

Relationship between the Infrastructure Division Infrastructure Management and ISO9001:2008

Purpose

To describe the relationship between the Infrastructure Division Infrastructure Management Compliance and Risk Management System (ID IM) and ISO9001:2008.

Scope of ID certification

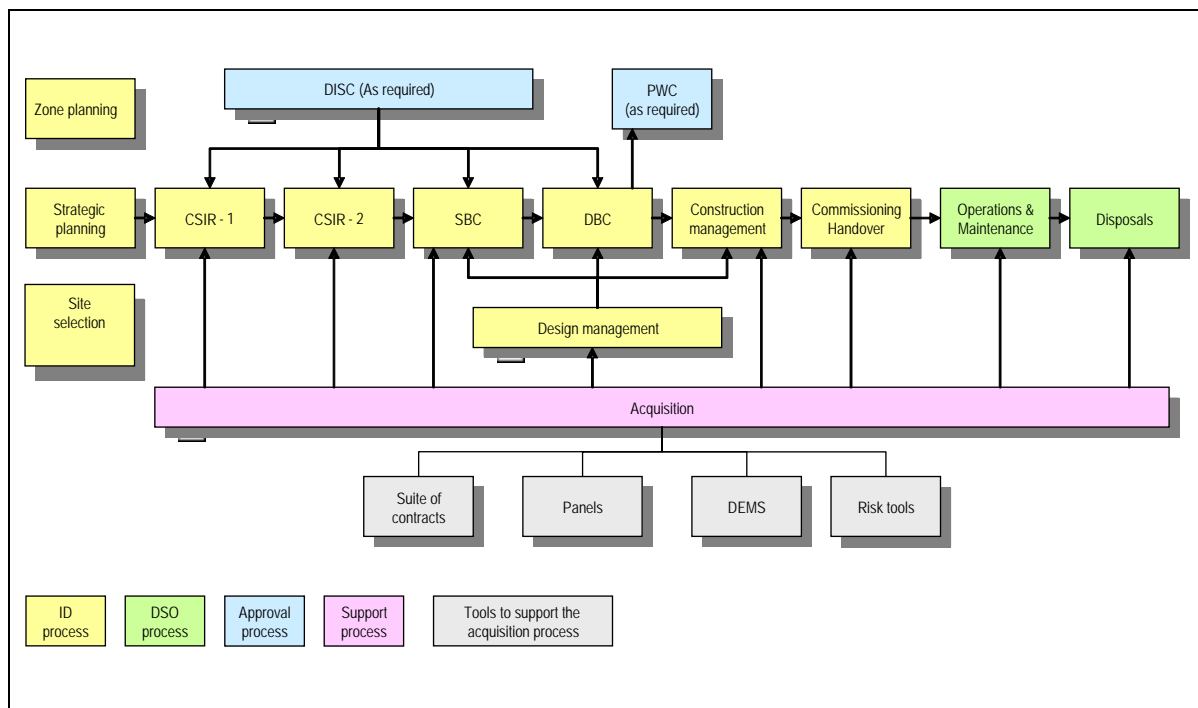
The scope of the Infrastructure Division certification is:

The planning, development, delivery and disposal (excluding operations and maintenance) of infrastructure assets to support Defence capability.

Process interactions

ISO9001:2008 requires process interactions to be defined. Figure 1 shows the basic sequence of activities undertaken in ID, including the link to support tools. The process description is generic, and not every process needs to be followed for every project. Processes not shown in Figure 1 are support processes to the core activities undertaken in ID.

Figure 1: Process interactions



Clauses of ISO9001 that are not applicable

Table 1 describes those Clauses of ISO9001:2008 that are not applicable to ID and provides the reason for their non-applicability.

Table 1

Clause	Reason for not being applicable
7.5.2	ID does not undertake any processes that cannot be tested.
7.5.4	ID provides services to Defence. ID is part of Defence. The intent of this clause is not applicable to ID.
7.5.5	ID does not undertake preservation of product as intended in ISO9001.
7.6	ID does not have any equipment that requires calibration.

Notes on some clauses of the standard

This section provides specific interpretations to some of the clauses of the Quality Assurance standard. Interpretation is only provided where necessary and reflects the application of the clause within ID. These notes need to be read in conjunction with any notes clauses.

ISO9001: Clause 4.1. The required processes are as defined on the ID intranet (Infrastructure Management (IM)). All staff within ID have access to the IM and there is restricted access (some processes are not available) via the internet.

The sequence and interactions are defined in figure 1.

At the process level, the criteria and methods related to operations and their control are defined in each of the procedures.

Resources are allocated based on the organisation structure and manning levels defined by Head Infrastructure (HI). The Directorate of Coordination and Governance (DCG) is within the Head Infrastructure Executive. DCG have been allocated responsibility for the development, implementation and management of the IM. The Director Coordination and Governance has authority to acquire any necessary support to ensure the IM remains relevant and effective.

ID uses outsourcing as a major part of their business. These processes are identified in the process map in Figure 1. Control is defined through the various processes in which outsourcing can occur. Further, the tools contained under the **Business Process Support** part of the IM contribute to the control of the outsourced activities of ID.

ISO9001: Clause 4.2. This document should be considered as the Quality Manual for ID.

The quality policy for ID is located on the first screen of the IM under the link titled Quick Links to Business Process Support Tools.

Notes relating to quality objectives are defined under Clause 5.1 (next section).

Documents and records needed are defined in the procedures or under the **Policy** and **Business Process Support Tools** section of the IM. Documents of external origin are only used for reference purposes and are not subject to control by ID. If needed to be used, their accuracy and currency will be validated prior to

use. Obsolete documents are not held within ID, hence they are not required to be identified. All records held by ID are identifiable by a project number and are legible and retrievable.

Clause 4.2.4 requires a procedure relating to records. Within Defence, records storage, retrieval and archive is the responsibility of another Division, that provide that service for all of Defence. Records storage is consistent with the requirements of the Commonwealth Archives Act. ID defer to the processes managed by the Chief Operating Officer Branch and which are provided through the Customer Service Centre (CSC) within each establishment. When new files are needed, the CSC raises the files. Files to be archived are arranged by the CSC. ID has no control over this process.

ISO9001: Clause 5.1. Staff new to ID undergo an induction process. This process is defined in the IM. This induction process is where the requirements of meeting the customer, statutory and regulatory requirements are defined.

ID, through the various meetings held, focuses on meeting customer (refer to discussion of clause 7.2, 7.3, 7.4, 7.5 below), statutory and regulatory requirements. These requirements are also reinforced in the various process descriptions held within the IM.

ID is part of a larger Group called the Defence Support Group (DSG) - within Defence. The objectives for DSG are established about 3 months before the start of any given financial year. These broad objectives for the Group take into account the Department's Senior Leadership Group strategic directions. The Division Head then meets with the Branch Heads to translate the Group objectives into Divisional Business Plans, which feed into Branch Plans, Directorate Plans and finally down to Individual Performance Agreements. There are no specific procedures to define this process.

At the project level, the objectives are established via the project requirements which are articulated in each process.

Resources are allocated against units and against an endorsed establishment. Resource allocation is monitored via priorities.

ISO9001: Clause 5.2. The notes relating to Clauses 7.2 – 7.5 (below) describe the relationship between "customers" and ID. This description needs to be read in relation to this clause.

The processes on the IM all relate to the provision of Defence facility requirements, which in turn, is geared to meeting higher Defence objectives, articulated through what is termed the "higher Defence committees".

ISO9001: Clause 5.3. The quality policy is communicated through the intranet (IM), with its link from the home screen. All staff are made aware of the IM and the parts of the induction process. This is how staff become aware of the quality policy. The test of the understanding of the quality policy is via the use of internal reviews and opportunities for improvement.

ISO9001: Clause 5.5. All personnel employed in ID have position descriptions. These are published on the Defence personnel system called PMKEYS. All staff have access to these positions descriptions via the Defence Intranet called the DEFWEB.

The ID IM Management Representative is Director of Coordination and Governance (DCG). The DCG is supported by a Quality Management Team.

The responsibilities and authorities for the IM Management Representative are as per those defined in ISO9001:2008, clause 5.5.2.

The responsibilities and authorities of the Quality Improvement Team are as defined in minutes of this group, and varied as required from time to time.

Internal communications are facilitated by regular Division meetings which are translated down to Branch level meetings and then to Individual Directorates.

ISO9001: Clause 6.1. Resources have been allocated within DCG unit to ensure the requirements of this clause are met. The DCG unit is supported by the Quality Management Team.

The resource levels for ID are defined by HI in negotiation with higher Defence representatives. However, manning levels are often constrained, meaning ID must deliver services within the constraints of pre-defined manning levels. ID does not have the flexibility of commercial organisations to hire more staff as and when they are needed.

ISO9001: Clause 6.2 Personnel are made aware of the relevance and importance of their activities in contributing to the achievement of the ID quality objectives through the induction process. This is reinforced through meetings held at all levels of ID.

ISO9001: Clause 6.3. ID delivers its services from a standard office environment that includes access to relevant resources. The infrastructure is supported by the wider Defence Chief Operating Officer Division. An examination of the work place will validate compliance with this clause. There are no specific procedures for this clause.

ISO9001: Clause 6.4. ID provides the necessary work environment. An examination of the work environment will validate compliance with this clause. There are no specific procedures for this clause.

ISO9001: Clause 7.1. Each key process within the ID delivery model provides the necessary planning for product realisation as defined in ISO9001:2008.

ISO9001: Clause 7.2, 7.3, 7.4, 7.5. (Generally) The intent of these clauses in ISO9001:2008 is to describe the typically commercial process of responding to a request for service provision, and then, after successful contract negotiations, deliver the required service.

ID is a branch of the Commonwealth Government (Defence), providing services to Defence. There are no commercial arrangements. Also, ID is charged with the responsibility of developing processes that match the responsibility of delivering the required services for Defence.

The consequence is that ID defines the process, and the "customer / stakeholder" requirements need to fit in with the process. The project outcomes of the processes are overseen by delegated authorities. For capital projects in excess of \$4.5m, this overseer is the Defence Infrastructure Sub-Committee (DISC). "Success" is measured by endorsement of project proposals reviewed by the delegate. All projects require "sponsor" endorsement, irrespective of the capital value.

Other units in ID charged with meeting Defence policy objectives (e.g. environment, heritage, property disposal, fire, electrical, civil) define the processes appropriate for the services to be delivered. These processes are delivered on behalf of Defence as part of its responsibility to comply with legislation. The "customer" in these cases is essentially the Secretary of the Department and the Chief of the Defence Force. ID is fulfilling its role relating to a "building owner".

Hence, the commercial world model does not apply to ID. However, the principles are applicable, and the process descriptions embed the various requirements and endorsements.

Projects are prioritised and delivered in priority order. Resource capacity does not influence project delivery in the standard commercial context. If projects require additional resources, other projects may be put on hold to meet changed priorities.

The best summary is that in a commercial world involving a service provider (as ID is), the certified agency markets their products and negotiates contracts by entering into transactions with the customer that will involve defining how the business will be done and how the services will be tailored to meet the needs of the customer. In ID, other areas of Defence bid for funds to deliver projects. There are no commercial negotiations, and ID specifies how the business process will be transacted. The delegates (Branch Heads, HI or DISC) measure success through the project endorsement process built into the various processes associated with project delivery.

The impact of the above analysis is that many of the detailed aspects of the various clauses are not directly applicable (e.g. 7.2.1 (c), 7.2.3 (a)). The IM and the associated processes are available to all Defence through the Defence Intranet (DEFWEB).

- ISO9001: Clause 7.2.** A specific requirement relates to the provision of customer feedback, including customer complaints. ID obtains customer feedback via the IM (refer to "feedback" button on all screens – top menu) and surveys. ID also obtains feedback on projects via the approval process. Each project that is developed requires sponsor endorsement. The process of sponsor endorsement and subsequent reviews (often through the DISC process) provides the necessary feedback mechanism currently considered sufficient by ID.
- ISO9001: Clause 7.4.** ID is part of the Commonwealth Government. As a Government agency, ID has an obligation to conduct purchasing activities in accordance with published Government procurement guidelines. These guidelines exist at a "Whole of Government" level.
- ID has developed standard processes for its major acquisition processes and has also developed a standard suite of construction contracts. Procurement of consultants is via the use of panels.
- Other minor procurement processes are undertaken in accordance with the Defence Procurement Policy Manual (DPPM) and Commonwealth Procurement Guidelines (CPG) and utilise standard government supply contracts. Often, these minor purchases are provided through Business Services Procurement and Contracting (BSP&C) which is part of DSG, and the procurement activity is managed by BSP&C.
- ISO9001: Clause 7.5.3.** All capital works projects are allocated a number and recorded on the DEMS system. Project directories are also established to store project documents and records. The file system within ID provides the necessary identification and traceability.
- ISO9001: Clause 8.2.** ID does not have any formal process for obtaining customer feedback; with the exception of a capacity to provide feedback via the IM (refer to "feedback" button on all screens – top menu). ID obtains feedback on projects via the approval process. Each project that is developed requires sponsor endorsement. The process of sponsor endorsement and subsequent reviews (often through the

DISC process) provides the necessary feedback mechanism currently considered sufficient by ID.

The audit criteria, scope, frequency and methods are defined in the audit procedure. IM has a small team of certified internal auditors who conduct audits and ensure objectivity and impartiality of the audit process. Auditors do not audit their own work.

ISO9001: Clause 8.3 Any Opportunity for Improvement may be accepted as is and the resolution will record no change. If this occurs appropriate approval will be given for this course of action.

Any Opportunity for Improvement will have action taken that precludes unintended use or application or the original error.

ISO9001: Clause 8.4. The processes relating to customer satisfaction have been described previously. If there are issues associated with processes, these will be identified typically through the DISC process and/or sponsors, and the **IM and ISO Management: Opportunity for Improvement** process will be used to analyse and improve processes.

Relationship between clauses of ISO9001 and the IM

Table 2 provides the detailed analysis of the link between each clause of ISO9001 and the IM. When viewing the table, the following colour coding applies:

Notes are in Blue. These refer the reader to the above text, or provide further interpretation of the clause.

Sections of the IM are in Plum. Section of the IM (refer to IM Home page) are coloured plum. This allows easy identification of the location of a process.

Processes are in black, after the section name. These are the actual procedures.

Clause	Result C/I/N	Reference
4 Quality management system		
4.1 General requirements		
The organisation shall establish, document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements of this International Standard.	C	<i>The documentation is published on the IM.</i>
The organisation shall		
a) determine the processes needed for the quality management system and their application throughout the organisation (see 1.2),	C	<i>Processes needed have been included on the IM.</i>
b) determine the sequence and interaction of these processes,	C	<i>Refer to Figure 1 at the beginning of this document.</i>
c) determine criteria and methods needed to ensure that both the operation and control of these processes are effective,	C	<i>Refer to the notes at the beginning of this document.</i> IM and ISO Management: Internal Compliance Review IM and ISO Management: Publishing to the IM

Clause	Result C/I/N	Reference
d) ensure the availability of resources and information necessary to support the operation and monitoring of these processes,	C	<i>Refer to the notes at the beginning of this document.</i>
e) monitor, measure where applicable, and analyse these processes, and	C	IM and ISO Management: Internal Compliance Review IM and ISO Management: Continual improvement
f) implement actions necessary to achieve planned results and continual improvement of these processes.	C	IM and ISO Management: Internal Compliance Review IM and ISO Management: Continual improvement IM and ISO Management: Opportunities for improvement
These processes shall be managed by the organisation in accordance with the requirements of this International Standard.	C	<i>Refer to the notes at the beginning of this document.</i>
Where an organisation chooses to outsource any process that affects product conformity to requirements, the organisation shall ensure control over such processes. The type and extent of control to be applied to these outsourced processes shall be defined within the quality management system.	C	<i>Refer to the notes at the beginning of this document.</i>
4.2 Documentation requirements		
4.2.1 General		
The quality management system documentation shall include		
a) documented statements of a quality policy and quality objectives,	C	<i>Refer to the notes at the beginning of this document.</i> ID Directives: Quality Policy
b) a quality manual,	C	<i>This document is effectively the quality manual.</i>
c) documented procedures and records required by this International Standard, and	C	<i>Processes needed have been included on the IM.</i>
d) documents, including records determined by the organisation to be necessary to ensure the effective planning, operation and control of its processes.	C	<i>Refer to the notes at the beginning of this document.</i>
4.2.2 Quality manual		
The organisation shall establish and maintain a quality manual that includes:		
a) the scope of the quality management system, including details of and justification for any exclusions (see 1.2),	C	<i>Refer to the notes at the beginning of this document.</i>
b) the documented procedures established for the quality management system, or reference to them, and	C	<i>This document is effectively the quality manual.</i> <i>Procedures are contained on the IM.</i>
c) a description of the interaction between the processes of the quality management system.	C	<i>Refer to the Figure 1 at the beginning of this document.</i>
4.2.3 Control of documents		

Clause	Result C/I/N	Reference
Documents required by the quality management system shall be controlled. Records are a special type of document and shall be controlled according to the requirements given in 4.2.4.	C	<i>Refer to the notes at the beginning of this document.</i> IM and ISO Management: Publishing to the IM
A documented procedure shall be established to define the controls needed:		
a) to approve documents for adequacy prior to issue,	C	IM and ISO Management: Publishing to the IM
b) to review and update as necessary and re-approve documents,	C	IM and ISO Management: Publishing to the IM
c) to ensure that changes and the current revision status of documents are identified,	C	IM and ISO Management: Publishing to the IM
d) to ensure that relevant versions of applicable documents are available at points of use,	C	IM and ISO Management: Publishing to the IM
e) to ensure that documents remain legible and readily identifiable,	C	IM and ISO Management: Publishing to the IM
f) to ensure that documents of external origin determined by the organisation to be necessary for the planning and operation of the quality management system are identified and their distribution controlled, and	C	IM and ISO Management: Publishing to the IM External documents are not managed through the IM as the Division is not the owner; however their accessibility is monitored through checks of the link in accordance with the Review Schedule.
g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.	C	IM and ISO Management: Publishing to the IM Only those documents which are current and relevant to the IM are found on the site. Previous versions are retained on the IM working file for historical purposes.
4.2.4 Control of records		
Records established to provide evidence of conformity to requirements and of the effective operation of the quality management system shall be controlled. The organisation shall establish a documented procedure to define the controls needed for the identification, storage, protection, retrieval, retention and disposition of records. Records shall remain legible, readily identifiable and retrievable.	C	<i>Refer to the notes at the beginning of this document.</i> Refer to the Records Management policy within the Policy area of the IM.
5 Management responsibility		
5.1 Management commitment		
Top management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:		
a) communicating to the organisation the importance of meeting customer as well as statutory and regulatory requirements,	C	<i>Refer to the notes at the beginning of this document.</i> Business support: Induction, Learning and Development in ID
b) establishing the quality policy,	C	ID Directives: Quality Policy

Clause	Result C//N	Reference
c) ensuring that quality objectives are established,	C	<i>Refer to the notes at the beginning of this document.</i> ID Directives: Meeting framework
d) conducting Management Reviews, and	C	Committees: Calendar ID Directives: Management Reviews
e) ensuring the availability of resources.	C	<i>Refer to the notes at the beginning of this document.</i>
5.2 Customer focus		
Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction (see 7.2.1 and 8.2.1).	C	<i>Refer to the notes at the beginning of this document.</i>
5.3 Quality policy		
Top management shall ensure that the quality policy:		
a) is appropriate to the purpose of the organisation,	C	ID Directives: Quality Policy
b) includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system,	C	ID Directives: Quality Policy
c) provides a framework for establishing and reviewing quality objectives,	C	ID Directives: Quality Policy ID Directives: Meeting Framework
d) is communicated and understood within the organisation, and	C	<i>Refer to the notes at the beginning of this document.</i> ID Directives: Quality Policy
e) is reviewed for continuing suitability	C	ID Directives: Quality Policy IM and ISO Management: Internal Compliance Review
5.4 Planning		
5.4.1 Quality objectives		
Top management shall ensure that quality objectives, including those needed to meet requirements for product [see 7.1 a)], are established at relevant functions and levels within the organisation. The quality objectives shall be measurable and consistent with the quality policy.	C	ID Quality Objectives ID Directives: Quality Policy ID Directives: Meeting framework Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
5.4.2 Quality management system planning		
Top management shall ensure that		
a) the planning of the quality management system is carried out in order to meet the requirements given in 4.1, as well as the quality objectives, and	C	ID Directives: Management Reviews IM and ISO Management: Publishing to the IM IM and ISO Management: IM Continual improvement
b) the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.	C	IM and ISO Management: Publishing to the IM
5.5 Responsibility, authority and communication		

Clause	Result C/I/N	Reference
5.5.1 Responsibility and authority		
Top management shall ensure that responsibilities and authorities are defined and communicated within the organisation.	C	<i>Refer to the notes at the beginning of this document.</i> Governance: Financial Delegation Manual Governance: Infrastructure Division (ID) Delegation ID Directives: Financial Delegations and Procurement Governance for EPE Branch Business support: Induction, Learning and Development in ID
5.5.2 Management representative		
Top management shall appoint a member of the organisation's management who, irrespective of other responsibilities, shall have responsibility and authority that includes:		
a) ensuring that processes needed for the quality management system are established, implemented and maintained,	C	<i>Refer to the notes at the beginning of this document.</i>
b) reporting to top management on the performance of the quality management system and any need for improvement, and	C	<i>Refer to the notes at the beginning of this document.</i>
c) ensuring the promotion of awareness of customer requirements throughout the organisation.	C	<i>Refer to the notes at the beginning of this document.</i>
5.5.3 Internal communication		
Top management shall ensure that appropriate communication processes are established within the organisation and that communication takes place regarding the effectiveness of the quality management system.	C	<i>Refer to the notes at the beginning of this document.</i> ID Directives: Meeting framework
5.6 Management Review		
5.6.1 General		
Top management shall review the organisation's quality management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives.	C	ID Directives: Management Reviews
Records from Management Reviews shall be maintained (see 4.2.4).	C	ID Directives: Management Reviews
5.6.2 Review input		
The input to Management Review shall include information on:		
a) results of audits,	C	ID Directives: Management Reviews
b) customer feedback,	C	ID Directives: Management Reviews
c) process performance and product conformity,	C	ID Directives: Management Reviews
d) status of preventive and corrective actions,	C	ID Directives: Management Reviews

Clause	Result C//N	Reference
e) follow-up actions from previous Management Reviews,	C	ID Directives: Management Reviews
f) changes that could affect the quality management system, and	C	ID Directives: Management Reviews
g) recommendations for improvement.	C	ID Directives: Management Reviews
5.6.3 Review output		
The output from the Management Review shall include any decisions and actions related to		
a) improvement of the effectiveness of the quality management system and its processes,	C	ID Directives: Management Reviews
b) improvement of product related to customer requirements, and	C	ID Directives: Management Reviews
c) resource needs.	C	ID Directives: Management Reviews
6 Resource management		
6.1 Provision of resources		
The organisation shall determine and provide the resources needed		
a) to implement and maintain the quality management system and continually improve its effectiveness, and	C	<i>Refer to the notes at the beginning of this document.</i>
b) to enhance customer satisfaction by meeting customer requirements.	C	<i>Refer to the notes at the beginning of this document.</i>
6.2 Human resources		
6.2.1 General		
Personnel performing work affecting conformity to product requirements shall be competent on the basis of appropriate education, training, skills and experience.	C	Business support: Induction and Learning and Development in ID
6.2.2 Competence, training and awareness		
The organisation shall		
a) determine the necessary competence for personnel performing work affecting conformity to product requirements,	C	Business support: Induction, Learning and Development in ID
b) where applicable, provide training or take other actions to achieve the necessary competence,	C	Business support: Induction, Learning and Development in ID
c) evaluate the effectiveness of the actions taken,	C	Business support: Induction, Learning and Development in ID
d) ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and	C	Business support: Induction, Learning and Development in ID
e) maintain appropriate records of education, training, skills and experience (see 4.2.4).	C	Business support: Induction, Learning and Development in ID

Clause	Result C/I/N	Reference
6.3 Infrastructure		
The organisation shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable		
a) buildings, workspace and associated utilities,	C	<i>Refer to the notes at the beginning of this document.</i>
b) process equipment (both hardware and software), and	C	<i>Refer to the notes at the beginning of this document.</i>
c) supporting services (such as transport or communication or information systems).	C	<i>Refer to the notes at the beginning of this document.</i>
6.4 Work environment		
The organisation shall determine and manage the work environment needed to achieve conformity to product requirements.	C	<i>Refer to the notes at the beginning of this document.</i>
7 Product realization		
7.1 Planning of product realization		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
The organisation shall plan and develop the processes needed for product realisation. Planning of product realisation shall be consistent with the requirements of the other processes of the quality management system (see 4.1).	C	<i>The planning of the services provided by ID are articulated via the processes defined on the IM.</i>
In planning product realisation, the organisation shall determine the following, as appropriate:		
a) quality objectives and requirements for the product;	C	<i>Defined in the various processes on the IM. Refer to the notes for clause 5.1 at the beginning of his document.</i>
b) the need to establish processes and documents, and to provide resources specific to the product;	C	<i>Defined in the various processes on the IM.</i>
c) required verification, validation, monitoring, measurement, inspection and test activities specific to the product and the criteria for product acceptance;	C	<i>Defined in the various processes on the IM.</i>
d) records needed to provide evidence that the realisation processes and resulting product meet requirements (see 4.2.4).	C	<i>Defined in the various processes on the IM and available via the DEFWEB.</i>
The output of this planning shall be in a form suitable for the organisation's method of operations.	C	<i>Defined in the various processes on the IM.</i>
7.2 Customer-related processes		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>

Clause	Result C/I/N	Reference
7.2.1 Determination of requirements related to the product	C	<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
The organisation shall determine		
a) requirements specified by the customer, including the requirements for delivery and post-delivery activities,	C	<i>Defined in the various processes on the IM.</i>
b) requirements not stated by the customer but necessary for specified or intended use, where known,	C	<i>Defined in the various processes on the IM.</i> <i>Also defined by standards being developed by ID.</i>
c) statutory and regulatory requirements related to the product, and	C	Policy: Engineering and Maintenance. Policy: Environmental Management
d) any additional requirements determined by the organisation.	C	<i>Defined in the various processes on the IM.</i>
7.2.2 Review of requirements related to the product		<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
The organisation shall review the requirements related to the product. This review shall be conducted prior to the organisation's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and shall ensure that:		
a) product requirements are defined,	C	<i>Defined in the various processes on the IM.</i>
b) contract or order requirements differing from those previously expressed are resolved, and	C	<i>Refer to the notes at the beginning of this document.</i>
c) the organisation has the ability to meet the defined requirements.	C	<i>Refer to the notes at the beginning of this document.</i>
Records of the results of the review and actions arising from the review shall be maintained (see 4.2.4).	C	<i>The various processes define the records to be maintained. Essentially the delegates endorsement (or rejection) of a proposal or project deliverable is the record of reviews.</i>
Where the customer provides no documented statement of requirement, the customer requirements shall be confirmed by the organisation before acceptance.	C	<i>The processes aim to extract the requirements progressively. The absence of a commercial arrangement removes the typical issue of commercial transaction and fee negotiation as a result of variations.</i>
Where product requirements are changed, the organisation shall ensure that relevant documents are amended and that relevant personnel are made aware of the changed requirements.	C	<i>Any changes are addressed through the various processes defined on the IM.</i> <i>Project requirements address the potential for change, and these processes are defined on the IM.</i>

Clause	Result C//N	Reference
7.2.3 Customer communication		<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
The organisation shall determine and implement effective arrangements for communicating with customers in relation to		
a) product information,	C	<i>Defined in the various processes on the IM and available via the DEFWEB.</i>
b) enquiries, contracts or order handling, including amendments, and	C	<i>Defined in the various processes on the IM and available via the DEFWEB.</i>
c) customer feedback, including customer complaint	C	<i>Refer to the notes at the beginning of this document.</i>
7.3 Design and development		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
7.3.1 Design and development planning		<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
The organisation shall plan and control the design and development of product.	C	<i>Planning is engrained in the procedures</i>
During the design and development planning, the organisation shall determine		
a) the design and development stages,	C	<i>Design stages are defined in the procedures, particularly Planning and Development & Delivery.</i>
b) the review, verification and validation that are appropriate to each design and development stage, and	C	<i>Review, verification and validation (as applicable) are defined in the procedures, particularly Planning, Development & Delivery.</i>
c) the responsibilities and authorities for design and development.	C	<i>Responsibilities are defined in the procedures, particularly Planning, Development & Delivery.</i>
The organisation shall manage interfaces between different groups involved in design and development to ensure effective communication and clear assignment of responsibility	C	<i>Interfaces are defined in the procedures, particularly Planning, Development & Delivery.</i>
Planning output shall be updated, as appropriate, as the design and development progresses.	C	<i>Outputs are defined in the procedures, particularly Planning, Development & Delivery.</i>

Clause	Result C/I/N	Reference
7.3.2 Design and development inputs	C	<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
Inputs relating to product requirements shall be determined and records maintained (see 4.2.4). These inputs shall include		
a) functional and performance requirements,	C	<i>Functional and performance requirements applicable to projects are generally defined in the procedures, particularly Planning and Development & Delivery.</i>
b) applicable statutory and regulatory requirements,	C	Policy: Engineering and Maintenance. Policy: Environmental Management Policy: Technical Authorities
c) where applicable, information derived from previous similar designs, and	C	<i>If applicable, this will be included during the SBC and DBC processes.</i> <i>Other unit projects will consider these as they are relevant (e.g. heritage or environment).</i>
d) other requirements essential for design and development.	C	<i>Requirements are generally defined in the IM.</i>
The inputs shall be reviewed for adequacy. Requirements shall be complete, unambiguous and not in conflict with each other.	C	<i>Processes on the IM define the necessary reviews.</i>
7.3.3 Design and development outputs		<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
The outputs of design and development shall be in a form suitable for verification against the design and development input and shall be approved prior to release.	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
Design and development outputs shall		
a) meet the input requirements for design and development,	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
b) provide appropriate information for purchasing, production for service provision,	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
c) contain or reference product acceptance criteria, and	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
d) specify the characteristics of the product that are essential for its safe and proper use.	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>

Clause	Result C//N	Reference
7.3.4 Design and development review	C	<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group
At suitable stages, systematic reviews of design and development shall be performed in accordance with planned arrangements (see 7.3.1)		
a) to evaluate the ability of the results of design and development to meet requirements, and	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
b) to identify any problems and propose necessary actions.	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
Participants in such reviews shall include representatives of functions concerned with the design and development stage(s) being reviewed. Records of the results of the reviews and any necessary actions shall be maintained (see 4.2.4).	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
7.3.5 Design and development verification		
Verification shall be performed in accordance with planned arrangements (see 7.3.1) to ensure that the design and development outputs have met the design and development input requirements. Records of the results of the verification and any necessary actions shall be maintained (see 4.2.4).	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i> <i>Design verification as intended by this clause of the standards is not undertaken by ID. Projects have defined stages that address the necessary verification.</i>
7.3.6 Design and development validation		
Design and development validation shall be performed in accordance with planned arrangements (see 7.3.1) to ensure that the resulting product is capable of meeting the requirements for the specified application or intended use, where known. Wherever practicable, validation shall be completed prior to the delivery or implementation of the product. Records of the results of validation and any necessary actions shall be maintained (see 4.2.4).	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i> <i>Design validation as intended by this clause of the standards is not undertaken by ID. Projects have defined stages that address the necessary validation.</i>
7.3.7 Control of design and development changes		<i>Refer to the notes at the beginning of this document.</i> Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Committees: DISC Committees: PWC Governance: Procurement Review Group

Clause	Result C//N	Reference
Design and development changes shall be identified and records maintained. The changes shall be reviewed, verified and validated, as appropriate, and approved before implementation. The review of design and development changes shall include evaluation of the effect of the changes on constituent parts and product already delivered. Records of the results of the review of changes and any necessary actions shall be maintained (see 4.2.4).	C	<i>Refer to the notes at the beginning of this document relating to Clauses 7.2 – 7.5 (Generally)</i>
7.4 Purchasing		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
7.4.1 Purchasing process		
The organisation shall ensure that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product shall be dependent upon the effect of the purchased product on subsequent product realisation or the final product.	C	Refer to the notes at the beginning of this document. Development & Delivery: Pre Planning -Project Planning Governance: Procurement Review Group Business support: Panels Business support: Suite of Contracts
The organisation shall evaluate and select suppliers based on their ability to supply product in accordance with the organisation's requirements. Criteria for selection, evaluation and re-evaluation shall be established. Records of the results of evaluations and any necessary actions arising from the evaluation shall be maintained (see 4.2.4).	C	Refer to the notes at the beginning of this document. Development & Delivery: Pre Planning, Planning & Delivery. Governance: Procurement Review Group Business support: Panels Business support: Suite of Contracts
7.4.2 Purchasing information	C	<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
Purchasing information shall describe the product to be purchased, including where appropriate		
a) requirements for approval of product, procedures, processes and equipment,	C	<i>ID procurement processes address these as required. The existing panel arrangements further enhance these requirements.</i>
b) requirements for qualification of personnel, and	C	<i>ID procurement processes address these as required. The existing panel arrangements further enhance these requirements.</i>
c) quality management system requirements.	C	<i>ID procurement processes address these as required. The existing panel arrangements further enhance these requirements.</i>
The organisation shall ensure the adequacy of specified purchase requirements prior to their communication to the supplier.	C	<i>ID procurement processes address these as required. The existing panel arrangements further enhance these requirements.</i>
7.4.3 Verification of purchased product		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
The organisation shall establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.	C	<i>ID does not normally require this to occur. Required, the required arrangements would be written into the appropriate contract.</i>

Clause	Result C/I/N	Reference
Where the organisation or its customer intends to perform verification at the supplier's premises, the organisation shall state the intended verification arrangements and method of product release in the purchasing information.	C	<i>ID does not normally require this to occur. Required, the required arrangements would be written into the appropriate contract.</i>
7.5 Production and service provision		<i>Refer to the notes at the beginning of this document. Additional specific notes are provided against each clause (where applicable).</i>
7.5.1 Control of production and service provision		
The organisation shall plan and carry out production and service provision under controlled conditions. Controlled conditions shall include, as applicable		
a) the availability of information that describes the characteristics of the product,	C	<i>Refer to the notes at the beginning of this document. Planning: All processes Development & Delivery: All processes Operations & Maintenance: All processes Disposal: All processes Business support: all tools Committees: DISC Committees: PWC Governance: Procurement Review Group</i>
b) the availability of work instructions, as necessary,	C	<i>As defined on the IM</i>
c) the use of suitable equipment,	C	<i>There are no special equipment needs for ID. A review of the work environment verifies the adequacy of the equipment.</i>
d) the availability and use of monitoring and measuring equipment,	N/A	<i>ID does not have monitoring and measuring devices.</i>
e) the implementation of monitoring and measurement, and	C	<i>Any monitoring is defined in the various processes on the IM.</i>
f) the implementation of product release, delivery and post-delivery activities	C	<i>Any requirements for these activities will be defined in the various processes on the IM.</i>
7.5.2 Validation of processes for production and service provision		<i>Not applicable to ID</i>
The organisation shall validate any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement and, as a consequence, deficiencies become apparent only after the product is in use or the service has been delivered.	N/A	<i>Not applicable to ID</i>
Validation shall demonstrate the ability of these processes to achieve planned results.	N/A	<i>Not applicable to ID</i>
The organisation shall establish arrangements for these processes including, as applicable		
a) defined criteria for review and approval of the processes,	N/A	<i>Not applicable to ID</i>
b) approval of equipment and qualification of personnel,	N/A	<i>Not applicable to ID</i>
c) use of specific methods and procedures,	N/A	<i>Not applicable to ID</i>

Clause	Result C/I/N	Reference
d) requirements for records (see 4.2.4), and	N/A	<i>Not applicable to ID</i>
e) revalidation.	N/A	<i>Not applicable to ID</i>
7.5.3 Identification and traceability		
Where appropriate, the organisation shall identify the product by suitable means throughout product realisation. The organisation shall identify the product status with respect to monitoring and measurement requirements throughout product realization.	C	<i>Refer to the notes at the beginning of this document.</i>
Where traceability is a requirement, the organisation shall control the unique identification of the product and maintain records (see 4.2.4).	C	
7.5.4 Customer property		<i>Not applicable to ID</i>
The organisation shall exercise care with customer property while it is under the organisation's control or being used by the organisation. The organisation shall identify, verify, protect and safeguard customer property provided for use or incorporation into the product. If any customer property is lost, damaged or otherwise found to be unsuitable for use the organisation shall report this to the customer and maintain records (see 4.2.4).	N/A	<i>Not applicable to ID</i>
7.5.5 Preservation of product		<i>Not applicable to ID</i>
The organisation shall preserve the product during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, preservation shall include identification, handling, packaging, storage and protection. Preservation shall also apply to the constituent parts of a product.	N/A	<i>Not applicable to ID</i>
7.6 Control of monitoring and measuring equipment		<i>Not applicable to ID</i>
The organisation shall determine the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements.	N/A	<i>Not applicable to ID</i>
The organisation shall establish processes to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.	N/A	<i>Not applicable to ID</i>
Where necessary to ensure valid results, measuring equipment shall	N/A	<i>Not applicable to ID</i>
a) be calibrated or verified, or both at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification shall be recorded (see 4.2.4);	N/A	<i>Not applicable to ID</i>
b) be adjusted or re-adjusted as necessary;	N/A	<i>Not applicable to ID</i>
c) have identification in order to determine its calibration status;	N/A	<i>Not applicable to ID</i>

Clause	Result C/I/N	Reference
d) be safeguarded from adjustments that would invalidate the measurement result;	N/A	<i>Not applicable to ID</i>
e) be protected from damage and deterioration during handling, maintenance and storage.	N/A	<i>Not applicable to ID</i>
In addition, the organisation shall assess and record the validity of the previous measuring results when the equipment is found not to conform to requirements. The organisation shall take appropriate action on the equipment and any product affected. Records of the results of calibration and verification shall be maintained (see 4.2.4).	N/A	<i>Not applicable to ID</i>
When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application shall be confirmed. This shall be undertaken prior to initial use and reconfirmed as necessary.	N/A	<i>Not applicable to ID</i>
8 Measurement, analysis and improvement		
8.1 General		
The organisation shall plan and implement the monitoring, measurement, analysis and improvement processes needed		
a) to demonstrate conformity to product requirements,	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement.
b) to ensure conformity of the quality management system, and	C	IM and ISO Management: Internal Compliance Review. ID Directive: Management Review
c) to continually improve the effectiveness of the quality management system.	C	IM and ISO Management: Internal Compliance Review IM and ISO Management: Continual Improvement. IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
This shall include determination of applicable methods, including statistical techniques, and the extent of their use.	N/A	<i>Not applicable to ID</i>
8.2 Monitoring and measurement		
8.2.1 Customer satisfaction		
As one of the measurements of the performance of the quality management system, the organisation shall monitor information relating to customer perception as to whether the organisation has met customer requirements. The methods for obtaining and using this information shall be determined.	C	<i>Refer to notes at the beginning of this document.</i>
8.2.2 Internal audit		
The organisation shall conduct internal audits at planned intervals to determine whether the quality management system		

Clause	Result C/I/N	Reference
a) conforms to the planned arrangements (see 7.1), to the requirements of this International Standard and to the quality management system requirements established by the organisation, and	C	IM and ISO Management: Internal Compliance Review.
b) is effectively implemented and maintained.	C	IM and ISO Management: Internal Compliance Review.
An audit programme shall be planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be defined. The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit process. Auditors shall not audit their own work.	C	<i>Refer to the notes at the beginning of this document.</i> IM and ISO Management: Internal Compliance Review.
A documented procedure shall be established to define the responsibilities and requirements for planning and conducting audits, establishing records and reporting results.	C	IM and ISO Management: Internal Compliance Review.
Records of the audits and their results shall be maintained (see 4.2.4)	C	IM and ISO Management: Internal Compliance Review.
The management responsible for the area being audited shall ensure that any necessary corrections and corrective actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities shall include the verification of the actions taken and the reporting of verification results (see 8.5.2).	C	IM and ISO Management: Internal Compliance Review.
8.2.3 Monitoring and measurement of processes		
The organisation shall apply suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods shall demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action shall be taken, as appropriate.	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement.
8.2.4 Monitoring and measurement of product		
The organisation shall monitor and measure the characteristics of the product to verify that product requirements have been met. This shall be carried out at appropriate stages of the product realisation process in accordance with the planned arrangements (see 7.1). Evidence of conformity with the acceptance criteria shall be maintained.	C	<i>ID products are subject to review as part of the standard process. The requirements for review are defined in the various processes published on the IM.</i>
Records shall indicate the person(s) authorizing release of product for delivery to the customer (see 4.2.4).	C	<i>The requirements for records are defined in the various processes on the IM.</i>
The release of product and delivery of service to the customer shall not proceed until the planned arrangements (see 7.1) have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.	C	<i>The requirements for product release are defined in the various processes on the IM.</i>

Clause	Result C//N	Reference
8.3 Control of nonconforming product		
The organisation shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. A documented procedure shall be established to define the controls and related responsibilities and authorities for dealing with nonconforming product.	C	IM and ISO Management: Opportunity for Improvement.
Where applicable the organisation shall deal with nonconforming product by one or more of the following ways:		
a) by taking action to eliminate the detected nonconformity;	C	IM and ISO Management: Opportunity for Improvement.
b) by authorising its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;	C	IM and ISO Management: Opportunity for Improvement.
c) by taking action to preclude its original intended use or application.	C	IM and ISO Management: Opportunity for Improvement.
d) by taking action appropriate to the effect, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started.	C	IM and ISO Management: Opportunity for Improvement.
When nonconforming product is corrected it shall be subject to re-verification to demonstrate conformity to the requirements. Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, shall be maintained (see 4.2.4).	C	IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Internal Compliance Review.
8.4 Analysis of data		
The organisation shall determine, collect and analyse appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This shall include data generated as a result of monitoring and measurement and from other relevant sources.	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review
The analysis of data shall provide information relating to		
a) customer satisfaction (see 8.2.1),	C	<i>Refer to the notes at the beginning of this document.</i>
b) conformity to product requirements (see 8.2.4),	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review
c) characteristics and trends of processes and products including opportunities for preventive action (see 8.2.3 and 8.2.4), and	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review

Clause	Result C/I/N	Reference
d) suppliers (see 7.4).	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review
8.5 Improvement		
8.5.1 Continual improvement		
The organisation shall continually improve the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and Management Review.	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review
8.5.2 Corrective action		
The organisation shall take action to eliminate the causes of nonconformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the nonconformities encountered.	C	IM and ISO Management: Internal Compliance Review. IM and ISO Management: Opportunity for Improvement. IM and ISO Management: Continual Improvement. ID Directive: Management Review
A documented procedure shall be established to define requirements for		
a) reviewing nonconformities (including customer complaints),	C	IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
b) determining the causes of nonconformities,	C	IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
d) determining and implementing action needed,	C	IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
e) records of results of action taken (see 4.2.4), and	C	IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
f) reviewing the effectiveness corrective action taken.	C	IM and ISO Management: Opportunity for Improvement. ID Directive: Management Review
8.5.3 Preventive action		
The organisation shall determine action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions shall be appropriate to the effects of the potential problems.	C	IM and ISO Management: Continual Improvement. ID Directive: Management Review
A documented procedure shall be established to define requirements for		
a) determining potential nonconformities and their causes,	C	IM and ISO Management: Continual Improvement. ID Directive: Management Review
b) evaluating the need for action to prevent occurrence of nonconformities,	C	IM and ISO Management: Continual Improvement. ID Directive: Management Review
c) determining and implementing action needed,	C	IM and ISO Management: Continual Improvement. ID Directive: Management Review
d) records of results of action taken (see 4.2.4), and	C	IM and ISO Management: Continual Improvement. ID Directive: Management Review

Clause	Result C//N	Reference
e) reviewing preventive action taken.	I	IM and ISO Management: Continual Improvement. ID Directive: Management Review