# TREASURER'S DIRECTIONS

# ACCOUNTING – ASSETS

# Section A2.8 : Inventories

## STATEMENT OF INTENT

*As Agency assets, inventories should be appropriately recorded and managed. This Section explains what inventories are, when they should be recognised, and how they should be managed.*

## MAIN FEATURES

Section 38 of the *Financial Management Act* requires every Accountable Officer and every employee of an Agency to comply with the Treasurer's Directions.

### Inventories

- Inventories are Agency assets that are:
  - held for sale in the ordinary course of business;
  - in the process of production or preparation for sale;
  - in the form of materials or supplies to be consumed in the production process or in rendering of services; or
  - held for distribution at no or nominal consideration.

### Recognition of Inventories

- An Agency is to recognise and record inventory, at the end of the reporting period in the case of the periodic method, or on a continuous basis in the case of the perpetual method.
- An Agency is to recognise and record inventories other than inventories held for distribution at the lower of cost or net realisable value.
- An Agency is to recognise and record inventories held for distribution at the lower of cost and current replacement cost.

### Inventory Management

- Inventories are to be subject to appropriate management, accountability and control arrangements including the conduct of a physical count of all material inventory at the end of each reporting period.

For authoritative instruction and guidance, reference should be made to related Treasurer's Directions and associated commentary, relevant Australian accounting standards and other authoritative interpretations.

CONTENTS



AUTHORITIES

*Financial Management Act*

REFERENCES

| | |
|---|---|
| AAS 29 | Financial Reporting by Government Departments |
| AASB 102 | Inventories |

*Related Treasurer's Directions:*

| | |
|---|---|
| A2.1 | Accounting – Assets : Overview |
| A2.11 | Accounting – Assets : Construction (Work in Progress) |
| A6.3 | Accounting – Expenses : General Expenses |

## WHAT ARE INVENTORIES ?

A2.8.1

> Inventories are Agency assets that are:
>
> - held for sale in the ordinary course of business;
> - in the process of production or preparation for sale;
> - in the form of materials or supplies to be consumed in the production process or in rendering of services; or
> - held for distribution at no or nominal consideration.

(i) Recording inventories as an asset provides the Agency and users of financial statements with information about the cost of inventory on hand at the end of the reporting period and the cost of inventory sold or consumed in the production or delivery of Agency outputs.

(ii) While a majority of Agencies will hold inventory to be consumed in the delivery of Agency outputs, it is not considered cost effective to record these materials and supplies as inventory unless the materials and supplies require strong controls over use or are of significant value.

(iii) Examples of Agency inventory include:

- medical supplies used in hospitals and health clinics;
- books, posters, maps and other publications held for sale or distribution; and
- partially complete printing of publications (inventory works in progress).

(iv) For financial reporting purposes Agency inventories will be split into general inventories and inventory held for distribution. Inventories held for distribution are assets:

- held for distribution at no or nominal consideration in the ordinary course of operations;
- in the process of production for distribution at no or nominal consideration in the ordinary course of operations; or
- in the form of materials or supplies to be consumed in the production process or in the rendering of services at no or nominal consideration.

(v) Inventories held for distribution may arise when an Agency consumes or distributes certain goods at no charge or for a nominal amount. For example, a hospital may administer drugs (held as inventory) to patients as part of the delivery of patient services.

(vi) From a practical point of view, an inventory asset would not be recognised for small quantities of low value materials or supplies. For example, office stationery held for administrative purposes is not considered to be inventory as the costs of management are likely to significantly exceed the benefits associated with greater control of the assets.

(vii) In the majority of cases, land and buildings, even when held for sale, will be classified as property and building assets. However, where development of land or buildings occurs in the ordinary course of business the development may, in certain situations, be reclassified as inventory.

(viii) The following are examples of items that are not considered to be inventories:

- office stationery held for administrative purposes;
- biological assets;
- capital works projects under construction (refer to Treasurer's Directions Section A.2.11);
- financial instruments; and
- work in progress of services to be provided for no or nominal consideration directly in return from the recipients.

## RECOGNITION OF INVENTORIES

A2.8.2

> An Agency is to recognise and record inventory:
>
> - at the end of the reporting period in the case of the periodic method; or
> - on a continuous basis, in the case of the perpetual method.

(i) Inventory is generally recorded as a current asset in Agency financial statements. For materials and supplies to be recorded as inventory they are required to meet the definition and recognition criteria of an asset. Inventory will satisfy this criteria if:

- it is probable that the future economic benefits embodied in the inventory will flow to the Agency; and
- the inventory possesses a cost or other value that can be measured reliably.

Treasurer's Directions Section A2.1 provides further instruction and guidance in relation to the recognition of assets.

(ii) There are two methods of recording and managing inventory. The periodic method is considered suitable for Agencies that require less control over day to day inventory management and will often be used for smaller value inventory items. The perpetual method is generally used when greater control over inventory stocks is required, often as a result of high unit product costs or values.

(iii) Under the periodic method, purchases of inventory are recognised as an expense at the time of purchase. The value of inventory is adjusted periodically, when a physical count of inventory is conducted. A closing inventory balance is determined by conducting a physical count, pricing individual or grouped items, multiplying unit costs by the number of items, and then aggregating the amounts at the end of the reporting period. At period end an inventory asset is raised and the appropriate expense account is adjusted for the difference between opening inventory and closing inventory. This method provides the most cost-effective way of managing inventory where low value inventory items are concerned. Appendix A illustrates the accounting treatment for the periodic method.

(iv) Under the perpetual method, inventory records are continually updated. Inventory records would be updated:

- at the time of purchase or acquisition - inventory will be recognised as an asset;
- at the time of delivery of goods or services - the cost of inventory consumed is determined and recognised as an expense with an equal reduction in the inventory asset; and
- when a physical stock count detects a variance between system records and actual units of stock held (for example, inventory losses).

Appendix B illustrates the accounting treatment for the perpetual method.

A2.8.3 **An Agency is to recognise and record all inventories, other than those held for distribution, at the lower of cost and net realisable value.**

A2.8.4 **An Agency is to recognise and record inventories held for distribution at the lower of cost and current replacement cost.**

(i) The cost of inventories shall comprise all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. Where inventories are acquired at no or nominal consideration, the cost will be current replacement cost at date of acquisition.

(ii) Typically inventory costs include:

- invoice price of inventory items or components (net of trade discounts);
- duties and taxes;
- freight inward charges;
- direct labour costs; and
- other direct production, preparation or conversion costs.

(iii) Net realisable value is the amount expected to be received on sale or disposal of inventory after deducting expected costs, such as costs incurred in completion, marketing, selling and distribution.

(iv) In respect of inventories held for distribution, current replacement cost is the cost the Agency would incur to acquire the asset at the reporting date.

(v) The most common time to evaluate the cost, net realisable value or current replacement cost of inventory is when a stocktake of inventory is undertaken. Inventory management including stocktakes is addressed later in these Directions.

(vi) When it is impracticable to measure items of inventory separately due to a large number of homogeneous items with small cost, inventories may be grouped, and the aggregate of the grouped inventories is measured at the lower of cost or net realisable value. For example, inventories may be grouped if:

- they are similar in nature or function;
- cannot be practicably evaluated separately from other items in that product line; and/or
- are produced and marketed in the same geographical area.

A2.8.5 **An Agency is to account for the use, sale, distribution or loss of inventory as an expense in the reporting period in which the use, sale, distribution or loss occurs.**

(i) The use, sale, distribution or loss of inventory results in a reduction in inventory and an increase in expenses. An Agency is to account for the use, sale, distribution or loss (for example, theft, damage or obsolescence) of inventory in the reporting period that the use, sale, distribution or loss occurs.

(ii) When the cost of inventory is greater than net realisable value, inventory will be written down to net realisable value. In these situations, inventory will be reduced and an expense incurred equivalent to the amount written down in the reporting period in which the write down occurs.

A2.8.6 **One of the following cost allocation methods is to be applied to the cost of inventory sold and closing inventory:**

- **First In First Out;**
- **Weighted Average Cost;**
- **Standard Cost; or**
- **Specific Identification.**

(i) Under the First In First Out (FIFO) method, costs are assigned to inventory on the assumption that the first items purchased are the first items to be sold.

(ii) The weighted average cost method calculates the average cost per unit for each category of inventory by dividing the cost of inventory (opening inventory plus purchases) by the total number of inventory units. Closing inventory is determined by multiplying the unit cost by the number of units on hand at the end of the reporting period. The weighted average cost method is a simple method to apply and better matches revenues during times of significant price changes.

$$\frac{\text{Total cost of inventory}}{\text{Total inventory units}} = \text{Weighted Average unit cost}$$

(iii) The standard cost method allocates costs to inventory using predetermined costs. Standard costs are estimates and to be acceptable for inventory measurement they need to be realistically attainable, reviewed regularly and revised to reflect current conditions.

(iv) The specific identification cost allocation method assigns the actual costs incurred to specific inventory items. Specific identification is primarily used when the costs associated with individual items are easily identifiable and are of a high unit cost.

A2.8.7 **The cost allocation method is to be consistently applied in subsequent reporting periods and the same cost allocation method is to be adopted for all inventories having similar nature and use to the Agency.**

(i) The different methods of allocating costs to inventory will result in different values being reported in an Agency's financial statements. Whilst any of the methods noted in Direction A2.8.6 are acceptable, it is important to note that, once a method is selected, it is to be consistently applied by the Agency in subsequent reporting periods.

## INVENTORY MANAGEMENT

A2.8.8 | **Inventories are to be subject to appropriate management, accountability and control arrangements.**

(i) As items of 'public property', all assets, including inventories, should be subject to appropriate management, accountability and control arrangements. These arrangements should take account of the relative size, importance, and portability of an Agency's inventory holdings.

(ii) Each Agency should consider the following in the development of appropriate management, accountability and control arrangements for inventories:

- full accountability for purchases and disposals;
- safeguarding and protection of inventory against loss or damage; and
- monitoring of condition, use and performance.

(iii) Specific internal controls that may be appropriate for inventories include:

- segregation of duties (for example, the separation of duties for authorisation of purchases, recording of purchases and recording of the use of inventory);
- performing a physical count of inventory at regular intervals;
- maintaining appropriate storage facilities;
- ensuring that staff have appropriate handling knowledge of inventory; and
- determining appropriate re-order points, to avoid over or under stock of inventory.

A2.8.9 | **A physical count of all material inventory items is to be undertaken at least annually.**

(i) A physical count of all material inventory items should be undertaken on an annual basis. To enable more efficient management of inventory, a physical count of high value inventory items may be carried out more frequently.

A2.8.10 **Where inventory is lost, stolen or ceases to retain future economic benefits, approval is to be obtained from the Treasurer to write-off the value of the inventory in accordance with the *Financial Management Act*.**

(i) Approval is required under the *Financial Management Act* to write-off the value of inventory. Situations where inventory write-off action will be required include:

- loss of inventory;
- theft of inventory;
- the inventory has become unserviceable; or
- the inventory has become obsolete.

(ii) Each Agency should take adequate steps to ensure that inventory loss, theft or obsolescence is minimised. In situations where inventory cannot be located, write-off action should not occur until it is clear that the inventory in question has been lost or stolen. Once approval to write-off the value of inventory has been obtained, the inventory may be removed from inventory and accounting records.

(iii) To facilitate efficient financial administration, the Treasurer has delegated the power to write-off assets to specific persons. Each of these write-off delegations are subject to specific financial limits and may only be further delegated or amended by the Treasurer. These financial limitations relate to the aggregate amount of the write-off and as such, an inventory write-off must be considered as a whole when determining if a delegation may be utilised. Treasurer's Directions Section F3.3 and Appendix B to that Section provides additional instruction and guidance in relation to delegations.

(iv) Appropriate documentation should be maintained for all write-offs, including those approved by delegates. Treasurer's Directions Section G2.6 provides additional instruction and guidance in relation to asset write-offs.

APPENDIX A

## PERIODIC METHOD OF RECOGNISING INVENTORY - EXAMPLE

The following journals summarise the recording of inventory under the periodic method. Under the periodic method inventory is expensed when purchased, with an inventory asset recognised at the end of the reporting period equivalent to remaining inventory on hand.

An Agency that provides medical services has an opening inventory held for distribution balance for medical supplies of $25,000. During the reporting period the Agency purchases additional medical supplies at a cost of $55,000 (GST inclusive). The journal to record the purchase of medical supplies is:

| | | | | |
|---|---|---|---|---|
| DR | Medical Supplies Expense | *(Increase in Expense – Operating Statement)* | $50,000 | |
| DR | GST Due/Received | *(Increase in Assets – Balance Sheet)* | $5,000 | |
| CR | Accounts Payable | *(Increase in Liabilities – Balance Sheet)* | | $55,000 |

A physical count of inventory at the end of the reporting period determines that the closing balance of inventory is $15,000. The difference between opening and closing inventory balances is a reduction of $10,000 ($25,000 less $15,000). The journal to adjust the balance of inventory to the correct closing balance is:

| | | | | |
|---|---|---|---|---|
| DR | Medical Supplies Expense | (*Increase in Expense – Operating Statement*) | $10,000 | |
| CR | Inventories Held For Distribution | *(Decrease in Asset – Balance Sheet)* | | $10,000 |

The Agency's closed inventory balance is therefore $15,000 and the total amount expensed for the period is $60,000 ($50,000 + $10,000). This expense equates to the inventory items used, as shown below:

| | | $ |
|---|---|---|
| Inventory at beginning of the period | | 25,000 |
| *add:* | Purchases of medical supplies (GST exclusive) | 50,000 |
| *less* : | Inventory at end of the period | (15,000) |
| *Equals*: | Cost of inventory items used | 60,000<br>====== |

APPENDIX B

## PERPETUAL METHOD OF RECOGNISING INVENTORY - EXAMPLE

The following journals summarise the recording of inventory under the perpetual method. The perpetual method recognises inventory as an asset on a continuous basis and adjusts inventory records for such things as inventory purchases and expenses inventory when goods or services are delivered.

Using the information from the example in Appendix A, the following additional information is known.

- Opening inventory of $25,000 is comprised of 1,250 units at $20 per unit.
- The Agency uses the First In First Out (FIFO) method of allocating cost to inventory.
- During the reporting period the Agency makes two purchases of inventory medical supplies as follows:

| | Units | Unit Cost | Total Cost (GST exclusive) | Total Cost (GST inclusive) |
|---|---|---|---|---|
| Inventory Purchase 1 | 900 | $20 | $18,000 | $19,800 |
| | 480 | $25 | $12,000 | $13,200 |
| | | | Total: | $33,000 |
| Inventory Purchase 2 | 320 | $25 | $8,000 | $8,800 |
| | 400 | $30 | $12,000 | $13,200 |
| | | | Total: | $22,000 |

The journal to record Inventory Purchase 1 is:

| | | | | |
|---|---|---|---|---|
| DR | Inventory Held for Distribution | *(Increase in Asset – Balance Sheet)* | $30,000 | |
| DR | GST Due/Received | *(Increase in Assets – Balance Sheet)* | $3,000 | |
| CR | Accounts Payable | *(Increase in Liabilities – Balance Sheet)* | | $33,000 |

The journal to record Inventory Purchase 2 is:

| | | | | |
|---|---|---|---|---|
| DR | Inventory Held For Distribution | *(Increase in Asset – Balance Sheet)* | $20,000 | |
| DR | GST Due/Received | *(Increase in Assets – Balance Sheet)* | $2,000 | |
| CR | Accounts Payable | *(Increase in Liabilities – Balance Sheet)* | | $22,000 |

APPENDIX B (continued)

- During the period the Agency delivers medical services and uses inventory as follows:

| | Units | Unit Cost | Total Unit Cost |
|---|---|---|---|
| Inventory used in Medical Service 1 | 1,150 | $20 | $23,000 |
| | | Total: | $23,000 |
| Inventory used in Medical Service 2 | 1,000 | $20 | $20,000 |
| | 680 | $25 | $17,000 |
| | | Total: | $37,000 |

The journal to record the cost of inventory used in providing Medical Service 1:

| | | | | |
|---|---|---|---|---|
| DR | Medical Supplies Expense | *(Increase in Expense – Operating Statement)* | $23,000 | |
| CR | Inventory Held For Distribution | *(Decrease in Assets – Balance Sheet)* | | $23,000 |

The journal to record the cost of inventory used in providing Medical Service 2:

| | | | | |
|---|---|---|---|---|
| DR | Medical Supplies Expense | *(Increase in Expense – Operating Statement)* | $37,000 | |
| CR | Inventory Held For Distribution | *(Decrease in Assets – Balance Sheet)* | | $37,000 |

A physical count of inventory undertaken at the end of the reporting period determines that the closing balance of inventory is $15,000 represented by 120 units at $25 per unit and 400 at $30 per unit (refer below). No adjustment to the closing balance of inventory is required, as inventory has been continually adjusted as the medical services were delivered.

| | | $ |
|---|---|---|
| Opening Inventory Balance (1,250 units @ $20 unit) | | 25,000 |
| *add*: | Inventory Purchase 1 (GST exclusive) | 30,000 |
| *add:* | Inventory Purchase 2 (GST exclusive) | 20,000 |
| *less*: | Use of Medical Supplies 1 | (23,000) |
| *less:* | Use of Medical Supplies 2 | (37,000) |
| Closing Inventory Balance (120 units @ $25 unit and 400 units @ $30 unit) | | 15,000<br>======= |