# SSAP 22
# STATEMENT OF STANDARD ACCOUNTING PRACTICE 22
# INVENTORIES

*(Issued May 1998; Revised January 2001)*

*The standards, which have been set in **bold italic type,** should be read in the context of the background material and implementation guidance and in the context of the Foreword to Statements of Standard Accounting Practice and Accounting Guidelines. Statements of Standard Accounting Practice are not intended to apply to immaterial items (see paragraph 8 of the Foreword).*

## Introduction

The objective of this Statement is to prescribe the accounting treatment for inventories under the historical cost system. A primary issue in accounting for inventories is the amount of cost to be recognised as an asset and carried forward until the related revenues are recognised. This Statement provides practical guidance on the determination of cost and its subsequent recognition as an expense, including any write-down to net realisable value. It also provides guidance on the cost formulas that are used to assign costs to inventories.

## Scope

***1. This Statement should be applied in financial statements prepared in the context of the historical cost system in accounting for inventories other than:***

***a. work in progress arising under construction contracts, including directly related service contracts (see SSAP 23 "Construction contracts");***

***b. financial instruments; and***

***c. producers' inventories of livestock, agricultural and forest products, and mineral ores to the extent that they are measured at net realisable value in accordance with well established practices in certain industries.***

2. The inventories referred to in paragraph 1(c) are measured at net realisable value at certain stages of production. This occurs, for example, when agricultural crops have been harvested or mineral ores have been extracted and sale is assured under a forward contract or a government guarantee, or when a homogenous market exists and there is a negligible risk of failure to sell. These inventories are excluded from the scope of this Statement.

## Definitions

***3. The following terms are used in this Statement with the meanings specified:***

***"Inventories" are assets:***

***a. held for sale in the ordinary course of business;***

***b. in the process of production for such sale; or***

*c.* ***in the form of materials or supplies to be consumed in the production process or in the rendering of services.***

***"Net realisable value" is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.***

4. Inventories encompass goods purchased and held for resale including, for example, merchandise purchased by a retailer and held for resale, or land and other property held for resale. Inventories also encompass finished goods produced, or work in progress being produced, by the enterprise and include materials and supplies awaiting use in the production process. In the case of a service provider, inventories include the costs of the service, as described in paragraph 14, for which the enterprise has not yet recognised the related revenue (see SSAP 18 "Revenue").

## Measurement of inventories

*5.* ***Inventories should be measured at the lower of cost and net realisable value.***

## Cost of inventories

*6.* ***The cost of inventories should comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.***

## Costs of purchase

7. The costs of purchase of inventories comprise the purchase price, import duties and other taxes (other than those subsequently recoverable by the enterprise from the taxing authorities), and transport, handling and other costs directly attributable to the acquisition of finished goods, materials and services. Trade discounts, rebates and other similar items are deducted in determining the costs of purchase.

## Costs of conversion

8. The costs of conversion of inventories include costs directly related to the units of production, such as direct labour. They also include a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. Fixed production overheads are those indirect costs of production that remain relatively constant regardless of the volume of production, such as depreciation and maintenance of factory buildings and equipment, and the cost of factory management and administration. Variable production overheads are those indirect costs of production that vary directly, or nearly directly, with the volume of production, such as indirect materials and indirect labour.

9. The allocation of fixed production overheads to the costs of conversion is based on the normal capacity of the production facilities. Normal capacity is the production expected to be achieved on average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. The actual level of production may be used if it approximates normal capacity. The amount of fixed overhead allocated to each unit of production is not increased as a consequence of low production or idle plant. Unallocated overheads are recognised as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost. Variable production overheads are allocated to each unit of production on the basis of the actual use of the production facilities.

10. A production process may result in more than one product being produced simultaneously. This is the case, for example, when joint products are produced or when there is a main product and a by-product. When the costs of conversion of each product are not separately identifiable, they are allocated between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately identifiable, or at the completion of production. Most by-products, by their nature, are immaterial. When this is the case, they are often measured at net realisable value and this value is deducted from the cost of the main product. As a result, the carrying amount of the main product is not materially different from its cost.

## Other costs

11. Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition. For example, it may be appropriate to include non-production overheads or the costs of designing products for specific customers in the cost of inventories.

12. Examples of costs excluded from the cost of inventories and recognised as expenses in the period in which they are incurred are:

    a. abnormal amounts of wasted materials, labour, or other production costs;

    b. storage costs, unless those costs are necessary in the production process prior to a further production stage;

    c. administrative overheads that do not contribute to bringing inventories to their present location and condition; and

    d. selling costs.

13. In limited circumstances, borrowing costs are included in the cost of inventories. These circumstances are identified in SSAP 19 "Borrowing costs".

## Cost of inventories of a service provider

14. The cost of inventories of a service provider consists primarily of the labour and other costs of personnel directly engaged in providing the service, including supervisory personnel, and attributable overheads. Labour and other costs relating to sales and general administrative personnel are not included but are recognised as expenses in the period in which they are incurred.

## Techniques for the measurement of cost

15. Techniques for the measurement of the cost of inventories, such as the standard cost method or the retail method, may be used for convenience if the results approximate cost. Standard costs take into account normal levels of materials and supplies, labour, efficiency and capacity utilisation. They are regularly reviewed and, if necessary, revised in the light of current conditions.

16. The retail method is often used in the retail industry for measuring inventories of large numbers of rapidly changing items, that have similar margins and for which it is impracticable to use other costing methods. The cost of the inventory is determined by reducing the sales value of the inventory by the appropriate percentage gross margin. The percentage used takes into consideration inventory which has been marked down to below its original selling price. An average percentage for each retail department is often used.

## Cost formulas

***17. The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects should be assigned by using specific identification of their individual costs.***

18. Specific identification of cost means that specific costs are attributed to identified items of inventory. This is an appropriate treatment for items that are segregated for a specific project, regardless of whether they have been bought or produced. However, specific identification of costs is inappropriate when there are large numbers of items of inventory which are ordinarily interchangeable. In such circumstances, the method of selecting those items that remain in inventories could be used to obtain predetermined effects on the net profit or loss for the period.

***19. The cost of inventories, other than those dealt with in paragraph 17, should be assigned by using the first-in, first-out (FIFO) or weighted average cost formulas.***

20. The FIFO formula assumes that the items of inventory which were purchased first are sold first, and consequently the items remaining in inventory at the end of the period are those most recently purchased or produced. Under the weighted average cost formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period. The average may be calculated on a periodic basis, or as each additional shipment is received, depending upon the circumstances of the enterprise.

## Net realisable value

21. The cost of inventories may not be recoverable if those inventories are damaged, if they have become wholly or partially obsolete, or if their selling prices have declined. The cost of inventories may also not be recoverable if the estimated costs of completion or the estimated costs to be incurred to make the sale have increased. The practice of writing inventories down below cost to net realisable value is consistent with the view that assets should not be carried in excess of amounts expected to be realised from their sale or use.

22. Inventories are usually written down to net realisable value on an item by item basis. In some circumstances, however, it may be appropriate to group similar or related items. This may be the case with items of inventory relating to the same product line that have similar purposes or end uses, are produced and marketed in the same geographical area, and cannot be practicably evaluated separately from other items in that product line. It is not appropriate to write inventories down based on a classification of inventory, for example, finished goods, or all the inventories in a particular industry or geographical segment. Service providers generally accumulate costs in respect of each service for which a separate selling price will be charged. Therefore, each such service is treated as a separate item.

23. Estimates of net realisable value are based on the most reliable evidence available at the time the estimates are made as to the amount the inventories are expected to realise. These estimates take into consideration fluctuations of price or cost directly relating to events occurring after the end of the period to the extent that such events confirm conditions existing at the end of the period.

24. Estimates of net realisable value also take into consideration the purpose for which the inventory is held. For example, the net realisable value of the quantity of inventory held to satisfy firm sales or service is based on the contract price. If the sales contracts are for less than the inventory quantities held, the net realisable value of the excess is based on general selling prices. Provisions or contingent liabilities may arise from ~~Contingent losses on~~ firm sales contracts in excess of inventory quantities held or from ~~and contingent losses on~~ firm purchase contracts. ~~are dealt with in accordance with SSAP 8 "Accounting for contingencies".~~ Such provisions or contingent liabilities are dealt with under SSAP 28 "Provisions, contingent liabilities and contingent assets".

25. Materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. However, when a decline in the price of materials indicated that the cost of the finished products will exceed net realisable value, the materials are written down to net realisable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net realisable value.

26. A new assessment is made of net realisable value in each subsequent period. When the circumstances which previously caused inventories to be written down below cost no longer exist, the amount of the write-down is reversed so that the new carrying amount is the lower of the cost and the revised net realisable value. This occurs, for example, when an item of inventory, which is carried at net realisable value because its selling price has declined, is still on hand in a subsequent period and its selling price has increased.

## Recognition as an expense

***27. When inventories are sold, the carrying amount of those inventories should be recognised as an expense in the period in which the related revenue is recognised. The amount of any write-down of inventories to net realisable value and all losses of inventories should be recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realisable value, should be recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.***

28. The process of recognising as an expense the carrying amount of inventories sold results in the matching of costs and revenues.

29. Some inventories may be allocated to other asset accounts, for example, inventory used as a component of self-constructed property, plant or equipment. Inventories allocated to another asset in this way are recognised as an expense during the useful life of that asset.

## Disclosure

***30. The financial statements should disclose:***

***a. the accounting policies adopted in measuring inventories, including the cost formula used;***

***b. the total carrying amount of inventories and the carrying amount in classifications appropriate to the enterprise;***

***c. the carrying amount of inventories carried at net realisable value;***

***d. the amount of any reversal of any write-down that is recognised as income in the period in accordance with paragraph 27;***

***e. the circumstances or events that led to the reversal of a write-down of inventories in accordance with paragraph 27; and***

***f. the carrying amount of inventories pledged as security for liabilities.***

31. Information about the carrying amounts held in different classifications of inventories and the extent of the changes in these assets is useful to financial statement users. Common classifications of inventories are merchandise, production supplies, materials, work in progress and finished goods. The inventories of a service provider may simply be described as work in progress.

***32. The financial statements should disclose either:***

***a. the cost of inventories recognised as an expense during the period; or***

***b. the operating costs, applicable to revenues, recognised as an expense during the period, classified by their nature.***

33. The cost of inventories recognised as an expense during the period consist of those costs previously included in the measurement of the items of inventory sold and unallocated production overheads and abnormal amounts of production costs of inventories. The circumstances of the enterprise may also warrant the inclusion of other costs, such as distribution costs.

34. Some enterprises adopt a different format for the profit and loss account which results in different amounts being disclosed instead of the cost of inventories recognised as an expense during the period. Under this different format, an enterprise discloses the amounts of operating costs, applicable to revenues for the period, classified by their nature. In this case, the enterprise discloses the costs recognised as an expense for raw materials and consumables, labour costs and other operating costs together with the amount of the net change in inventories for the period.

35. A write-down to net realisable value may be of such size, incidence or nature to require disclosure under SSAP 2 "Extraordinary items and prior period adjustments".

## Effective date

***36. The accounting practices set out in this Statement should be regarded as standard in respect of financial statements relating to periods beginning on or after 1 January 1998. Earlier adoption is encouraged but not required.***

37. This Statement and SSAP 23 "Construction contracts" supersede SSAP 3 "Stocks and work in progress".

## Transitional arrangements

***38. When the adoption of this Statement constitutes a change in accounting policy, an enterprise should adjust its financial statements in accordance with SSAP 2 "Extraordinary items and prior period adjustments".***

## Note on legal requirements in Hong Kong

39. Paragraph 12(13) of the Tenth Schedule to the Companies Ordinance requires the disclosure of the manner in which the carrying amount of stock in trade or work in progress has been calculated.

## Compliance with International Accounting Standard

40. Compliance with this Statement ensures compliance with International Accounting Standard IAS 2 "Inventories".