

ANTAM

Asian and Pacific Network for Testing of Agricultural Machines

Meeting of the ANTAM TWG

Los Baños, Laguna, Philippines

24 – 28 July 2023

ANTAM Quality Manual - **Why**

The presentation will be focused on the **QUALITY MANUAL** as follows:

- Why a Quality Manual and benefits
- Content and updates in ver. 02
- Practice and examples

ANTAM QM - **Why**

The ANTAM Quality manual has been made in order to assure

**QUALITY REQUIREMENTS
FOR TESTING STATIONS**

participating in the ANTAM network assuring the

**SAME LEVEL OF COMPETENCES
and TECHNICAL RELIABILITY**

of all activities and test results.

ANTAM QM – **Why**

Assure that:

Technical requirements as performances and
safety
**are equally assessed regardless of the testing
station**

QUALITY REQUIREMENTS FOR TESTING STATION

In every network it is necessary that every participant takes part using **the same rules and competences** in order to assure the best **compliance to common regulations** and provide for complete **trust**



ANTAM QM - Why

WORKING ACCORDING TO THE QUALITY MANUAL



SAME LEVEL OF COMPETENCES

+

SAME LEVEL OF TECHNICAL RELIABILITY

+

TRUST EACH OTHER

ANTAM QM – Contents

Identification (*chapters in the Quality Manual*)

2.1 General Information

2.2 General Requirements

2.3 Technical References

2.4 Terminology

2.5 Certification Management Requirements

2.6 Management of Testing Activity

2.7 Certification process

2.8 Quality Management

ANTAM QM – Identification

| Document | Code | Version | Date/Place of approval | Signature |
|----------------|------|---------|------------------------|-----------|
| Quality Manual | QM | 01 | 10.2019 Moscow | |
| Quality Manual | QM | 02 |2023 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*Necessary to provide for a **clear identification** of the reference document and assure that the proper version is being used.*

ANTAM QM - Identification

A **wrong version** may contain an expired version of a standard and/or different procedural requirements.



This situation leads to an **un-fair application** of procedures and may offer an **un-fair advantage** to some manufacturers and provide for **un-trust** among testing stations.

ANTAM QM – 2.1 General Information

The preliminary information should match and be updated for every Testing Station according to date, version etc.



In case of “non-conformity” and a wrong version is being used then no certification number can be issued and the NDA should be immediately informed.

ANTAM QM – 2.1 General Information

a - Country

b - Testing Station

c - Types of machines being tested

d - Location (if more than one list all of them with their specialisation)

e – Name of NDA (*as notified to CSAM*)

f - Accreditation by NDA

g – Date of Accreditation

h - ANTAM Codes being used (*version as listed in “c”*)

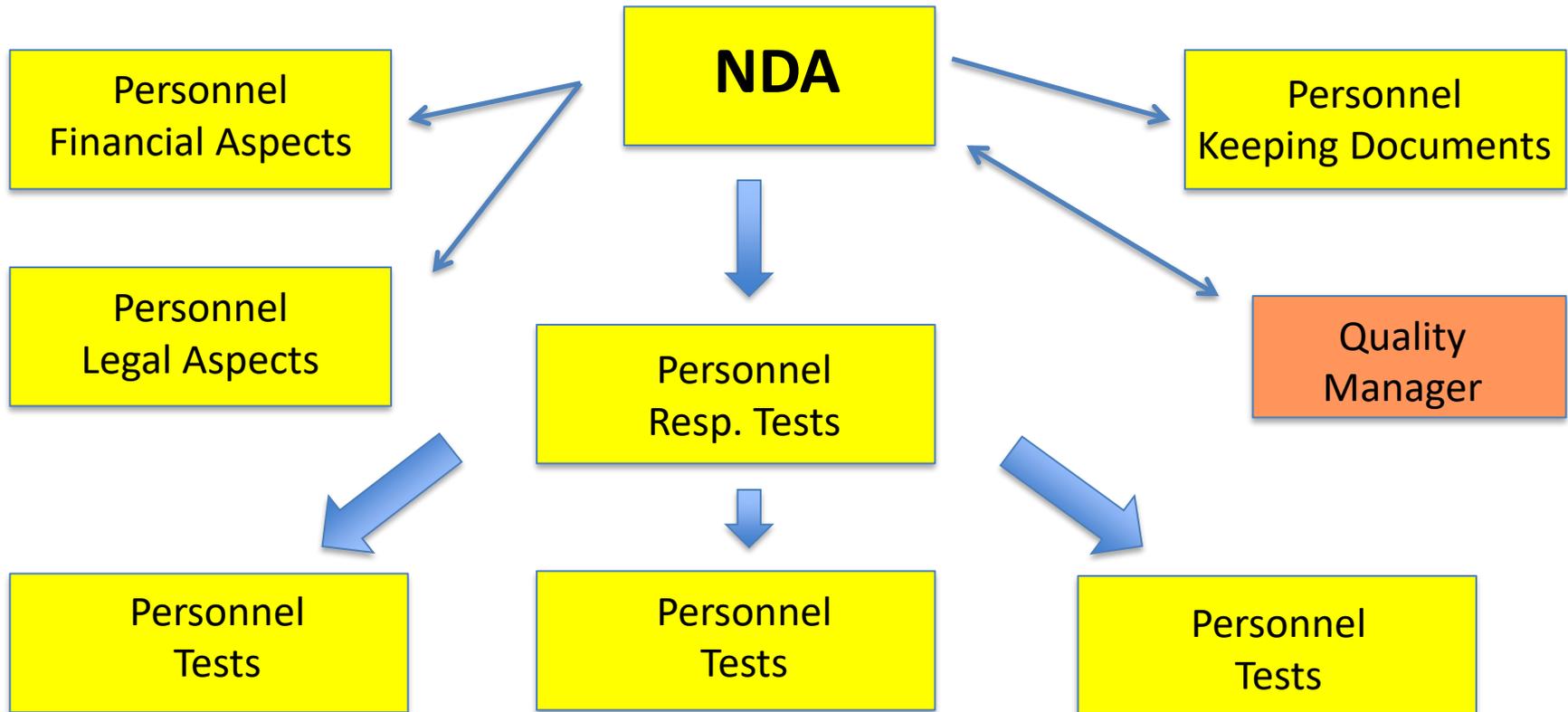
Necessary to provide for a clear identification of the testing station and its accreditation by the NDA according to the ANTAM rules.

ANTAM QM – 2.2 General Requirements

- **Person responsible (reference for ANTAM - NDA)**
- Person responsible for Financial Aspects (budget etc.)
- Person responsible for Legal Aspects (contracts, privacy etc.)
- Person responsible for keeping all documents related to testing activity
- Person responsible for Tests (devices, reports, technicians etc.)
- Personnel performing Tests (technicians)
- Quality Manager
- Periodical evaluation of requirements (location, date)
- Description of the Testing Station

Necessary to provide for a clear description of the testing station and its organisation.

ANTAM QM – 2.2 General Requirements - Personnel



For each of them a clear document stating CV, expertise and up-dating should be kept.

ANTAM QM – 2.2 General Requirements

Person responsible (reference for ANTAM – **NDA**)



The ANTAM Network has defined the NDA (National Designated Authority) as the person for every country responsible for the proper functioning of the system.

ANTAM QM – 2.2 General Requirements

Person responsible for financial aspects



Will be responsible for all financial issues as the budget to be used for upgrading of equipment, payments of customers (manufacturers, importers etc.) ...

ANTAM QM – 2.2 General requirements

Person responsible for legal aspect (contracts etc.)



Will be responsible for the proper content and timing of contracts, privacy etc.

ANTAM QM – 2.2 General Requirements

Person responsible for keeping all documents related to testing activity



Will be responsible for the management of all documents (Codes, standards etc.) and the **use of the proper version** during activities.

ANTAM QM – 2 General Requirements

Person responsible for tests



Will be responsible for technical issues including technicians, reports, equipment (including necessity to upgrade it), proper application of the ANTAM Code and coordinate the personnel involved in the testing activities.

ANTAM QM – 2.2 General Requirements

Personnel involved in the testing activities



A list of all technicians including their competencies and training demonstrating the ability to properly apply the
ANTAM Quality Manual

ANTAM QM – 2.2 General Requirements

The Quality Manager is responsible of all aspects related to quality and will supervise their proper application and report to periodically to the NDA.



The Quality Manager will also be responsible for all updates of reference documents and their commitments too.

ANTAM QM – 2.2 General Requirements

Some of the mentioned tasks can be performed by one person but s/he should be able to demonstrate the ability to manage all of them.

ANTAM QM – 2.2 General Requirements

In order to assure the proper level of competence



a periodical evaluation of all personnel requirements has to be scheduled and reported regularly.

ANTAM QM – 23 Technical references (to be considered during the process of Quality management)

- OECD Standard Codes for the Official Testing of Agricultural and Forestry Tractors Appendix 4 to the decision – Quality Control Management
- ISO 17065/2012 Conformity Assessment – Requirements for bodies certifying products, processes and services.
- ISO 17025/2018 General Requirements for the competence of testing and calibrating laboratories.
- ISO 17020/2012 Conformity Assessment – Requirements for the operation of various types of bodies performing inspection.
- ISO 17067/2013 Conformity Assessment – Fundamentals of product certification and guidelines for product certification schemes.
- ISO GUIDE 28.2004 Conformity Assessment - Guidance on a third party certification system for products Revised by ISO 17026/2015.
- ISO 17026/2015 Conformity Assessment – Example of a certification scheme for tangible products.
- ISO 19011/2018 Guidelines for auditing and management systems.
- ISO 17000/2020 Conformity Assessment – Vocabulary and general principles.
- Antam Testing Code - (specify version/date etc.)
- Antam Training Manual – (specify version/date etc.)
- Antam Test Report – (specify version/date etc.)
- Antam Quality Manual - (specify version/date etc.)
- ...

Necessary to provide for a clear identification of the standards and their version being used – to be performed by the “person in charge for keeping documents” and supervised by the “quality manager”..

ANTAM QM – 2.4 Terminology

- Certification
- Accreditation
- Agricultural machines
Agricultural machines components
- Audit
- Calibration
- Complaints (or Dispute)
- Conformity
- Extension
- Identification
- Inspection
- Location of the tes
- Manufacturer
- Methodology (or Code)
- Mutual recognitions
- NDA
- Privacy
- Procedure
- Registration
- Renewal
- Standard
- Surveillance
- Technical reference
- Technician
- Test
- Testing Station
- Testing Equipment
- Tolerances
- Quality Manager

Necessary to provide for a clear interpretation of terms.

ANTAM QM – 2.4 Terminology



CERTIFIED

- Certification



It is the provision by an independent body of written assurance (the certificate) that the product, service or system in question meets specific requirements (ANTAM Test Codes in this case)

ANTAM QM – 2.4 Terminology

- Accreditation



It is the independent third-party recognition that an organisation has the competence and impartiality to perform specific technical activities such as certification, testing and inspection.

ANTAM QM – 2.4 Terminology

- Applicant



The manufacturer/importer or its legal representative in the country is the only legal entity that might ask for an ANTAM certification.

This is to avoid confusion and un-fair competition.

ANTAM QM – 2.4 Terminology

- Agricultural machines/components



Machines, implements and tools and their components including hardware/software that are used in the production, harvesting and care of agricultural productions.

ANTAM QM – 2.4 Terminology

- Audit



Systematic independent and documented process to obtain evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

ANTAM QM – 2.4 Terminology

- Calibration



It is the comparison (according to metrology) of measurements values performed by device under test compared with those of a calibration device of known accuracy.

ANTAM QM – 2.4 Terminology

- Complains (and/or dispute)



May arise from the applicant that might not agree with some parts of the process or the interpretation of results. They must be recorded as well as actions undertaken to solve them.

ANTAM QM – 2.4 Terminology

- Conformity



Is the main keyword in a certification process.
According to ISO "it demonstrates whether a product, service ... meets the relevant requirements".

It can be applied to a serial production as a declaration to assess the total equivalence with the sample being tested.

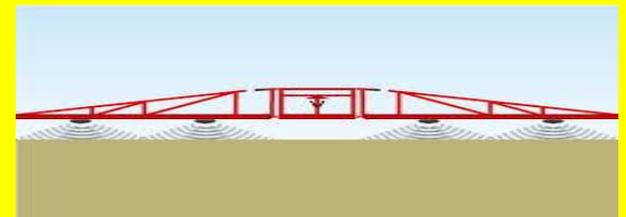
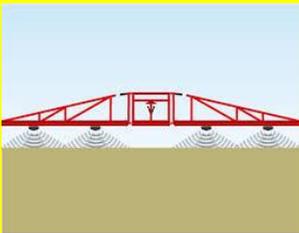
ANTAM QM – 2.4 Terminology

- Extension



It is the possibility to “extend” a certification to other machines having only small differences to be defined in the testing methodology.

Same machine with different boom width.



ANTAM QM – 2.4 Terminology

- Identification



A product should be clearly indentified in terms of manufacturer, make, model and serial number.



ANTAM QM – 2.4 Terminology

- Impartiality



It is the legal principle that decisions should be based on objective criteria rather than based on prejudice etc.



ANTAM QM – 2.4 Terminology

- Importer/Manufacturer



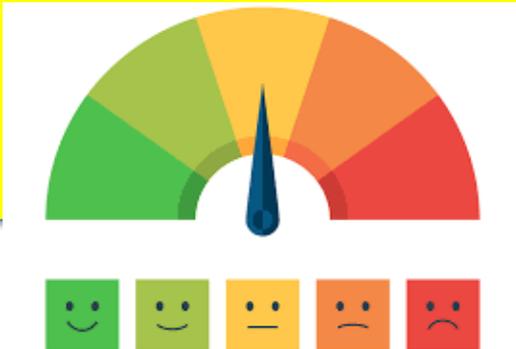
It is the company trading officially a product in a country and being legally responsible of all related issues including safety of operators.

ANTAM QM – 2.4 Terminology

- Indicator



A quantitative or qualitative variable which can be measured or described providing for mean of judging.



ANTAM QM – 2.4 Terminology

- Inspection



It is the regular checking of a product to make sure it meets specific criteria and requirements.



ANTAM QM – 2.4 Terminology

- Location of the test



It is the place where the test has been performed.

In case of harvesting machines it might not be the same as the testing station.



ANTAM QM – 2.4 Terminology

- Methodology (or Code)



It is the document containing all information on the testing activity to be performed.



ANTAM QM – 2.4 Terminology



- Mutual Recognition



It is the process providing for the recognition by other bodies signing an agreement (ANTAM agreement) to recognize the test results and certification made by other institutions.

ANTAM QM – 2.4 Terminology

- NDA (National Designated Authority)

Is the person authorized by the Ministry to refer as responsible for the country inside the ANTAM network and its regulations and procedures.

He will be legally responsible for the proper use of all ANTAM documents inside the country.

He is the only person that might contact the ANTAM Secretariat.

ANTAM QM – 2.4 Terminology

- Privacy



It is the regulation providing for clear rules on the use and storage of personally identifiable information and data.



ANTAM QM – 2.4 Terminology

- Procedure



It is the document that specifies how to carry out an activity or process. It can be a testing methodology (or Code) or a document containing instructions for the international recognition of tests.

ANTAM QM – 2.4 Terminology

- Registration



It is the process to record and track all documents to their release date and version number.



ANTAM QM – 2.4 Terminology

- Renewal



It is the regular checking of a product to assess the conformity to the product (sample) being tested and certified.

Is similar to the “inspection” but it is a condition for the validity of a certification.

ANTAM QM – 2.4 Terminology



- Standard



It is the document providing requirements, specifications that can be used consistently to ensure that materials, processes and services are fit for their purpose.

ANTAM QM – 2.4 Terminology

- Surveillance



It is the regular checking of a product to assess the conformity to the sample being tested and certified.

ANTAM QM – 2.4 Terminology



- Suspension



Action to be undertaken if there have been non-conformities during inspection activities and/or complains.

If a certificate is suspended it means that it is not valid for a certain period.

ANTAM QM – 2.4 Terminology

- Technical reference



It is the related standard or regulation containing the specification being used.

ANTAM QM – 2.4 Terminology



- Test



Critical evaluation or a means of determining the presence, quality or truth of something. It has the purpose to determine one or more characteristics of a product.

ANTAM QM – 2.4 Terminology



- Testing Station



Laboratory able to perform a specific testing activity having competences and proper “testing equipment”.



ANTAM QM – 2.4 Terminology

- Testing Equipment



Equipment being used for the testing activity according to the ANTAM Codes fulfilling tolerances, calibrations etc.).

ANTAM QM – 2.4 Terminology

- Tolerances



Limits within an equipment should be calibrated as stated in the ANTAM documents.

ANTAM QM – 2.5 Certification Management Requirements

- Documents
- Checking of documents
- Checking of testing equipment
- Testing equipment (according to ANTAM Codes)
- Checking of personnel skills
- Checking of procedures
- Management of test results
- Conformity assessment
- Privacy

ANTAM QM – 2.5 Certification Management Requirements

– Documents

All documents relevant for the ANTAM certification
(with proper version):

- ANTAM Codes
- ANTAM Test Reports
- ANTAM Training Manual
- ANTAM Regulations
- ANTAM Quality manual
- ...

ANTAM QM – 2.5 Certification Management

- Checking of documents

Internal audits should be performed by the Quality Manager in order to verify that the proper documents are used.

ANTAM QM – 2.5 Certification Management Requirements

- Checking of testing equipment

Internal audits should be performed by the Quality Manager in order to verify that the proper testing equipment is used according to the proper ANTAM Code.

ANTAM QM – 2.5 Certification Management requirements

- Testing equipment

Testing equipment has to be listed and notes on the updating as well as calibration should be included.

The responsibility is of the Personnel keeping documents and Quality Manager..

ANTAM QM – 2.5 Certification Management Requirements

- Checking of personnel skills 1/2

Internal audits should be performed by the Quality Manager in order to verify that the personnel has the proper competences according to the work being performed.

ANTAM QM – 2.5 Certification Management Requirements

- Checking of personnel skills 2/2

Competences of personnel should include a CV and records of updates according to the equipment they are using.

ANTAM QM – 2.5 Certification Management requirements

- Checking of procedures

The procedures have to be fulfilled and updated through regular checks performed by the Personnel keeping documents and finally checked by the Quality manager too.

ANTAM QM – 2.5 Certification Management Requirements

- Management of Test results

Test results have to be properly managed taking into account privacy regulations. If a result does not match the ANTAM Code then the manufacturer should have the possibility to propose a solution according to the contract signed with the testing Station but the decision is always of the personnel responsible of the test.

ANTAM QM – 2.5 Certification Management

- Conformity assessment

Conformity is at the basis of certification:

- a machine has to be conform to the ANTAM Code
- all machines with the same certification number have to be conform to the machine being testes.

ANTAM QM – 2.5 Certification Management requirements

– Privacy

Privacy regulations according to the management of data concerning the manufacturer and the test results cannot be published without the written permission of the manufacturer/legal representative in the country.

ANTAM QM – 2.6 Management of testing activity

The Management of testing activity is regulated according to the diagram of the personnel where responsibilities are clearly identified.

Of course proper competences have to be assured according to the role.

ANTAM QM – 2.6 Management of testing activity

Responsibilities

Working according to the Quality Manual is a good system to provide for clear responsibilities as they are well defined in the contract and in the procedural aspects of the process.

ANTAM QM – 2.6 Management of testing activity

Periodical evaluation of competences of Testing Stations Technicians

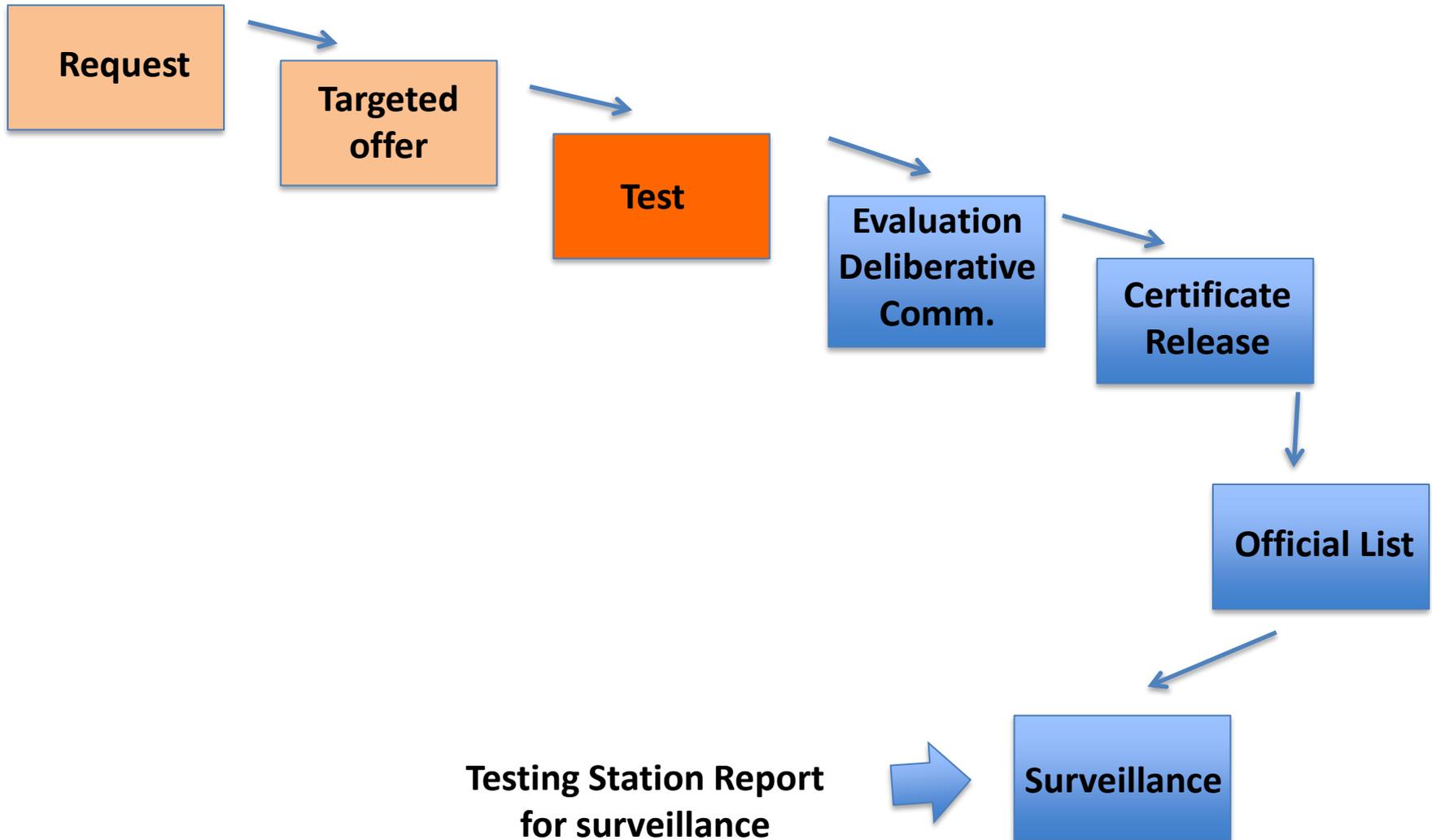
A periodical evaluation has to be performed and registered. As a good practice we may propose an evaluation every **2 years**.

ANTAM QM – 2.7 Certification process

- Request of certification by applicant (manufacturer/importer etc.)
- Evaluation of the request
- Financial management of the process
- Documents to be provided to the customer
- Performing of tests
- Approval of test results by customer and NDA
- Approval of test results by ANTAM/Secretariat
- Release of certificate
- Validity (define precisely the timing according to the needs)
- Surveillance
- Technical modification on the product affecting the validity
- Suspension of the certification
- Management of non – conformities
- Registration of the Certification
- Timing of the process

ANTAM QM – 2.7 Certification process

Evaluation/Cost



ANTAM QM – 2.7 Certification Process

- Request of certification

The request should be made on a proper form where it should be stated clearly the make and model of the machine, the manufacturer or legal representative, the compliance to ANTAM Code.

ANTAM QM – 2.7 Certification Process

7.2 - Evaluation of the request

The Testing Station (Personnel responsible for the Test) should check the request and evaluate it according to the compliance with the ANTAM Code) and provide for the contract.

ANTAM QM – 2.7 Certification Process

- Cost management of the process



In a free market the manufacturer should be able to test his machines in every ANTAM Testing Station. There might be differences in price but at the end he will always go where it's more convenient because of the price but also for other reasons as the best market for his machines etc.

ANTAM QM – 2.7 Certification Process

- Documents to be provided to the customer



The customer (manufacturer) should be informed in advance about the content of the test. Therefore he can receive a copy of the ANTAM Test Codes or a summary.

ANTAM QM – 2.7 Certification Process

– Performing of tests



After the Contract has been signed and arrangements have been agreed with the testing station tests might start.

ANTAM QM – 2.7 Certification Process

– Approval of test results by Customer and
NDA



When testing activity is finished test results will be evaluated and the approval for publishing and sending of the draft certificate to the ANTAM Secretariat – CSAM is necessary by the Customer and NDA.

ANTAM QM – 2.7 Certification Process

– Approval of test results by
ANTAM/Secretariat (CSAM)



Evaluation of all procedural aspects.

ANTAM QM – 2.7 Certification Process

– Release of the Certificate



ANTAM will release a certificate according to the model provided in the official documents.

The certificate will include all the necessary information to identify the machine, testing station, date of issue and number.

ANTAM QM – 2.7 Certification Process

- Validity



Every certificate must have a validity that usually is 5 years unless there is a change in the ANTAM Test Code and/or surveillance records non-conformities.

If a new version of a Code is issued a new test should be performed in order to maintain validity even inside the 5 year period.

ANTAM QM – 2.7 Certification Process

- Surveillance



Periodical checks that the manufacturer is fulfilling the contract signed according to the CONFORMITY. Periodical checks (every year) can be made even by a Dealer but the manufacturer should not be able to change the machine and therefore he should be informed at very short term as 2 days in advance)

ANTAM QM –2.7 Certification Process

- Technical modification on the product affecting the validity



This point is strictly related to CONFORMITY.

What does affect conformity: everything that changes the safety, the performance, the technical specs etc. of the machine.

ANTAM QM – 2.7 Certification Process

- Suspension of the certification

In case of a non-conformity during the surveillance or in case of any structural as well as documental change **type A** the certificate will be suspended.

ANTAM QM – 2.7 Certification Process

- Management “*of non-conformities*”

Type A = Non Conformity – no certificate can be issued until the problem has been solved or in case of surveillance the certificate will be suspended

Type B = Observation – the certificate can be issued but the manufacturer has to send the testing station the missing documents etc.

ANTAM QM – 2.7 Certification Process

- Management of non-conformities

Type A = ***Non Conformity*** – no certificate can be issued until the problem has been solved



During the testing activity according to the ANTAM Code some limits are exceeded (see tolerances) or parts of the machine are missing = the machine is not conform to the ANTAM Code

ANTAM QM – 2.7 Certification Process

- Management of non-conformities

Type B = ***Observation*** – the certificate can be issued but the manufacturer has to provide for the compliance as soon as possible (define deadline)



During the testing activity according to the ANTAM Code some **minor** aspects (to be defined) are not conform to the ANTAM Code but do not affect the overall results

ANTAM QM – 2.7 Certification Process

- Registration of the certification

All documents concerning the certification processes and certified products have to be registered in order to provide an easy access in case of controls by Authorities or Accreditation bodies.

ANTAM QM – 2.7 Certification Process

- Timing of the process

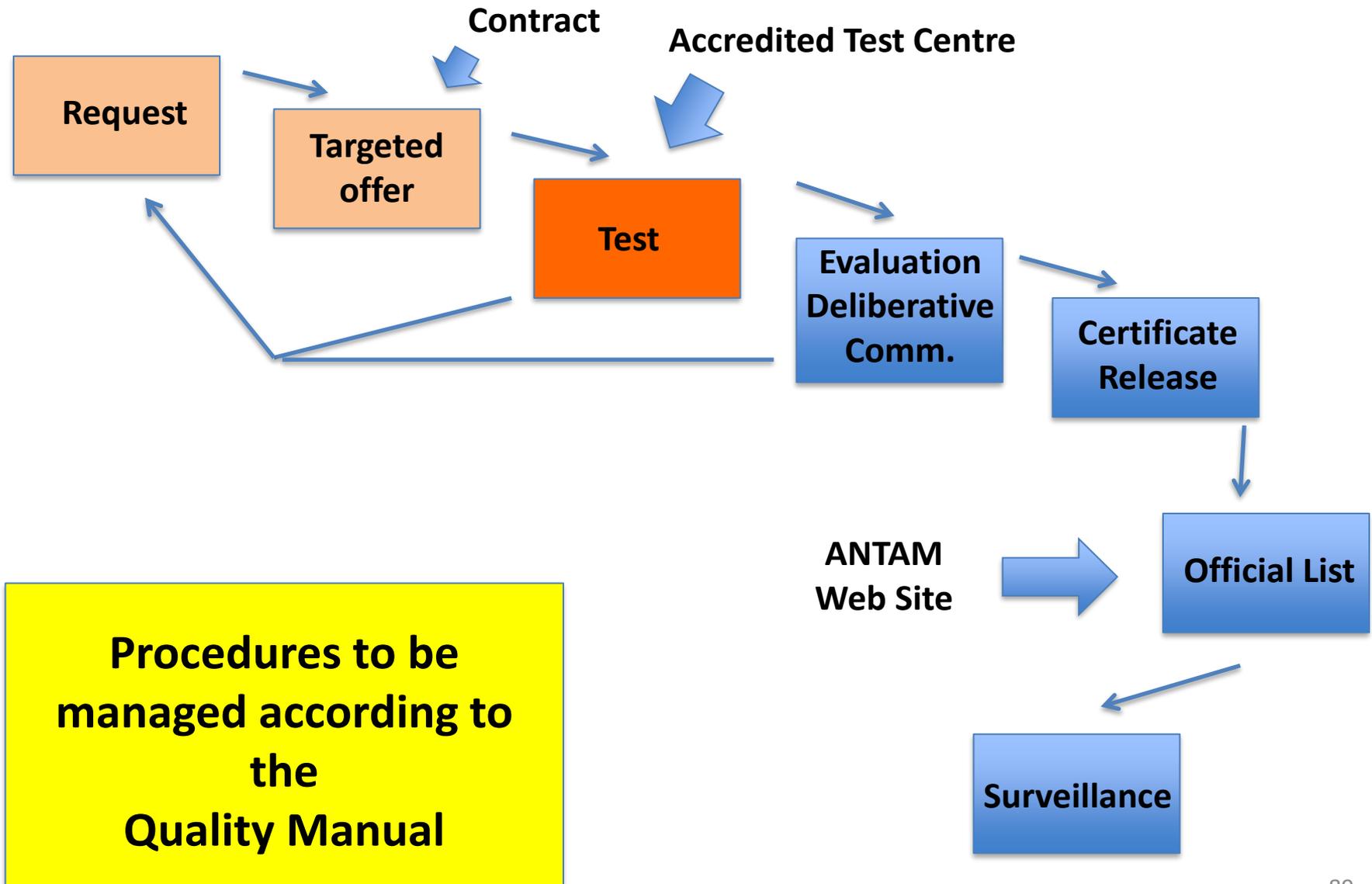


A proper timing is strictly necessary in order to provide for a good service and avoid for endless situations (changes to be made on the machine by the manufacturer in order to comply to requirements etc.)

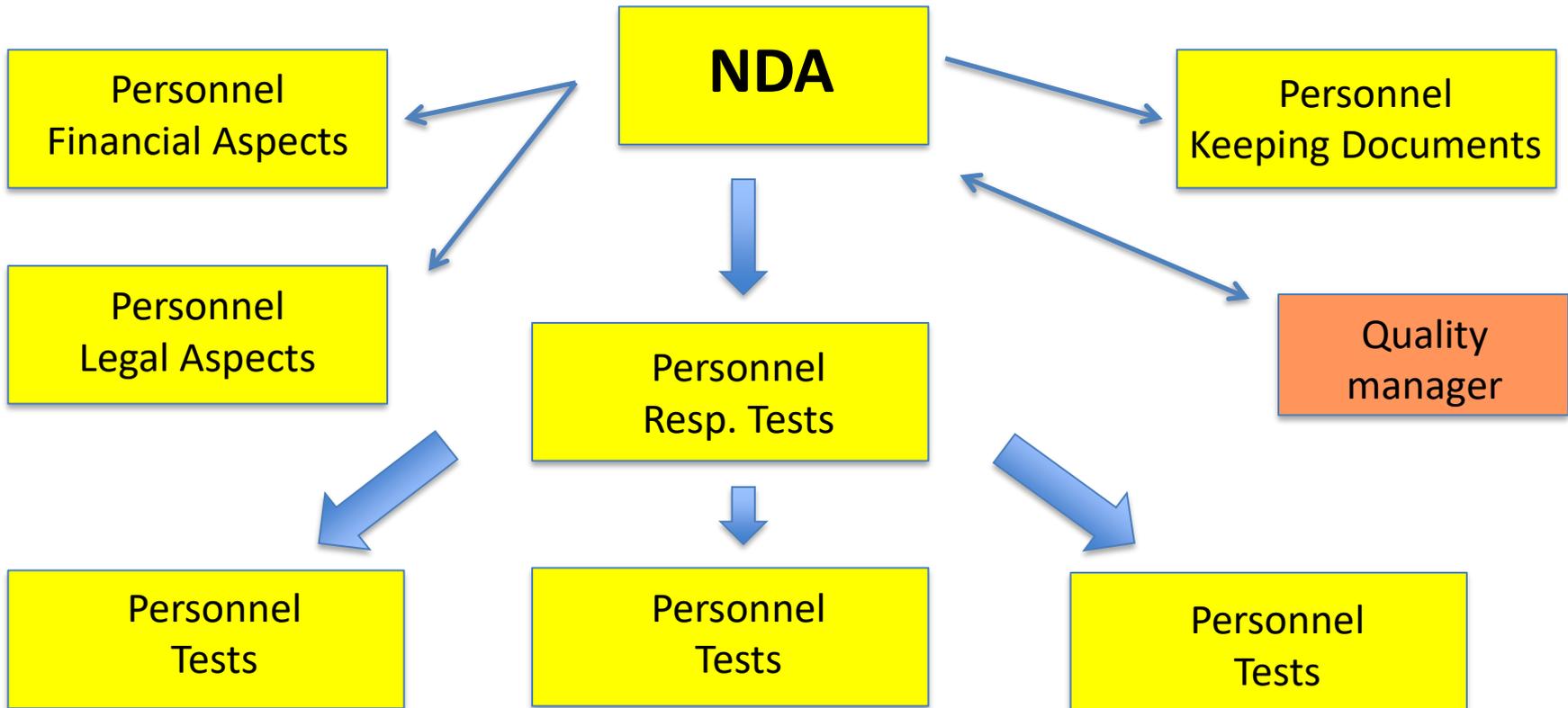
ANTAM QM – 2.8 Quality Management

- Certification process
- Personnel
- Documents

ANTAM QM – 2.8 Certification process

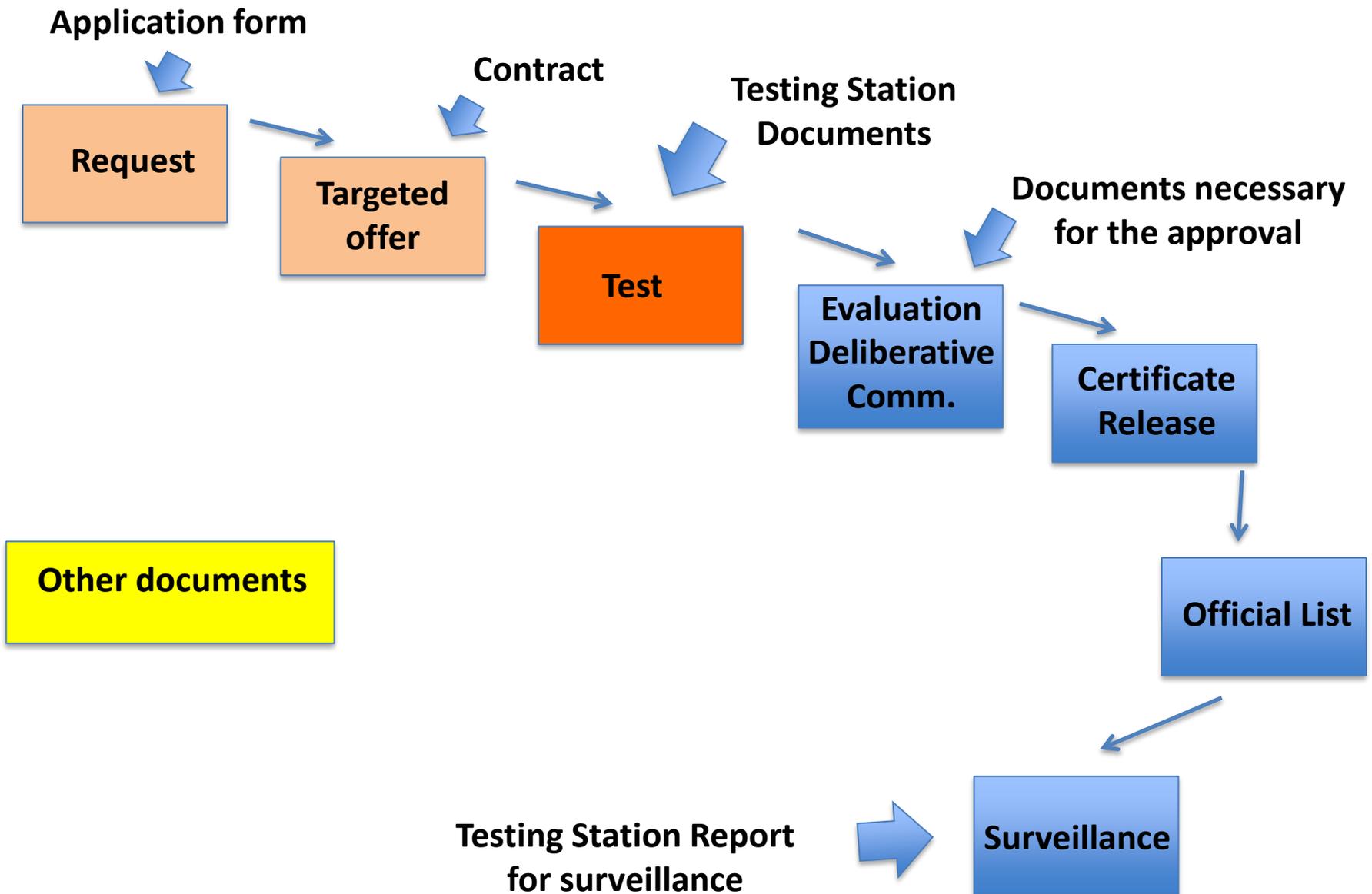


ANTAM QM – 2.8 Personnel



For each of them a clear document stating CV, expertise and up-dating should be kept.

ANTAM QM – 2.8 Documents



ANTAM QM – 2.8 Documents

– Application form & Contract

The application form should contain information on the possibility to perform a test.

The contract should include the following information:

Name of the manufacturer/legal representative in the country, model of the machine, ANTAM Code being applied, timing, location of tests, privacy, use of test results, surveillance, validity, complaint, suspension, payment etc.

For the above listed documents the personnel legal aspects will be responsible.

ANTAM QM – 2.8 Documents

– Testing Station Documents

The documents of Testing Station should be:

- ANTAM Codes and other ANTAM documents (Test Report, Training Manual Regulations ...)
- Data on the Testing Station
- Equipment list and calibration (date, expire etc.)
- Personnel in charge and their updating
- ...

For the above listed documents the personnel keeping documents will be responsible.

ANTAM QM – 2.8 Documents

– Documents necessary for the Approval Deliberative Committee Documents

The documents of the Deliberative Committee should be:

- ANTAM Codes and other ANTAM documents (equipment, tolerances etc.)
- Data on the Testing Station to verify if the ANTAM accreditation given by the NDA matches
- Documents sent by the NDA for the certification application (privacy documents, test results with signature for declaration of conformity to ANTAM procedures and Codes).

For the above listed documents the Deliberative Committee will be responsible.

ANTAM QM – 2.8 Documents

– Certificate release

The ANTAM Certificate/Test Report model should be adopted in the latest version according to the ANTAM specimen.

The adoption of the latest layout is under the responsibility of the Secretariat.

ANTAM QM – 2.8 Documents

– Surveillance Specimen

A standard specimen should be adopted and used in its latest version.

The adoption of the latest version is under the responsibility of the testing station – Personnel keeping documents.

ANTAM QM – 2.8 Documents

8.3.6 – Other documents

Complain list document containing a list of the actions undertaken too.

Under the responsibility of the Quality Manager (4.20)

Thank You

Technical Reference Unit – ANTAM

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