
	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

<b>CONTENT</b>	<b>PAGE</b>
<b>1 SCOPE AND DEFINITIONS</b>	<b>2</b>
<b>2 GENERAL</b>	<b>3</b>
<b>3 QUALITY MANAGEMENT SYSTEM</b>	<b>4</b>
<b>4 MANUFACTURING AND CONSTRUCTION QUALITY</b>	<b>5</b>
<b>5 DESIGN QUALITY</b>	<b>8</b>
<b>APPENDIX A: RECORD OF AMENDMENTS</b>	<b>11</b>
<b>APPENDIX B: REFERENCE DOCUMENTS</b>	<b>11</b>
<b>APPENDIX C: LIST OF INSPECTION COMPANIES</b>	<b>12</b>
<b>APPENDIX D: SAMPLE TABLE FOR ESTIMATING BASE OF COSTING</b>	<b>13</b>

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

# 1 SCOPE AND DEFINITIONS

## 1.1 SCOPE


This document defines the quality activities that should be performed at project team level. These activities would typically be done by the Purchaser Quality Manager. For capital projects this would be the Project Quality manager and Project terminology will be used in this Standard.

This document forms part of a suite of quality documents and should be read in conjunction with the other documents indicated below:

AA_STD_100	Quality Requirements for Suppliers of Critical and Major Equipment	Refers to the quality requirements applicable, when critical / major equipment is identified on a project. This document indicates the activities that a <b>Supplier</b> should perform and it must form part of the enquiry documentation for applicable work packages.
AA_STD_110	Owners Team Quality Activities	Refers to the high level tasks that must be performed by an <b>Owner's team quality representative</b> to ensure overall quality on the project.
AA_STD_120	Purchaser Quality Activities	Refers to the minimum tasks that the appointed <b>Project Quality Manager</b> should perform on a project.
AA_STD_130	Contract Inspection Requirements	Refers to the activities that should be performed by the <b>Inspection Authority</b> .

	<b>CRITICAL Safety and Production</b>	<b>MAJOR Delays and Cost</b>	<b>MINOR</b>
<b>OWNER</b>	O	O	
<b>PURCHASER</b>	S	S	S
<b>SUPPLIER</b>	R	R	R
<b>INDEPENDENT AUTHORITY</b>	V	V	

V – Verify	R - Responsible	S – Planned Surveillance	O - Oversight
------------	-----------------	--------------------------	---------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

**1.2 DEFINITIONS**

None

**2 GENERAL**

**2.1 CONTRACTING**

Purchasers shall include AA STD 100 in all contracts for critical and major equipment.

**2.1.1 Supplier Evaluation**

The Project Quality Manager shall ensure that suppliers of critical and major equipment (including design activities) are evaluated. Evaluation of suppliers shall be based on a quality case. The purpose of the quality case is to determine the cost of inspection services required and whether a technical assessment will reduce the cost of inspections.

Elements that should be considered for the quality case include:

- Raw material
- People
- Facilities
- Sub-contractors
- Systems
- History
- Level of Assurance

**2.1.2 Inspection Services**

The Project Quality Manager shall ensure that independent inspection is appointed to validate critical and major equipment supplied to the project. The minimum activities involved in appointing an inspection company for independent services are:

**2.1.2.1 Enquiry Stage**

The enquiry shall clearly define the scope of work to be performed by the potential supplier. This shall include:


- Requirement to comply with AA STD 130
- Package list, showing expected start and finish dates, suppliers and criticality of the package as known
- Project duration
- Definition of the interface with expediting services
- Any exclusions
- Also provide information on the area of expertise needed and the likely nature of the tasks to be performed.

The enquiry documentation shall be issued for approval as per the project approval process and/or the company procedure.

A copy of the enquiry documentation is submitted to the Owners Team quality representative/manager for information.

The enquiry shall be issued to all inspection companies as per the list in Appendix C.

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 3 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

#### 2.1.2.2 Tender Evaluation and Adjudication Stage

The project evaluation and adjudication process shall be followed.

Prior to receipt of tenders, the Project Quality Manager shall produce a basis of costing (See Appendix D) to provide an estimate to the adjudication team of the base hours and travel required for the services being requested. A comparison shall be done between the Project Quality Manager's estimate and the information supplied in the tenders to confirm that sufficient hours have been quoted. All assumptions shall be stated.

The adjudication team shall ensure that the successful tenderer has qualified personnel to perform the tasks.

#### 2.1.2.3 Contract Award Stage

The contract document shall include a requirement for compliance to AA STD 130.

The Project Quality Manager shall interface with the appointed inspection company on a regular basis to ensure that they adhere to their scope of work as defined in the contract.

### 3 QUALITY MANAGEMENT SYSTEM

Project Teams shall comply with the requirements of ISO 9001. Work shall be conducted in accordance with formal project procedures. On capital projects these will be defined in the Project Method Statement/Project Execution Plan which shall define how the requirements of AA STD 120 shall be fulfilled for each stage of the project.

#### 3.1 QUALITY LEADERSHIP

The Project Quality Manager shall also influence other functional areas by providing leadership and training (including induction) on quality matters.

#### 3.2 PREPARE PROJECT QUALITY PLAN (PQP)

This entails developing the Project Quality Plan which must be project specific. The Project Quality Plan shall indicate to the Project Manager how the Project Quality Manager intends to add value to the project by performing certain tasks that contribute to ensuring product/service quality. ISO 10005 shall be used as a guideline to preparing Project Quality Plans.

#### 3.3 REVIEW OF SYSTEM DOCUMENTATION


The Project Quality Manager shall review system documentation (i.e. procedures, work instructions, forms etc.) to confirm compliance to ISO 9001.

#### 3.4 INTERNAL AUDITS

The Project Quality Manager shall develop an audit plan which shall cover all disciplines for each phase of the project i.e. from concept to handover.

As a minimum an audit shall be conducted to confirm that the phase has been initialised correctly. This shall be done for each phase.

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 4 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

All audit reports shall be signed by the auditor and a reviewer, one of whom shall be registered in Quality Management Systems by an organisation recognised by the International Personnel Certification Association (IPCA)

### **3.5 INTERNAL NON CONFORMANCES**

Non conformances shall be managed in accordance with ISO 9001.

Reports on investigations into failures shall include:

- A clear description of the failure
- A timeline of the events leading to the failure
- A statement on what is different from similar work which was successful
- Root – cause analysis
- Recommendations for rectification of the non conformance
- Recommendations on how the problem can be prevented from recurring

Copies of all investigations shall be sent to the Quality Assurance Manager, Anglo Technical Division.

### **3.6 INPUTS TO STUDY DOCUMENTS**

The Project Quality Manager shall prepare the quality section of the documents to be submitted and any presentation material required for reviews.

### **3.7 REPORTING**

The Project Quality Manager shall report formally to the project team on the following quality matters:

- Quality Leadership
- Status of Project Quality Plan
- Status of Documentation
- Audits Planned & Completed
- Quality Problems, Non conformances and Corrective Action Requests


## **4 MANUFACTURING AND CONSTRUCTION QUALITY**

Manufacturing and construction quality is based upon identifying critical and major equipment and ensuring that these are subject to appropriate checking by the Purchasing Team and Independent Authorities as appropriate.

Temporary works are not exempt from this process.

All inspection work shall be conducted in accordance with AA STD 130.

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 5 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

#### **4.1 MANAGEMENT**

##### **4.1.1 Risk Assessment**

The Project Quality Manager shall participate in project risk assessment workshops. The Project Quality Manager shall identify the risk associated with not implementing Manufacturing and Construction Quality Controls on the project.

##### **4.1.2 Reporting**

###### **4.1.2.1 Reporting to Project Manager**

The Project Quality Manager shall review the monthly reports from inspection companies and resolve any outstanding issues. Feedback regarding the following shall be provided to the Project Manager on a monthly basis:

- Issues regarding Criticality of Work Package
- Documentation Status
- Supplier Evaluations Status
- Surveillance Issues
  - Status of QCP's
  - Quality Problems
  - Concession Status
  - NCR's raised and closed
  - Delivery problems
  - Audit status

This may include any issues that will have an effect on the quality or delivery performance of the suppliers e.g. outstanding drawings, limited resources, maintenance issues, suppliers internal Non Conformance Reports that are concerning, etc.

###### **4.1.2.2 Reporting from Inspection Companies**

The Project Quality Manager shall ensure that the Inspection Companies provide reports as required by AA STD 130 e.g. surveillance reports, witness reports, monthly reports, weekly reports.

#### **4.2 CRITICALITY OF WORK PACKAGES**

The Project Quality Manager shall ensure that the criticality rating for each work package is identified and signed off by engineering.


#### **4.3 REVIEW OF MANUFACTURING DOCUMENTATION**

The Project Quality Manager shall review enquiries, tenders, contracts, amendments and related documents to ensure that quality requirements have been addressed.

#### **4.4 SURVEILLANCE**

##### **4.4.1 Kick Off Meetings**

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 6 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

The Project Quality Manager shall ensure that kick off meetings are held with all suppliers of critical and major equipment to ensure that requirements are understood and agreed to. Minutes of kick off meetings shall be maintained. The kick off meeting shall also address:

**4.4.1.1 Criticality**

The criticality of items and assemblies are determined to establish the number of Quality Control Plans required. Refer to AA STD 100.

**4.4.1.2 Contract Review**

Ensure that contract reviews are held to ensure that the requirements are clearly understood. A technical query system shall be established and maintained.

**4.4.2 QC Plans**

The Project Quality Manager shall ensure that QC plans are approved and tracked. A register of Quality Control Plans shall be kept which shall include the revision status and work package number associated with the Quality Control Plans. The Project Quality Manager shall review Quality Control Plans to indicate witness/hold points that need to be verified. This shall include mark up for Engineering surveillance activities. The Project Quality Manager shall also ensure that completed interventions are tracked against the planned hold points to ensure that planned inspections are completed.

**4.4.3 Manufacturing Assurance Audits**

The Project Quality Manager shall develop and execute an audit schedule for suppliers of Critical and Major equipment to the project (both local and overseas). This shall be risk based factoring the criticality of the equipment and the history of previous supply. The objective of these audits is to confirm that appropriate controls are in place early in the contract execution particularly when new suppliers are being used.

**4.5 PROBLEMS**

**4.5.1 Exceptions**

The Project Quality Manager shall ensure that:


- Exception reports are issued immediately
- All problems are recorded formally
- Actions have completion dates and responsibility allocated
- Actions are escalated when necessary

A problem log shall be maintained listing Contractor non-conformances and showing

- Contractor
- Description of problem
- Purchaser Team member responsible for follow up
- Date raised
- Estimated completion
- Actual completion
- Comments

**4.5.2 Monitor and Track Concession Requests**

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 7 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

The Project Quality Manager shall be a key role player in the approval process for concession requests. The Project Quality Manager shall ensure that AA STD 100 requirements regarding concession requests are fully adhered to. The Project Quality Manager shall maintain a record of all concessions requested together with their status.

**4.6 SITE QUALITY COORDINATION**

The Project Quality Manager shall address site quality management at an early stage in the project. A programme of activities similar to those for manufacturing is required as including the processes that will be followed for various activities such as receiving, acceptance, site technical queries, rejection, installation and commissioning. Emphasis shall be placed upon ensuring that contractors set up appropriate site controls before work commences. Furthermore, technical documentation, procedures and forms that will be used on site must be clearly defined and made available to the necessary role players. The Project Quality Manager must coordinate with the Site Quality Manager on working methods and how to ensure that all parties are working with the latest information.

Site activities and suppliers should be managed in accordance with defined and documented processes and procedures.

**5 DESIGN QUALITY**

Design Quality shall be based upon identifying critical features of the design and ensuring that these are subject to appropriate checking by the Project Team and Independent Authorities as appropriate.

Temporary works are not exempt from this process.

**5.1 RISK ASSESSMENT**

The Project Quality Manager shall participate in project risk assessment workshops. The Project Quality Manager shall identify the risk associated with not implementing Design Quality Controls on the project.

**5.2 CRITICALITY OF DESIGN PACKAGES**


The Project Quality Manager shall ensure that the criticality rating for each design package is identified and signed off by the responsible person. Presentation on design criticality [ATD QA SQA 2](#) is available for this.

Design Quality Plans are required for packages with critical design issues. These plans shall identify formal control measures such as scoping meetings, brainstorming, design reviews, design audits and interface management documents. A sample is available [ATDP QA 8](#).

**5.3 REVIEW OF TECHNICAL DOCUMENTATION**

The Project Quality Manager shall review enquiries, tenders, contracts, amendments and related documents for sub-contracted design work to ensure that quality requirements have been addressed.

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 8 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

## 5.4 MONITORING DESIGN QUALITY

### 5.4.1 Design Quality Control Plans

Design activities such as HAZOP, FMECA, type testing, simulations, analysis shall be listed in the Design Quality Control Plans and marked up using the key below. A sample design plan is available in document ATDP\_QA\_8.

The Project Quality Manager shall ensure the Design Quality Plans are approved and tracked. A register of Design Quality Plans shall be kept which shall include the revision status and work package number.

Activity codes for design quality planning		
D	Design	Produce design
P	Preview	Involvement in choice of design methods and input requirements
C	Check	Check output documentation
A	Audit	Repeat parts of the work to confirm the validity of the outputs.

The Project Quality Manager shall review the Design Quality Control Plans for completeness.

The Project Quality Manager shall also ensure that completed interventions are tracked against the planned activities.

### 5.4.2 Monitor and Track Technical Queries

The Project Quality Manager shall be a key role player in the tracking process for Technical Queries. The Project Quality Manager shall maintain a record of all Technical Queries requested together with their status.

### 5.4.3 Design Assurance Audits


Develop and execute the audit schedule for suppliers of design services to the project both local and overseas (see 4.4.3 Audits).

## 5.5 TECHNICAL QUERIES

The Project Quality Manager shall ensure that:


- Technical queries are recorded formally
- Actions have completion dates and responsibility allocated
- Actions are escalated when necessary

AA_STD_00012003.doc	APPROVED	13 January 2009	Page 9 of 13
---------------------	----------	-----------------	--------------

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

A Technical Query log shall be maintained showing:

- Contractor
- Description of Query
- Purchaser Team member responsible for follow up
- Date raised
- Estimated completion
- Actual completion
- Comments


	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

**APPENDIX A: RECORD OF AMENDMENTS**

- Issue 0 : New document; converted from AAC\_QAP\_120
- Issue 1 : Design section added; Table added to Scope
- Issue 2 : Requirements for investigations added
- Issue 3 : Title amended from “Project Team Quality Activities”; Section 2.1 added on Contracting; 4.5 Problems separated from Surveillance; 5.5 Technical Queries added; Re-formatted in line with other AA STD quality documents (Jan 2009)

**APPENDIX B: REFERENCE DOCUMENTS**

ISO 9001 Quality Management Systems - Requirements

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>


**APPENDIX C: LIST OF INSPECTION COMPANIES**

**GRADED INSPECTION COMPANIES**

<b>COMPANY</b>	<b>CONTACT</b>	<b>TELEPHONE</b>	<b>Grading (as at 22 April 2008)</b>
BIE INTERNATIONAL	Byron van Rensburg	011 477-2212	C
INTERTEK	Petrus Booysen	011 455-2568	D
IQS	Jeff Simmons	0861 477 468	D
PETROTECH	Ian Campbell	011 867-6178	B
QUALITY SERVICES	Gordon Voogt	011 609-4755	B
SGS South Africa	Johan Vermeulen	011 652-1499	C

**NOTES:**

- 1 C rated companies require closer monitoring.
- 2 D rated companies are not recommended.

	<b>AA STANDARD</b>	<b>STD_120</b>
	<b>PURCHASER QUALITY ACTIVITIES</b>	<b>ISSUE 3</b>
		<b>COPYRIGHT</b>

**APPENDIX D: SAMPLE TABLE FOR ESTIMATING BASE OF COSTING**

COSTS		Hours	% BASE
CONTRACT QA MANAGEMENT			
AUDITS/ASSESSMENTS			
DESIGN REVIEW			
MANUFACTURE	QC PLAN REVIEW		
	PROCESS PROCEDURE REVIEW		
	SURVEILLANCE		
	CORROSION PROTECTION		
SITE	QC PLAN REVIEW		
	PROCESS PROCEDURES REVIEW		
	SURVEILLANCE		
	CORROSION PROTECTION		
BASE HOURS		(SUM ABOVE)	100 %
TRAVEL	SITE		
	MANUFACTURE		
BASE TRAVEL COST			100%