

## 1 Purpose

The contents of this document specify the procedure for initiation, proofing, approval of and amendments to the quality management plans of suppliers of hard and software products.

## 2 Field of application

The document applies to RUAG Switzerland Ltd. suppliers, if such a requirement was agreed to in the purchase order. Quality management plans may be initiated for the following reasons:

- Customer requirements
- Complexity of a product or system
- Safety requirements
- High product liability risks
- Major projects involving several suppliers

## 3 Terms and abbreviations

Quality management plan	Document describing the specific quality practices, resources and work procedures for a specific product, contract, project or service. It is based on the existing quality management system.
Product	Result of work and processes. The term “product” includes services, hardware, process-related products, software or combinations thereof.

C H A N G E S					
REV	PAGE	CHAPTURE	DESCRIPTION	DATE	SIG
B	all	all	Adjustment to new company name	15.10.01	Mat
C	2 3 - 4	4.1. 5.3.	Consideration of the risks added Structure new defined	20.09.05	Mat
D	all	all	Updates for new organsiation of RUAG Switzerland Ltd	14.02.13	KnP

<b>REVIEWED BY:</b> Name: P. Kaufmann RAQMC Date, Visa: 14.02.13, KnP Name: B. Lücke RCSQS Date, Visa: 25.02.13, lucb	<b>APPROVED BY:</b> Name: M. Bühlmann RAK Date, Visa: 15.02.13, bunm Name: N. Johnen RCSQ Date, Visa: 14.02.13, john	<b>CONTROL:</b> Revision sevice provided for registered owners only Source: <input checked="" type="checkbox"/> Intranet <input checked="" type="checkbox"/> SAP <input type="checkbox"/> Others
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## **4 Procedures**

### **4.1 Initiation**

- A. Where necessary, the quality management plan is requested from RUAG Switzerland Ltd. in the order document (contract, purchase order). The quality plan shall provide objective evidence, that risks are considered during planning, including but not limited to Risk Identification, Risk Analysis, Risk Control and Risk Mitigation. The planning shall start with risk identification during contract review and updated thereafter in a timely manner.
- B. The quality assurance activities are to be specified and documented when the quality management plan is initiated.
- C. The specific inspection and testing strategies, resources, staff and instructions ensuring compliance with the prerequisites of each on-site article from suppliers and/or sub-suppliers, are to be described in the quality management plan.
- D. The quality management plan is to explicitly state how the requested activities are to be carried out, either directly or by reference to the appropriate documents.
- E. The quality management plan may be an individual document or part of another document (e.g. product or project plan).

### **4.2 Approval**

- A. The quality management plan is to be checked and approved by authorised persons representing all the functions involved before being sent to RUAG Switzerland Ltd.
- B. The quality management plan becomes a binding contract once it has been approved by RUAG Switzerland Ltd.
- C. Following issue of the approved quality management plan, it is to be explained to everyone concerned with the provision of services.

### **4.3 Amendments**

Check and approve of the plan is to be accomplish by authorized persons of the supplier and RUAG Switzerland Ltd.

## 5 Content of the quality management plan

### 5.1 Cover sheet

The following information is to be entered on the cover sheet of the quality management plan:

1. Reference, issue and date of the quality management plan
2. Supplier's address
3. Project (work order) title
4. Reference of the order document (contract, purchase order)
5. Signature of the originator
6. Approval by the authorised departments
7. Approval by RUAG Switzerland Ltd.

### 5.2 Amendment sheet

Amendments are to be recorded, with the inclusion of an issue index, date of issue and brief description of the amendment.

### 5.3 Structure

Fundamentally, the quality management plan is to contain the following additional chapters whenever necessary:

<b>1. Scope</b>	
1.1. Purpose	Summary of what is to be achieved, prevented or guaranteed with this quality assurance plan and why.
1.2. Applicability	Brief description of the purchase order (design, purchasing, production, installation, maintenance, approval etc.)
1.3. Contract object	Description of the product or service provision
1.4. Summary	General statement about the QMP
1.5. Amendments and revisions	Proceed on changes of this QMP
1.6. Discrepancy of documents	Proceed with discrepancies of contractual documents
<b>2. Applicable documents</b>	Documents, which are to be fulfilled in accordance with the purchase order (set by RUAG Switzerland Ltd. or own ones).
<b>3. Terms and definitions</b>	Definition of terms and explanations of abbreviations which are necessary for every user in order to understand the activities and tasks described.

<i>Structure according ISO 9001</i>	<i>Procedure: (Checklist chapter 5.4.)</i>
<p><b>4. Quality management systems</b></p> <p><b>5. Management responsibility</b></p> <p><b>6. Resource management</b></p> <p><b>7. Product realization</b></p> <p><b>8. Measurement, analysis and improvement</b></p>	<ul style="list-style-type: none"> <li>• Each chapter of the ISO 9001 is to be reference and describe briefly. The conversion of the contractual requirements is to be represented with reference to the documented management system.</li> <li>• Additional requirements, which are not regulated in the management system, are to be described clearly with reference to the requirement.</li> <li>• To each chapter, the references of the contractual requirements and the applicable documents by the supplier are to list.</li> </ul>
<b>9. Appendix</b>	<ul style="list-style-type: none"> <li>• Organization (organizational structure and project organization) and tasks for each project organization team with reference to the chapter 4. to 8.</li> <li>• Communication with RUAG Switzerland Ltd.</li> <li>• Products provided by RUAG Switzerland Ltd. or their customer</li> <li>• For the customer order authorized persons</li> <li>• Cross-references (customer documents, own documents) as required</li> <li>• Examples of order-specific forms, which RUAG Switzerland Ltd. receives from the supplier</li> </ul>

## **5.4 Quality assurance tasks**

The following checklists are based on ISO 9001:2000 "Quality management system - Requirements. They contain the most important features to be specified in the quality management plan. If contractually required, it may be necessary to add special requirements, or if a requirement is inapplicable to the scope of work, it may be deleted.

### **5.4.1 Checklist for hardware products**

#### **A. Quality management system**

- Short description of the Quality management system
- Organization

#### **B. Management responsibility**

- Tasks of the management for the given order
- Responsibility and authority
- Control of documents and data (by RUAG Switzerland Ltd. provided as well as own)
- Control of quality records
- Configuration monitoring
- Documents and data to be submitted to RUAG Switzerland Ltd.

#### **C. Resource management**

- Personnel authorizations

D. Product realization

- D1. Planning of realization processes
  - Proceeding of the planning
- D2. Customer-related processes
  - Examination of the customer requirements
  - Communication concept
- D3. Design and Development
  - Development scheduling
  - Development process (specification of the development phases)
  - Release procedure for the phases
  - Software monitoring (CAD)
  - Description of the configuration management and monitoring system
  - Procedure for material selection
  - Reliability record
  - Specification of the maintenance
  - Consideration of safety aspects
  - Qualification program
  - Change request to RUAG Switzerland Ltd.
- D4. Purchasing
  - List of sub-suppliers
  - Approval procedure
  - QA agreements with the sub-suppliers
  - Acceptance procedures for the purchased products
  - Marking of the accepted products (identification, test status)
  - Acceptance evidences
- D5. Production and service provisions
  - D5.1 Handling, storage, packaging, packing and shipping
    - Packaging for storage, carriage and shipping
    - Product marking
    - Shipping documents
    - Product tracing
    - Preparations for acceptance by RUAG Switzerland Ltd.
    - Notification of readiness for acceptance
  - D5.2 Management of the products provided by RUAG Switzerland Ltd.
    - Scope of the receiving inspection
    - Storage, monitoring of storage
    - Maintenance arrangements
    - Procedure for the correction of nonconformance
  - D5.3 Process control
    - Manufacture, installation and test scheduling
    - Product-specific flowchart for installation operations
    - Special procedures (Basis: LQA-003)
    - Planned facilities
    - Process compatibility record
    - First article inspection schedule
    - Planning of the qualifications
    - Traceability methods
    - Change procedure in production planning
    - Software for the production, testing and approval of products

- D5.4 Testing
  - Responsibilities of the in-process and final inspections
  - First article inspection procedure
  - Qualification procedure
  - Marking method
  - Random test schedule

- D6 Monitoring of testing devices
  - Calibration evidences

E. Measuring, analysis and improvement

- E1. Control of nonconformity
  - Authorisation of material availability
  - Request of Concessions
  - Quality reporting procedure

- E2. Improvement
  - Documentation system
  - Monitoring of implementation

**5.4.2 Checklist for software products**

- A. Quality management system
  - Short description of the Quality management system
  - Organization
- B. Management responsibility
  - Tasks of the management for the given order
  - Responsibility and authority
  - Control of documents and data (by RUAG Switzerland Ltd. provided as well as own)
  - Control of quality records
  - Configuration monitoring
  - Documents and data to be submitted to RUAG Switzerland Ltd.
- C. Resource management
  - Personnel authorizations
- D. Product realization
  - D1. Planning of realization processes
    - Proceeding of the planning
  - D2. Customer-related processes
    - Examination of the customer requirements
    - Communication concept
  - D3. Design and Development
    - Development scheduling
    - Development process (specification of the development phases)
    - Release procedure for the phases
    - Tools, methods and methodology
    - Description of the configuration management and monitoring system
    - Evidence of Reliability
    - Consideration of safety aspects
    - Qualification program
    - Change request to RUAG Switzerland Ltd.

- D4. Purchasing
  - List of sub-suppliers
  - QA agreements with the sub-suppliers
  - Acceptance procedures for the software products purchased
  - Acceptance evidences
- D5. Production and service provision
  - D5.1 Handling, storage, packaging, packing and shipping
    - Packaging for storage, carriage and shipping
    - Product marking
    - Shipping documents
    - Notification of readiness for acceptance
  - D5.2 Management of products provided by RUAG Switzerland Ltd.
    - Scope of the receiving inspection
    - Procedure for correction of nonconformance
  - D5.3 Testing
    - Persons responsible for testing
    - Test methods
- E. Measuring, analysis and improvement
  - E1. Control of nonconformity
    - System for recording defects
  - E2. Improvement
    - Documentation system
    - Monitoring of implementation