

## **The Challenges of Accounting for Property, Plant and Equipment** (Relevant to Paper 7 – Financial Accounting)

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### **Introduction**

Over the last ten years, Hong Kong's property market has been suffering from huge fluctuations in property prices, with an ever-upward trend. The Centa-City Leading Index (CCL), a weekly index based on current contract prices in Centaline Property Agency Ltd transactions, has increased by nearly 158% since 2006. The sky-high property prices have turned Hong Kong's property market into one of the most expensive in the world in terms of price per square foot. In any case, different types of properties may have varying levels of price fluctuation, which may require different judgement regarding their accounting issues. This article tries to identify some of the common challenges faced when we deal with the accounting treatment of property, plant and equipment.

### **What is Property, Plant and Equipment?**

In Hong Kong, several accounting standards deal with the accounting treatment of property, plant and equipment. HKAS 16 *Property, Plant and Equipment* is the primary standard governing the recognition and measurement of property, plant and equipment.

In accordance with HKAS 16, property, plant and equipment are tangible items that:

1. are held for use in the production or supply of goods or services, for rentals to others, or for administrative purposes; and
2. are expected to be used during more than one period.

#### **Examples of property, plant and equipment:**

- Property held for use as the company's head office
- Property held for use as the factory
- Property under development for future use as the owner-occupied property
- Property occupied by employees.

### **Measuring the Cost of Property, Plant and Equipment**

HKAS 16 specifically mentions that the cost of property, plant and equipment comprises:

1. its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;

2. any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management; and
3. the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

**Example 1**

On 1 April 2016, WXY Limited acquired a machine. Below are the total expenditures the company spent on the machine:

	\$
Purchase price	340,000
Less: Trade discount	<u>(17,000)</u>
	323,000
Delivery charge	15,000
Legal cost	4,000
Installation and testing fee	3,500
Insurance for the period to 31 March 2017	1,200
Maintenance fee	<u>3,600</u>
	<u><u>350,300</u></u>

What is the initial cost of the machine to be recognised in accordance with HKAS 16?

**Solution:**

The machine's initial cost is \$345,500 (\$323,000 + \$15,000 + \$4,000 + \$3,500).

Insurance and maintenance fees are daily operating costs and hence should be recognised as an expense in the period when they occur.

If the company develops the property on its own, the company must take into consideration another accounting standard — HKAS 23 (Revised) *Borrowing Costs* — for the recognition of interest in connection with the borrowing of funds for the development of property, plant and equipment.

HKAS 23 specifies that an entity shall capitalise borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

### **Example 2**

On 1 August 2015, WXY Limited purchased a property at \$6,500,000 for owner-occupation. To finance the acquisition, the company borrowed \$5,000,000 from the bank at an interest rate of 3% per annum.

For the financial statements of WXY Limited for the year ended 31 March 2016, what is the carrying amount of the property?

#### **Solution:**

The carrying amount as at 31 March 2016 is \$6,500,000.

The property is ready for use and hence it does not match the definition of a qualifying asset. The interest on the bank loan amounting to \$100,000 ( $\$5,000,000 \times 3\% \times 8/12$ ) should be recognised as an interest expense for the year ended 31 March 2016.

### **Example 3**

On 1 February 2016, WXY Limited began construction of a property for future owner-occupation and incurred an expenditure of \$2,800,000. To finance the construction, the company specifically borrowed \$4,000,000 from a bank at an interest rate of 3% per annum.

For the financial statement of WXY Limited for the year ended 31 March 2016, what is the carrying amount of the property?

#### **Solution:**

The carrying amount as at 31 March 2016 is \$2,820,000 ( $\$2,800,000 + \$4,000,000 \times 3\% \times 2/12$ ).

In this example, the property is under construction and is expected to take substantial period of time to get ready for its intended use. Thus, it is a qualifying asset and WXY Limited should capitalise the interest incurred as part of the costs of the property.

### **Handling Changes in Fair Value**

Subsequent to the initial recognition, the company could choose to measure property, plant and equipment using either the cost model or the revaluation model. When the revaluation model is used, it is necessary to carry the property, plant and equipment at a revalued amount less any subsequent accumulated depreciation and less any subsequent accumulated impairment losses.

Any increase in fair value is thus reflected in the revaluation surplus and included in the equity. Such revaluation surplus should be transferred to retained earnings when the asset is in use or is derecognised.

**Example 4**

On 1 April 2015, WXY Limited purchased a property at \$3,400,000 with an estimated useful life of 10 years. On 31 March 2016, the fair value of the property is valued at \$3,780,000.

Under the revaluation model, what are the accounting treatments in relation to the property for the years ended 31 March 2016 and 2017?

**Solution:**

<u>1 April 2016</u>	Dr. (\$)	Cr. (\$)
<u>Dr. Property, plant and equipment</u>	3,400,000	
<u>Cr. Bank</u>		3,400,000
<u>Being purchase of property.</u>		

<u>31 March 2016</u>		
Dr. Depreciation expenses	340,000	
Cr. Accumulated depreciation		340,000
(\$3,400,000 / 10 years)		
Being depreciation expense for the year ended 31 March 2016.		

<u>31 March 2016</u>	Dr. (\$)	Cr. (\$)
Dr. Accumulated depreciation	340,000	
Dr. Property, plant and equipment	380,000	
Cr. Revaluation Surplus		720,000
[\$3,780,000 - (\$3,400,000 - \$340,000)]		
Being revaluation of property for the year ended 31 March 2016.		

<u>31 March 2017</u>		
Dr. Depreciation expenses	420,000	
Cr. Accumulated depreciation		420,000
(\$3,780,000 / 9 years)		
Being depreciation expense for the year ended 31 March 2017.		

Dr. Revaluation surplus	80,000	
Cr. Retained earnings		80,000
(\$420,000 - \$340,000)		
Being partial transfer of revaluation surplus to retained earnings.		

## Handling Changes to Estimated Useful Life

The company must review the useful life at least at the end of each financial year. When there is a change in circumstances, such as changes in expected usage, wear and tear or economic conditions, the company must revise the asset's useful life. A change in the useful life is a common situation because it is a matter of judgement and calculated on the basis of experience. Such changes should be accounted for as a change in accounting estimates as described in HKAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*.

In accordance with HKAS 8, changes in useful life should be accounted for prospectively. The company must allocate its carrying amount as depreciation over the estimated remaining useful life of the asset.

### **Example 5**

On 1 January 2014, WXY Limited purchased a machine at \$600,000 with an estimated useful life of 10 years. On 31 December 2016, the company revised its estimated remaining useful life to 5 years due to the invention of a new model of machine.

How should the change in the estimated useful life of the machine be dealt with in the financial statements for the years ended 31 December 2016 and 2017?

### **Solution:**

For the year ended 31 December 2016, the company should provide depreciation expense on the basis of the original estimated useful life i.e. \$60,000 ( $\$600,000 / 10$ ).

However, starting from the year ended 31 December 2017, due to changes in the estimated remaining useful life with a shorter lifespan, the company must allocate the carrying amount as at 1 January 2017 over the revised estimated remaining useful life as follows:

Cost	\$600,000
Less: Accumulated depreciation as at 31 December 2016 ( $\$600,000 / 10 \times 3$ )	<u>(\$180,000)</u>
Carrying amount as at 1 January 2017	<u><u>\$420,000</u></u>
Depreciation expense for the year ended 31 December 2017: ( $\$420,000 / 5$ )	<u><u>\$84,000</u></u>

### **Conclusion**

In this article, I have only pointed out some of the common issues faced when dealing with the accounting treatment for property, plant and equipment. Accountants should consider not only applying HKAS 16, but also exercise their judgement and make reference to other accounting standards in order to gain a holistic picture on the handling of various transactions relating to property, plant and equipment.