THE ASSOCIATION OF
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PRACTICE NOTE B34

"COMMON-SENSE QA"

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Why is QA getting so much criticism?

The purpose of Quality Assurance is often not well understood. Documented Quality systems are often "poorly designed" and staff resist change because they don't understand the purpose and value of Quality Assurance.

What is more important, sound business practice or a QA system?

If your answer suggests that there *is* a difference there is something wrong with your Quality System.

What is the function of ISO 9001?

ISO 9001 is the International Standard which sets out criteria for a Quality System to meet. It is a series of requirements to test your business practices against. It is a *management tool* to check that your business practices manage work activities to consistently meet customer needs. It also provides a mechanism for *improving* business practices.

ISO 9001 makes your business system more transparent and auditable and gives clients greater confidence in your firm's ability to produce "quality" products or services.

Set out your Quality System so that it is "user friendly" to your staff. Structure your business's practices in a way that staff are already familiar with. The first priority is to communicate the system to the people who will use it. In order to demonstrate to the Quality Assurance auditor that your system has fully addressed ISO 9001, simply cross-reference your business practices to clauses within ISO 9001. The various ISO Clauses are *requirements* and therefore must be addressed within your system. Some ISO Clauses may not be applicable to a design firm.

How does the system get implemented?

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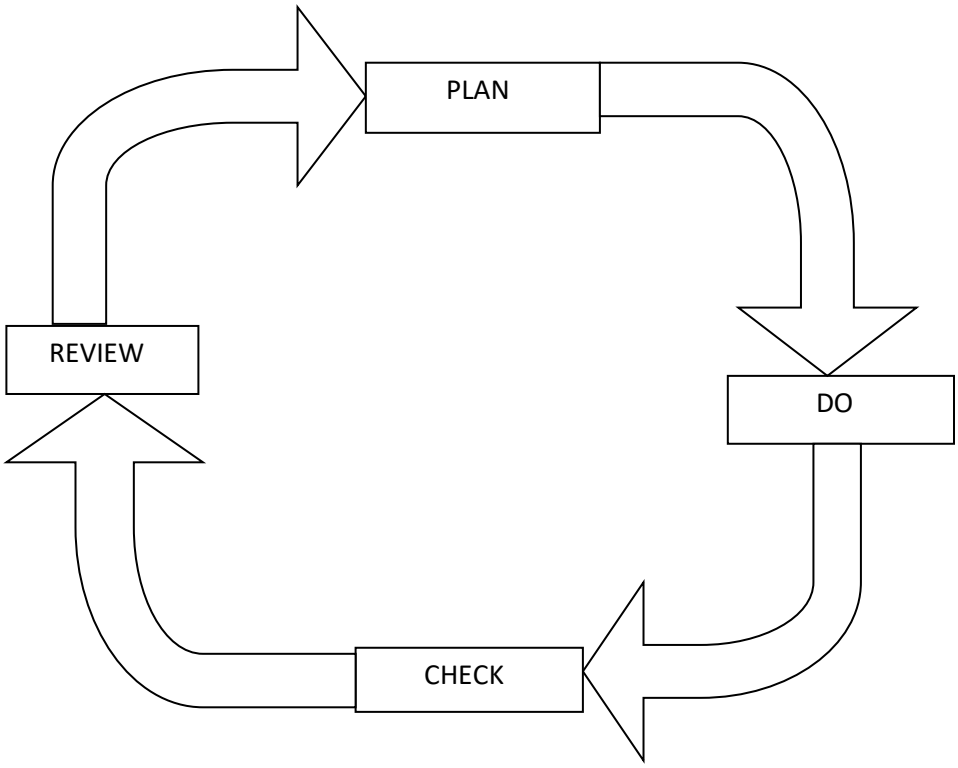
The underlying principle of Quality Assurance is the quality management cycle



Quality planning involves:

- identifying what you *do* - the processes that add value to your services
- assessing what can go wrong and the consequences to the quality of your service
- determining the *right* way to do each process to minimise the risk of mistakes or waste
- choosing key points to check that each process is effective
- defining what to check
- defining how to check and report
- defining how to analyse reports and review the processes

Management control is achieved by the combination of process control, checking, review and re-planning when opportunities for improvement are identified.

What makes QA cost-effective?

When you get the processes *right*, productivity should be optimised and tasks should consistently be "right first time". The system becomes cost effective when it is *used* as a management control tool rather than staff following the Quality Assurance system just because they have to.

How can I keep my Quality System lean and mean?

Only describe in detail what is significant. The degree of detail needed depends on the complexity of the tasks, level of risk of quality problems arising and the skills and competence of personnel (and thereby the training received).

Avoid excessive documentation.

Build in some flexibility. If your system creates unnecessary activities for small jobs it is self-defeating. Flexibility allows the system to be used sensibly as a management control tool.

Does a small firm need detailed Quality System procedures?

The key quality issues raised in ISO 9001 need to be addressed, but not necessarily formalised in voluminous detail. Effective control can be achieved with less formal procedures when the "boss" is close to the action.

What about large firms?

Large firms generally need more detailed procedures because there are levels of delegation within the firm and to cover additional office procedures.

As not *all procedures* are relevant for *all functions*, documentation can be made less daunting by splitting it into "packages" so that staff only need to refer to those sections that they need to know for the functions they carry out.

Do I have to carry out small jobs under QA?

You can exclude small jobs and/or particular types of work from Quality Assurance, provided your manual clearly *defines* the scope of application of the Quality System and the exclusions.

> *For example: The Quality System will be applied on all projects with a fee value over $10,000 and on those projects with a lower fee value where Quality Assurance is requested by the client*

Do I need to document design procedures?

ISO 9001 treats design as an *intellectual* process, and requires you to:

- identify all design criteria
- confirm that input data is complete and accurate
- assign competent people to undertake the design work
- co-ordinate technical and organisational interfaces, as needed
- confirm that design output has satisfied all design criteria (by review, verification and possibly validation)
- control any design changes

Note that ISO 9001 4.4 does not call for documented design procedures. It relies on the competence of the designers. However, if a firm wants to standardise any technical information or design guidelines for its staff to follow for consistency of output, these should be set up under a document control system. Any future changes can then be introduced systematically.

How can I get staff to treat QA seriously?

It may require a change in company culture or staff attitudes to apply the quality management

cycle in every day work.

Some steps might include:

- promote your Quality Assurance Manual(s) as the firm's primary "source book"
- use the Manuals as a benchmark for training staff
- initial training should be reinforced by ongoing monitoring and encouragement
- set the example by using the Quality Assurance system yourself - pass on the message that Quality Assurance is really important
- include Quality Assurance as an agenda item in regular management meetings
- ask if staff have concerns with the system or suggestions for improving elements of the system
- acknowledge and *act on* their suggestions
- for some jobs, let staff know before the job starts that their work will be audited - this may provide some incentive to read the Manuals more closely as work proceeds
- audit projects in conjunction with a final design review, while the job is still fresh in everyone's mind. Use the audit feedback to instruct staff on understanding the system better.

Summary - Designing the system

Treat your Quality System as a *design*. Take it through the various design stages:

a) **Concept**

What shape should your system be to communicate effectively, achieve efficiency in work activities and to provide timely information for management control?

b) **Development**

Expand the concept into a cohesive framework of management compartments and decide what information will be dealt with in each compartment.

c) **Detailed design**

Gather information and document procedures for each compartment. Use terminology that staff can understand. Pay particular attention to how information needs to flow in your firm to make your system smart. Provide flexibility to accommodate big and small jobs. Design multi-purpose forms for various jobs within the firm.

d) **Design Check**

Review the documentation to confirm that you have an acceptable system and have addressed all relevant issues. Check you have built in sufficient traceability and that outcomes are measurable and auditable. Trial the system and audit the trail to "validate it"

e) **Design Improvements**

As you would look for opportunities to introduce improvements on a design which is re-used, amend your system when you find opportunities to "do it better next time".

If you are not satisfied with the performance of your current QA system, review the system and ask how you can re-design it to be smart, functional, user-friendly and **COMMON SENSE**.

This Practice Note is an edited version of a paper presented to the Association of Consulting Engineers Australia conference in November 1996. It is reproduced with permission of ACEA and of the author.

It is intended as a background to the ACENZ Policy on Quality (Practice Note B31) and should be used with the ACENZ Quality Manual.