

A large ship hull is shown under construction in a dry dock. The hull is supported by a long line of orange and white transporters. The ship's bow is visible on the left, and the hull extends towards the right. The background shows a blue sky with scattered clouds and industrial structures.

Supplier Quality Assurance Manual: Shipbuilding

ASC

Supplier Quality Assurance Manual - Shipbuilding

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2. Purpose

The purpose of this manual is to assist suppliers and sub-contractors ('Suppliers') in understanding ASC's quality/Defence requirements, compliance and expectations. This manual has been designed to provide information and guidance to assist Suppliers when providing goods, refurbishments and/or services to ASC.

3. Scope

This manual is applicable to all ASC purchases of goods and services under ASC's purchase order terms and conditions ('PO') in support of ASC's shipbuilding projects, eg. the Air Warfare Destroyer (AWD) project, support to the Off-Shore Patrol Vessel (OPV) project etc. If there are any inconsistencies between this document and the terms and conditions of ASC's PO or contract with a Supplier, then the ASC PO or contract terms and conditions shall prevail.

The content and effectiveness of this manual will be monitored and evaluated on an on-going basis.

4. Definitions and Acronyms

A2LA	American Association of Laboratory Accreditation
AWD	Air Warfare Destroyers (Program)
CAPA	Corrective And Preventive Action
CASG	Capability, Acquisition and Sustainment Group
COC	Certificate of Conformance
CTCL	Critical
DIFOT	Delivered in Full On-time
ECQMS	Enterprise Compliance Quality Management System (ASC shipbuilding programs Document Management System)
ILAC	International Laboratory Accreditation Co-operation
IMTE	Inspection Measuring and Testing Equipment
ITAR	International Traffic in Arms Regulation
ITP	Inspection and Test Plan
MSDS	Material Safety Data Sheet
NATA	National Association of Testing Authorities
NCR	Non-conformance Report
OPV	Offshore Patrol Vessel
OQE	Objective Quality Evidence
PO	ASC Purchase Order
PQMP	Project Quality Management Plan
RAN	Royal Australian Navy (end Customer)
RCA	Root Cause Analysis
SCAR	Supplier Corrective Action Request (SCAR)
SDRL	Supplier Data Requirement List
SQAM	Supplier Quality Assurance Manual

5. ASC Vision, Mission and Values

Vision: To be an enduring and integral part of Australia's maritime strategy and national security.

Mission: To be a trusted and efficient partner with sovereign design, build and sustainment capabilities, driving best value for our customers.

Values and Behaviours: Strongly held corporate values are an important element of the strategic framework that underpins successful companies. ASC employees aspire to a set of values and exhibit corresponding behaviours, which are the guiding principles that define how we conduct our business and what we stand for as a company. ASC's corporate values are:

- Protect
- Respect
- Integrity
- Discipline
- Excellence

General Expectations of ASC Suppliers

ASC expects suppliers to share our commitment to meeting our customers, the CASG's and the RAN's, requirements for quality, technical performance and on-time delivery. This can be achieved through flexibility in assisting ASC to meeting its end goal, which should be enforced by implementing continuous improvement initiatives and business continuity plans.

All suppliers are responsible for ensuring compliance to the requirements contained in this manual and are responsible for the quality, timeliness and integrity of delivered goods and services including those provided by their 'Sub-tier Suppliers/Manufacturers/Mills'.

All delivered products and services must comply fully with ASC's quality requirements including the provision of

appropriate Objective Quality Evidence (OQE) documentation as agreed in the corresponding ASC PO or contract.

All OQE for commodity items and refurbishments must comply with the ASC Attributes as defined in Sections 24 and 25 of this document.

6. Right of Access

During the course of the contract between ASC and the supplier, ASC may (with reasonable notice) require access to the supplier manufacturing/production and inspection areas and/or the supplier's sub-tier suppliers, manufacturers/mills manufacturing, production and inspection areas for the purpose of 'Quality Audits' and for assessing manufacturing/production and inspection processes capability to meet ASC's PO/contract requirements.

7. ISO 9001:2015 Requirements for Products and Services (Requirements Review / Contract Review)

Purchase Orders (PO) Goods/ Services/Refurbishments:

Suppliers are expected to have in place a **PO Requirements Review (RR)** procedure/process or check list (reference: ISO 9001:2015 Section 8.2.2 & 8.2.3 Determining/reviewing the Requirements for Product and Services and 8.2.3.2 Retention of Documented Information). Refer to [Annex 4](#): ASC PO Requirements Review template example/guidance checklist document.

Contract/Technical Procurement Specifications Review:

Suppliers are expected to have in place a **Contract/Technical Requirements Review (RR)** procedure/process /matrix (reference: ISO 9001:2015 Section 8.2.2 & 8.2.3 Determining/reviewing the Requirements for Product and Services and 8.2.3.2 Retention of Documented Information).

A typical **Contract/Technical Procurement Specification Requirements Review Matrix** must address/indicate compliance or otherwise against contract, technical and quality requirements as specified in ASC's contract/specifications.

Note: *If a supplier is uncertain about any aspect of what ASC has ordered, the supplier must immediately contact ASC and resolve this uncertainty prior to incurring any costs and committing to supply.*

8. Inwards, Outwards and In-process Goods Assurance/Controls

Suppliers to ASC are expected to have in place adequate procedures for the management of goods inwards, goods outwards and in-process quality assurance/inspection activities.

Suppliers must ensure that goods undergo an adequate level of checks and balances (eg. visual inspections, traceability checks, sample dimensional inspections) as applicable during production and prior to delivery to ASC.

9. Control of Sub-tier Suppliers

It is a requirement that all ASC direct suppliers maintain effective control over their sub-tier suppliers (including manufacturers/mills).

Direct suppliers to ASC must (on request) provide to ASC the necessary OQE to confirm that their sub-tier suppliers have been adequately assessed and are approved to supply.

The supplier must flow down all ASC PO requirements (eg. technical/OQE/traceability requirements) to their sub-tier suppliers (manufacturers/mills).

10. Purchase Order Nominated Critical (CTCL) Items

When supplying Critical (CTCL) Items, suppliers are expected to:

- Source items from ASC authorised manufacturers/mills only; or
- Propose manufacturers/mills for ASC's approval by providing evidence that the manufacturers/mills have 'Material Manufacturer' approval certified by independent certification bodies eg. BV, Lloyds, GL, NK, ABS, DNV, TUV, etc. or provide evidence of detailed review and approval by the direct supplier eg. audit reports, visit reports, inspection reports, test reports; or
- Ensure that items are independently sample tested by a NATA or equivalent testing house (eg. A2LA) IAW criteria defined by ASC, with test reports (OQE) provided to ASC. **Note:** This approach will qualify individual batch deliveries only, not the sub-tier/manufacturer/mill.
- ASC may also consider undertaking a quality audit/review of the 'Supplier, Manufacturer or Mill' manufacturing processes on a case by case basis.

Refer to: [Annex 1](#) - CTCL Approval Rules for Suppliers & Sub-tiers

11. Inspection and Testing Planning (ITP) Applicability/ Controls

Where a PO or ASC contract requires a supplier to submit to ASC an ITP the supplier's ITP document will be subject to ASC's approval and must be submitted prior to commencement of work.

As part of ASC's approval of the Supplier's ITP, ASC may add 'Hold' and 'Witness' points at its discretion, and:

- Where hold and witness points have been allocated, the supplier must inform ASC of the upcoming event with appropriate notice.

- Hold points are not to be conducted without an ASC representative present unless the hold point has been formally waived by ASC.
- Witness points may be conducted without ASC's presence as long as appropriate notification has been provided.
- The ITP document must contain sufficient information to identify what inspection and/or testing will be carried out to meet 'Contract/PO' requirements.

Refer to: [Annex 2](#) - Inspection and Test Plan (ITP) example/template.

12. ISO 9001: 2015 Section 8.5 Production and Service Provision (Records)

Suppliers shall be able to identify outputs when it is necessary to ensure the conformity of products and services to ASC.

Unless otherwise stated in the purchase order or contract, records must be retained for a minimum commercial period specified under the Australian product liability law (seven years).

13. ISO 9001:2015 Section 7.1.5 Monitoring and Measuring Resources

Suppliers are required to maintain fully calibrated IMTE equipment used to ascertain compliance with ASC's 'Purchase Order/Contract' requirements eg. pressure gauges, micrometres, vernier callipers, scales, jigs, fixtures, tools, dies, tape measure, etc. The supplier calibration system must be fully compliant with the requirements of ISO 9001:2015.

IMTE calibration must be performed by NATA accredited laboratories or equivalent (eg. A2LA, etc.) and certificates must be NATA (or equivalent) endorsed.

The supplier's/subcontractor's IMTE calibration system/procedures must ensure that "an assessment" of the validity of previous measuring results is undertaken when an IMTE is found to be defective or out of calibration.

ASC must be notified in the event of potential non-conforming products and services delivered as a result of an out of calibration IMTE.

Mutual Recognition for Test Laboratories

ASC requires all testing (mechanical, chemical, non-destructive or calibration) to be performed by and/or traceable back to a suitable laboratory accredited to ISO 17025. Acceptable national certification bodies will be members of the International Laboratory Accreditation Co-operation (ILAC). The approved Australian certification body is the National Association of Testing Authorities (NATA), which is a member of ILAC. All international testing laboratories shall be affiliated with ILAC.

14. Product Marking/ Traceability/ Packaging and Preservation

Where required in the Contract/PO each delivered item must be identified with the following information (where applicable):

- Purchase order/contract number and revision number
- PO line/item number
- Item description
- ASC part number (NATO stock number or ASC catalogue/part number)
- Quantity
- Manufacturer's part number, including identification of the original equipment manufacturer and country of origin
- Controlled goods identification (non ITAR)
- Serial number
- Batch number
- Rubber hardness
- Rubber cure date
- Use by/shelf life
- Date of manufacture
- Expiry date
- Software version number
- Cleanliness certification statement
- Weight certification statement

15. Supply of Hazardous Materials and Hazardous Substance

When a hazardous material or substance is to be delivered to ASC, the Supplier must provide 'Material Specification' and/or MSDS.

Hazardous materials: Materials which because of its chemical, biochemical, microbiological or radiological properties, temperature or state of compression could in sufficient concentration cause:

- Harm to human health and safety or personal injury
- Property damage
- Environmental harm or environmental nuisance

These include, but are not limited to, hazardous substances, dangerous goods and scheduled poisons.

Hazardous Substances: These are hazardous substances that are listed on Safe Work Australia - Hazardous Substances Information System (HSIS) found at <http://hsis.ascg.gov.au> or determined to be a hazardous substance by the manufacturer or importer of the substance.

16. Sustainability

ASC sustainability's vision is to successfully carry out ASC's operations to minimise our environmental footprint and positively influence social, workforce and business outcomes.

As such, ASC values the consideration of the impacts on the environment, society and cost across the full lifecycle of products and services supplied to ASC. Where available, the supplier will provide ASC with sustainability information for their operations.

17. Counterfeit Products - Risk Mitigation and Prevention

All materials, hardware, mechanical items, electronic parts, assemblies and

products, as well as any test equipment or device used to qualify or test these items, can be certified using one of the following methods to ensure they contain no counterfeit items:

- By obtaining a Certificate of Conformance from the OEM/Supplier to the effect that the supplied item has been subject to due diligence and contains no counterfeit material; or,
- By obtaining an independent assessment by a recognised authority or institution to the effect that the item does not contain any counterfeit material.

ASC's Supply Chain and Inventory Management shall where possible establish traceability controls to ensure that only non-counterfeit supplies are used.

Only approved suppliers and sub-tier supplier/manufactures to be used, know your sources of material – OEM or their authorised distributors.

WHEN COUNTERFEIT /SUSPECT COUNTERFEIT ITEMS ARE DETECTED THESE SHALL BE IMMEDIATELY REPORTED TO AN ASC SUPPLY CHAIN/ QUALITY MANAGER.

18. Technical Information and International Traffic In Arms Regulations (ITAR)

As a large defence contractor, ASC is bound by many technology agreements and licenses covering an extensive range of data, software, goods and services (Controlled Technology) that it imports, exports, transfers in-country and uses itself. Technology agreements and Defence Trade Controls:

- Impose strict conditions on ASC's use of the Controlled Technology it procures
- Expose ASC, its employees, contractors, suppliers, etc. to severe penalties for non-compliance, including multi-million dollar fines, lengthy prison terms and bans from accessing the technology ASC needs to complete its contracts.

As part of the contract with ASC, the Supplier may be provided with commercial-in-confidence technical Information and other technical Information (or components/materials) that are be subject to ITAR export control restrictions and ITAR handling procedures.

All technical information must be handled strictly in accordance with stipulated restrictions and signed confidentiality agreements.

ITAR restricted items will be clearly identified as 'ITAR Controlled Technology'. ITAR Controlled Technology cannot be disclosed to any unauthorised persons or commercial parties including employees, subcontractors, consultants, suppliers or sub-tier suppliers/manufacturers.

ITAR and other technical information provided by ASC may only be used by the recipient in accordance with the terms of the contract between ASC and the recipient, or, in the absence of a contract, it may only be used strictly for the purposes for which it was provided. The unauthorised disclosure, reproduction or use of such data/components is prohibited by law, and severe penalties apply.

On completion of the contracted activities, the original information/technical data and any copies must be returned to ASC on request.

WARNING! ASC expects its employees, contractors and suppliers to comply at all times with ASC's requirements for protecting Controlled Technology from loss and unauthorised use and transfer.

19. Handling of ASC Supplied Materials

Customer (ASC) supplied materials must undergo the same level of 'Inwards Goods Assurance Inspection' checks and traceability control as that of any other materials purchased by the supplier.

Where required, 'Inwards Goods Inspections' must include sample dimensional inspection, visual inspection and marking/traceability checks (validated against the delivered certification/OQE).

Material traceability must be maintained up until the point of use in production.

Unused material (including offcuts/remnants) must be marked and remain fully traceable up until the point of use in the supplier's production or return to ASC.

20. Supplier Qualification Questionnaire (Evaluation and Approval)

ASC maintains an Approved Suppliers List which is linked to specific items, commodities and equipment that 'Suppliers' are approved to supply.

The Approved Suppliers List (ASL) consists of companies that have been assessed as having the capability and willingness to work together with ASC to fulfil ASC's requirements/business needs.

Supplier Approval Process: As part of the Supplier Approval Process, all new ASC Suppliers must complete a 'Supplier Qualification Questionnaire (SQQ)' which must be submitted together with supporting OQE before ASC will enter into a PO with a new Supplier.

ASC's Approved Supplier's List (ASL) - Repository ASC CONTROL/MRP System:

To be included in the ASC approved suppliers list, suppliers will undergo systematic levels of reviews and checks which may also include on-site qualification quality audits/reviews by ASC's SQA and Supply Chain departments.

Once suppliers have been approved to supply, ASC's SQA and Supply Chain departments may conduct regular quality audits/supplier visits to ensure the supplier can consistently meet ASC's 'Quality/DIFOT' requirements.

Suppliers will remain on the ASC Approved Suppliers List so long as they continually supply quality goods and services in a timely manner.

21. Supplier Quality Performance Review Program

ASC operates a 'Supplier Quality Performance Review Program' (SQPR) which is aimed at improving the quality and timely delivered of products, services and OQE documentation (DIFOT).

The SQPR program involves reviews of objective material CONTROL/MRP data (acceptance/receipts) also including other available information eg. customer-supplier relationship, responsiveness to requests, SCAR resolution times etc. This combined data is analysed by Quality and Supply Chain departments to determine supplier performance over a period of time.

This program is focused on supplier developmental activities and involves monitoring and analysing the overall performance of suppliers on a monthly or yearly basis.

Supplier Rating Guide: Suppliers are continuously monitored, measured and rated (on a scale from A to D).

A = 85% – 100% (Very Good)

B = 75% – 84 % (Good)

C = 65% – 74 % (Improvement Required)

D = < 64 % (Poor) Review Supplier ASL status

The supplier 'Quality Performance Program' is complemented by a proactive 'Supplier Audit Program' based on a twelve month 'Audit Schedule'.

22. Monitoring Supplier On-time Delivery Performance (Metrics)

ASC Supply Chain has implemented a 'Supplier On-time Delivery Performance System' (Metrics) that is designed to monitor the supplier's ability to meet

agreed lead times. This system utilises real time data obtained from the ASC CONTROL/MRP system.

ASC suppliers are expected to meet agreed on-time delivery targets at all times. In the event of unforeseen circumstances that may impinge on the suppliers' ability to meet contracted delivery dates, the supplier must notify ASC as soon as possible.

23. OQE Requirements/ Attributes Definition/Delivery

OQE Requirements: OQE forms a critical path in ensuring the items/services delivered meet ASC technical and contractual requirements. OQE requirements for individual items are specified in the Purchase Orders or Contract unless otherwise stated.

OQE Attributes Definition: The Master List of OQE Attributes for Commodities Supplied to ASC can be found at (<https://www.asc.com.au/supply-chain/sovereign-supply-chain-hub/#register>) under the Sovereign Supply Chain Hub (Registering to become an ASC supplier section.) Suppliers to the CCSM program should view the submarines version of the document, suppliers to the OPV program should view the shipbuilding document.



ASC OQE attributes are defined in CMS-50503.

Delivery of OQE for ASC: OQE must be delivered in an electronic format (PDF) directly to the 'Buyer' unless otherwise agreed.

24. OQE Requirements for Refurbishments

PO for the refurbishment of ASC's plant and equipment will require an Opening and Closing Report to be provided as part of the delivered OQE. This report should include photos that clearly capture the condition of plant and equipment as received, a clear list of parts required to refurbish the plant and equipment and photos of the refurbished item prior to dispatch to ASC. The OQE requirement for refurbishment documents defines the applicable OQE for each type of item to be refurbished.

The OQE Applicability Matrix document lists the OQE that needs to be considered by the supplier at the time of quotation. The supplier is required to complete this document and provide it to ASC for approval prior to commitment to supply. It is to be noted that the supplier must annotate the PO number and revision number on the document.

25. ASC Quality Requirements for Fasteners

Fastener material specification, dimensional specification and delivery conditions (eg. surface treatment) must be clearly stated in the ASC PO and must be fully complied with.

Fastener Threads:

Must be sampled inspected by the manufacturer/supplier to ensure conformance to specified 'Engineering/Standards' requirements.

Fastener Surface Treatment:

- Where specified, plating, galvanising, non-treatment etc. must be sample inspected by the manufacturer/supplier to ensure complete coverage and conformance to specified Engineering/Standards requirements.
- ASC PO/contract specified Critical (CTCL) Threaded Fasteners:

- Where the requirements of Sections 11 & 12 cannot be met, suppliers are expected to source ASC PO/contract specified critical (CTCL) threaded fasteners from manufacturers listed in the *DOD MIL-HDBK 57 Listing of Fasteners Manufacturer's Identification Symbols*.
- Threaded fasteners must be marked IAW Standards specified in the 'Contract/PO', eg. carbon steel fasteners to ISO 898 -1 & ISO 898 -2, stainless Steel Fasteners to ISO 3506-1 & 3506-2, unless otherwise specified.
- Where marking is required, threaded fasteners must be identified by the manufacturer's marking symbol (including material grade) unless otherwise specified.

Note: For guidance, threaded fasteners manufacturer's marking symbols are listed in *DOD Handbook MIL-HDBK 57 (latest revision) - Listing of Fasteners Manufacturer's Identification Symbols*.

26. ASC Quality Requirements for Shelf Life Products

Shelf life products must comply fully with ASC OQE attributes.

The information supplied on the product Certificate of Conformance (CoC) must contain the following:

- Purchase order number/contract number
- Line number/item number
- Item description
- ASC part number (NATO Stock Number or ASC Catalogue Number)
- Quantity
- Manufacturer's part number
- Lot traceability number or batch number
- Shelf life expiration date/use by date (IAW specification)

Shelf life products must have a minimum 85% of shelf life remaining upon receipt at ASC, unless agreed otherwise with ASC.

Examples of Shelf life products are:

- Synthetic rubber products
- Epoxies
- Paints
- Adhesives
- Sealants
- Fastener locking compounds

27. Supplier Corrective Action Request (SCAR- FM- 54147) Major NCR

ASC Quality/Supply Chain will raise/issue a SCAR to a supplier when a 'Major NCR' has been identified against a supplier product or service.

A SCAR is normally associated to a faulty/defective product, service, quality management system element, or contractual non-conformance that adversely affects any of the following:

- Program or customer schedule or cost;
- Fit, form, function, performance or interchangeability
- Health, environment or safety
- Reliability, maintainability or service life
- Effective use or operation
- Weight or appearance (when a requirement or factor)
- Direct or indirect conformity to other contractual, regulatory or legal requirement

When a SCAR is issued to a supplier, the supplier is required to report the following:

- Containment and remedial action
- Root cause analysis (RCA)
- Underlying root cause(s)
- Corrective and preventive action (CAPA)

Major NCR Definition* : The absence of, or a total breakdown of, a product, service, quality management system element, contractual requirement or any nonconformity where the effect is judged to be detrimental to the integrity of the product or service provided or to ASC contractual position or reputation.

SCAR	Supplier Timeframe to respond/provide an Initial Action Plan (Business Days)	SCAR Completion Timeframe
Major NCR	3 days	10 Days*

Major SCAR - Response Timeframes:

The initial supplier response (action plan) and SCAR completion time frames are defined on the following page:

Note: 1 Completion timeframes that exceed nominated times must be approved by the ASC quality representative.

Note 2: A major NCR (SCAR) may have a significant impact in the 'Approved Supplier Status' within the ASC ASL, eg. the supplier may be made restricted, watch-listed, or de-listed.

Refer to: [Annex 3](#) - Supplier Corrective Action Request (SCAR) Form FM-54147

28. Work Health and Safety and Environment (WHS&E)

Suppliers are responsible for all aspects of WHS&E connected with the goods and services supplied to ASC and must at their own cost comply with all WHS&E related legislation (including the WHS Commonwealth Act and associated Regulations) that is in any way applicable to the goods and services supplied, including in respect of their sub-tier suppliers or subcontractors.

Suppliers must demonstrate to ASC that they have the necessary knowledge, ability and resources to comply with all applicable WHS&E legislation and, on request, must

provide ASC with all necessary information to allow ASC to properly assess the supplier's capacity to provide goods/services in accordance with all relevant WHS&E legislation.

Suppliers providing services at ASC sites will also be required to demonstrate compliance through:

- Work, Health & Safety Management Plans
- Environmental Management Plans
- Competency and licensing of personnel
- Risk registers and assessments

Suppliers must notify ASC immediately of any incident or event occurring in connection with the supply of goods or services to ASC that is in breach of or is notifiable under the relevant WHS&E legislation.

ASC requires suppliers to provide a copy of their environmental and WHS policies detailing environmental and safety commitments. ASC highly recommends suppliers maintain ISO 14001 and ISO 18001 or AS/NZS 4801 certification to demonstrate commitment to environmental and safety performance or a system based on those requirements.

29. Management of Supplier and Sub-tier Supplier Changes

Suppliers are required to ensure major changes to existing contract/PO arrangements etc. are formally communicated to ASC well in advance of the change activity to allow ASC Quality and Supply Chain departments to expeditiously review the supplier status in the ASC ASL. See table below.

Note: Quality and Supply Chain departments may need to conduct a review/audit of the new supplier or sub-tier supplier status in order to assess its impact on ASC deliveries (DIFOT).

30. Customer/Supplier Relationship and Feedback

ASC senior management is fully committed to maintaining a good relationship with all of our suppliers and subcontractors.

ASC believes that without the assistance and commitment of our suppliers the requirements specified in this manual cannot be adequately achieved.

Suppliers should contact ASC Supply Chain/Quality personnel in the event that any requirement contained in the ASC Contract/PO or this manual is not fully understood.

Type of Supplier Changes	Potential impact on supplier deliveries to ASC (DIFOT)	Formal notification to ASC required?
Closure of Australian manufacturing facility in favour of overseas sources, manufacturers, etc.	ASC products being sourced overseas (including ITAR). New management and personnel not fully aware of ASC processes and SQAM Requirements.	Yes
New ownership, new management or new production/engineering supervision.	New management and personnel not fully aware of ASC processes and SQAM requirements.	Yes
Moving to new facilities to that previously audited by ASC.	New management and personnel not fully aware of ASC processes and SQAM requirements.	Yes

Annex 1: CTCL Approval Rules for Suppliers & Sub-tiers

Rules for ASC Critical (CTCL) Commodities/Materials - Sub-tier Supplier/Manufacturer/Mill Approval (Refer to FM-50645)

Material Manufacturer Approval - what it means

Approval of Manufacturers (AOM) is a qualification scheme for manufacturers of materials. The objective is to verify that the manufacturer can produce specific grades or types of materials that conforms to the DNV/Lloyd's/GL etc. rules.

In order to be approved, the manufacturer must demonstrate and submit documentation to the effect that the necessary manufacturing, testing and inspection facilities are available and supervised by qualified personnel.

The AOM does not concern management systems, and has therefore nothing to do with ISO 9001. The scheme is rather a technical product approval, quite similar to type approval, which basically implies that the design approval is done once, and this approval is made valid for all subsequent components of identical design.

In order to meet ASC CTCL (Critical Product) requirements, at least one of the following criteria needs to be met:

Check	Review Items
<input type="checkbox"/>	<i>Objective Evidence (certificate) to indicate that the Supplier/Manufacturer/Mill has obtained product approval (eg. Type testing) by independent bodies eg. DNV, Lloyds, NK, KR, ABS, GL, SGS, BV, TUV etc.</i>
<input type="checkbox"/>	<i>OQE indicating that the particular supplier/manufacturer/mill is an approved supplier to eg. US Navy, US Department of Defence, Electric Boat Corporation (EB), Bath Iron Works (BIW), Northrop Grumman Corporation (NG), New Port News (NN), UK MoD, Shell, BP etc.</i>
<input type="checkbox"/>	<i>OQE indicating that the ASC direct supplier (or other party) has conducted audit(s) of the sub-tier supplier/manufacturer/mill manufacturing and testing facilities/processes (including independent product testing to verify compliance with the product standards) and with demonstrated OQE indicating satisfactory results.</i>
<input type="checkbox"/>	<i>Independent Product testing (certificate) by a NATA or Equivalent Testing House (eg. A2LA) IAW ASC Engineering Department defined criteria (this is to qualify individual batch deliveries only, not the manufacturer/mill).</i>

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Annex 2: Inspection and Test Plan (ITP) Example/Template

COMPANY NAME/LOGO: *ABC Widget Pty Ltd*

Client:		ASC Pty Ltd		ITP No: 047 Date: 12 June 2013		ITP Rev No. 01 Page 1 of 4	
Contract / Purchase Order/Work Order Pack /No & Revision:		A0001235-Rev 01		Compiled By: John Brown		Quality System: ISO 9001:2008	
Contract/ Purchase Order Line Item No:		00085		Checked By: Peter Smith		Accreditation No: 1234/2007	

ITP Description	Manufacture and balance impeller	List of Drawings & Revision	Applicable Procedure	Acceptance Criteria	Verifying Document	ITP		Client Assigned Hold Points		Witness Point
						Legend	Initials/Sign	Legend	Signed	
1	Receipt inspection of materials	ABC 1245-1	NES 747 Pt 2 C11 Clause 1104	Standards/customer specifications NES 747 Pt 2 C11 Clause 1204	Stock status	PD				
2	Dimensional Check (Confirm Tool Calibration)				Certificate	PD				
3	Visual Inspection	NES 747 Pt 2 C11 Clause 110		NES 747 Pt 2 C11 Clause 1205	Certificate	PD				
4	Review Delineated areas for NDR	NES 747 Pt 2 C11 Clause 8		TS-90-4	Drawing 2-209 Rev 01	PD				
5	Dye-penetrant examination Pre-machining	NES 729 Pt 4		NEST 747 Pt 2 C11 Clause 1206, 1207	Certificate	QC R				
6	Heat Treatment	NES 747 Pt 2 C11 Clause 0601		Furnace validated to NES 746	Certificate	PD R				
7	Material Compliance – Casting Mechanical Properties	AS 1391 – 1991		NES 747 Pt 2 C11 Clause 0501 (Table 3)	Certificate	QC R				
8	Dimensional Check Post-machining. (Confirm Tool Calibration)	Accuracy Control Sheet 2013-3		Drawing 2-2019 Rev 01	Certificate	QC R				
9	Dye-penetrant examination Post-machining	NES 729 Pt 4		NES 747 Pt 2 C11 Clause 1206, 1207	Certificate	QC R				
10	Identify / mark Casting	NES 747 Pt 2 C11 Clause 1403		NES 747 Pt 2 C11 Clause 1402	Certificate of Conformance	PD R				
11	Balance Impeller (Confirm Calibration of Test equipment)	ISO 1940		Grade 2.5	Certificate	W QC R				
12	Final inspection and review of MDR-Client to be advised.	Release Inspection 2013-13		Customer POWOP	CoC/MDR	H QC R	QC	H		
13	Preservation/packaging/shipment	Procedure 2013-1		NES 747 Pt 2 C11 Clause 1501		PD QC				

MDR= Manufacturers Data Report (Objective Quality Evidence (OQE) required) WOP= Customer Work Order Pack

H Client Hold Point (Client to be notified)

Annex 3: ASC Supplier Corrective Action Request (SCAR) Form FM-54147

CORPORATE MANAGEMENT SYSTEM		
ASC	Supplier Corrective Action Request Form	APPLICABILITY SHIPS
DOCUMENT ID FM-54147	REVISION 04	DATE OF ISSUE 14/04/2020

SECTION 1: Problem Description – (ASC to Complete)

Supplier:	SCAR / NCR No:	
	Raised Date:	
	Raised By:	
Supplier Contact:	Contract Number:	
	Vendor Number:	
	ASC Audit No: (If applicable)	
Problem/NCR Description: (Part No/Issue/Process/details/Quarantine NCR No, etc.) <i>Note: If necessary, Insert Appendix Page(s) & Attach Photos/Sketches/Additional Information etc.</i>		
Expected Corrective Actions:		

SECTION 2: Containment Action - (Supplier to Complete)

This Section to be Completed No Later Than: <i>Note: SCAR (Major NCR) - Initial response (Containment and Remedial Action)) to ASC is due in 3 working days from date notified.</i>		
Containment and Remedial action:		
Completed By: (Name and Position)	Signature:	Date:
Accepted By ASC Quality Representative:	Signature:	Date:

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If printed, this document is **Uncontrolled for Reference Only**

SECTION 3: Root Cause Analysis And Corrective Action - (Supplier to Complete)

This Section to be Completed No Later Than: Note: SCAR (Major NCR) – Complete response (Root Cause analysis and Corrective Action) to ASC is due in 10 working days from date notified unless otherwise negotiated.		
Root Cause Analysis: (e.g. 8 D, Failure Mode Effect Analysis (FMEA), Process Flow Diagram, 5W2H (who, what, where, when, why, how and how many), Tap Root® etc. Note: If needed attach working documents)		
Root Cause Determined:		
Corrective action: (Supply details and evidence where possible of actions or changes made to prevent future re-occurrence of failure/defect)		Expected completion date and reason for not completing by above date:
Completed By: (Name and Position)	Signature:	Date:
Accepted by ASC Quality Representative:	Signature:	Date:

SECTION 4: ASC Verification – (ASC to Complete)

Verification Comments:		
Outstanding Actions or Details of Planned Re-Audit (If applicable):		
ASC Quality Representative:	Signature:	Date:
Approved by ASC Supplier Quality Manager:	Signature:	Date:

Annex 4: ASC PO Requirements Review Template (Commodities)

Check	Review Items	Applicability (Yes/No) / Comments
<input type="checkbox"/>	Are descriptions, including part numbers correct? Does the description accurately describe the material/part quoted? Are you able to identify required material or part number from the description and do they reflect the initial quote?	
<input type="checkbox"/>	Do you have a copy of all required documents eg. catalogue sheets, contract, drawings, specifications including current material standards and dimensional standards listed in the order?	
<input type="checkbox"/>	Are all technical requirements on the PO complete and correct eg. load/ pressure rating /testing acceptance criteria, correct seals/O-rings/liner material for the application including delivery condition eg. annealed, zinc plated, coated, etc.?	
<input type="checkbox"/>	Have all the specified technical requirements/standards specified been fully understood?	
<input type="checkbox"/>	Are all OQE attributes defined and understood eg. MTC type 3.2,3.1, LCS, CoC, CTCL (Critical), FPT, PT, UBSL, RCD, MSDS, etc.? Do you know the location of the ASC Master List of OQE Attributes and Supplier Quality Assurance Manual as listed in the PO?	
<input type="checkbox"/>	Is there a requirement for LCS or MTC to be independently certified by a NATA registered body (or equivalent, eg. A2LA)?	
<input type="checkbox"/>	Are there any specific requirements for sub-tier supplier/ manufacturer/mill approval from ASC, i.e. critical (CTCL) prior to accepting the PO eg material manufacturer/mill approval from independent material type testing certification bodies, eg. Lloyds, DNV, BV, GL, NK, ABS, TUV, MoD, DoD, etc?	
<input type="checkbox"/>	Is there a requirement for traceability/markings tracing material to MTC?	
<input type="checkbox"/>	Where welding is specified, is there a requirement for structural welds to be visually inspected and signed off by a W.T.I.A. (or equivalent) welding supervisor/inspector accredited to ASC 1796/AS1554 certificate10 (or equivalent) and; can this condition be fully met?	
<input type="checkbox"/>	Can all PO defined OQE/technical requirements be delivered as specified? Are there any conflicting or unclear information that requires clarification from ASC Supply Chain/ Quality?	
<input type="checkbox"/>	Are prices listed on purchase order correct?	
<input type="checkbox"/>	Are delivery dates listed on purchase order correct and achievable? If not has ASC been notified?	
<input type="checkbox"/>	Are all delivery terms listed on purchase order correct and acceptable?	