This instruction / checklist is intended for use in upgrading your Quality Management System for the transition from the AS 9110 B version to the AS 9110 C revision for Quality management systems used by aviation, space, and defense maintenance providers.

The above Quality Management Systems are compatible with each other and have common requirements.

In the SAE Aerospace standard, AS 9110 C, the requirements are described in:

- Clause 4 Context of the organization
- Clause 5 Leadership
- Clause 6 Planning
- Clause 7 Support
- Clause 8 Operation
- Clause 9 Performance evaluation
- Clause 10 Improvement

Previously in AS 9110 B, the requirements were described in:

- Clause 4 Quality management system
- Clause 5 Management responsibility
- Clause 6 Resource management
- Clause 7 Product realization
- Clause 8 Measurement, analysis, and improvement

You have the April-2012 Rev B version in place and now have the objective of upgrading the system to the Nov-2016 Rev C. The good news is that since you are familiar with formal management systems, this initiative will be relatively straightforward.

The documentation will need to be reviewed, upgraded, and implemented. The first step is to assign a person responsible for the QMS, such as a Management Representative to become familiar with the changes for the AS 9110 C standard. Visit the <u>AS9110store.com</u> for forms, procedures, training materials, resources, and information on quality management systems requirements.

The following table with detailed instructions focuses on the areas of the documentation required for the AS 9110 C quality management system. As you undertake the task of upgrading your quality management system, note that the intent of the main clauses is shown in **blue font**, and in the 2nd left hand column of the instructions, the text in *italics* indicates where requirements were included in previous AS 9110 B. Use a copy of the <u>AS 9110 C standard</u> along with this instruction to pinpoint for your organization the areas that need attention. You may want to make notes and add comments in the space available to the right and the left of the column for reference documentation. Use the upgrade checklist section on the right side of the table to assign the responsibility for the upgrade and to follow up on its completion.

AS 9110	Changes to the existing AS 9110 Rev B	Reference	Changes in existing documentation	Upgrade Checklist		
Rev C Clause	Quality System	document		Assigned to:	Date Completed	
All	The SAE international Aerospace standard AS 9110 Rev C is restructured and contains 10 sections or clauses numbered 1 through 10. The standard is revised to incorporate the new clause structure and content of ISO 9001:2015. In addition, requirements, definitions, and notes for aviation maintenance organizations are included.	AS 9110 C	The requirement clauses of the new standard are the Clause 4 through Clause 10. Your company needs to become familiar with the new structure and the changes and subsequently upgrade the Quality Management System (QMS).			
All	While the specific requirement for a quality manual is not in AS 9110 C, the standard requires that Documented Information be maintained for the QMS.	Manual	Replace / rework your existing Quality Manual with a condensed version that will introduce the QMS. A quality manual is not included as a requirement in clause 7.5.1 of AS 9110 C.			
	In AS 9110 B, the requirement for a Quality Manual was in clause 4.2.2.	Manual	 In the condensed manual include sections for: Scope of the Quality Management System (QMS) Distribution Control List, Revision Status, Quality/Safety Policy and Objective, Strategic Direction, Organization Chart, Company Background - Products and Services, Process Flow Diagram, List of Documented Information, Records Documentation Matrix. 			
	The specific requirement for documented procedures is not in AS 9110 C; however documented information is required to plan, establish, implement, and maintain the QMS processes. <i>In AS 9110 B, the requirement for control of documents was included in 4.2.3, and the requirement for control of records was in clause 4.2.4.</i>	Documented information	The QMS documented information may be presented in any suitable format such as in a method, an instruction, a system, a process, a procedure, a quality plan, a manual, etc. You will need to add / replace / rework your QMS procedures to incorporate AS 9110 C requirements. An early consideration is the development of a process for the control of documented information. Replace / rework the documented procedures for Control of Documents and Control of Records with a procedure, (such as P-750) for Documented Information and include it in section 7.5.			

4	context and (2) understanding the need	s and expectat e planning of th	the context of the organization, (1) understanding ions of interested parties. Together they require the ne Quality Management System (QMS). In addition interactions need to be determined.	at you determine	the issues
4	Clause 4, Context of the Organization is a new requirement in AS 9110 C, and replaces clause 4 Quality management system in AS 9110 B.	Documented information	Your company must determine the issues and requirements that can impact on the planning of the QMS and that can affect the ability to achieve the intended results of the QMS. You may want to develop an organizational context worksheet to identify issues and requirements.		
4.1	Documented information for the QMS sets the stage for an understanding of the requirements and of the international standard.	Procedure	Document the information (in a document P-400, Organizational Context) to outline the process to understand and determine the internal and external issues that are relevant to the QMS.		
4.2	A stakeholder approach provides for an understanding of the requirements of interested parties.		Include (in a document P-400) the process to understand and determine the needs and expectations of interested parties.		
4.3	In AS 9110 C, clause 4.3 requires the determination of the scope of the QMS. In AS 9110 B, the scope of the QMS was required to be included in a quality manual per clause 4.2.2 a.		Include (in a document P-400) the process to determine the scope of the QMS. Refer to 4.3 a) thru c) and consider the internal and external issues, the requirements of interested parties, and your products and services.		
4.3	In AS 9110 B, the application and exclusion of requirements were included in clause 1.2. Exclusions were permitted in clause 7 when they did not affect the ability or responsibility to meet customer and regulatory & statutory requirements.		Include justifications for requirements of the standard that do not apply to the scope of the QMS. Note that conformity to AS 9110 C can only be claimed if the requirements determined to be not applicable do not affect your ability or responsibility to meet product and service requirements and enhance customer satisfaction.		
4.4	In AS 9110 C, clause 4.4covers the QMS and its processes. In AS 9110 B, the requirement for the QMS and its processes was in 4.1.		Your company must establish, implement, maintain, and continually improve the QMS.		
4.4.1	In AS 9110 B, the requirement for the QMS and its processes was in 4.1.		Provide an outline (in a document P-400) of the process to determine the application and interaction of the processes needed for the QMS. Address risks and opportunities and plan to implement actions to address them. See clause 6.1.		
4.4.2	In AS 9110 C, documented information that supports the processes is required to		Document (in P-400) the process to establish and maintain documented information. Refer to 4.4.2 a)		

			1	1	,
	be maintained and retained.		thru c) and include the new requirements for:		
			General description of relevant interested parties,		
			 Scope of the quality management system, 		
			including boundaries and applicability,		
			Description of the processes needed for the		
			quality management system and their application		
			throughout the organization,		
			 The sequence and interaction of these processes 		
			 Assignment of the responsibilities and authorities 		
			for these processes.		
	In AC 0110 D, the requirements for the		See Documented information, clause 7.5.		
4.4.2	In AS 9110 B, the requirements for the				
4.4.2	documentation were in clauses 4.2 and		Outline (in a document P-750) the process for the		
	4.2.1.		control of documented information.		
5	This clause requires that your top mana	gement demor	nstrates leadership and commitment with respect to	the QMS. In ac	ldition, top
5			d commitment with respect to customer focus. This		
			h a quality policy and a safety policy that is approp		
			vant roles are assigned, communicated, and under		
			the Management Representative, the Accountable	manager, the C	Quality
	Manager, and other Appointed Manager	rs as required i	for operational activities.		
	In AS 9110 C, clause 5, Leadership		Review and re-write your existing document for		
5	replaces clause 5, Management	Documented	management responsibility and incorporate the		
-	responsibility in AS 9110 B.	information	requirements for leadership and commitment.		
	In AS 9110 C, the general clause 5.1.1		In a procedure such as P-500, include the actions to		
5.1.1	outlines the requirements for leadership	Procedure	demonstrate the leadership and commitment to the		
•••••	and commitment.	riccoulie	QMS.		
	In AS 9110 B, the requirement for		Refer to the requirements in clause 5.1.1 a) thru I)		
	management commitment was in 5.1.		and include the items ranging from a) accountability		
			for an effective QMS, thru I) ensuring that corrective		
			actions are promptly implemented.		
	In AS 9110 C, clause 5.1.1 focuses on the		Include the actions to demonstrate the leadership		
5.1.2	customer.		and commitment to customer focus. Refer to 5.1.2 a)		
5.1.2					
	In AS 0110 D the requirement for		thru d) requirements dealing with meeting customer		
	In AS 9110 B, the requirement for		and regulatory requirements, addressing risks and		
	customer focus was included in clause		opportunities, customer satisfaction, product and		
	5.2.		service conformity and on-time delivery performance.		
	In AS 9110 C, clause 5.2 outlines the		Include the process for developing a quality policy		
5.2	requirements for the quality policy to be		that is appropriate to the purpose and context of your		
5.2					

	policy was included in clause 5.3.			
	In AS 9110 B, the requirement for		Include the requirements that the quality policy is	
5.2.1	establishing the quality policy was in		available as documented information and available	
	clause 5.3.		to interested parties.	
	In AS 9110 B, the requirement for		Include the requirements that the quality policy is	
5.2.2	communicating the quality policy was		communicated, understood, and applied in the	
	included in clause 5.3 d.		company.	
	In AS 9110 C, the clause 5.2.3 requires a		Include the new requirements that the safety policy	
5.2.3	documented safety policy.		is established and communicated. Refer to 5.2.3 a)	
	In AC 0110 D the requirements for estatic		thru c) and include the items for the:	
	In AS 9110 B, the requirements for safety policy were in clause 5.7 and safety		Framework for setting safety objectives,	
	objectives were in clause 5.7 and safety		Safety reporting,	
	In AS 9110 C, the clause 5.3 covers		Continual improvement. Include the system for ensuring that reaponabilities	
5.3	organizational roles, responsibilities, and	Organization	Include the system for ensuring that responsibilities and authorities for relevant roles are assigned and	
5.5	authorities.	chart	communicated. Refer to 5.3 a) thru e) and include	
	In AS 9110 B, the requirements for	Chart	items ranging from a) ensuring conformance to the	
	responsibility, authority, and		AS standard, to e) ensuring integrity of the QMS	
	communication were in 5.5 and 5.5.1.		when changes are made.	
	In AS 9110 B, the requirement for QMS		Delete the requirements for QMS planning and	
5.3	planning was included in clause 5.4.2.		include it in actions to address risk and opportunities	
			in section 6.1.	
	In AS 9110 B, the requirements for the		Delete the requirements for quality objectives and	
5.3	quality objectives were included in		include them in quality objectives and planning to	
	clauses 5.4 and 5.4.1.		achieve them in section 6.2.	
	In AS 9110 C, a management		Top management is required to appoint a specific	
5.3	representative is required to be appointed		member of the team as the management	
	per clause 5.3.		representative who has the responsibility and	
	In AS 9110 B, the requirement for a		authority to oversee the QMS and ensure that it conforms to the requirements of the AS standard.	
	management representative was included		This person must have unrestricted access to top	
	in clause 5.5.2.		management and organizational freedom to deal	
			with quality management issues.	
	In AS 9110 C, the requirements for an		Ensure that the Accountable Manager is the top	
5.3.1	accountable manger is in clause 5.3.1.		executive with overall financial and corporate	
	5		responsibility for the scope of approval. This	
	In AS 9110 B, the requirement for the		manager ensures that all required continuing	
	accountable manager was in 5.5.1.1.		airworthiness activities, including maintenance	
			activities, can be financed, and carried out to the	
			applicable standards.	
	In AS 9110 C, the new requirements for a		Ensure that a person responsible for monitoring the	
5.3.2	quality manger is in clause 5.3.2.		quality management system is appointed and is	

AS 9110 Rev B to AS 9110 Rev C - Quality Management Systems – Transition Gap Analysis Checklist

This gap analysis checklist is prepared for use in evaluating your Quality Management System (QMS) against the requirements of AS 9110 Rev C as you transition from AS 9110 B to AS 9110 C. Each requirement is expressed as a question that the user (auditor / assessor) can ask to evaluate your QMS capabilities. You will need to have copies of the AS 9110 B and AS 9110 C standards to use along with this checklist so that you can refer to the requirements if necessary.

While the two versions of the AS 9110 standards do not line up when comparing the requirements:

- New requirements and / or new terminology and new clause numbers are highlighted in yellow.
- The intent of the main clauses of the new standard is shown in blue font.
- The right-hand column in green shade is intended to provide reference / comparison / similarities to the AS 9110 Rev B requirements, and to identify and locate where in the new clauses, the former requirements are relevant.
- Comments highlighted in red font indicate removed / missing requirements.

After you have prepared an audit schedule, and assigned responsibility to your auditors for different areas or processes to audit, copy each section of the checklist for the auditors working with that section. As you work through the checklist take notes on what is in place, and what needs to be developed.

In the space for 'currently in place', list or reference the procedures or other documents, or evidence that you have reviewed and that will provide information for the new QMS. Take notes on the status of the documents, that is, will they need to be revised for the new system, or can they be used as is? Also, note where processes are in place, but documentation is needed. Focus on what is in place, and what needs to be developed.

While you do want to know if documented information is in place and if procedures and processes are being complied with, compliance is not your main focus for this audit. Remember that the final outcome of this audit should be a list of things that your company needs to do to comply with AS 9110 Rev C.

Date:

to

AS 9110 Rev B to AS 9110 Rev C - Quality Management Systems – Transition Gap Analysis Checklist

AS 9110 Rev C QUALITY MANAGEMENT SYSTEMS REQUIREMENTS	Currently in Place	Compliant YES / NO?	If NO - % Complete	ltems Needed	AS 9110 Rev B Requirements
4 CONTEXT OF THE ORGANIZATION				<u> </u>	4.0 Quality management system
This first clause introduces two sub-clauses r the organization and its context and (2) under Together they require that you determine the the Quality Management System (QMS). In a along with their applicability and interactions	tations of inter can impact on t	ested parties. the planning of			
4.1 Understanding the organization and its	<mark>s context</mark>				
Does your company determine the external and internal issues that are relevant to your purpose and strategic direction?					
Do you consider the relevant issues that affect your ability to achieve the intended results of the Quality Management System (QMS)?					
Does your company monitor and review the information related to the external and internal issues?					
4.2 Understanding the needs and expectat					
With consideration given to their impact or potential impact on your company's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, do you determine:					

AS 9110 Rev B to AS 9110 Rev C - Quality Management Systems – Transition Gap Analysis Checklist

 The interested parties that are relevant to the QMS? 				
 The requirements of these interested parties that are relevant to the QMS? 				
Does your company monitor and review the information about these interested parties and their relevant requirements?				
4.3 Determining the scope of the quality m	nanagement sys	stem		4.1 General requirements
To establish the scope of the QMS, does your company determine the boundaries and applicability of the QMS?				4.2.2 a) The scope of the QMS is required in a quality manual
When determining the scope of the QMS, do you consider the:				
• External and internal issues (per 4.1)?				
 Requirements of relevant interested parties (per 4.2)? 				
 The products and services of your company? 				
When a requirement of AS 9110 C can be applied, do you apply the requirement?				
When requirements cannot be applied, and to claim conformity to AS 9110 C, how do you determine if your ability or responsibility to ensure conformity of products and				4.2.2 a) Justifications for exclusions are required to be included in the quality manual

AS 9110 Rev B to AS 9110 Rev C - Quality Management Systems – Transition Gap Analysis Checklist

services are not affected?			
Is the scope of the QMS available and maintained as documented information?			
Does the scope state the products and services covered by the QMS?			
Does your company provide justification for any instance where a requirement of the standard cannot be applied?			1.2 Application - Exclusions permitted with justifications for clause 7 only in AS 9110 B
4.4 Quality management system and its p	ocesses		
4.4.1 As required by the <mark>AS 9110 C</mark> standard, do you establish, document, implement, maintain, and continually improve the QMS?			4.1 Establish, document, implement & maintain a QMS and continually improve its effectiveness per the requirements of AS 9110 B
Does the QMS also address customer and applicable statutory and regulatory quality management system requirements?			4.1 The QMS addresses customer and applicable statutory and authority QMS requirements
Are approvals, certificates, ratings, capability list, and licenses also addressed in the QMS?			4.1 Maintenance organizations obtain and maintain QMS approvals, certificates, ratings, licenses, and permits required by statutory & regulatory requirements
Does your company determine the processes needed for the QMS, their interactions and applications throughout your company?			4.1 a) Determine the processes needed for the QMS and their application throughout the organization

AS 9110 Rev C – from ISO 9001:2015 – Quality Management Systems - Internal Audit Checklist

This checklist is based on the information provided in the Nov 2016 version of the AS 9110 Rev C International Aerospace Standard. The checklist is best used by trained and practicing auditors to evaluate or assess Quality Management Systems requirements based on the standard as you transition from ISO 9001:2015. You will see questions on the checklist that refer to the standard and for each clause provisions are made for additional questions.

Both the versions of the AS and ISO standards deal with Quality Management Systems and line up when comparing the contents, the new requirements and / or new terminology are highlighted in yellow. The auditors are expected to keep in mind that the standard does not require mandatory procedures for the various QMS processes; however, the auditors will expect documented information to be available because in the clauses of the standard, the phrase such as 'documented procedures' is used to specify that a process, a method, a system, a work instruction, or an arrangement be documented.

The auditors must use a great deal of discretion and therefore must be careful and thoughtful prior to establishing a deficiency against a requirement. Evidence for visible top management leadership, commitment and quality management action must be looked for.

The **bold** numbers and titles used in the first two columns of the checklist indicate the "Requirements" and may be referred to on nonconformity reports prepared by the auditor.

During assessment of each requirement, auditors record the status of the evaluation by indicating in the right-hand column a:

Yes - for Acceptable Condition or No - for Deficient Condition

	QUALITY MANAGEMENT SYSTEM	OBSERVATIONS / COMMENTS	STATUS			
4	CONTEXT OF THE ORGANIZATION					
4.1	Understanding the organization and its context					
	Does your company determine the external and internal issues that are relevant to your purpose and strategic direction?					

AS 9110 Rev C – from ISO 9001:2015 – Quality Management Systems - Internal Audit Checklist

4.4	Quality management system and its processes	
4.4.1	As required by the standard, do you establish, document, implement, maintain, and continually improve the QMS?	
	Does the QMS also address customer and applicable statutory and regulatory quality management system requirements?	
	Are approvals, certificates, ratings, capability list, and licenses also addressed in the QMS?	
	Does your company determine the processes needed for the QMS, their interactions and applications throughout your company?	
	That is, for the QMS processes do you determine the:	
	 Inputs required and the outputs expected from the processes? 	
	Sequence and interaction of the processes?	
	• Criteria, methods, including measurements and related performance indicators needed to ensure the effective operation, and control of the processes?	
	Resources needed and ensure they are available?	
	Assignment of the responsibilities and authorities for these processes?	

AS 9110 Rev C – from ISO 9001:2015 – Quality Management Systems - Internal Audit Checklist

		1	
	 Risks and opportunities (per 6.1), and plans to implement the appropriate actions to address them? See also Operational risk management (per 8.1.1) 		
	See also Operational risk management (per 8.1.1).		
	• Methods for monitoring, measuring, and evaluation of processes and, if needed, the changes to processes to ensure that they achieve intended results?		
	• Opportunities for improvement of the processes and the QMS?		
4.4.2	Does your company maintain the necessary documented information to support the operation of processes?		
	Does your company maintain and retain the necessary documented information to provide the confidence that the processes are being carried out as planned?		
	Does your company establish and maintain documented information, as required by the competent authority?		
	Does the documented information include:		
	 General description of relevant interested parties, per see 4.2 a? 		
	 Scope of the QMS, including boundaries and applicability, per see 4.3? 		

AS 9110 Rev C – from ISO 9001:2015 – Quality Management Systems - Internal Audit Checklist

		1
	 Description of the processes needed for the QMS and their application throughout the organization? 	
	 Sequence and interaction of the processes? 	
	 Assignment of the responsibilities and authorities for these processes? 	
	 Details of the system used to maintain and retain documented information of the work performed for each article or product? 	
	Additional Questions	
5	LEADERSHIP	
-		
5.1	Leadership and commitment	
5.1	Leadership and commitment	
5.1	Leadership and commitment General Does top management demonstrate leadership and	

1.0 Purpose

1.1 This procedure describes the process for controlling quality system documents.

2.0 Responsibilities

- 2.1 *Management* is responsible to ensure that personnel have access to and are aware of relevant quality management system (QMS) documentation and changes.
- 2.2 *Management* is responsible for assigning authors for documents.
- 2.3 The author is responsible for writing the document, creating related forms, getting a document number and submitting the document to the department manager for review.
- 2.4 *Department managers* are responsible for approving documents for their area of responsibility and ensure that they are legible, identifiable and available where needed.
- 2.5 *The document control coordinator* is responsible for assigning document numbers, maintaining the master list, posting new and revised documents on the network, distributing hard copies of documents and revising documents.
- 2.6 All employees are responsible for reviewing the documents as they use them and submitting document change requests to update documents as necessary.
- 2.7 *The network administrator* is responsible for backing up the network daily.
- 2.8 Engineers are responsible for maintaining programs that control equipment. (If you have programs, controllers with programs or other software controlling your processes, the programs must be controlled.)

3.0 Definitions

- 3.1 **Procedure**: Document outlining specific work processes and how the requirements of the AS9110B standard are being met.
- 3.2 **Work Instructions**: Step by step directions on how a task should be done.
- **3.3 Attachments**: Documents used to further clarify or show examples of information described in the procedures and work instructions.
- **3.4 Forms**: Documents used to make a record of completing all or part of the process described in procedures and work instructions.
- 3.5 **Records**: Completed forms or information generated as a result of the process described in a document and retained as indicated in the Control of Quality Records Procedure.
- 3.6 **References**: external documents or sources used in preparing documentation and completing work.
- 3.7 **Related Documents**: Other documents that may need to be altered if the current

P-423-A Document Control

3.8 P-720 Customer Related Processes

4.0 References

4.1 None

5.0 Revisions

Revision	Date	Section	Paragraph	Summary of change	Authorized by
A				Initial issue	



Risk Management

Every version of the AS 9110 standard has advocated risk avoidance and risk management. The new AS 9110 Rev C standard continues to expect organizations to identify and address risks affecting compliance of products and services, resulting in improved customer satisfaction.

Besides identifying the risks, organizations should address opportunities for improvements and corrective actions based on the risk analysis.

Note that while nonconformity and corrective action are requirements of AS 9110 Rev C, the concept of preventive action can be addressed through a risk-based approach where risks are determined and actions to address risks and opportunities are taken.

This risk analysis exercise is intended to outline several approaches / options for the management of risk at your company.

To prepare for the change, it is time to begin understanding Risk Based Thinking and begin looking at your processes in terms of risks.

Risk is defined as the combination of the probability of occurrence of harm and the severity of that harm.

When evaluating risk, it is helpful to address it using two (2) metrics or parameters:

- 1. Severity (if harm happens, how serious is the event)
- 2. Likelihood (what is the probability of a harmful event occurring)

Because this topic is so important, it will have an impact on your QMS.

Risk-Based Thinking

The main risk management requirements of AS 9110 C are outlined in two clauses.

- Clause 6.1, Actions to address risks and opportunities. This clause addresses the risks and opportunities when planning for the quality management system
- Clause 8.1.1, Operational risk management. This clause addresses the risks associated with the operational processes needed for the provision of products and services.

The new AS 9110 REV C introduces Risk-Based Thinking in section 0.3.3 and mentions risk in other clauses of the standard; for example, in clause 5.1.2 dealing with customer requirements and satisfaction, clause 8.1.3 on product safety, clause 8.2.2 dealing with customer requirements and clause 8.4.1 on external provider-purchasing activities.

The objective of the emphasis on risk is to have the organization, through its QMS, address uncertainty in processes that will affect the quality of the delivered goods or services to customers.

When addressing risk in your Quality Management System, be sure that you look beyond determining the "chance" that something happens to "the effect of an uncertainty" on your business objectives.

There are five (5) attributes to enhance risk management:

- 1. An organization should accept accountability for their risks and develop comprehensive controls and risk abatement strategies.
- 2. Risk management should be a part of an organization's continual improvement strategy. Organizations should set performance goals and then review and modify processes as required. An organization should review and modify its systems, resources, and capability / skills to ensure continual improvement.

- 3. Identify and train individuals with accountability for risk management. These individuals should have appropriate skills, have adequate resources to check and improve controls, monitor risks, and have the ability to communicate effectively with all the interested parties / stakeholders.
- 4. Decision making within the organization should include consideration of risks and the application of the risk management process where appropriate.
- 5. Maintain consistent and periodic reporting to all interested parties of the organization's risk management performance.

Risk and Opportunity Worksheet

- Work Impact: What resources are available? 1 = People who have capability to work on this activity are scarce 4 = People who have capability to work on this activity can be available

Process / Activity	Customer Impact	Changeability Index	Performance Status	Business Impact	Work Impact	Ra R	
FICESS / Activity	impact	IIIdex	Status	impact	Impact	R	0
Review and Approval							
Prepared by: Quality team leader				Date:			
Reviewed by: Quality team				Date:			
Approved by: President				Date:			