

ASA 540
(April 2006)

Auditing Standard ASA 540 *Audit of Accounting Estimates*

Issued by the **Auditing and Assurance Standards Board**



Australian Government

Auditing and Assurance Standards Board

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CONTENTS

PREFACE

AUTHORITY STATEMENT

	<i>Paragraphs</i>
Application.....	1-2
Operative Date	3
Introduction.....	4-7
The Nature of Accounting Estimates	8-10
Audit Procedures Responsive to the Risk of Material Misstatement of the Entity's Accounting Estimates	11-14
Review and Testing the Process Used by Management.....	15
<i>Evaluation of Data and Consideration of Assumptions</i>	16-22
<i>Testing of Calculations</i>	23
<i>Comparison of Previous Accounting Estimates with Actual Results</i>	24
<i>Consideration of Management's Approval Procedures</i>	25
Use of an Independent Estimate.....	26
Review of Subsequent Events.....	27
Evaluation of Results of Audit Procedures	28-31
Management Representations	32-34
Conformity with International Standards on Auditing.....	35
Appendix 1: The Process for Developing Accounting Estimates	

PREFACE

Reasons for Issuing Auditing Standard ASA 540 *Audit of Accounting Estimates*

The Auditing and Assurance Standards Board (AUASB) issues Auditing Standard ASA 540 *Audit of Accounting Estimates* due to the requirements of the legislative provisions explained below.

The *Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004* (the CLERP 9 Act) established the AUASB as an independent statutory body under section 227A of the *Australian Securities and Investments Commission Act 2001*, as from 1 July 2004. Under section 336 of the *Corporations Act 2001*, the AUASB may make Auditing Standards for the purposes of the corporations legislation. These Auditing Standards are legislative instruments under the *Legislative Instruments Act 2003*.

Main Features

This Auditing Standard establishes mandatory requirements and provides explanatory guidance on the audit of accounting estimates contained in a financial report. This Auditing Standard requires the auditor to:

- (a) design and perform audit procedures responsive to the risk of material misstatement of an entity's accounting estimates;
- (b) evaluate the results of audit procedures; and
- (c) obtain management representation on the reasonableness of significant assumptions used in making accounting estimates.

Operative Date

This Auditing Standard is operative for financial reporting periods commencing on or after 1 July 2006.

Main changes from AUS 516 (October 1995) *Audit of Accounting Estimates*

The main differences between this Auditing Standard and the Auditing Standard issued by the Auditing & Assurance Standards Board of the Australian Accounting Research Foundation, AUS 516 (October 1995) *Audit of Accounting Estimates*, are that in this Auditing Standard:

1. The word 'shall', in the **bold-type** paragraphs, is the terminology used to describe an auditor's mandatory requirements, whereas an auditor's degree of responsibility is described in AUS 516 by the word 'should'.
2. The explanatory guidance paragraphs provide guidance and illustrative examples to assist the auditor in fulfilling the mandatory requirements, whereas in AUS 516 some obligations are implied within certain explanatory paragraphs. Accordingly, such paragraphs have been redrafted to clarify that the matter forms part of the explanatory guidance.
3. The following specific mandatory requirement, not in AUS 516, has been included:
 - (a) the auditor shall endeavour to obtain written representations from management regarding the reasonableness of significant assumptions used by them in making accounting estimates (paragraph 32).
4. Explanatory guidance on management representations has been included at paragraphs 33 and 34.
5. Appendix 1 of AUS 516 has been removed and additional examples of accounting estimates have been included at paragraph 6.

AUTHORITY STATEMENT

The Auditing and Assurance Standards Board (AUASB) makes Auditing Standard ASA 540 *Audit of Accounting Estimates* as set out in paragraphs 1 to 35 and Appendix 1, pursuant to section 227B of the *Australian Securities and Investments Commission Act 2001* and section 336 of the *Corporations Act 2001*.

This Auditing Standard is to be read in conjunction with the *Preamble to AUASB Standards*, which sets out the intentions of the AUASB on how the Auditing Standards are to be understood, interpreted and applied.

The mandatory requirements of this Auditing Standard are set out in **bold-type** paragraphs.

Dated 28 April 2006

M H Kelsall
Chairman - AUASB

AUDITING STANDARD ASA 540

Audit of Accounting Estimates

Application

- 1 **This Auditing Standard applies to:**
 - (a) **an audit of a financial report for a financial year, or an audit of a financial report for a half-year, in accordance with Part 2M.3 of the *Corporations Act 2001*; and**
 - (b) **an audit of a financial report for any other purpose.**
- 2 This Auditing Standard also applies, as appropriate, to an audit of other financial information.

Operative Date

- 3 **This Auditing Standard is operative for financial reporting periods commencing on or after 1 July 2006.**

Introduction

- 4 The purpose of this Auditing Standard is to establish mandatory requirements and to provide explanatory guidance on the audit of accounting estimates contained in a financial report. This Auditing Standard is not intended to be applicable to the examination of prospective financial information, though many of the audit procedures outlined herein may be suitable for that purpose.
- 5 **The auditor shall obtain sufficient appropriate audit evidence regarding accounting estimates.**
- 6 “Accounting estimate” means an approximation of the amount of an item in the absence of a precise means of measurement. Examples where estimates may be required include:
 - Provision for inventory obsolescence.
 - Determining the fair value of financial assets and financial liabilities.

- Provisions to allocate the cost of non-current assets over their estimated useful lives or expected pattern of consumption of the future economic benefits.
 - Accrued revenue.
 - Deferred tax.
 - Provision for a loss from a lawsuit.
 - Losses on construction contracts in progress.
 - Provision to meet warranty claims.
- 7 Those charged with governance and management are responsible for making accounting estimates included in the financial report. These estimates are often made in conditions of uncertainty regarding the outcome of events that have occurred or are likely to occur and involve the use of judgement. As a result, the risk of material misstatement is greater when accounting estimates are involved and in some cases the auditor may determine that the risk of material misstatement related to an accounting estimate is a significant risk that requires special audit consideration. See ASA 315 *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement*.

The Nature of Accounting Estimates

- 8 The determination of an accounting estimate may be simple or complex depending upon the nature of the item. For example, accruing a charge for rent may be a simple calculation, whereas estimating a provision for slow-moving or surplus inventory may involve considerable analysis of current data and a forecast of future sales. In complex estimates, there may be a high degree of special knowledge and judgement required. For example, the following elements are reflected in calculating an asset's future economic value:
- (a) an estimate of the future cash flows the entity expects to derive from the asset;
 - (b) expected variations in the amount and timing of those cash flows;
 - (c) the time value of money, represented by the current market risk-free interest rate;

- (d) the price of bearing the uncertainty inherent in the asset; and
 - (e) other factors, such as illiquidity, that market participants would reflect in the pricing of future cash flows the entity expects to derive from the asset.
- 9 Accounting estimates may be determined as part of the routine information system relevant to financial reporting, operating on a continuing basis, or may be non-routine, operating only at period end. In many cases, accounting estimates are made by management using a formula based on experience, such as the use of standard rates for depreciating each category of non-current assets or a standard percentage of sales revenue for computing a warranty provision. In such cases, the formula needs to be reviewed regularly by management, for example, by reassessing the remaining useful lives of assets or by comparing actual results with the estimate and adjusting the formula when necessary.
- 10 The uncertainty associated with an item, or the lack of objective data may make it incapable of reasonable estimation, in which case under *ASA 701 Modifications to the Auditor's Report*, the auditor needs to consider whether the auditor's report needs to be modified.

Audit Procedures Responsive to the Risk of Material Misstatement of the Entity's Accounting Estimates

- 11 **The auditor shall design and perform further audit procedures to obtain sufficient appropriate audit evidence as to whether the entity's accounting estimates are reasonable in the circumstances and, when required, appropriately disclosed.**
- 12 The audit evidence available to detect a material misstatement in an accounting estimate will often be more difficult to obtain and less persuasive than audit evidence available to detect a material misstatement in other items in the financial report. Ordinarily, the auditor's understanding of the entity and its environment, including its internal control, assists the auditor in identifying and assessing the risks of material misstatement of the entity's accounting estimates.
- 13 Under ASA 315, the auditor needs to have an understanding of the procedures and methods, including relevant control activities, used by management in making the accounting estimates to identify and assess risks of material misstatement in order to design the nature, timing and extent of the further audit procedures.

- 14 The auditor shall adopt one or a combination of the following approaches in the audit of an accounting estimate:**
- (a) review and test the process used by management to develop the estimate;**
 - (b) use an independent estimate for comparison with that prepared by management; or**
 - (c) review of subsequent events which provide audit evidence of the reasonableness of the estimate made.**

Reviewing and Testing the Process Used by Management

- 15 The steps ordinarily involved in reviewing and testing of the process used by management are:
- (a) evaluation of the data and consideration of assumptions on which the estimate is based;
 - (b) testing of the calculations involved in the estimate;
 - (c) comparison, when possible, of estimates made for prior periods with actual results of those periods; and
 - (d) consideration of management's approval procedures.

Evaluation of Data and Consideration of Assumptions

- 16 Ordinarily, the auditor would evaluate whether the data on which the estimate is based is accurate, complete and relevant. When information produced by the entity is used, it will need to be consistent with the data processed through the information system relevant to financial reporting. For example, in substantiating a warranty provision, the auditor obtains audit evidence that the data relating to products still within the warranty period at period end agree with the sales information within the information system relevant to financial reporting. *ASA 500 Audit Evidence* provides additional discussion on the need to obtain audit evidence about the accuracy and completeness of information produced by the entity when it is used in performing audit procedures.
- 17 The auditor may also seek audit evidence from sources outside the entity. For example, when examining a provision for inventory obsolescence calculated by reference to anticipated future sales, the auditor may, in addition to examining internal data such as past levels of sales, orders on hand and marketing trends, seek audit

evidence from industry-produced sales projections and market analyses.

18 The auditor ordinarily evaluates whether the data collected is appropriately analysed and projected to form a reasonable basis for determining the accounting estimate. Examples are the analysis of the age of accounts receivable and the projection of the number of months of supply on hand of an item of inventory based on past and forecast usage.

19 The auditor ordinarily evaluates whether the entity has an appropriate base for the principal assumptions used in the accounting estimate. In some cases, the assumptions will be based on industry or government statistics, such as future inflation rates, interest rates, employment rates and anticipated market growth. In other cases, the assumptions will be specific to the entity and will be based on internally generated data.

20 In evaluating the assumptions on which the estimate is based, the auditor ordinarily considers, among other things, whether they are:

- (a) reasonable in light of actual results in prior periods;
- (b) consistent with those used for other accounting estimates; and
- (c) consistent with management's plans which appear appropriate.

The auditor ordinarily pays particular attention to assumptions which are sensitive to variation, subjective or susceptible to material misstatement.

21 In the case of complex estimating processes involving specialised techniques, it may be necessary for the auditor to use the work of an expert, for example, engineers for estimating quantities in stock piles of mineral ores. Mandatory requirements and explanatory guidance on how to use the work of an expert are provided in ASA 620 *Using the Work of an Expert*.

22 The auditor ordinarily reviews the continuing appropriateness of formulae used by management in the preparation of accounting estimates. Such a review ordinarily reflects the auditor's knowledge of the financial results of the entity in prior periods, practices used by other entities in the industry and the future plans of management as disclosed to the auditor.

Auditing Standard ASA 540 *Audit of Accounting Estimates*

Testing of Calculations

- 23 Ordinarily, the auditor performs audit procedures on the calculation procedures used by management. The nature, timing and extent of the auditor's procedures depends on the assessed risk of material misstatement, which is impacted by such factors as the complexity involved in calculating the accounting estimate, the auditor's understanding and evaluation of the procedures and methods, including relevant control activities used by the entity in producing the estimate and the materiality of the estimate in the context of the financial report. See also ASA 330 *The Auditor's Procedures in Response to Assessed Risk*.

Comparison of Previous Estimates with Actual Results

- 24 When possible, the auditor ordinarily compares accounting estimates made for prior periods with actual results of those periods to assist in:
- (a) obtaining audit evidence about the general reliability of the entity's estimating procedures and methods, including relevant control activities;
 - (b) considering whether adjustments to estimating formulae may be required; and
 - (c) evaluating whether differences between actual results and previous estimates have been quantified and that, where necessary, appropriate adjustments or disclosures have been made.

Consideration of Management's Approval Procedures

- 25 Material accounting estimates are ordinarily reviewed and approved by those charged with governance and management. The auditor ordinarily considers whether such review and approval is performed by the appropriate level of management and that it is evidenced in the documentation supporting the determination of the accounting estimate.

Use of an Independent Estimate

- 26 The auditor may make or obtain an independent estimate and compare it with the accounting estimate prepared by management. When using an independent estimate the auditor ordinarily evaluates the data, considers the assumptions and performs audit procedures on the calculation procedures used in its development. It may also be

appropriate to compare accounting estimates made for prior periods with actual results of those periods.

Review of Subsequent Events

- 27 Transactions and events which occur after period end, but prior to completion of the audit, may provide audit evidence regarding an accounting estimate made by management. The auditor's review of such transactions and events may reduce, or even remove, the need for the auditor to review and perform audit procedures on the process used by management to develop the accounting estimate or to use an independent estimate in assessing the reasonableness of the accounting estimate.

Evaluation of Results of Audit Procedures

- 28 **The auditor shall make a final assessment of the reasonableness of the entity's accounting estimates based on the auditor's understanding of the entity and its environment and whether the estimates are consistent with other audit evidence obtained during the audit.**
- 29 The auditor ordinarily considers whether there are any significant subsequent transactions or events which affect the data and the assumptions used in determining the accounting estimates.
- 30 Because of the uncertainties inherent in accounting estimates, evaluating differences can be more difficult than in other areas of the audit. When there is a difference between the auditor's estimate of the amount best supported by the available audit evidence and the estimated amount included in the financial report, under ASA 320 *Materiality and Audit Adjustments*, the auditor needs to determine whether such a difference requires adjustment. If the difference is reasonable, for example, because the amount in the financial report falls within a range of acceptable results, it may not require adjustment. However, if the auditor believes the difference is unreasonable, management would be requested to revise the estimate. If management refuses to revise the estimate, the difference would be considered a misstatement and would be considered with all other misstatements in assessing whether the effect on the financial report is material.
- 31 Ordinarily, the auditor also considers whether individual differences which have been accepted as reasonable are biased in one direction, so that, on a cumulative basis, they may have a material effect on the

financial report. In such circumstances, the auditor ordinarily evaluates the accounting estimates taken as a whole.

Management Representations

32 The auditor shall endeavour to obtain written representations from management regarding the reasonableness of significant assumptions used by them in making accounting estimates.

33 *ASA 580 Management Representations* discusses the use of management representations. Depending on the nature, materiality and extent of estimation uncertainty, management representations about accounting estimates recognised or disclosed in the financial report may include representations:

- about the appropriateness of the measurement processes, including related assumptions, used by management in determining accounting estimates in the context of the applicable financial reporting framework, and the consistency in application of the processes;
- that disclosures related to accounting estimates are complete and appropriate under the applicable financial reporting framework; and
- that no subsequent events require adjustment to the accounting estimates and disclosures included in the financial report.

34 In the event management is unable to or refuses to provide a written representation, under ASA 580 the auditor needs to consider the implications of the refusal for the auditor's report.

Conformity with International Standards on Auditing

35 Except as noted below, this Auditing Standard conforms with International Standard on Auditing ISA 540 *Audit of Accounting Estimates*, issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The main differences between this Auditing Standard and ISA 540 are:

- This Auditing Standard includes the following specific mandatory requirement that is not included in ISA 540:

The auditor shall endeavour to obtain written representations from management regarding the

Auditing Standard ASA 540 *Audit of Accounting Estimates*

reasonableness of significant assumptions used by them in making accounting estimates (paragraph 32).

- This Auditing Standard includes explanatory guidance on management representations that is not included in ISA 540 (paragraphs 33 and 34).
- This Auditing Standard includes Appendix 1 which explains the processes involved in developing accounting estimates. ISA 540 does not include this Appendix.

Compliance with this Auditing Standard enables compliance with ISA 540.

SUPERSEDED

APPENDIX 1

THE PROCESS FOR DEVELOPING ACCOUNTING ESTIMATES

Management is responsible for establishing and controlling a process for developing accounting estimates. The process may not be documented or formally applied, however it ordinarily consists of:

- (a) identifying situations for which accounting estimates are required;
- (b) identifying the relevant factors that may affect the accounting estimates;
- (c) gathering sufficient, relevant and reliable data on which to base the accounting estimates;
- (d) developing assumptions that represent management's judgement of the most likely circumstances and events regarding the relevant factors; and
- (e) determining the estimated amounts based on the assumptions and other relevant factors.

Elements of the control environment that may reduce the likelihood of material misstatements in accounting estimates include:

- (a) accumulation of sufficient, relevant and reliable data on which to base the accounting estimates;
- (b) preparation of the accounting estimates by qualified personnel;
- (c) adequate review and approval of the accounting estimates by appropriate levels of authority, including:
 - (i) review of sources of relevant factors;
 - (ii) review of development of assumptions;
 - (iii) review of reasonableness of assumptions and resulting accounting estimates; and
 - (iv) consideration of the need to use the work of experts;

Auditing Standard ASA 540 *Audit of Accounting Estimates*

- (d) comparison of prior period accounting estimates with subsequent results to assess the reliability of the process used to develop accounting estimates; and
- (e) consideration by management of whether the resulting accounting estimates are consistent with the plans of the entity.

SUPERSEDED