



Contract **TOOLBOX**TM

for the
Construction Industry

TOOL 3
Review of commonly
referenced standards

HB 226.3—2000

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ABOUT THE AUTHOR

Nathan McDonald has a Bachelor of Mechanical Engineering, a Masters Degree Engineering Practice and industry qualifications in scaffolding, rigging, welding supervision and quality management system auditing.

He has been exposed to numerous types of contracts, purchase orders, instructions and standards from both the client and the contractor perspectives for the last decade.

During this experience, Nathan has found that construction industry is predominantly run by people who have been trained in a particular technical discipline but have had little training in the skills and knowledge required for managing tendering and contracting situations. This gap sparked the development of the Contract TOOLBOX™ for the Construction Industry.

Nathan presents corporate and public workshops that complement this TOOLBOX™. Information to help you plan, book and deliver a tailored in-house workshop can be found at the Contract TOOLBOX™ internet site.



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An important part of this TOOLBOX™ is the references to publications by Standards Australia; the Australian Procurement and Construction Council (APCC); Construction Industry Development Agency (CIDA) and Construction Information Systems (CIS).

With appreciation, Nathan McDonald

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Preface

Contract TOOLBOX™ for the Construction Industry is a set of stand-alone inter-linked books and reference wallcharts that explain how clients & contractors ensure contracting success.

Each book and chart in the TOOLBOX™ has been designed to solve a different problem - a lot like the tools in a tradesman's toolbox.

It has been prepared by Nathan McDonald and published by Standards Australia.

The concepts and explanations are equally applicable to design, construct, supply, installation and maintenance contracts.

The TOOLBOX™ collates, summarises and presents the scope of Australian contracting Standards and practices.

Contract TOOLBOX™ will be beneficial for clients, contractors, subcontractors, consultants, insurers and dispute resolvers.

In particular the TOOLS will help:

- cost estimators, contract managers and administrators
- architects, engineers, quantity surveyors, surveyors, tradesmen and lawyers
- contract supervisors and superintendents
- quality assurance, environmental; and occupational health, safety and rehabilitation representatives
- trade apprentices and university graduates

TOOL 1 has been designed as the master document. It is a generic introduction to how clients & contractors ensure contracting success in the construction industry. It introduces the concepts and provides references to current standards of practice. In particular it explains the contracting process which includes tendering, contract administration, dispute resolution and risk management. It explains the common problems in the industry and provides references to the other TOOLS in the TOOLBOX™ that solve them.

This handbook, TOOL 3, summarises the standards commonly referenced in construction industry contracts, such as tendering, commercial conditions, management systems, bills & schedules; and construction programming.

It also summarises the parent technical standards of the industry such as; concrete, timber & metal structures, pressure piping, vessels and boilers, pipelines, non-destructive testing of metallic products & electrical installations.



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Legend

x	Denotes a series
AS	Australian Standard
NZS	New Zealand Standard
ISO	International Standards Organization



Introduction

This handbook, TOOL 3, reviews the industry standards commonly referenced in the construction industry; such as:

- tendering and contractor pre-qualification criteria
- commercial conditions of contract
- management systems
- bills and schedules
- construction programming
- structural (concrete, masonry, timber and metallic)
- pressure equipment (pressure vessels, piping, boilers)
- pipelines (overland, underground and submarine)
- inspection and testing of metallic products (visual, magnetic particle, dye penetrant, radiographic, ultra-sonic and eddy current)
- protective coatings (paints and metallic coatings)
- electrical installations (wiring, mobile, domestic, construction sites)

It may be equally used as:

- a starting point for your contract review process.
- a checklist for meetings between the client, contractor and third parties.
- a base for the development of inspection and test plans.

Each section summarises the scope, application and contents of each Standard. They also detail:

- useful information contained within the Standard.
- other Standards that the summarised Standard is used in conjunction with.

This reference book has been designed to be read in conjunction with other books and wallcharts from your Contract TOOLBOX™ for the Construction Industry.

This handbook, TOOL 3, has been designed to work in conjunction with:

- **TOOL1: How Clients & Contractors ensure success (HB 226.1—2000)**
A generic introduction to how clients & contractors ensure success in construction industry contracts. The concepts, explanations and references are equally applicable to design, construct, supply, installation and maintenance contracts. In particular it explains the contracting process which includes tendering, contract administration, dispute resolution and risk management.
- **TOOL 2: Review of common contract conditions (HB 226.2—2000)**
An explanation of the common conditions within construction industry contracts. In particular it discusses typical the requirements within the commercial conditions and technical specification sections of the contract. It also describes the commonly referenced documents such as drawings, bills, schedules, construction programs, industry standards, codes of practice and government legislation.

- TOOL 4: Book of reference wallcharts (HB 226.4—2000)
At collation and graphical presentation of the information introduced in TOOLS 1, 2 and 3; such as:
 1. How clients ensure contract success
 2. How contractors ensure contract success
 3. Common contracting risks and how to reduce them
 4. Common contract conditions
 5. Construction products & their standards
 6. Tendering & contracting standards commonly referenced in the construction industry
 7. Trade specific standards commonly referenced in the construction industry
 8. Contractor Tendering Pre-qualification Criteria for Small Projects (CIDA 17—1995)
 9. Contractor Tendering Pre-qualification Criteria (CIDA 18—1995)
 10. Subcontractors Tendering Pre-qualification Criteria (CIDA 19—1995)
 11. Management systems (quality, occupational health & safety; environment and legal compliance)
 12. Quality management systems – Requirements (AS/NZS ISO 9001 (Int):2000)

In particular this handbook matches the structure of WALLCHART 6 and WALLCHART 7.

- TOOL 5.x: Comparison checklists for industry Standards (HB 226.5.x)
A series of handbooks that compare the common commercial conditions (introduced in TOOL 2) with those in popular Industry Standards. It also includes common questions asked about the requirements within these Standards and where the answers are found.
- TOOL 6.x: Collections of essential contracting standards (HB 226.6.x)
A number of collections of Standards commonly called up in construction industry contracts; such as tendering, contractor pre-qualification criteria, commercial conditions, management systems (quality, occupational health & safety, environment & legal compliance); bills & Schedules; and construction programming.

The Contract TOOLBOX™ suite uses the following icon to flag your attention.



Identifies that there is **further information** about the topic just covered elsewhere in the Contract TOOLBOX™.