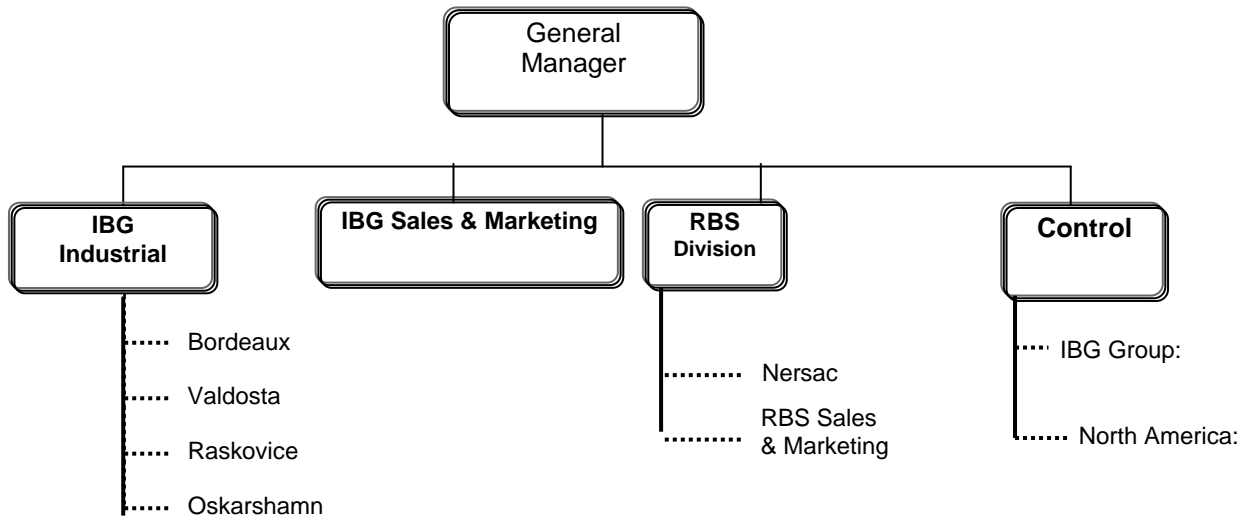


1 Presentation Saft SA



Rail & Mass Transit



Space



Aviation



Defence



Medical



Marine



Road Transportation & Infrastructure



Building & Industrial Plants



Professional Electronics & Security Systems



Emergency Lighting



Telecommunication



BUSINESS STRATEGY – Saft AB

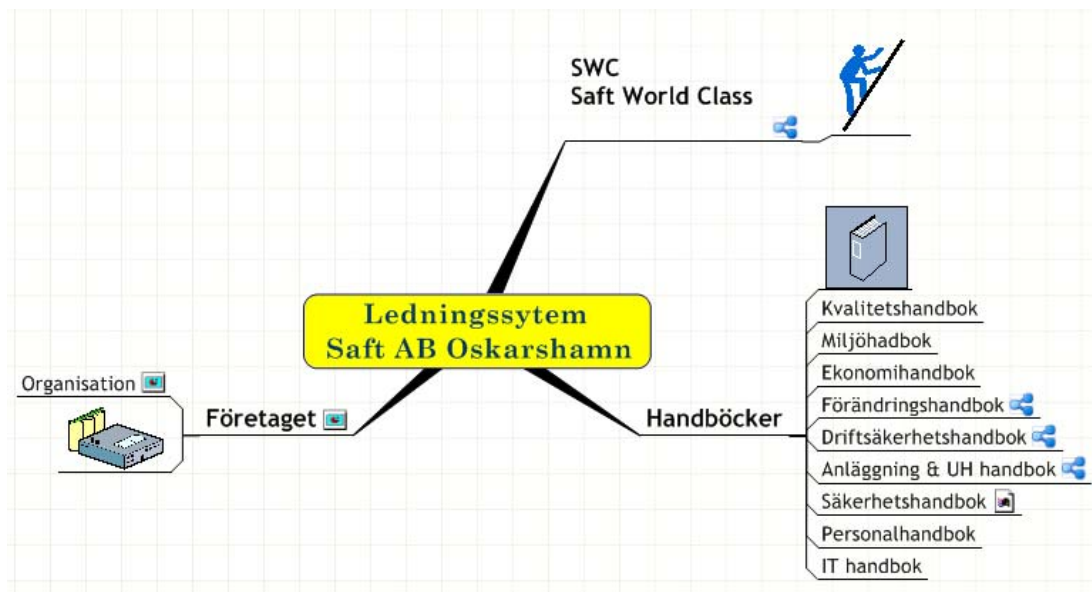
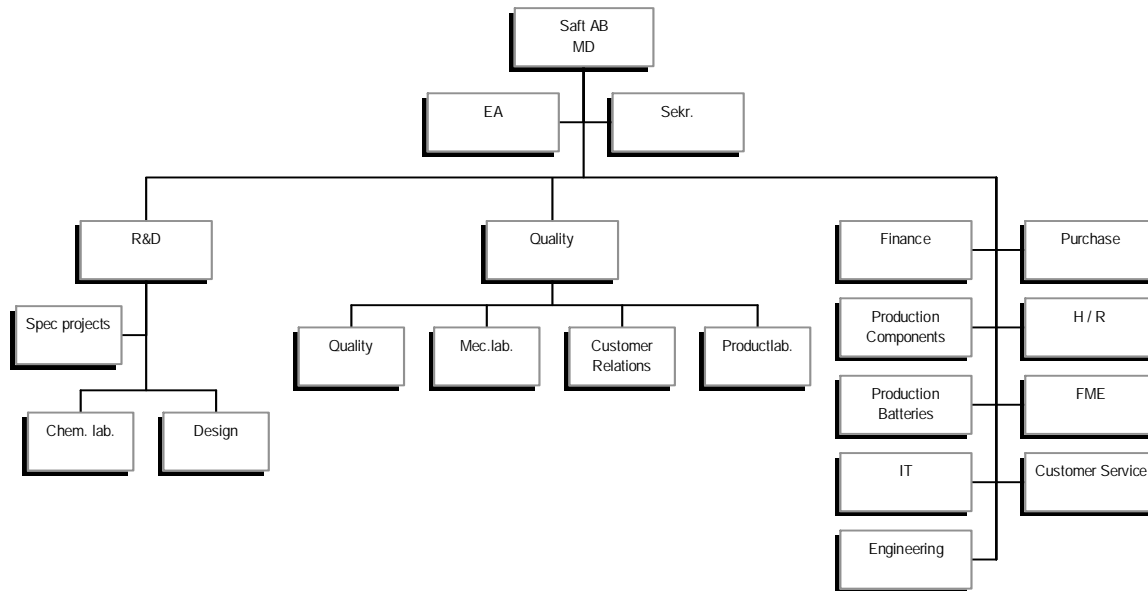
We are determined upon being a leading supplier of high quality Ni-Cd industrial batteries for reserve power and energy storage to the entire world market

Our business is to develop and manufacture the most cost effective and reliable Ni-Cd batteries in an environmental friendly manner from development to recycling

Our way of operation shall continuously result in an *increase of customer satisfaction* based on

- **Quality**
- **Cost and**
- **Supply**

2 Presentation Saft AB



The Saft AB management system is based on a few control processes described in separate manuals (see picture above).



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3 Quality manual

3.1 Object

The object of this quality manual is

- To describe the management system of the company
- To define and set up rules in order to secure the permanence and application of the quality system at Saft AB, Oskarshamn.
- To announce the policy, goals and commitment to customers and to the staff of Saft AB.
- To rise and maintain a high level of quality and cost efficiency in order to use our technical and personal resources in the best possible way.
- To maintain a high level of customer satisfaction and, accordingly, to have long-lasting business relations with our customers.

3.2 Scope and use

This quality manual describes the way of working that is used by Saft AB, Oskarshamn, in order to develop, manufacture and service Ni-Cd industrial batteries, and to recycle Ni-Cd batteries. The quality manual is used as a support for the Saft AB staff. It is primarily intended for internal use.

3.3 Maintenance of the manual: Revision, ratification and distribution

The quality manual is ratified by the Saft management group (top management).

The QA manager is responsible for co-ordination, publishing, distribution, and maintenance of the quality manual.

The quality manual is a registered document. A list of addressees is kept in order to define the distribution of the quality manual. The list is filed by the QA manager.

Suggestions of improvement shall be approved by the concerned party and by the QA manager before being confirmed and implemented.

Minor changes are marked by use of a vertical mark in the left margin of the page. Major changes initiate a new edition of the quality manual.

4 Quality management system (QMS)

4.1 General requirements

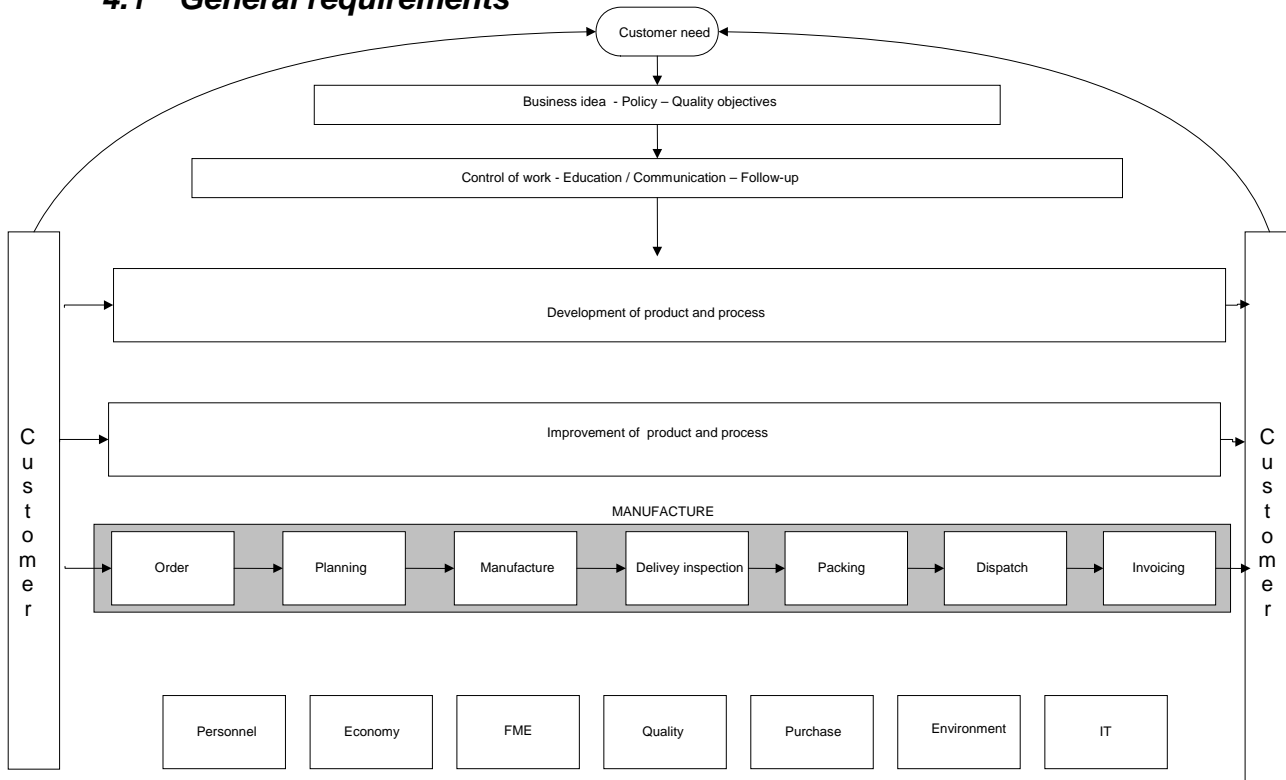


Figure 4-1: Identified processes and their interaction.

This quality management system is based on the requirements laid down in the standard SS-EN ISO 9001:2008. The system includes customer satisfaction and continuous improvement.

The following comprehensive processes have been identified:

- ▽ Product and process development
- ▽ Product and process improvement
- ▽ Product manufacture

The following functions have been identified:

- ▽ Personnel
- ▽ Economy
- ▽ FME
- ▽ Quality
- ▽ Purchase
- ▽ Environment
- ▽ IT
- ▽ Production engineering



4.2 Description of the quality management system

4.2.1 General

This quality management system embraces the operation of SAFT AB in Oskarshamn, Sweden. The quality manual is the basic document of the quality management system, giving a summarized overview of the rules and procedures in force.

4.2.2 The procedures of the quality management system

A system of documents define and specify the procedures ordering, manufacture, raw materials and finished products and specifies the inspection and follow-up actions found necessary in order to secure that the product meets the stipulated requirements.

The responsables for the contents and the distribution for the different documents are listed in the following Table 4-1.

Table 4-1 COMPILATION OF DOCUMENTS

Document	Responsible	Distribution
Quality Manual	QA manager	Quality
Alteration Manual	FME manager	FME
Personnel Manual incl. organization plan	Personnel manager	Economy dept.
Register of education		
Salaried employees	Personnel manager	
Workers	Production managers	
Technical Directions (TF)	Technical manager	Design
Quality specifications (KS)	Technical manager	Quality
Material specifications		
Part 1-2	Technical manager	Design
Part 3	Chief designer	Design
List of suppliers	Purchasing manager	
List of article groups	Chief designer	Design
Product structure card	FME	Economy dept
Product range (PP-1)	Managing director	Design
Drawings	Technical manager	Design
Work instructions (AI)	Production managers	Production engineering
Material administration	Production logistics	Customer Service
IT manual	IT manager	
Maintenance manual	Maintenance manager	Maintenance manager
Quality inspection directions (KF)	QA manager	Quality
Minutes:		
Management review	QA manager	
Design review	Project leader	
Contract review	Order administrator	
Internal audits	QA manager	
Non-conformance and corrective action:		
Inspection reports	Goods reception group	
Non-conformance reports	Workshop management	
Product & Application:		
Technical data (customer)	Technical marketing	Technical marketing
Maintenance and spare part instructions	"	"

4.2.3 Quality planning

Before the manufacture of a new or modified product is commenced, the project leader or his equivalent shall make, in co-operation with the quality department, a quality planning comprising at least

- π A quality plan
- π A list of the necessary resources for test and evaluation
- π Manufacturing documents including tolerances and acceptance criteria for factors influencing the function and safety of the product

(also see Procedure for release, clause 7.4.9)

4.3 Control of documents

4.3.1 General

Documents and data belonging to the quality management system, external standards included, are organized in a document system.

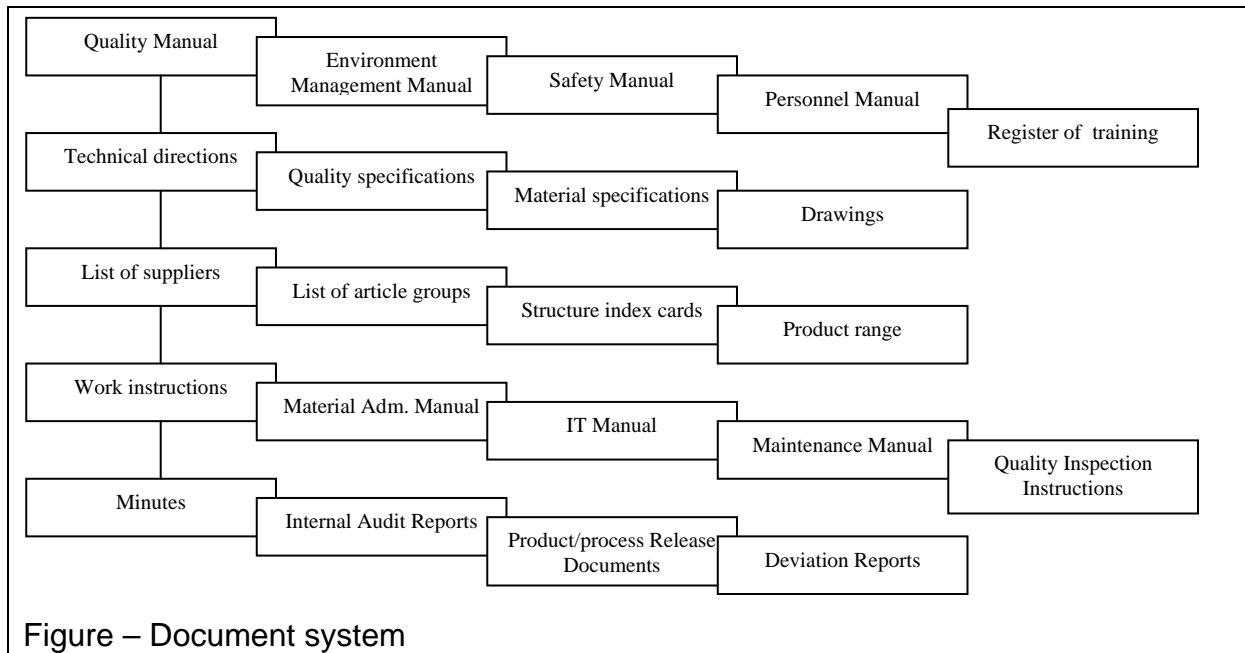


Figure – Document system



4.3.2 Approval and publication of documents and data

Checking and approval of a document is done before the publication in accordance with Table 4-II. The distribution is done in accordance with the procedure AI-127.

Table 4-II Document checking (Signing)

Document	Author	Checked by	Approved by	Issued by
TF	Person in charge	Expert	VD	Technical Manager
MS (J) Part 1-2	Person in charge	Expert		Technical Manager
MS (J) Partl 3	Person in charge	(Expert)		Design Manager
KS	Person in charge	(Expert)	QA Manager Production	Technical Manager
AI	Person in charge	(Expert)	QA Manager Production	Manager concerned
KF	Person in charge	(Expert)		QA Manager
Product drawing	Person in charge	(Expert)		Technical Manager
Production drawing	Person in charge	(Expert)		Man. Prod. engineering

Author: Writes the document
 Checking: Check of technical correctness and feasibility
 Approval: Acceptance for use
 Issue: Responsibility and confirmation
 () = When necessary

Quality documents with controlled distribution are marked "Registered document", which entails that copying copies is not allowed. Document copy for temporary use is marked "Unregistered copy". External documents are regarded as unregistered and, accordingly, it is up to the user to make sure that the valid edition is used.

The responsible of distribution sends the document, together with a notice of delivery form, to the addressees laid down in a distribution list.

The receiver signs and sends back the notice of delivery together with the superseded document, if existing.

Finally, the responsible of distribution ticks off the reception in the distribution list.

For comprehensive documents having a table of content, each section of the document is given a number of edition and data of issue.

This method of distribution is also applied for extracts containing tables for use at the work stations.

Obsolete documents kept for reasons of formality or in order to preserve knowledge are given a clear mark of cancellation.

4.3.3 Changes of documents and data

Changes of documents and data are checked, approved and issued by the organizational unit issuing the original document.

A change of document text is marked by a vertical line in the left margin. Change of drawings is regulated in the instructions MS 2006.020 (tools) and AI-138 (components).

Uncontrolled copy



4.3.4 Computer-controlled documents

Computer-controlled documents shall, when printed, be marked with an expiry date of validity (validity for the purpose of printing the copy). For maintenance documents, see the Maintenance Manual.

4.4 Handling of quality documents

The procedures for handling of quality documents include the storage of them during a prescribed period, see table 4-III.

The originals of important documents are stored in a fire-safe archive for documents and drawings.

Tabell 4-III Storage time for documents

Document	Storage	Time (years)
<i>Manufacture documents:</i>		
Drawings and part lists incl. announcement of change, TF and MS	Design	25*
KS	Quality	25*
<i>Minutes:</i>		
Management review	Quality	5
Contract review	Order	10
Design review incl. verification and release	Project binder	10
Test documents, raw data and diagrams	Laboratory	5
Final test	Quality	10
Calibration	Person in charge**	3
<i>Deviating products:</i>		
Inspection reports	Quality	3
Permit of deviation	Quality	10
Report of blocked material and corrective action	Quality	3
Internal audits and follow-up	Quality	5
Education	Personnel	***)
Order documents	Logistics	10
Purchase contracts	Purchase	5

*) Documents having been superseded or withdrawn from production

**) See clause 11.2

***) During the time of employment

Uncontrolled copy

5 Management responsibility

5.1 Confirmation by the management

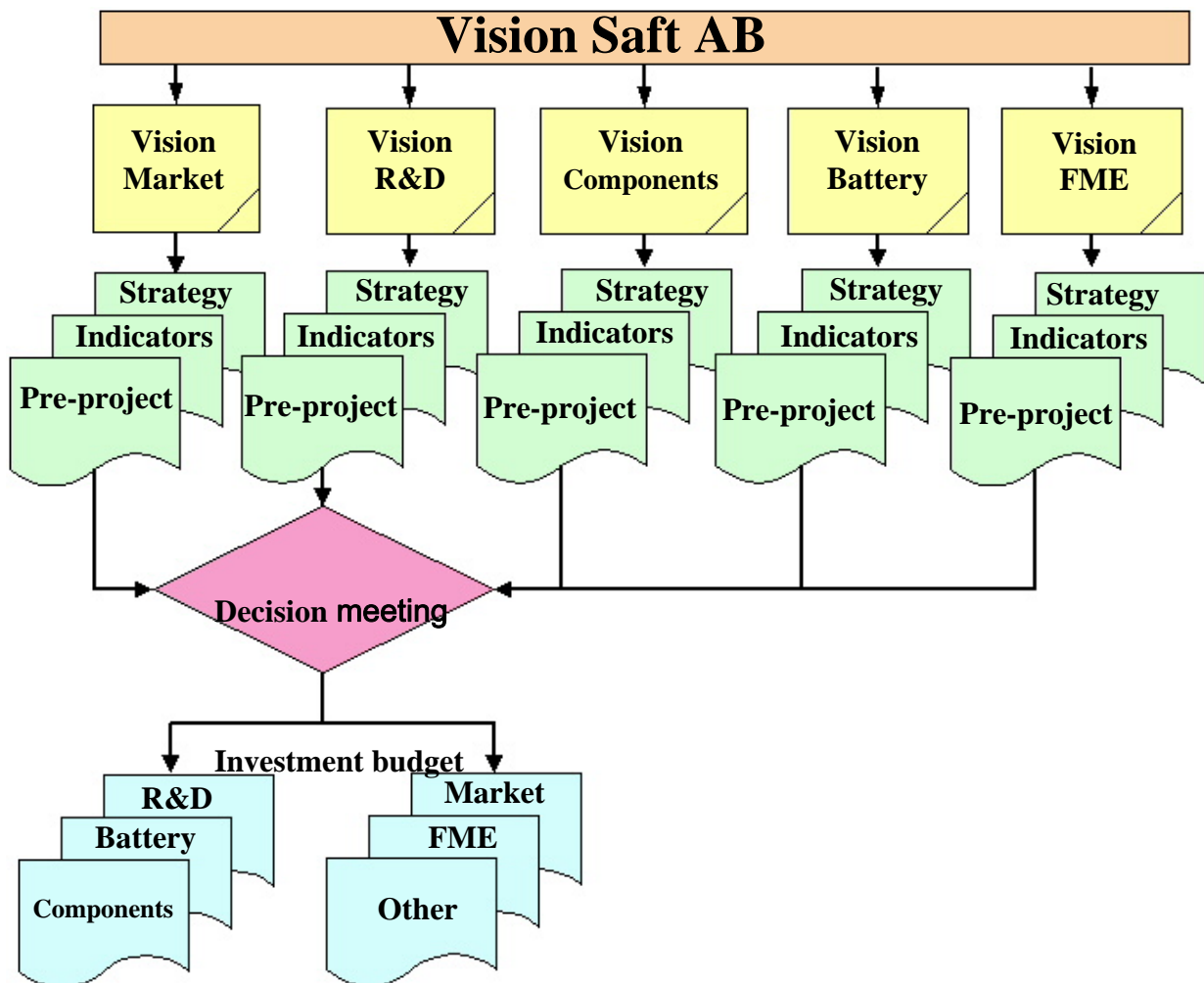
By the management's confirmation of the quality policy and the signing of the quality manual by the quality manager, the quality system is confirmed and applicable.

5.2 Quality policy

As part of the management review, the quality policy shall be evaluated and its up-to-dateness and validity shall be confirmed.

5.3 Quality objectives

The overall quality objectives and visions are confirmed by the management group as part of the budget preparation. They are documented in the minutes of decision. The overall quality objectives and visions are allocated as departmental objectives of operation.



Also see 4.1 General requirements

5.4 Responsibility and authority

Within SAFT AB, each head is responsible for the application of the quality management system in his own area of operation. Every member of the staff discovering a quality deficit of raw materials or products is expected to act in order to minimize the faults and their possible consequences (clause 8.2).

The responsibilities of heads of functions and departments and of personnel having particular assignments in the area of quality, the responsibilities and the authorities are specified in work descriptions or in descriptions of the operation of the function or department.

Work descriptions are issued by the head of the area concerned and the wording of them is checked by the head of the personnel function. The staff member confirms with his/her signature that he/she is informed about the description. The original document is stored by the head of the personnel function and the staff member and the head of his/her department or function have each one copy.

5.5 Management representative

The Q-manager is the management representative. The QA- manager is responsible for the preservation of the quality management system.

5.6 Communication

5.6.1 5-minutes meetings (workers) 2-3 times very week
Department meeting (others) Once per week

A meeting for information and planning.

5.6.2 Management meeting Once per week

A meeting for follow-up and decision. The management group members are the heads of Techniques, Production (batteries, components), Environment, Quality, Economy, Purchase, IT, Customer Service, FME, HR and the managing director.

Convener: The managing director

5.6.3 OV-meeting Once per week

A meeting for information and follow-up for the operational work of the area concerned. The participants are the managing director, the workshop manager, the management of production and the heads of the supporting functions.

Convener: The workshop manager concerned.

5.6.4 MU-meeting / Pulsen Twice per month

A meeting for information and planning of factory projects. Participants: The managing director, the workshop manager, the management of production and the heads of the supporting functions.

Convener: The head of the workshop concerned.

5.6.5 GU-meeting Once per month

A meeting for information and planning of overall projects.

Convener: FME manager.

5.6.6 Organization development meeting Once per month

Meeting to discuss needs for resources. Participants: Workshop leaders, the managing director, the FME manager and the manager of the personnel function.

Convener: Manager of the personnel function.

**5.6.7 SU-meeting**

Once per month

A meeting for information and planning the activity of continual improvement.

Convener: FME manager.

5.6.8 APP-meeting

Daily

A meeting for information and planning with planner, workshop leaders, production managers and main team leaders.

Convener: Planner

5.6.9 Q-meeting

Once per month

The quality management and the heads of workshop areas have a meeting for information and action regarding problems appearing in the production. Reports of deviation are reviewed and the corrective actions are evaluated.

Convener: The QA manager / Customer relations responsible.

5.6.10 PRM

6 times per year

Short-term planning meeting with sales responsible.

Convener: the technical manager

5.6.11 BRM

5 times per year

Economical review together with the sales responsible.

Convener: The managing director

5.6.12 MPDP

Twice per year

Long-term planning meeting with the sales responsible.

Convener: Saft Sales Manager.

5.6.13 Management review of QMS

Once a year

A review of the quality system by the management group where the quality objectives, the policy and the quality management system are scrutinized.

Convener: The QA manager.



5.7 Management review

The management group considers the state of quality at the management meetings, where, furthermore, the overall quality objectives of the company is followed up. Decisions of action and follow-ups are documented in the minutes from the meetings.

A documented review of the quality system based on, among other things, the internal audits, is held at least twice per year, normally in January-February and August-September.

The following items are considered at the management review:

- The report of the QA manager:
- π Implemented changes of the quality system
- π Internal audits including corrective actions
- π Planned changes / improvements
- π Comments regarding the system
- π Fulfilment of objectives in the quality work
- π Review of the quality policy and policy placards
 - Product- and process follow-up
 - Customer response
 - Other observations and comments
 - Conclusions of the management group



6 Resource management

6.1 Resource planning

A resource plan is established as part of the annual budget work. The head of each department makes a departmental budget and these budgets are then put together into a company resource budget by the personnel function.

6.2 Resources needed

- ▽ The need for resources is analysed in monthly meetings (Organisation development meetings). Necessary changes are decided by the managing director, workshop leaders and the FME manager. Other participants may be called as necessary.
- ▽ The need for resources as compared to the utilization of capacity is analysed at weekly OV meetings. Minor changes of personnel disposal is decided to solve temporary capacity problems.
- ▽ Other temporary needs for resources are solved at the daily APP meetings held by the production management.

6.3 Objectives and main principles for competence

Training and education of the personnel is an important element of the quality work.

Training is carried out in general subjects e g product knowledge, quality knowledge, environmental and industrial welfare, as well as specific items e g work execution, equipment handling and manufacture and quality specifications.

As a main principle of the company, each head of an area is responsible for the education and development of competence for his subordinates. The personnel function assists by arranging courses in general matters such as product knowledge, quality and environmental matters, labour management and management matters.

6.4 Procedures

6.4.1 General matters

New employees are announced to the Personnel function. The Personnel function arranges courses in general matters.

6.4.2 Salaried employees

The need of training is updated at the annual planning dialogue with the subordinated staff in accordance with the Personnel Manual *Managers*

An education plan, based on a personal development dialogues, is established at least once per year as a basis for the budget work *Managers*

After accomplished training, the certificate or corresponding document is sent to the personnel function to be registered and archived. *Employee*

Registrering och arkivering av genomförd utbildning *Personnel function*

6.4.3 Workers

Requirements of training and time of practical experience for different work tasks are determined together with the function Production Techniques. *Workshop leader*

Documentation of training and education to be kept during the time of training *Workshop leader*

Under particular circumstances, e g the worker has experience from a similar type of work, the production leader may allow a reduced time of training.

7 Product realization

7.1 General

The requirements of the product are specified in the technical documentation.
A list of legal requirements, directions and other requirements that have an influence on the product is confirmed at the management review. Updates are made as necessary, but a screening is done before the management review, see appendix – Laws, directions and other requirements on the operation.

7.2 Control of work

7.2.1.1 Organizational levels

- ▽ Managing director
- ▽ Senior managers
- ▽ Workshop leaders
- ▽ Team leaders

Also see the personnel manual flap 14: Rules of authorization

7.2.1.2 Instructions

The procedures of the production and service are given in *work instructions* (AI). For processes where the result cannot be fully verified by subsequent inspection or test, the procedures are laid down in Technical Instructions (TF). Such *special processes* are e.g manufacture of active material, nickel-plating, formation and regeneration/mixing of electrolyte.

The production leaders have regular meetings with their staff in order to inform about the valid requirements and procedures.

The manufacturing processes are monitored so as to discover changes before they influence the product quality.

A great importance is attached to preventive maintenance.

7.2.1.3 Distribution of work

7.2.1.3.1 Workshop managers

- π analyse the need of training within the workshops and are responsible for the competence development of the subordinated personnel.
- π check and analyse the basic documents for manufacture and hand over their comments and possible suggestions for change or completion to Production Techniques or the Technique department.
- π check that a complete manufacture documentation and clear work instructions are available at the work stations.
- π plan the utilization of personnel and equipment for each area of production

7.2.1.3.2 Workshop leaders

The production leaders are responsible of

- π development of competence of the personnel
- π preparation of work stations
- π rigging up and adjustment of machines
- π maintenance of the production equipment
- π follow-up that the work is carried out in accordance with the instructions and that the specified quality is met.

7.2.1.3.3 Production techniques

The FME manager, together with the workshop managers and leaders, is responsible for

- π Selection of manufacture procedures
- π realization of equipment
- π instructions and programs
- π purchase of production and test equipment
- π lay-out and planning of work stations

7.2.1.3.4 Maintenance

The FME manager is responsible for matters of installation, maintenance and reliability of operation:

- π Strategy for meeting the reliability objectives
- π Risks
- π Philosophy
- π Policies
- π Aim and direction
- π Organization
- π Ability
- π Competence
- π Methods
- π Resources
- π Tools and systems

7.2.1.4 Permit of deviation

A *permit of deviation* from the valid specifications or instructions may be issued by the responsible for the specification or instruction. This permit shall be limited by time, batch etc and shall be signed by the technical manager.

7.2.1.5 Change of processes and equipment – release

Changes of existing processes and existing production equipment that may have an influence on the final product shall be subject to a procedure of release (see clause 7.4.9).

Identification of processes of production which have a direct influence on the quality is part of the quality planning (clause 4.2.3).

7.2.2 Quality follow-up

The quality meeting, i e a group consisting of the technical manager, workshop managers, FME manager, head of production quality, customer relations responsible and the QA manager, have regular meetings in order to follow-up the quality situation of the production. Convener is QA manager.

In case there is a need for an immediate decision, the QA manager may call a smaller group, a quality council, consisting of the workshop manager in question, the production engineering manager, the technical manager and the QA manager.

Adverse remarks, comments and complaints are reported at OV meetings (weekly) and at the GUR meeting (weekly). Audit activities are reported at the quality meeting (weekly).

7.2.3 Product identification

7.2.3.1 Marking

Procedures for the marking of material, components and products during all phases of handling, from the reception of goods to the dispatch, are laid down in the MA Manual: Flap 1 and 3 for purchased details and flap 3 and 15 for the manufactured goods.

Basic documentation for marking of raw material and purchased goods	<i>Purchase manager</i>
Marking of marking of purchased goods (inspection)	<i>Reception group</i>
Basic documentation for marking of products in process and storage	<i>Planner</i>
Marking of products in process and storage	<i>Workshop leader</i>
Marking of packed products	<i>Workshop leader/Packing</i>

7.2.3.2 Traceability

The procedures for marking and other registration establish a degree of traceability that has been judged as necessary considering the nature of the enterprise. In case traceability is a customer requirement, the marking can be done to identify each individual unit or batch.

7.2.4 Handling

Products received from the customer shall be handled the same way as our own material. In case of damage to or disapproval of customer property, the customer shall be contacted by the order department.

7.3 Manufacture



7.3.1 Order

7.3.1.1 General

Products made in Oskarshamn are marketed through sales offices and agents. The product range (PP-1) is decided by the Product Review Meeting (PRM) and confirmed by the Managing Director.

7.3.1.2 Review

Specified orders from the sales office/agent for batteries, components and accessories are checked by the order department (product type, delivery time, delivery conditions etc) and are then entered in the MPS system. Finally the order is signed.

Orders for batteries which are given their configuration in Oskarshamn are checked in connection with the configuration.

In case of a deviation from the confirmed product range, the matter shall be handled by the Technical Manager in accordance with the work instruction AI-002.

7.3.1.3 Amendment of order

The procedure to be followed for the amendment of an order is specified in the work instruction AI-002 (order/distribution). Cancellation of an order is to be done in accordance with the Material Administration Manual (MA) flap 37.

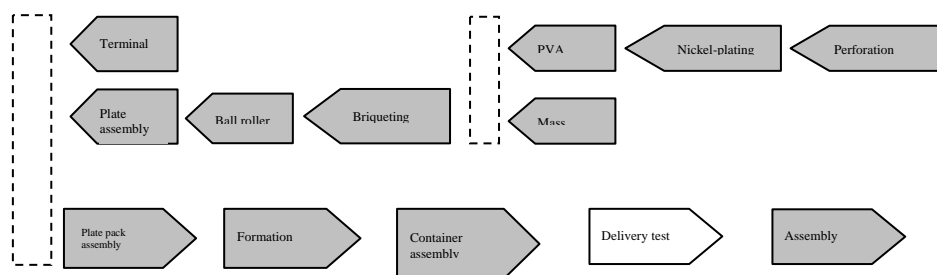
7.3.1.4 Documentation

Basic documents and data belonging to a sales matter, e.g. customer order, correspondence, battery specification, quotation and order amendment) are archived by the order department in order number sequence.

7.3.2 Planning

Production planning is done by means of a computer program, APP, once per day delivering proposals based on the order situation, availability of material and available resources. Adjustments of the resources are agreed at daily meetings (APP) and confirmed by the planning department.

7.3.3 Manufacture



The production is divided into two main factory areas, components and batteries. These objectives within these areas are followed-up in weekly meetings (OV).

7.3.4 Delivery inspection

In order to secure that the products delivered to customers conform with our specifications, two orders per day are tested for capacity and electrolyte impurities. The results are followed-up at OV-meetings and Q-meetings. The test results are used to monitor the distribution of product performance as an outcome from the manufacture processes.

7.3.5 Packing

Handling and packing is done in accordance with the work instruction AI-065. For marking, see TF-1109. The packing is followed up by internal packing inspections. Statistics of complaints and the internal packing inspections are followed up at monthly OV meetings.

7.3.6 Dispatch

See work instruction AI-001.

7.3.7 Invoicing

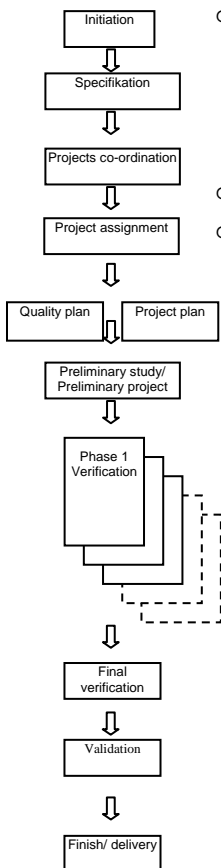
The invoicing is done in connection with the delivery. Late payments are continuously followed up at the weekly economy function meetings. In case a customer exceeds his credit limit, his possibility to place new orders is blocked and the sales organization is alerted.

7.4 Development of products and processes

7.4.1 General

The development and design work at Saft AB is controlled by the Saft group marketing organisation. Information is collected from the marketing department in Paris, the Product Council and the Customer Service.

Different kinds of development activities.



- o Development
 - π Research and development: New technologies, new processes for active materials etc.
 - π Product development: Application of well-proven technology, new product ranges, modification of existing products etc.
- o Design
- o Tailor-made design

The development projects are carried through closely together with the other development functions in the company group in accordance with centrally issued procedures.

Also see the "Alteration Manual"

Rules for carrying out the development project work are laid down in AI-280.

7.4.2 Planning of design and development

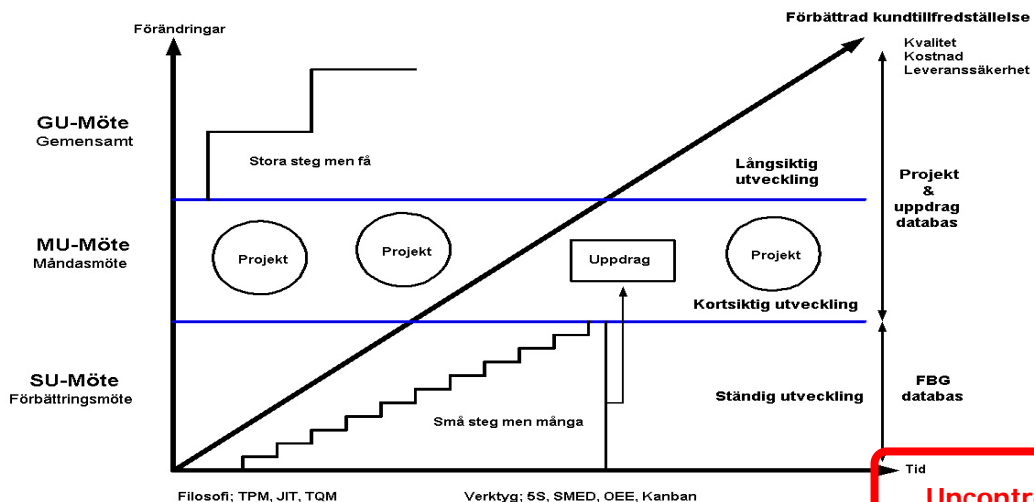
A time and resource plan is established for each development and design activity, including design reviews, verification and validation in accordance with the below clauses 7.4.6 -7.4.8 and, for each step, the responsible person.

The plan is updated during the course of work.

7.4.3 Organizational and technical interfaces

Each phase of a project is finished by a verification or design review in the presence of the technical manager, the head of workshop, the head of purchase and the QA manager or their representatives. The continuous reporting of the project is done at the GU meetings, see figure below.

Changes of products or crucial components are initiated by issue of an Engineering Work Request (EWR), see procedure KS-554.





7.4.4 Design specification

Requirements forming the basis for design and development are identified and documented, including requirements laid down in applicable standards, laws and directions and different environmental aspects. The requirements should be worded in such a way that their fulfilment can easily be seen from the results from tests.

7.4.5 Design result

The results of the development or design work is documented and presented in such a way that they can be verified and validated against the design requirements in terms of the original acceptance criteria including changes agreed upon. See the Alteration Manual.

7.4.6 Design review

Formal, documented reviews are planned and carried through at the end of each phase during the course of the development and design work. Initial, preliminary, critical, marketing and final reviews shall be carried through for design and development work. Representatives for the functions concerned by the review shall be present. See the Alteration Manual

7.4.7 Verification of the design

Verification of the development or design result is carried through at suitable stages of the work in order to secure that the result is meeting the relevant requirements. Results of verification is documented and presented at the design reviews.

7.4.8 Validation of the design

Validation of the design is carried through when the development or design work is finished. If possible, the validation shall be done in the intended application or in accordance with an application profile in the laboratory. A test plan shall be written in order to control the validation.

7.4.9 Procedure for release

7.4.9.1 Development projects and new processes

For the manufacture of new products and the introduction of new processes, a summarizing report and a release document signed by the technical manager is required.

The introduction shall be approved by the workshop manager.

7.4.9.2 Modification of existing products or processes

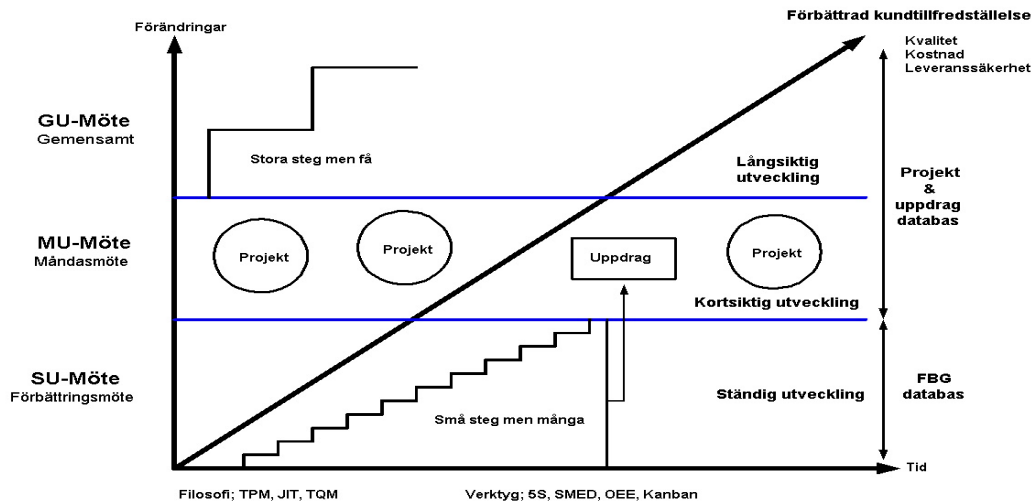
Modification of existing designs shall be accepted and approved before the implementation by the functions responsible for the associated controlling documents (also see 4.3). Changes that have an influence on the function or safety of the product shall be presented to the Product council and/or PRM for their decision.

7.4.9.3 Customized products

Drawings etc shall be signed by the designer and the manager of design or the manager of production techniques.

7.5 Improvement of product or process

7.5.1 General principle



The normal improvement work most often begins in the improvement groups. These groups can be temporarily organized or permanent within a department. The task of the group shall be determining for its constellation.

The progress of the improvement groups is followed up at the SU meetings.

Kaizen is the basic way of approaching the matters handled by the improvement groups.

7.6 Supporting functions

Purchase, production techniques, personnel, economy, quality etc are functions that support the processes and contribute to the increased value and result.

7.6.1 Purchase

7.6.1.1 General

Suppliers of critical or expensive raw materials, components and services are evaluated regarding their ability to deliver specified quality at the agreed time.

The aim of purchase planning is to give best possible prerequisite for obtaining the correct raw material or component at the best price, with the specified quality at the agreed delivery time.

Purchase of frequent raw materials and components in to a large extent done by means of basic agreements and subordering. The authority to order (suborder) is delegated to the planner in the production organization (AI-437).

A review of the contact between Saft AB and different suppliers is done at regular meetings.

7.6.1.2 Assessment of suppliers

- ◆ The supplier is asked to deliver facts about his operation in accordance with AI-444.
- ◆ The supplier register, including the assessment is stored in the Movex system (AI-438).

The basic facts, used as a base for the assessment are stored in a binder at the purchase department.

1. To the largest possible extent, the information delivered by the supplier is followed up at a visit at the supplier's premises.
2. The supplier is approved by the head of purchase and the QA manager.
3. The supplier's ability to deliver the specified quality at agreed time is followed-up by inspection of arriving deliveries carried out by the Goods Reception Group.
4. Information about suppliers which are no longer engaged are erased from the register after two years.

7.6.1.3 Purchasing information

Before an order is placed with a new supplier or in case of purchase of a new product, a survey of the matter shall be done together with the supplier, high-lighting at least the following items:

- π Drawings
- π Selection of material
- π Tolerances
- π Manufacturing process
- π Work/treatment
- π Quality Inspection Procedures
- π Certification



Depending on the importance of the purchased article, the head of purchase can decide to use the below checklist or relevant parts of it as a basis for drawing up the purchase order specification:

- π Article number
- π Drawing including number of edition
- π Material with analysis etc
- π Certificate
- π Design, colour etc
- π Packing requirements
- π Identification with manufacturer, batch number, date of manufacture and material class
- π Inspection and test
- π Tolerance requirements

Requirements concerning country of origin, allocation of quotas, trade barriers and other limitations connected to the selection of material and supplier shall be considered as well as the environmental aspects on the product and the manufacture methods.

Materials or components appearing in the Material Specification I & II shall be released by the Technical Manager before the order is placed.

7.6.1.4 Verification of purchased product

7.6.1.4.1 Verification at the supplier's premises

Preferably the product verification shall to the largest possible extent be done in connection with the manufacture at the supplier. Accordingly, we wish to have the supplier involved in our own quality work. To allow for delivery direct into our storage rooms or production, the requirements laid down in PQA (Product Quality Assurance) shall be met.

7.6.1.4.2 Customer's verification of product from supplier

When agreed upon in the contract, the customers of Saft are given the opportunity to check the purchased goods at the supplier's premises.

7.6.2 Quality

7.6.2.1 General

The aim of the checking and test work is to verify that the delivered products fulfil the specified requirements and to collect information as a basis for corrective action.

The checks are done in at different stages:

- π Inspection of arriving goods
- π Checks and tests of products at different steps of manufacture
- π Final check and test

The check and test work has, to the largest possible extent, a preventive character, i.e. the manufacture processes are monitored in a way allowing for corrective action before process deviations result in nonconforming products.

The result of final test is reported to the customer provided this has been agreed upon in the contract. (KS-524).

Manufactured components or finished products not meeting the specified requirements are separated from approved goods, see clause 8.2.



7.6.2.2 Acceptance inspection

The acceptance inspection comprises

- π deliveries of materials and products manufactured in accordance with SAFT 's specifications
- π purchased standard products

Suppliers receive valid specifications and guarantee that the specified requirements will be met

Purchase manager

As agreed, the suppliers present signed measurement reports and test or inspection certificates

Supplier

Inspection of shipments from suppliers:

Reception group

- ✓ Test reports and certificates from suppliers to be checked and signed
- ✓ Shipments from suppliers to be checked to an extent laid down in the supplier assessment
- ✓ Inspection to be recorded in Movex
- ✓ Deviations to be noted in inspection report to be forwarded to the supplier by the purchase department

Reception group

7.6.2.3 Inspection and test during manufacture

There are three basic kinds of inspection of conformity to specification of manufactured components and products:

- ✓ Initial sample inspection
- ✓ Continuous operator inspection
- ✓ Spot tests

Inspection and test shall take place as close as possible to the manufacture processes and, to the largest extent possible, be done by the operators themselves.

Adjustment and calibration of monitoring and measuring devices is done by trained and qualified personnel.

The production leaders are responsible for

- π the procurement of test and measuring equipment in the workshops
- π instructions and directions for the work stations
- π agreed operator inspection including initial sample
- π reporting deviations and scrapping
- π correct marking of the material in process

7.6.2.4 Final check and test

Function and performance test to be made according to the test procedures and specifications, in certain cases at the product laboratory

Prod.leader

All orders checked for quantity and workmanship; to be ticked off on a checklist

Operator

Non-conforming products to be separated and subjected to corrective action, see 8.2

*Operator/
Prod.leader*

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7.6.2.5 Documentation of inspection and test

Test reports showing the test executor and signed checklists to be stored in archive archived (see Table 4-III)

*Workshop
manager*

7.6.3 Installation and Maintenance

7.6.3.1 Policy

The management has issued a Reliability in Operation Policy, published in the Reliability of Operation Manual.

7.6.3.2 Installation

The FME manager and his organisation secures the availability of basic resources such as water, drainage, energy, buildings and surrounding areas.

7.6.3.3 Reliability of operation

The FME manager is responsible for turning the assignments of reliability in operation issued by the production management into a correctly dimensioned TPM activity for optimum operative conditions.

7.6.3.4 Objectives and procedures

Objectives and procedures are described in the

- ✓ Reliability in operation manual (visions, objectives)
- ✓ Maintenance manual
- ✓ Protection and safety manual (personal safety and the directions of internal inspections in accordance to SAM AFS 2001:1).

7.6.4 Environment

See the Environment management system manual.



8 Measurement, analysis and improvement

8.1 Internal audits

8.1.1 Object

The quality management system is a means for obtaining and maintaining total quality over the complete area of operation, from the customer enquiry to delivery and the subsequent service.

The effectiveness of the quality activities is secured by a planned assessment of the system, corresponding to the follow-up of product quality by product assessment.

8.1.2 Procedure

Selection of internal quality auditors and assessment of their competence acc to KF-156 QA manager

Spec.: Selection of internal auditor for the QA function MD

Internal quality audits continuously during the year (KF-156) as planned with regard to the need QA-manager + internal auditor

8.1.3 Area subdivision

Area I	Purchase, Production techniques, Personnel, Management/Management group, Maintenance.
Area II	Briqueting, Ball rolling mill, Plate assembly, Terminal welding.
Area III	Plate pack, Formation, Electrolyte station, Receiving, Quality – Production.
Area IV	Container assembly, Filling/Charging, Assembly, Packing, Order, Dispatch.
Area V	QA, Techniques, Environment
Area VI	Perforation, Nickel plating, PVA, Mass, Recycling, Purification plant

8.2 Control of non-conforming product

8.2.1 General

Deviations from material specifications or manufacture specifications can be either or discovered during or after manufacture.

- ✓ foreseen and approved (see 7.2.1.4) in advance or
- ✓ discovered during or after manufacture.

8.2.2 Nonconforming products

Any person, independent of position, who discovers nonconforming goods, shall mark the goods as nonconforming and, where applicable, see to that the manufacture is interrupted. See 7.2.2.

A report of nonconforming goods is established, giving the reason for blocking the goods and the name of the person having blocked it (KS-516) . The work leader signs the report and hands it over to the quality department.



The blocked material is separated from the normal material flow and placed in a particular area while a deviation report is established.

The material can be

- ✓ approved
- ✓ used under restriction
- ✓ reworked
- ✓ scrapped
- ✓ returned to the supplier (purchased material)

Responsible parties:

The form "deviation report" to be filled in	Work leaders
For purchased material, an inspection report to be sent to the supplier for corrective action	Purchase
Decision for corrective action to be taken in consultation with the technical function (Design department)	Production leader, Quality manager
Reworked parts to be inspected. After approval, the deviation marking of the goods may be nullified.	Production leader
Report to the quality coordination group	Quality manager

8.3 Corrective action

The reporting of quality deficits and repeated deviations has the objective to make an immediate intervention possible by putting in corrective and preventive action.

8.3.1 Reports about quality deficit

Reports about quality deficit are handed over to the quality manager for treatment in the quality coordinating group in accordance with clause 9.2, where the decided actions are taken to the minutes of the meeting.

8.3.2 Adverse remarks or complaint

Remarks and complaints from customers and others are processed as follows:

- ✓ The complaint to be reported to the responsible of reclamation *Anyone*
- ✓ Copy to the relevant department *Quality manager*
- ✓ Message about action *Relevant department*
- ✓ Follow-up of decided action *Quality manager*
- ✓ Monthly report *Quality manager*
- ✓

The reclamation reports are followed up at the monthly quality meeting by the responsible of reclamation matters and at the OV meetings when relevant.

Further follow-up in the quality coordination group.



8.4 Preventive action

Different sources of information are used in order to identify necessary preventive action: Quality inspection reports, deviation reports, results of measurement and test, reclamation and guarantee reports etc. The work is led by them quality co-ordination group.

8.5 Process follow-up

In order to know that the processes perform in accordance to the objectives we make a continuous follow-up and a continuous analysis of the result (key performance factors). These factors are presented at the OV meetings and at the management meetings.

8.5.1 OEE

See the Maintenance manual flap 9, section 16, and UHL-0025.

8.5.2 Spotted process results

Some selected process results are followed-up at the OV meetings. The followed-up parameters are selected as found to be necessary. The observation is done for remedy and as a preventive action.

8.5.3 Calibration

8.5.3.1 General

Measuring devices and instruments are inspected and calibrated at regular intervals. The calibration procedures comprise

- ✓ devices used for checks of arriving goods, manufacture stages and finished product
- ✓ stationary measuring devices in the process and production equipment
- ✓ laboratory equipment

Date of expiry of the calibration period is marked on the instrument or in the calibration register (stationary instruments)

8.5.3.2 Procedures

The use of calibrated instruments is to be supervised by

Measure- and control equipment used in process equipment and work stations

Production leader

Equipment belonging to the quality department

Quality manager

Measurement and analysis equipment at the laboratory

Head of laboratory

Reference equipment used for calibration to be sent to authorized measurement institution at regular intervals

The use of calibrated gauges etc is to be supervised by (KF 155):

Mechanical measurement equipment

Measurement personnel

Electric equipment

Product laboratory

Measuring devices, instruments and gauges on stationary equipment including environmental installations, see UHI-9000.

Maintenance

Service contracts with external calibration companies may exist.

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8.6 Customer follow-up

In order to check that our efforts in order to meet the customer expectations are correctly focused, we carry out follow-up by

- ✓ customer inquiries every 2 years
- ✓ interviews in connection with normal customer contact

8.7 Statistical methods

8.7.1 Identification of need

Statistical follow-up has been deemed to be necessary for

- ✓ follow-up of the quality situation in the manufacture
- ✓ check/follow-up of the electrical properties of active materials
- ✓ long-term check/follow-up of the performance and service life of the products

The collected data and calculated key factors form the basis for decisions within the improvement work.

8.7.2 Procedures

The quality situation in the factory and its individual processes is monitored by key factors based on the result of checking and measuring in the production flow.

Production managers

Cost of quality deficit is shown in the common data base among the Key Factors.

Economy

The properties of the positive and negative electrode masses and performance of finished cells are monitored according to rules laid down in KS-540.

Production managers

The electrical performance of cells according to KF-238.

Product laboratory

9 Finance / Economy

The economy department is responsible for the economical follow-up and the economical reporting.