

SPECIFYING QUALITY

INTRODUCTION

Communicating the requirements for quality is the main technical function of the specification. This TECHnote outlines how the NATSPEC specification system may be used to promote quality in construction projects.

DEFINING QUALITY

Quality must be clearly defined as it has different meanings for different people in different situations. In construction this problem is amplified because the responsibility for a project is divided amongst many people and organisations. Therefore, agreement on a defined quality level between all parties, and how it is to be measured, is key to achieving the desired quality sought by the principal.

QUALITY LEVEL

The desired level of quality of a project and its components is driven largely by anticipated life. However, other factors include:

- The purpose of the building - Prestige or utility, flexibility or permanence.
- Required functional performance - Design repetition or one-offs, environmental.
- User perception - Convenience, comfort, ease of maintenance and repair.

It would be a false economy to poorly construct something which must last for many years or over-design something which may only be required to last a short period of time.

WHEN CAN QUALITY BE ACHIEVED?

There is a common misconception that the quality of a project can be completely controlled during the construction stage. However, the level of quality that can be demanded during construction cannot be higher than that which is specified in the contract documentation, without additional cost.

The quality of a project is therefore dependent on adequate documentation and supervision. The contract documentation includes the conditions of contract, the specification, the drawings and the schedules.

To achieve the desired level of quality, care must be taken in material selection, documentation, workmanship and supervision; and weighed against time and cost. Failure to take care may lead to poorer quality, increased costs, and require greater rework, repair and maintenance.

ROLE OF THE SPECIFICATION

The primary role of the specification is to precisely and succinctly define the quality required, and the processes necessary for achieving this. It includes defining clear acceptance criteria for any item of work.

Quality is assured, provided conformance to the specified acceptance criteria, matches the agreed defined quality level.

USING NATSPEC TO ACHIEVE QUALITY

The worksection *Templates* include the construction processes required for each item of work and define clear industry-standard acceptance criteria in the form of tolerances, performance requirements, testing and certification requirements. These can be modified as required, to suit the defined quality levels agreed for each project and its components.

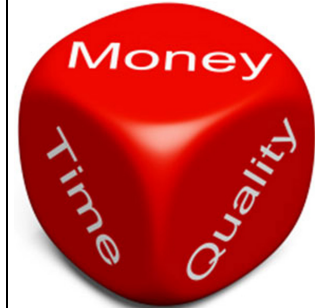
In achieving quality, NATSPEC promotes the coordination of all contract documents. Guidance text discourages duplication of information included on the drawings or within the specification, to avoid potential discrepancies and ambiguity. Duplication of information within the specification is minimised by reference to relevant worksections.

NATSPEC references and monitors updates to relevant Australian and International standards, including those cited within the NCC. Where standards define alternative levels of service, NATSPEC provides prompts to be completed by the specifier. It is essential that the reference to standards is specific to the requirement, to achieve the desired quality.

NATSPEC and AUS-SPEC also cover the requirements for project Quality Management Systems based on AS/NZS ISO 9001 and the provision of project Quality Plans in the **Relevant worksections** listed in the sidebar.



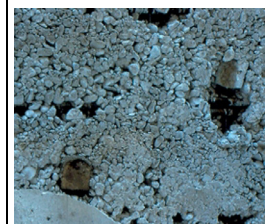
Poor quality timber construction – Split base-plate used.



“...If the building contract documents permit a sow’s ear then all the quality control in the world cannot demand a silk purse.....”



Inspection to confirm quality level achieved.



Poor quality concrete – Honeycombing and timber.

Relevant worksections

- 0010 Quality requirements for design (AUS-SPEC).
- 0121 Tendering
- 0160 Quality.
- 0161 Quality management (Construction) (AUS-SPEC).
- 0162 Quality (Supply) (AUS-SPEC).
- 0163 Quality (Delivery) (AUS-SPEC).