practice Notes No. 49. Paragraphs 30 to 39 below explain the deduction provisions of section 16E in relation to patent rights and know-how before the 2011 Amendment Ordinance comes into effect.

Meaning of patent rights, know-how

30. The terms “patent rights” and “know-how” are defined in section 16E. “Patent rights” means “the right to do or authorize the doing of anything which would, but for that right, be an infringement of a patent”. “Know-how” means “any industrial information or techniques likely to assist in the manufacture or processing of goods or materials”.

Allowable deduction

31. Under section 16E, any expenditure incurred by a person on the purchase of patent rights or rights to any know-how is deductible if –

- (a) the rights are for use in Hong Kong in the trade, profession or business carried on by the person;
- (b) they are incurred in the production of that person’s chargeable profits; and
- (c) the rights are not purchased wholly or partly from an associate.

32. A deduction is allowed when the expenditure is incurred. There is no requirement that the patent or know-how, once acquired, must be used in the production of profits chargeable in the year of purchase. It is sufficient if the person claiming the deduction can show that at the time of purchase the purpose of acquiring the right was for use solely in Hong Kong. However, adjustment of the deduction may have to be considered if the subsequent facts prove otherwise.

For use in Hong Kong

33. The phrase “for use in Hong Kong” is not defined in section 16E. According to the Shorter Oxford English Dictionary, the word “use” means “the action of using something; the fact or state of being used; application or conversion to some purpose”.

Apportionment of the expenditure

34. If the patent right or the right to the know-how is purchased for use partly in and partly outside Hong Kong, the expenditure shall be allowable to the extent of the use in Hong Kong on a basis reasonable and appropriate in the circumstances of the case. Such basis is clearly one of fact, to be determined on all the relevant facts including the terms of the agreement relating to the rights acquired, the manner and the use to which the patent is immediately put, the range and scope of the activities both within and outside Hong Kong and whether the whole of the profit is subject to tax.

Purchase of rights from associate

35. No deduction is allowable under section 16E(2A) if the patent rights, etc. are purchased wholly or partly from an associate, irrespective of whether or not the price was at an arms-length. The meaning of “associate” is widely defined in subsection 4 of section 16E. It covers natural persons, partners in a partnership, or corporations under common control and trusts.

36. In the case of a trust, and for the purpose of section 16E(2A) the purchase or sale of a patent right, etc. by the trustee of the trust or a corporation controlled by the trustee would be regarded as the purchase or sale, as the case may be, by each trustee, the corporation and the beneficiary under the trust [section 16E(2B)].

Subsequent disposal

37. If the whole or part of the cost of the patent rights or rights to know-how has been allowed as a deduction from the assessable profits, then the proceeds not otherwise chargeable to profits tax on the subsequent disposal of such rights are to be treated as a trading receipt. In other words, the sale

proceeds of such sale, although capital in nature, are subject to tax.

38. Where only part of the cost of such rights has been allowed (see paragraph 34), only that part of the proceeds as is attributable to the relevant cost of the patent shall be assessed as a trading receipt. The basis of apportionment of the sale price will again have to depend on the facts of each case.

39. The sale proceeds shall be treated as a trading receipt accruing at the time of sale, or immediately before the discontinuance if the sale occurs after the business has been permanently discontinued.

(D) CAPITAL EXPENDITURE ON HOTEL/BUILDING REFURBISHMENT – SECTION 16F

40. Section 16F was introduced as from the year of assessment 1996/97. For the years of assessment 1996/97 and 1997/98, a deduction is allowed on capital expenditure on the renovation or refurbishment of a hotel. With effect from the year of assessment 1998/99, the deduction was extended to the renovation or refurbishment of buildings other than domestic buildings. Any expenditure allowed under this section will not qualify for depreciation allowances under Part VI of this Ordinance.

41. The term “domestic building or structure” is defined in section 16F. It means any building or structure used for habitation, but does not include any building or structure used as a hotel or guesthouse. It is the actual use or intended use of the building, not the type of the building, that counts. “Hotel” and “guesthouse” have the same meaning as in the Hotel and Guesthouse Accommodation Ordinance (Cap. 349). Thus, the deduction does not apply to buildings used for letting for residential purposes or as directors’ or staff quarters.

When allowable

42. Capital expenditure meeting the requirements under section 16F is allowed as a deduction by five equal instalments, the first of which is allowed in the basis period during which the expenditure was incurred and the remaining four instalments in the basis periods of the four succeeding years of assessment. If the relevant property is sold before the instalments are fully

granted, the person entitled to the instalments is still granted the instalments as if the property had not yet been sold.

Qualifying expenditure

43. To qualify for deduction, the expenditure incurred must be a renovation or refurbishment in nature. The words “renovation” and “refurbishment” are not defined in the Ordinance.

44. According to the Shorter Oxford English Dictionary, “renovation” means renewal or restoration, and “refurbishment” is renovation. Renovation or refurbishment expenditure can be either capital or revenue in nature, depending on whether the expenditure results in improving or repairing the building or structure concerned. Renovation expenditure of a capital nature is deductible in the manner specified under section 16F while renovation expenditure of a revenue nature is deductible under section 16(1)(e).

45. The Shorter Oxford English Dictionary defines “repair” as “the action or process of restoring something to unimpaired condition by replacing or fixing worn or damaged parts”. It should be noted that in the Privy Council case of *Auckland Gas Co. Ltd. v CIR in 2000*, (STC 527), Lord Nicholls of Birkenhead stated that “the solution is not to be found by any rigid test or description. The answer depends upon a consideration of all the circumstances. They may not all point in the same direction. Then it may be temptingly easy to say the answer is a question of fact and impression. That would be a mistaken approach.... The distinction between repair and replacement is not so unascertainable that it must be placed in the category of an unformulated question of fact.” Thus the question of improvement or repairs to a building or structure is one of fact and degree and close examination of the facts of the particular case is required. The commonly used test for this purpose is the “entirety” test. If the entirety of a building or structure is replaced, it is improvement; and if part of the entirety is replaced, it is repair.

Non-qualifying expenditure

46. The deduction under section 16F does not apply to capital expenditure incurred –

- (a) on a building which is used or intended to be used as a domestic building;
- (b) to enable the building to be first used substantially by the person for the production of chargeable profits;
- (c) to enable the building to be used for a purpose different from that for which it was used immediately before the capital expenditure was incurred.

47. Thus, capital expenditure incurred on the initial construction, decoration or fitting out of a commercial building or structure, and expenditure on alteration of a building to enable a different usage do not qualify for the deduction under section 16F but they may qualify for commercial building allowance under section 33A.

(E) EXPENDITURE ON THE PROVISION OF PRESCRIBED FIXED ASSET – SECTION 16G

48. Section 16G was effective from the year of assessment 1998/99 and onwards to allow a deduction for specified capital expenditure incurred by a person for the provision of a prescribed fixed asset. The section also offered, for the year of assessment 1998/99, a one-off, irrevocable option to elect the write-off of the reduced value of prescribed assets already owned and in use prior to 1998/99.

Specified capital expenditure

49. The term “specified capital expenditure” is defined in section 16G(6). It means any capital expenditure incurred by a person on the provision of a “prescribed fixed asset”, but does not include –

- (a) capital expenditure that may be deducted under any other section;
- (b) capital expenditure incurred under a hire-purchase agreement.

Prescribed fixed asset

50. “Prescribed fixed asset” in turn is defined in section 16G(6) to mean –

- (a) the following items of machinery or plant specified in the First Part of the Table annexed to Rule 2 of the Inland Revenue Rules as is used specifically and directly for any manufacturing process –

<u>Item</u>	<u>Nature of the assets</u>
16	Type and blocks
20	Bleaching and finishing machinery and plant
24	Electronics manufacturing machinery and plant
26	Plastic manufacturing machinery and plant including moulds
28	Silk manufacturing machinery and plant
29	Sulphuric and nitric acid plant
31	Textile and clothing manufacturing machinery and plant
33	Weaving, spinning, knitting and sewing machinery
35	Any other machinery or plant, not specified in items 1 to 34

- (b) computer hardware, other than that which is an integral part of any machinery or plant;
- (c) computer software and computer systems;

but does not include an “excluded fixed asset”.

51. “Excluded fixed asset” means a fixed asset in which any person holds the rights as a lessee under a lease [section 16G(6)].

Manufacturing process

52. To qualify for a deduction under section 16G, the machinery or plant must be used specifically and directly for any manufacturing process. As the

term “manufacturing process” is not defined in the Ordinance, we have to refer to its ordinary meaning. In general, it means a series of activities or operations, usually carried out inside a factory or any other similar premises, for the creation of any new product.

53. Though the term “manufacturing process” is capable of a wide interpretation, it does not include construction. In fact, bulldozers and graders commonly used in construction works are not included in the definition of prescribed fixed asset in section 16G(6).

Computer hardware

54. Prescribed fixed asset includes computer hardware which is not an integral part of any machinery or plant. In other words, stand-alone computer hardware qualifies for deduction but computer hardware forming an integral part of an item of machinery or plant will not be granted the section 16G deduction unless the machinery or plant containing the computer hardware happens to be a prescribed fixed asset.

Computer software and computer system

55. Capital expenditure incurred on computer software and a computer system used in the production of chargeable profits is deductible under section 16G. This includes the relevant consultancy fees and associated costs.

Prescribed fixed asset used partly in the production of chargeable profits

56. Where a prescribed fixed asset is used partly in the production of chargeable profits, the deduction under section 16G shall be such part of the specified capital expenditure as is proportionate to the extent of the use of the asset in the production of the chargeable profits. On sale of such a prescribed fixed asset, the proportionate amount of sale proceeds attributable to the portion used in the production of chargeable profits, limited to the amount of deduction previously allowed under section 16G, shall be treated as a trading receipt.

Sale of the prescribed fixed asset

57. Where the prescribed fixed asset in respect of which a deduction has been allowed under section 16G is sold, the sale proceeds, not otherwise chargeable to profits tax and not exceeding the amount of deduction previously allowed, shall be treated as a trading receipt.

58. The relevant trading receipt shall accrue and be assessable at the time of sale, or the date immediately before the discontinuance of business if the sale occurs on or after the date on which the trade, profession or business is permanently discontinued.

59. The time of sale shall be construed as a reference to the time of completion of the sale, or the time which possession of the asset is given, whichever is the earlier.

Controlled sale

60. Where the prescribed fixed asset is sold and the seller has control over the buyer, or vice versa, or both are under the common control of some other person, or the buyer and seller are husband and wife, the Commissioner may determine the true market value of the asset if he is of the opinion that the sale price does not represent its true market value.

Destruction of the prescribed fixed asset

61. Where a prescribed fixed asset is destroyed, the asset shall be treated as if it had been sold immediately before the destruction. Any insurance money or other compensation of any description received and any money received in respect of the remains of the asset shall be treated as if it were the sale proceeds.

Prescribed fixed asset already owned and in use prior to 1998/99

62. For the year of assessment 1998/99 only, where a person owned and had in use any prescribed fixed asset prior to the year of assessment 1998/99, he may elect to claim as a deduction the reduced value of such asset as at the beginning of the basis period for 1998/99.

63. The reduced value of the prescribed fixed asset as at the beginning of the basis period for 1998/99 shall be the amount of capital expenditure incurred on the provision of that asset as reduced by the depreciation allowances granted on that asset in accordance with Part VI of the Ordinance in all years of assessment prior to 1998/99.

64. The election shall be in writing and shall be lodged before the expiration of one month after the date of the notice of assessment for the year of assessment 1998/99. Such an election, once made, is irrevocable.

(F) EXPENDITURE ON THE PROVISION OF ENVIRONMENTAL PROTECTION FACILITIES – SECTIONS 16H, 16I, 16J AND 16K

65. Sections 16H to 16K were introduced as from the year of assessment 2008/09 to allow deduction for specified capital expenditure on the provision of environmental protection machinery and environmental protection installation. With effect from the year of assessment 2010/11, the deduction was extended to cover specified capital expenditure incurred on the provision of environment-friendly vehicle. These four sections are divided as follows –

<u>Section</u>	<u>Relating to</u>
16H	Definitions and general provisions
16I	Deductions
16J	Proceeds on sale
16K	Facilities owned as at the commencement date

Specified capital expenditure

66. The term “specified capital expenditure” in relation to environmental protection facilities is defined to mean any capital expenditure incurred on –

- (a) the provision of environmental protection machinery or environment-friendly vehicle; or
- (b) the construction of environmental protection installation;

but does not include –

- (a) capital expenditure that may be deducted under any other section; or
- (b) capital expenditure incurred under a hire-purchase agreement.

67. Allowable specified capital expenditure hence does not include, for example, expenditure on research and development already deducted under section 16B. Also, specified capital expenditure deducted will not qualify for depreciation allowance.

Environmental protection machinery

68. “Environmental protection machinery” is defined to mean machinery or plant that is specified in Part 1 of Schedule 17 to the Ordinance, but does not include machinery or plant in which a person holds rights as a lessee under a lease. Part 1 of Schedule 17 specifies the following machinery or plant –

- (a) low noise construction machinery or plant registered under the Quality Powered Mechanical Equipment system administered by the Environmental Protection Department;
- (b) air pollution control machinery or plant in compliance with the requirements under the Air Pollution Control Ordinance (Cap. 311);
- (c) waste treatment machinery or plant in compliance with the requirements under the Waste Disposal Ordinance (Cap. 354);
or
- (d) wastewater treatment machinery or plant in compliance with the requirements under the Water Pollution Control Ordinance (Cap. 358).

69. The list of registered low noise construction machinery or plant can be accessed at the web site of the Environmental Protection Department (www.epd.gov.hk). In ascertaining whether an item of machinery or plant

complies with the requirements under the pollution control ordinances, the Assessor may make references to the following documents –

Air Pollution Control Ordinance	<ul style="list-style-type: none"> • Licence issued under section 15 • Air pollution control plan required under section 14A
Waste Disposal Ordinance	<ul style="list-style-type: none"> • Waste collection licence issued under section 21
Water Pollution Control Ordinance	<ul style="list-style-type: none"> • Licence issued under section 20

Environment-friendly vehicle

70. “Environment-friendly vehicle” is defined to mean a vehicle that is specified in Part 3 of Schedule 17, but does not include a vehicle in which a person holds rights as a lessee under a lease. Part 3 of Schedule 17 specifies the following environment-friendly vehicles –

- (a) any vehicle qualified for remission of first registration tax (as defined by section 2(1) of the Motor Vehicles (First Registration Tax) Ordinance (Cap. 330)) under the following schemes administered by the Environmental Protection Department –
 - (i) the Tax Incentives Scheme for Environment-friendly Commercial Vehicles;
 - (ii) the Tax Incentives Scheme for Environment-friendly Petrol Private Cars.

- (b) any motor vehicle (as defined by section 2(1) of the Motor Vehicles (First Registration Tax) Ordinance (Cap. 330)) that is capable of drawing energy from both of the following on-vehicle sources of stored energy or power for mechanical propulsion –
 - (i) consumable fuel;

- (ii) battery, capacitor, flywheel, generator or other electrical energy or power storage device.
- (c) any motor vehicle (as defined by section 2(1) of the Motor Vehicles (First Registration Tax) Ordinance (Cap. 330)) that is solely propelled by electric power and do not emit any exhaust gas.

Environmental protection installation

71. “Environmental protection installation” is defined to mean any installation, or part of any installation, that is specified in Part 2 of Schedule 17 and forms a building or structure. Part 2 of Schedule 17 specifies the following installations –

- (a) any of the following installations –
 - (i) solar water heating installations;
 - (ii) solar photovoltaic installations;
 - (iii) wind turbine installations;
 - (iv) offshore wind farm installations;
 - (v) landfill gas installations;
 - (vi) anaerobic digestion installations;
 - (vii) thermal waste treatment installations;
 - (viii) wave power installations;
 - (ix) hydroelectric installations;
 - (x) bio-fuel installations;
 - (xi) biomass combined-heat-and-power installations;
 - (xii) geothermal installations.
- (b) energy efficient building installations registered under the Hong Kong Energy Efficiency Registration Scheme for Buildings administered by the Electrical and Mechanical Services Department.

72. The list of registered energy efficient building installations can be accessed at the web site of the Electrical and Mechanical Services Department

(www.emsd.gov.hk). The qualifying installations cover lighting installations, air conditioning installations, electrical installations and lift and escalator installations. The building envelope itself is not a qualifying installation but commercial building allowance or industrial building allowance may be granted on the costs of construction as appropriate.

When allowable

73. Capital expenditure for the provision of such machinery or vehicle is allowable in full in the basis period for the year of assessment in which it was incurred [section 16I(2)]. Capital expenditure for the provision of such installation is allowed as a deduction by five equal instalments. The first instalment is allowed in the basis period during which the expenditure was incurred, and the remaining four instalments in the basis periods of the four succeeding years of assessment [section 16I(3)].

Example 1

A Ltd constructed an environmental protection installation at a cost of \$2,000,000. The building contract provided that an upfront payment of \$500,000 be made before 31 March 2009 and the balance of \$1,500,000 be paid by instalments before 30 November 2009. The installation was completed and put into use in January 2010. A Ltd makes up its accounts to 31 March each year.

Year of Assessment 2008/09

(Basis period: 1 April 2008 to 31 March 2009)

	\$
Deduction on the upfront payment (\$500,000 x 20%)	<u>100,000</u>

Year of Assessment 2009/10

(Basis period: 1 April 2009 to 31 March 2010)

	\$
Deduction on the upfront payment (\$500,000 x 20%)	100,000
Deduction on the instalments (\$1,500,000 x 20%)	<u>300,000</u>
	<u>400,000</u>

(Note – The final year of deduction for the up-front payment is 2012/13 and that for the instalments is 2013/14.)

Environmental protection facilities used partly in the production of chargeable profits

74. If a facility is used partly in the production of chargeable profits and partly for other purposes, the deduction shall be such part of the specified capital expenditure that is proportionate to the extent of the use of the facility in the production of the chargeable profits [section 16I(4)].

Sale of the environmental protection facilities

75. Where a machinery or vehicle in respect of which a deduction has been allowed is sold, the relevant proceeds of sale, not otherwise chargeable to profits tax and not exceeding the amount of deduction previously allowed, shall be treated as a trading receipt [section 16J(2) and (2A)].

76. Under section 16J(3), where an installation in respect of which a deduction has been allowed is sold –

- (a) if the unallowed amount of the installation exceeds the relevant proceeds of sale, the excess shall be deducted in the basis period during which the sale occurs; or
- (b) if the relevant proceeds of sale exceed the unallowed amount of the installation, or if there is not an unallowed amount, the excess or the relevant proceeds of sale, as the case may be, not otherwise chargeable to profits tax and not exceeding the amount of deduction previously allowed, shall be treated as a trading receipt.

77. The term “relevant proceeds of sale”, in relation to an environmental protection facility in respect of which a deduction has been allowed, means –

- (a) if the facility is used wholly in the production of chargeable profits, the proceeds of sale of the facility; or
- (b) if the facility is used partly in the production of chargeable profits, such part of the proceeds of sale of the facility as is proportionate to the extent to which the deduction has been allowed.

78. The term “unallowed amount”, in relation to an environmental protection installation in respect of which a deduction has been allowed and which is subsequently sold, means –

- (a) if the installation is used wholly in the production of chargeable profits, the amount of specified capital expenditure incurred in relation to the installation that is still unallowed as at the time of sale; or
- (b) if the installation is used partly in the production of chargeable profits, such part of the amount referred to in paragraph (a) above as is proportionate to the extent to which the deduction has been allowed.

Example 2

Facts are the same as Example 1, but in November 2011, A Ltd sold the environmental protection installation for \$1,500,000.

Year of Assessment 2011/12

(Basis period: 1 April 2011 to 31 March 2012)

	\$
Specified capital expenditure	2,000,000
Deduction allowed on	
– up-front payment ($\$500,000 \times 20\% \times 3$)	(300,000)
– instalments ($\$1,500,000 \times 20\% \times 2$)	<u>(600,000)</u>
Unallowed amount	1,100,000
Relevant proceeds of sale	<u>1,500,000</u>
Deemed trading receipt	<u><u>400,000</u></u>

Example 3

Facts are the same as Example 2, but A Ltd sold the environmental protection installation for \$800,000.

Year of Assessment 2011/12

(Basis period: 1 April 2011 to 31 March 2012)

	\$
Specified capital expenditure	2,000,000
Deduction allowed on	
– up-front payment ($\$500,000 \times 20\% \times 3$)	(300,000)
– instalments ($\$1,500,000 \times 20\% \times 2$)	<u>(600,000)</u>
Unallowed amount	1,100,000
Relevant proceeds of sale	<u>800,000</u>
Allowable deduction	<u><u>300,000</u></u>

79. The deemed trading receipt in respect of the machinery or installation sold shall accrue and be assessable at the time of the sale. If the sale occurs on or after the date on which the business is permanently discontinued, the deemed trading receipt shall accrue on the date immediately before the date of discontinuance [section 16J(2) and (3)].

80. The deemed trading receipt in respect of the environment-friendly vehicle sold shall accrue and be assessable at the time of the sale if the vehicle is sold before the cessation of business [section 16J(2A)]. If such a vehicle has not been sold, destroyed or stolen before the cessation of business, the vehicle is deemed to have been sold and the owner deemed to have received the proceeds of that sale immediately before business cessation [section 16J(5B)]. The amount of proceeds is such amount the Commissioner may consider the vehicle would have realized had it been sold in the open market at the time of business cessation [section 16J(5C)]. If the vehicle is sold, destroyed or stolen on, or within 12 months after the cessation of business, the owner may claim an adjustment to the amount deemed to have been received by him [section 16J(5D)].

81. The time of sale of a facility is either the time of completion of the sale of the facility, or the time when possession of the facility is given, whichever is the earlier [section 16J(6)].

Controlled sale

82. Where an environmental protection facility is sold and the seller has control over the buyer, or vice versa, or both are under the common control of some other person, or the buyer and seller are husband and wife, the Commissioner may determine the true market value of the facility if he is of the opinion that the sale price does not reflect its true market value [section 16J(4)].

Destruction of environmental protection facilities

83. Where any environmental protection machinery or installation is destroyed, such machinery or installation is deemed to have been sold immediately before the destruction. Any insurance money or other compensation received and any money derived from the remains of such machinery or installation are to be treated as the proceeds of that sale [section 16J(5)].

84. Where any environment-friendly vehicle is destroyed or stolen before the cessation of business, such vehicle is deemed to have been sold immediately before the destruction or theft. Any insurance money or other compensation received and any money derived from the remains of such vehicle are to be treated as the proceeds of that sale [section 16J(5A)]. For cases where the vehicle is destroyed or stolen after cessation, see paragraph 80.

Environmental protection facilities already owned and in use

85. Deduction for capital expenditure on environmental protection machinery or installation was introduced under the Revenue Ordinance 2008 (commencement date – 27 June 2008) and that for environment-friendly vehicle under the Inland Revenue (Amendment) (No. 3) Ordinance 2010 (commencement date – 18 June 2010).

86. Where, immediately before the relevant commencement date, a person –

- (a) owned and had in use such a machinery or vehicle; or
- (b) is entitled to an interest in a commercial building or structure or industrial building or structure (as defined in section 40(1) of the Ordinance) that is such an installation, and that interest is the relevant interest in relation to the capital expenditure incurred on the construction of that building or structure, not including any expenditure incurred on the acquisition of, or of rights in or over, any land,

and he makes an election, that person shall be deemed to have incurred specified capital expenditure in relation to that machinery, vehicle or installation on the commencement date [section 16K(1) and (4)].

87. For environmental protection machinery or installation, if immediately before the commencement date (i.e. 27 June 2008), the relevant machinery or plant, or building or structure, would otherwise have qualified as such but for not complying with the registration or other requirements, and the person makes an election, he shall be deemed to have incurred specified capital expenditure in relation to that machinery or plant, or building or structure, on the date on which the registration or other requirements are complied with [section 16K(2) and (5)].

88. The specified capital expenditure so deemed shall be –

- (a) for such machinery or vehicle: the capital expenditure incurred on the provision of the machinery or plant (including capital expenditure incurred on alterations to an existing building incidental to the installation of the machinery or plant) or vehicle, as reduced by the depreciation allowances granted on that machinery or plant or vehicle under Part VI of the Ordinance in all prior years of assessment [section 16K(3)];

- (b) for such installation: the residue of expenditure under Part VI of the Ordinance in relation to the building or structure immediately before the commencement date, or the date on which the registration or other requirements are complied with, whichever is applicable [section 16K(6)].

89. A person who wishes to be deemed to have incurred specified capital expenditure for a year of assessment should make an election in writing within one month after the date on which a notice of the assessment for that year of assessment is given [section 16K(7)]. The election, once made, is irrevocable [section 16K(8)].

Example 4

B Ltd makes up its account to 31 May each year. It owned an item of environmental protection machinery (EPM-1) and had it in use as at 31 May 2008. On 1 October 2008, B Ltd incurred capital expenditure in acquiring another item of environmental protection machinery (EPM-2).

Year of Assessment 2008/09

(Basis period: 1 June 2007 to 31 May 2008)

The new provisions do not apply to the year of assessment 2008/09 as the commencement date (i.e. 27 June 2008) is after the basis period which ended on 31 May 2008. Depreciation allowance based on the reducing value brought forward as at 1 June 2007 should be claimed for the year of assessment 2008/09.

Year of Assessment 2009/10

(Basis period: 1 June 2008 to 31 May 2009)

In respect of EPM-1, B Ltd may make an election to be deemed to have incurred specified capital expenditure on 27 June 2008. It may then claim full deduction for the reducing value of EPM-1 brought forward as at 1 June 2008.

B Ltd is entitled to claim 100% deduction for the specified capital expenditure incurred on EPM-2 on 1 October 2008 which falls within the basis period for the year of assessment 2009/10.

Example 5

In October 2008, C Ltd incurred capital expenditure in acquiring low noise construction machinery. Registration under the Quality Powered Mechanical Equipment system, however, was not completed until 1 May 2009. C Ltd makes up its account to 31 March each year.

Year of Assessment 2008/09

(Basis period: 1 April 2008 to 31 March 2009)

C Ltd is not entitled to claim deduction on the low noise construction machinery. The machinery was not environmental protection machinery because the registration requirement has not been fulfilled. C Ltd can claim depreciation allowance on the machinery for the year of assessment 2008/09.

Year of Assessment 2009/10

(Basis period: 1 April 2009 to 31 March 2010)

The registration requirement in respect of the machinery was complied with on 1 May 2009. C Ltd may make an election to be deemed to have incurred specified capital expenditure on 1 May 2009 in respect of the machinery. It can claim full deduction for the reducing value of the machinery brought forward as at 1 April 2009 for the year of assessment 2009/10.

**Approved Institutes under Sections 16B and 16C
of the Inland Revenue Ordinance**

Approved Research Institutes under Section 16B(4)(a)

Sir Sik-nin Chau Foundation for Industrial Development
The Chinese Language Press Institute Ltd.
Federation of Hong Kong Industries (Testing Centre)
Hong Kong Plastics Technology Centre Co. Ltd.

Approved Institutes under Section 16C(1)

A. University and Technical Institutes

The Hong Kong Polytechnic University
Hong Kong Institute of Vocational Education (Morrison Hill)
Hong Kong Institute of Vocational Education (Kwun Tong)
Hong Kong Institute of Vocational Education (Lee Wai Lee)
Hong Kong Institute of Vocational Education (Haking Wong)
Hong Kong Institute of Vocational Education (Kwai Chung)

B. Training Centres

Automobile Industry Training Centre
Electrical Industry Training Centre
Electronics Industry Training Centre
Textile Industry Training Centre
Plastics Industry Training Centre
Printing Industry Training Centre
Machine Shop and Metal Working Industry Training Centre
Welding Training Centre
Hospitality Industry Training & Development Centre
(formerly known as Hotel Industry Training Centre)
Seamen's Training Centre
The Management Development Centre of Hong Kong

Note – Please check the web site of the Inland Revenue Department
(www.ird.gov.hk) for the latest update of the lists.