Testing and certification regulations



Technical conditions for testing and certification activities by conformity assessment bodies

in the business area GF I.01 of TÜV Rheinland Industrie Service GmbH

Revision: 2016-01-01

TÜV Rheinland Industrie Service GmbH Conformity assessment bodies (GF I.01) Am Grauen Stein, D-51105 Cologne 51105 Cologne

Web http://www.tuv.com

Cologne HRB 26876



Testing and certification regulations Page 2 of 48

Table of contents

0. Preliminary remarks

Conformity assessment bodies, services, approvals

1. Scope of application

Certification programme, certification statement

2. Inspection and certification procedures

Application/request

Offer and order

Evaluation/inspection

Assessment and certification decision

Certificate, test mark

Monitoring the certification

Extension of the certification (re-certification)

Changes

Termination, restrictions, suspension, revocation

3. Duties and responsibility of the certification body

Obligation

Impartiality

Competence

Equipment

Subcontracting

Confidentiality

Records

Openness/information

Complaints/appeals

Responsibility/liability

4. Duties and responsibility of the applicant

Obligation

Access

Information about changes

Use of the certificate/test mark

Complaints

Responsibility/liability

5. Effective date and modification

Severability clause

Infringements of the testing and certification regulations

Effective date

Appendices:

Appendix 1: Specific requirements of the individual conformity assessment bodies

Appendix 2: Conditions of use for the TÜV Rheinland test mark



0. Preliminary remarks

These testing and certification regulations (together with technical conditions for testing and certification activities) apply to the following conformity assessment bodies of

TÜV Rheinland Industrie Service GmbH Business area GF I.01 "Pressure equipment and systems engineering" Am Grauen Stein, D-51105 Cologne

- Notified body for pressure equipment
- Notified body for simple pressure vessels
- Notified body for transportable pressure equipment
- Notified body for construction products
- Certification body for pipeline construction companies
- Manufacturer-certification body for welding firms for railway vehicles and railway vehicle components
- Certification Body for manufacturer Qualification

(hereinafter referred to as "certification body").

The certification body offers interested companies, especially product manufacturers (hereinafter referred to as "applicants") the following services:

- Inspection, certification, and, if required, monitoring and re-certification of a test item The test items can comprise:

The applicant's products, processes, services and management systems

The inspection and certification are based on the requirements set out in the applicable regulations, specifications and, in particular, in the certification body's certification programme (cf. Appendix 1).

The certification body works as an independent third party.

It is recognised and authorised as such for these activities

Depending on the conformity assessment body, cf. Appendix 1), the authorisation is based on:

- an accreditation by the Deutsche Akkreditierungsstelle GmbH (DAkkS)
- a notification by an authority issuing a national authorisation or
- another approval of the body.

1. Scope of application

These testing and certification regulations govern:

- the execution of the testing and certification procedure
- the duties and responsibility of the certification body as well as
- the tasks, obligations and rights of the applicant.

The corresponding requirements are based on the requirements of the series of standards, DIN EN ISO/IEC 17000 as well as on the certification programme applicable to the respective test item.

Certification programme:

All the interrelationships, specific requirements and the rules and procedures for carrying out the conformity assessment are set out and made available to the public in a certification programme. A certification programme is developed, prepared and approved by competent persons, a group composed of representatives of different groups (e.g. manufacturers, consumers or authorities).



Page 4 of 48
Testing and certification regulations

The certification body normally uses prepared certification programmes which have been devised and adopted by independent commissions, expert bodies or trade associations and which have been recorded in regulations and standards (guidelines, laws, ordinances, technical rules, standards, specifications and accreditation criteria etc.).

The certification body is therefore not the owner of the certification programme but merely the user of the programme.

The certification programme of the certification body is also set out in these "Testing and certification regulations (PZO)" (cf. Appendix 1).

A certification procedure comprises the following steps: "Evaluation", "Assessment" and "Decision on certification".

The "Evaluation" step comprises in this procedure the planning and selection of the scope of testing as well as the determination of the test results (the terms "Inspection" or "Auditing" are also used for this step in these testing and certification regulations).

The test results are summarised in a test report.

In the next step the test results are assessed and the decision made on the certification with the issue of the certificate. In making the decision an assessment is made whether the test item complies with the requirements prescribed in the certification programme (this step is referred to for short by the term "Certification" in these testing and certification regulations). If the properties of the test item comply with the requirements (conformity) the certificate (certificate)

If the properties of the test item comply with the requirements (conformity) the certificate (certificate of conformity) is issued.

Dependent on the requirements of the test item (cf. Certification programme, Appendix 1) these two steps, "Inspection or auditing" and "Certification"

- are carried out as a certification procedure independently of each other and by different persons (4 eyes principle) or
- are carried out by only one person as an inspection process (2 eyes principle).

2. Inspection and certification procedure

2.1. Application/request

The interested applicant makes an enquiry of the certification body about the certification procedure either by letter or by completing and submitting a form ("Enquiry about certification") provided by the certification body.

The certification body requires the following details and information about the applicant:

- Applicant's name and address and contact name
- Type of inspection and certification (First certification/monitoring/re-certification/modification)
- Prospective scope of application and scope of the certification: description of the test item (product/process/service), details of the requirements of the test item (standards, specifications)
- Details about the applicant's company
 - Locations

Personnel, equipment, processes (manufacturing processes), subcontractors details of any certifications already held



Page 5 of 48 Testing and certification regulations

2.2. Offer and order

The certification body decides on the basis of the enquiry about certification submitted by the applicant whether a certification procedure in accordance with the certification programme is in principle possible.

The applicant is informed if a certification procedure cannot be carried out.

If a certification procedure can be carried out, the certification body makes an offer, setting out the individual services, prices and conditions based on the scope of the certification applied for and the fees charged and calculations made by the certification body. The offer is then sent to the applicant.

The following applicable documents are enclosed with the offer:

- These "Testing and certification regulations of the certification body (PZO)" together with the technical conditions
- The "General terms and conditions of TÜV Rheinland Industrie Service GmbH (AGB)" together with the commercial terms

A response sheet on which the applicant can apply for the certification procedure is also enclosed with the offer.

To apply for the certification services offered the applicant signs the order form, sends it to the certification body and receives in return an order confirmation from the certification body. By placing the order the applicant accepts as binding the technical conditions specified in these testing and certification regulations. Existing contractual relationships are subject to the testing and certification regulations as amended.

Changes to the offer or order may be made in writing only.

Any ambiguities on the part of the certification body and applicant must be clarified.

Any differences in the perceptions of the certification body and the applicant must be resolved.

2.3. Evaluation/inspection

Documents to be submitted:

By way of preparation for the inspection (or auditing) the applicant has to provide the certification body in advance with specific documents, records and verifications specified in the certification programme (cf. Appendix 1).

The documents are to be submitted to the certification body in German (or in English). The documents can be submitted in another language only by prior agreement.

Carrying out the inspections

The certification body commissions inspectors (or auditors) authorised by it to carry out the corresponding inspections on the test item.

These inspections comprise checking the documents submitted as well as inspections on site at the applicant's company.

The applicant is sent a test plan which notifies him/her of the procedure and scope of the inspection. The inspection covers the points specified in the certification programme (cf. Appendix 1).



Page 6 of 48 Testing and certification regulations

The inspection is carried out by the inspectors in accordance with the test plan. Individual steps as part of the test can also be carried out on a subcontract basis by qualified external subcontractors (e.g. accredited testing laboratories).

The inspectors will record under "Notes" any possibilities for improvement observed during the inspection of the test item.

If specific requirements of the test item are not met, the inspectors will record this under "Deviations from the requirements" Any deviations detected are to be rectified by the applicant in a reasonable time period by appropriate corrective measures.

Evidence that the corrections have been carried out is to be submitted to the inspectors.

Retesting can also be carried out by the inspectors in the case of serious/impermissible deviations (e.g. if the personnel do not have the required qualifications, lack of equipment, inadequate product design).

In this retesting the inspectors check whether the deviations have been effectively rectified by the corrective measures taken.

The inspectors set out the result of the inspection (including any defects found) in a written report (test report, audit report) which is delivered to the applicant.

2.4. Assessment and decision on certification/certification

Provided no objections were raised by the inspectors during the inspection and all the deviations detected have been rectified, the inspectors' test report is forwarded with the associated documents to an authorised certifier at the certification body.

The certifier assesses the report for conformity with the requirements (formal and technical assessment).

If the requirements are not met, a certificate is not issued and the applicant is informed in writing by the certification body of the decision not to issue the certificate and of the reasons for the decision.

If the requirements are met and if conformity is proved, the certificate is issued and delivered to the applicant.

2.5. Certificate, test mark

The following information is shown on the certificate:

- Applicant's name and address
- Certificate number
- Scope of application/scope of the certification: (test item/certification programme/product standard if applicable, certification stage, characteristic values and parameters)
- Reference to the evaluation/inspection on which certification is based.
- Date of issue
- Potential period of validity of the certification
- Signature of the certifier
- Name and address of the certification body

The date of issue of the certificate is the date of the decision on certification.

A certificate remains valid as long as the requirements and the conditions on which certification was based remain unaltered.

The certificate also has a specified period of validity dependent on the certification programme (cf. Appendix 1).



Page 7 of 48
Testing and certification regulations

The certification body can also allot a test mark for certain test items in addition to the actual certificate (cf. Appendix 1, 2):



The scope of application and the standard on which certification is based are shown on the test mark as well as an individual identification number and the entry on the TÜV Rheinland website "Certipedia" (www.certipedia.com). A QR code can also be used as a link to this website.

The validity of the test mark is linked to the validity of the certificate.

2.6. Monitoring the certification

In the case of certain test items (e.g. design type, operating management systems) the validity of the certification and compliance with the requirements of the certification are monitored at regular intervals by the certification body, according to the certification programme (cf. Appendix 1).

Monitoring inspections are required in this process at specified intervals.

The certification body commissions authorised inspectors to carry out the corresponding evaluation/inspection.

The monitoring inspection is carried out in accordance with the procedure described in Chapter 2.3, with special emphasis also placed on checking the effectiveness of measures taken to rectify previous deviations.

The certification body decides on the basis of the inspectors' test report whether the certification is to be maintained, suspended or even revoked.

In cases where such action is justified, for example where complaints and appeals have been made, the certification body can also require that special monitoring inspections be carried out which it will carry out itself.

2.7. Extension of the certification (re-certification)

If the period of validity of the certificate is limited, the following procedural steps:

- Application
- Evaluation/inspection
- Assessment and decision on certification/certification
- Monitoring

must be repeated in order to make an appropriate extension to the validity of the certification after it has expired (cf. Chapter 2.1-2.6).

2.8. Changes

If the certification requirements change (e.g. because the certification programme on which certification is based has been revised) the certification body will inform the applicant in good time about these changes as well as about any adjustment measures that need to be taken.

On the other hand, changes, such as changes to the organisation, personnel, locations and the test item etc., can also occur at the applicant's company.

The applicant has to notify the certification body immediately of any changes in his/her company that affect the certification.



Page 8 of 48 Testing and certification regulations

> In this case too the certification body will inform the applicant of the measures that need to be taken.

The certification body will check and verify the measures taken by the applicant. The following procedural steps:

- Application
- Evaluation/inspection
- Assessment and decision on certification/certification
- Monitoring

may have to be repeated (cf. Chapter 2.1 - 2.6).

2.9. Termination, restrictions, suspension, revocation

Where infringements of the certification programme and of these testing and certification regulations have been identified, the certification body can require the applicant to take appropriate corrective measures.

In extreme cases the validity of a certification can be lapsed or suspended, restricted or revoked.

A certificate lapses if:

- the period of validity stated on the certificate has expired and has not been extended
- the order for certification has been cancelled by the certification body or applicant after 3 months' notice of cancellation has been given.
- the applicant relinquishes the certificate
- the applicant becomes insolvent
- the regulations on which the certificate was based have changed

A certificate can be restricted, suspended or revoked by the certification body if:

- deviations from the certification requirements occur following the issue of the certificate
- the applicant refuses to allow monitoring or does not enable it to take place and does not allow the certification body to carry out monitoring despite a written request
- the certificate (or test mark) is used in any manner that might mislead.
 or impermissible advertising is carried out using the certificate (or test mark)
- facts have come to light that could not be detected at the time of the issue of the certificate.
- corrective measures required to correct deviations were not taken in a reasonable or specified time limit
- fees due to the certification body have not been paid after a reminder in the time limit set.

Before declaring a certificate restricted, suspended or invalidated the certification body will give the applicant the opportunity of putting his/her side of the case unless such a hearing cannot be justified because of the urgency of the measures to be taken.

The certification body can ask the applicant to return the certificate when revoking the certification.

The certification body will publish the lapsing or revocation of the certification as appropriate and is entitled to inform certain bodies such as the accreditation body or the authorities/surveillance authorities issuing the authorisation about the issue, lapsing or revocation of certificates. The certification body shall not be liable for any damage the applicant may suffer because a certificate has not been granted or because a certificate has been lapsed or revoked.



Page 9 of 48 Testing and certification regulations

3. Duties and responsibility of the certification body

3.1. Obligation of the certification body

The certification body undertakes to meet all the requirements made of it based on:

- the certification programme on which certification was based
- the corresponding accreditation requirements
- the legal/official requirements
 (especially in the case of a notification by an authority issuing an authorisation)

The certification body will ensure that the principles such as impartiality and independence, competence, responsibility, openness and confidentiality will be maintained and that complaints and appeals will be dealt with independently, impartially and without bias.

The certification body works as an independent third party, free from any pressure and influence and with no conflicts of interest so that reliance can be placed on the statements of conformity on the certificates it issues.

The certification body is sponsored by the TÜV Rheinland Industrie Service GmbH (TIS GmbH), a member of the TÜV Rheinland group of companies:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

TÜV Rheinland Industrie Service GmbH has been registered under the number HRB 26876 in the commercial register of the district court of Cologne.

3.2. Impartiality

The certification body ensures that it will offer its services to all interested applicants on the same equitable terms and will carry out these services impartially, objectively and in a non-discriminatory manner.

The persons involved in a certification procedure and experts (inspectors, certifiers and subcontractors) are not subject to any conflicts of interest in their work.

They do not participate in the planning and development, manufacture, marketing, operation and maintenance of the test items falling within the scope of application of the certification.

Nor do they carry out any advisory activities with the applicants concerned.

The remuneration of the personnel is not based on the number of inspections carried out or certifications issued out or on their outcomes.

Moreover, the impartiality of the certification body is monitored by a steering committee (as a "means of ensuring impartiality"). The steering committee is composed of representatives of different interest groups and stakeholders.

3.3. Competence

The persons and experts engaged in a certification procedure (inspectors, auditors, certifiers) are qualified, competent and authorised by the certification body to work as inspectors and certifiers. The personnel are employed by TÜV Rheinland or are contractually bound to the certification body

The performance of the personnel is regularly monitored by the certification body.



Page 10 of 48 Testing and certification regulations

3.4. Equipment

The testing equipment and facilities used in a certification procedure, especially in the "Evaluation/inspection" step are suitable for the required inspection.

The testing equipment has been calibrated and the testing and evaluation software has been validated.

3.5. Subcontracting

Individual inspections and partial tests, especially as part of the evaluation/inspection, can be also be subcontracted or outsourced by the certification body to competent and qualified external companies (e.g. testing laboratories accredited to DIN EN ISO/IEC 17025 or specialist companies).

The results of such subcontracted/outsourced inspections are incorporated in the inspectors' test report as well as in the assessment and decision on certification made by the certifiers. The certification body retains responsibility for subcontracted/outsourced activities, i.e. the evaluation of the execution of the subcontracted partial tests as well as the assessment of the corresponding test results are carried out in all cases by the experts of the certification body themselves.

If the certification body intends to include external bodies in subcontracting a certification procedure, it has to inform the applicant accordingly and obtain his/her permission for this.

3.6. Confidentiality

The certification body undertakes to treat in confidence all the information made available to it about the test item to be certified or about the applicant and to use this information only for the agreed purpose.

No information obtained from certification activities will be made available to third parties without the express written consent of the applicant.

This commitment to treat information in confidence applies to all personnel at the certification body as well as to associated committees and external (e.g. subcontracted) bodies).

The applicant will be informed if the law requires information to be disclosed to third parties (e.g. to official bodies) and he/she will be informed of the extent of the information disclosed. The applicant can release the certification body on certain grounds from its obligation to maintain secrecy.

3.7. Openness/information

The certification body will disclose all information about the certification programme and certification procedure, the costs to the applicant, the conditions of use for the certification as well as the procedure for handling complaints and appeals.

Most of this information is provided in these testing and certification regulations (PZO), which form part of the order made by the applicant.

3.8. Records/register of the test items certified

The following records in particular serve to document a certification procedure in a comprehensible manner:

- Test plan, test report (including deviation report, corrective measures)
- Decision on certification, certificate

The originals of these documents are sent to the applicant.

A second copy is filed and archived at the certification body.

The documents are archived for at least 10 years (or for at least 2 certification cycles in the case of the monitoring and extension of the certification). Additional legal requirements remain unaffected.



Page 11 of 48 Testing and certification regulations

The certification body maintains a register of all valid certifications. (showing the applicant's name, test item/product, certification programme/regulations on which certification is based and scope of application of the certification).

Depending on the certification programme valid certifications (e.g. on design types, management systems) will be published on the TÜV Rheinland website "Certipedia" (www.certipedia.com)

3.9. Change in the certification requirements

The certification body will inform the applicant of all relevant changes (affecting the certificate) in terms of the requirements of the test item to be certified, especially of changes to the certification programme (or product standards) on which certification is based.

The certification body will also inform the applicant about all adaptation measures to be taken (cf. also Chapter 2.8).

After changes have been made to the certification requirements the certification body will check within a specified period the adaptations that have become necessary at the applicant's company.

3.10. Complaints/appeals

Appeals against test results or decisions on certification or complaints about the certification body can be submitted to the certification body by the applicant himself/herself or by other interested groups.

The contact for appeals/complaints is the manager concerned of an (individual) certification body concerned (cf. Appendix 1).

This contact is responsible for ensuring that decisions on appeals and complaints are made only by persons or committees of the certification body that were not involved in the certification procedure concerned.

The person making the appeal or complaint will be notified of the receipt of his/her appeal or complaint, the progress made in dealing with it and the decisions and results of the appeal. The certification body has to give the person making the appeal or complaint detailed reasons for its decision.

If the decision made by the certification body is not acceptable to the person making the appeal or complaint, it is open to him/her to appeal to the steering committee of the certification body. The steering committee has to make a definitive resolution of the appeal or complaint.

The certification body will ensure that the person making the appeal is not disadvantaged.

3.11. Responsibility/liability of the certification body

The certification body is legally responsible for the correct execution of the evaluation/inspection, for the decision on certification and for the statement of conformity on the certificate.

Any liability by the certification body to the applicant or third party exists only to the extent prescribed by law for wilful intent or gross negligence.

All further claims shall be excluded.



Page 12 of 48 Testing and certification regulations

In particular, the certification body will not be liable for any damage the client may suffer because a certificate cannot be issued owing to an unfavourable test result.

4. Rights and obligations of the applicant

4.1. Obligations of the applicant

The applicant will ensure and undertake that all the requirements made of his/her company and the test item by the certification programme and by these testing and certification regulations are satisfied and will continue to be satisfied in the future as well.

4.2. Access to the applicant

The applicant has an obligation to cooperate.

He/she must provide the certification body with all the required information, data and documents relating to the application or the evaluation/inspection.

In order to enable the inspectors from the certification body to carry out the scheduled inspections and monitoring (during operating hours), the applicant shall grant them access to all relevant areas in the company (such as working and storage areas, including distribution warehouses) and to the test item (such as documentation, records, personnel, premises, production facilities, test facilities, products and complaints).

The applicant has also to provide access to his/her production facilities as well as to data and information to auditors of the certification body or the authorities issuing authorisations, for example, in the case of a witness audit.

4.3. Information about changes

The applicant must notify the certification body immediately in writing of all changes affecting certification, such as changes to the organisation, the procedures and processes (e.g. change in the details of ownership, change in personnel and changes to the services offered).

The certification body will inform the applicant about the measures to be taken to deal with these changes (e.g. re-inspection, certification and issue of certificate (cf. also Chapter 2.8).

4.4. Use of the certificate/test mark

The certificate certifies that the test item conforms with the prescribed requirements of the certification programme. The declarations on the certificate relate solely to the test item inspected.

During the period of validity of the certificate the applicant is entitled to:

- use the certification (with the certificate and, if applicable the test mark) for advertising purposes in printed matter (such as brochures, leaflets and business documents)
- to depict the certificate (and, if applicable the test mark) in an unaltered form for advertising purposes

The design (composition, shape, colour and typography) of the test mark must not be altered. It is not permitted to remove parts of the test mark.

The test mark must not be used in conjunction with or directly connected to other logos and marks. A sufficient gap should be left when placing the test mark next to other marks.



Page 13 of 48 Testing and certification regulations

The applicant must not use the certificate (and, if applicable the test mark) in a misleading way but must use it solely for the designated scope of application. The certificate must not be used in a way that would bring the certification body into disrepute.

The conditions of use for the test mark if allotted are set out in Appendix 2.

The applicant must not distribute or publish test reports and certificates in an abridged form. Extracts of these documents may not be published without the prior consent of the certification body.

After the suspension or revocation of the certification the applicant must cease to use any advertising that refers to the certification in any way.

The applicant has to return all certification documents requested by the certification body after the revocation of the certification.

4.5. Complaints

The applicant must record and archive all complaints and incidents affecting the scope of application of the certification. He/she must provide these documents to the certification body and inform it about the measures he/she have taken to deal with the complaints when requested to do by the certification body.

4.6. Responsibility/liability of the applicant

The applicant is responsible for meeting all the requirements of the test item made by the certification programme.

The completion of an inspection and certification by the certification body does not exempt the applicant from his/her statutory product liability obligation.

5. Effective date and modification of the testing and certification regulations

If individual provisions of these testing and certification regulations become ineffective, the validity of any other provisions is not affected thereby. The certification body and the applicant shall replace the provisions recognised as ineffective by effective provisions which most closely approximate to the intended provision.

The certification body is entitled to demand a contractual penalty of up to 25,000 euros (cf. also Appendix 2) if it is found that the applicant has wilfully breached these testing and certification regulations, especially if he/she have illegally used the certificate and test mark.

German law solely shall be applicable to the legal relationship existing between the applicant and the certification body. Jurisdiction and place of performance is Cologne

These testing and certification regulations came into force on 2016-01-01. All previous regulations became inoperative on the aforementioned date.

The testing and certification regulations apply to all certificates issued during the period of validity. Future changes to these testing and certification regulations can affect existing certifications. The applicant will be informed about this in writing by the certification body.



Page 14 of 48
Testing and certification regulations

Appendix 1.1.1
Specific requirements:
Notified body for pressure equipment

re 0. Preliminary remarks

These testing and certification regulations (with technical conditions for testing and certification activities) apply to the following conformity assessment body:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

Notified body for pressure equipment

(hereinafter referred to as "certification body").

The certification body offers interested economic players involved in the manufacture of pressure equipment and making it available on the market of the European Union (hereinafter referred to as "applicants") the following services (conformity assessments) in accordance with the European Pressure Equipment Directive 2014/68/EU (PED) in conjunction with the selected code of practice:

- Module A2:
 - Internal manufacturing controls with monitored inspections of pressure equipment at irregular intervals
- Module B: EU design type testing (design type) and EU design type testing (design pattern)
- Module C2:

Conformity with the design type based on an internal manufacturing control with monitored inspections of pressure equipment at irregular intervals

- Module D:

Conformity with the design type based on a quality assurance related to the production process

- Module D1:
 - quality assurance related to the production process
- Module E:

Conformity with the design type based on quality assurance related to the pressure equipment

- Module E1:
 - Quality assurance of final inspection and inspection of the pressure equipment
- Module F:
 - Conformity with the design type based on an inspection of the pressure equipment
- Module G:
 - Conformity based on a single inspection
- Module H:
 - Conformity based on comprehensive quality assurance
- Module H1:
 - Conformity based on comprehensive quality assurance with design review

The certification body has been notified to the European Commission under the identification number 0035 as an authority issuing authorisations for these activities by the "Central Office of Federal States for Safety Technology (ZLS)".



Page 15 of 48
Testing and certification regulations

re. 1. Scope of application

Certification programme:

Pressure equipment made available on the European market is subject to the following rules and regulations:

- EU Directive 2014/68/EU (implemented in Germany by the 14th Ordinance to the "Pressure equipment" Product Safety Act)
- the code of practice selected by the applicant (harmonised standard such as DIN EN 13445, or other technical specification, such as AD 2000)

Inspections and conformity assessments must be carried out on pressure equipment during its manufacture (design and manufacturing phase) by a notified body in accordance with the requirements in these regulations.

If the corresponding certificates of conformity of the notified body for the above-mentioned modules required in each case are available, the manufacturer will issue the EU declaration of conformity and provide each piece of pressure equipment with the CE mark as well as with the registered identification number of the notified body. This enables the pressure equipment to be made available on the European market.

The conformity assessment of pressure equipment is regulated by law.

The "Certification programme for pressure equipment" is set out in the above-mentioned rules and regulations.

These documents have been prepared and passed by the European Parliament and the legislators of the individual states and, in the case of the harmonised standards, by the European Committee for Standards (CEN) which works under the mandate of the European Commission. The certification body is therefore not the owner of the certification programme for pressure equipment but merely the user of this programme.

re.2.1: Application/request

The following details and information about the applicant are required:

- Company name, address, contact details, contact partner
- Type of pressure equipment (such as pressure vessel, boiler, piping, pressure-bearing piece of equipment, piece of equipment with safety function)
- Details about the applicant's company, if applicable
- Type of inspection and certification
 - (such as: first certification/monitoring/re-certification/modification)
- Type of conformity assessment procedure (module, module combination)
- Prospective scope of application and scope of the certification/inspection

re.2.3: Evaluation/inspection

Carrying out the inspections

The certification body commissions authorised experts to carry out the corresponding inspection and certification. The activities "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

The applicant is sent a test plan which notifies him/her of the procedure and scope of the inspection.



Page 16 of 48 Testing and certification regulations

The key aspects of the inspection are as follows:

- Inspection of the technical documents
- Checks whether the pressure equipment has been manufactured in compliance with the technical documents
- Inspections and checks of the pressure equipment (including inspections of materials, manufacturing processes, qualifications of personnel)

The examining expert carries out the inspections in accordance with the predefined test plan. The results of the inspection are summarised in a report.

Any defects and deviations as well as any corrective measures required are highlighted.

re.2.4: Assessment and decision on certification

The assessing expert assesses on the basis of the test results whether the pressure equipment complies with the requirements prescribed in the regulations.

If conformity is confirmed, the assessing expert issues the certificate of conformity.

re.2.5: Certificate, test mark

The certification body does not allot a test mark.

re.3.10: Complaints/appeals

The contact for appeals/complaints is the manager of the notified body.

Mr. Oliver Theisen (Tel.: +49 221-806 2015, email: oliver.theisen@de.tuv.com).

re.4.4 Use of the certificate/test mark

The certificates and certifications certify that the pressure equipment conforms with the prescribed requirements.

If procedures are applied under which the CE mark is affixed by the client, then the client is entitled to affix the Notified Body's identification number in combination with the CE mark to his products. The identification number of TÜV Rheinland Industrie Service GmbH is 0035. A prerequisite is, however, that the successful certification according to the specified modules/procedures/articles within the scope of the Directive has been accomplished.



Page 17 of 48 Testing and certification regulations

Annex 1.1.2:

Specific Requirements: Notified Body for Pressure Equipment – Approval of Material Manufacturers

re 0: Preliminary remarks

These testing and certification regulations (together with technical conditions for testing and certification activities) apply to the following conformity assessment bodies of

TÜV Rheinland Industrie Service GmbH Business area GF I.01 "Pressure equipment and systems engineering" Am Grauen Stein, D-51105 Cologne

Notified body for pressure equipment

(hereinafter referred to as "certification body").

According to Directive 2014/68/EU, also called Pressure Equipment Directive, materials for main pressure bearing parts of pressure equipment in category II, III and IV shall only be used, if specific product testing has been performed. This may be done via direct inspection route -Issuing of material certificates 3.2 according to DIN EN 10204- by an external inspector or via a quality management system rout of the material manufacturer -Issuing of material certificates 3.2 according to DIN EN 10204- .

The activities of the certification body in a specific assessment of such a quality management system of a material manufacturer are described in this testing and certification regulation. In terms of the materials this means that the quality management system of the material manufacturer has undergone a specific assessment. If the assessment will end with a positive result the certification of the material manufacturer including a scope will be issued by the certification body.

The material manufacturer is then allowed to certify that the delivered materials conform to the given requirements of the order with the help of inspection certificates 3.1 according to DIN EN 10204.

Coincidentally this testing and certification regulation defines the rules for assessment and certification of material manufacturers according to AD 2000-Merkblatt W0 without a certification according to the pressure equipment directive at the same time. This task is performed out of the Notification of the certification body

That means, the certification body offers following services to interested material manufacturers:

- 1. specific assessment of the quality management system according to pressure equipment directive Annex I § 4.3, i. a. with the help of
 - the AD 2000-Merkblattes W 0.
 - the DIN EN 764-4.
- 2. certification of the material manufacturer only acc. the process of AD 2000-Merkblatt W0

The certification body performs the following steps

- first audit, reps. certification audit of the plant and the quality management system,
- ongoing surveillance, assessment and evaluation of the quality management system.

The certification body acts as a third party and has been notified to the European Commission under the identification number 0035 as an authority issuing authorisations for these activities by the "Central Office of Federal States for Safety Technology (ZLS)".



Page 18 of 48 Testing and certification regulations

re 1: Scope

This testing and certification regulation defines

- the process of the test- and certification procedure ,
- the duties and the responsibility of the certification body plus the tasks, duties and rights of the material manufacturer.

The appropriate determinations follow the requirements of the pressure equipment directive plus the applicable certification procedures resp. underlying technical rules.

The scope of the certification procedure comprises

- the initial assessment and certification,
- the regular assessment and maintenance of the certification of the quality management system of the material manufacturer.

re 1: Definition of the material manufacturer

Following manufacturers may be classified as material manufacturers according to the correspondingly certifications and may be assessed and certified according the certification procedures listed in the tabulation.

certification	Directive 2014/68/EU	AD 2000- Merk- blatt W0	DIN EN 764-4
manufacturer of	2014/00/EU	Diatt WO	
semi-finished product, e. g.			
- slabs			
- billets	X	Х	X
- glas-fibres			
- resins			
semi-manufactured, e. g.			
- plates and sheets			
- stripes			
- seamless tubes	Х	X	X
- continuously welded tubes ²			
- castings			
- forgings			
of bolts and nuts ³			
- hot formed with/ without following heat	X	X	x
treatment	, A	^	^
- cold formed with following heat treatment			
of bolts and nuts ⁴		x	
- machined		^	
flanges ²³			
-forged, seamlessly rolled, cast with/ without	Х	X	X
following heat treatment			
flanges		x	
- machined ⁴ or welded ²		^	
components/ finished part, e. g.			
- pressings			
- ends	X	X	
- fittings			
- furnaces tubes			

for pipes made from coils, see Guideline Guideline G-25 of Directive 2014/68/EU

² manufacturers of welded componentes may request a certification according to AD 2000-Merkblatt HP 0 and DIN EN ISO 3834-2 or -3

record in the VdTÜV-Merkblatt 1253-1, List of TÜV approved manufacturers of materials

⁴ record in the VdTÜV-Merkblatt 1253-2, List of TÜV approved material machining operators

⁵ record in the VdTÜV-Merkblatt 1253-3, List of TÜV approved flange manufacturers renunciating an inspection certificate

record in the VdTÜV-Merkblatt 1253-4, List of TÜV approved screws and nuts manufacurers (machining operators) renunciating an inspection certificae in accordance with DIN EN 10204



Page 19 of 48 Testing and certification regulations

re 2.3: Documents to be submitted

By way of preparation for the inspection (or auditing) the applicant has to provide the certification body in advance especially the following documents:

Document	Designation
Manufacturer-declaration	Form 0
Information about semi-finished and end products	Form 1
Information regarding the processing equipment	Form 2
Information about the complete production process	Form 3
Information related to testing equipment	Form 4
Details about QM-System	Form 5
Details about procedure approval	Form 6
Information regarding supervision personnel	Form 7
Quality-Manual	Manufacturer
Applicable procedure instructions	Manufacturer
Technical documentation	Manufacturer

Comment:

A list of testing equipment of the material manufacturer may be used as an alternative to Form 4.

re 2.3: Subcontracting of process steps

If single process steps, like e. g. the testing of materials or the production are subcontracted by the material manufacturer, he has to mention this in the documents to be submitted. The subcontracting has to follow a written agreement in form a contract. In this shall be described in detail how the subcontracted process steps are defined and how a surveillance of these steps take place. Possibly corrective actions to be performed within the scope of the subcontracting shall also be described. The assessment of the written agreement is part of the audit and will be reviewed and evaluated by the auditors. An assessment of the subcontracted process steps at the subcontractorers site by the auditors may in some circumstances be required.

Will portions of the production or the production of the materials as a whole be subcontracted, the company, which performs the subcontracted process steps, also has to show an appropriate certification by the certification body. Otherwise an on-site assessment of the subcontractor will become necessary within the audit of the material manufacturer.

re 2.3: Statistical proof of manufacturing safety of the material manufacturer

For the proof of manufacturing safety, results in form of tabulations and possible in mathematical-statistical evaluated form from the ongoing performed material tests of the finished product in final delivery condition (chemical analysis, mechanical properties, other tests) are required. Thereby as a general rule the proof of manufacturing safety through applicable documentation for each form of finished products for one material grouping and one dimensional size is sufficient. These stand representatively for other finished products of the covered delivery scope, if these are manufactured with the same processes (like rolling-, casting- and heat treatment processes). Concerning the different type of materials a grouping according the chemical elements may be performed, e. g. according the C- Mn-, or CrMo-content.

In the most cases a failure probability of < 2,5 % (both sides < 5 %) counts as to be sufficient.



Page 20 of 48 Testing and certification regulations

For the preparation of the documents following aspects have to be regarded:

- The analysis of the chemical content (cast analysis and possibly product analysis) shall be done with mentioning of all essential and important elements plus accompanying elements which influence the usability properties, generally for at least 10 casts. In ordinary cases a statistical analysis may be weaved. Possible accruing in-plant ranges of analysis should also be mentioned.
- The values for mechanical properties shall be relating to the casts mentioned in the foregoing paragraph. The values have to cover every aspect of the scope of warranty (scope of warranty according to the technical rules).
- The form plus direction and location of the sampling on the finished product have to be declared. The values shall be grouped individually under the following aspects:
 - · equal material and delivery condition,
 - equal dimension,
 - equal production process,
 - · equal sampling direction, equal or similar sampling location plus
 - equal or similar sample form.

The quantity of the values shall be of such a size, that a statistically assured statement for the proof of manufacturing safety is possible. Therefor are empirically at a minimum 30 individual values necessary.

If technical rules require additional test, appropriate documentation covering these additional tests will become necessary (like e. g. corrosion testing, non-destruvtive-testing).

All above mentioned documents should originate from a coherent production time period, possibly from recent times.

Comment:

Specialty for the certification of TÜV approved material machining operators according VdTÜV-Werkstoffblatt 1253-2:

Within the audit of a pure AD 2000-Merkblatt W0 certification for approved machining operators, a proof a production safety is not necessary. Pre-materials according to AD 2000-Merkblättern Series W (e. g. plate, sheet, strip, tube) have to be used. This will be assessed during the audit with the help of ordering specifications.



Page 21 of 48 Testing and certification regulations

re 2.3: Extened scope of testing for VdTÜV-Material Data Sheets within the AD 2000-Merkblatt W0 Certification

Certain materials within the application of the AD 2000-Merkblätter require the acknowledgement of the corresponding VdTÜV-Material Data Sheets. The mentioning of the VdTÜV-Material in the scope of the applicant is only possible after successful completion of a test program. Simultaneously upon successful completion the applicant will be listed in the VdTÜV-Material Data sheet resp. supplementary sheet.

The test program will be defined by the certification body. The type and the scope of necessary tests will comply with the particular VdTÜV-Sheet for materials,

VdTÜV-Sheet Materials Nr.	Titel
1255	General rules for the assessment of materials by technical supervisory organization
1256	Test plan for the assessment of rolled and forged steels with ferritic- perlitic (normalized), bainite and/ or tempered micro structure
1257	Test plan for the assessment of corrosion restistant chromium steels (rolled and forged steels)
1258	Test plan for the assessment of asutenitic stainless steels, rolled and forged
1259	Test plan for the assessment of steel cast
1260	Test plan for the assessment of spheroidal cast iron and of spheroidal or lamellar austenitic cast iron
1261	Test plan for the assessment for lamellar cast iron
1262	Test plan for the assessment of aluminum, copper, nickel and there alloys rüfplan für die Begutachtung von Aluminium, Kupfer, Nickel und deren Legierungen (kneaded, pressed, rolled or forged)

Comment.

A listing of VdTÜV-Material Data Sheets in the scope of the applicant without the successful completion of a given test program defined by the certification body is not possible.

re 2.3: Verification of the data supplied by the manufacturer

The auditors convince themselves within a site inspection of the correctness of the information supplied by the manufacturer according to paragraph 2.3 "Documents to be submitted". Eventually subcontracted processes will be included in this audit. Any information about departments which are relevant for the manufacturing process of the materials shall be validated.

re 2.3: Auditing of the manufacturing process

Withing the audit the certification body will perform a process audit. Therefor one or two typical products and materials out of the scope of the manufacturer will be chosen, which possibly have finished the final inspection by the manufacturer but are not already be shipped yet. The corresponding documents for this specific order will be assessed with the help of the documentation of the manufacturer throughout every affected commercial and technical department of the manufacturer and the proper handling of the whole process with regard to the quality management system and with the background of the requirements of the underlying order.



Page 22 of 48 Testing and certification regulations

re 2.5: Certificate, test mark

The issuing date on the certificate is the date of the certification decision.

A certificate remains valid as long as the requirements and the conditions on which certification was based remain unaltered and that the annual surveillance will be performed with a positive result on time.

The certification body can also allot a test mark for the certification according to paragraph 2.5 items in addition to the actual certificate.

re 2.6: Ongoing surveillance

For maintaining the certification annual surveillance audits according to the in paragraph "re 2.3" described procedures will be performed. Thereby will above all else the effectiveness of the corrective actions from former non conformities be assessed.

The 1. sureveillance audit after the certification shall be performed in between 12 months after the last day of the audit ("due date"). From the 2. surveillance audit on a time frame of one year +/- 3 months starting from the last day of the last audit is allowed.

If this limit is violated the manufacturer will be informed by the certification body (possibly via the auditor), that a production within the range of the certified quality management system is not possible anymore. The certification body will decide on basis of the surveillance reports if the certification can be kept up.

re 2.7: Recertification

The recertification audit shall be performed no later than the validity date of the certificate. The audit may be shifted up to three months in advance to this date. An overriding of the validity date of the certificate is not allowed. Within the certification audit the proof of production safety with the help of material data from the ongoing production process of the material manufacturer has to be assessed by the certification body, see paragraph "re 2.3 Statistical proof of manufacturing safety of the material manufacturer". A group wise merging of similar materials is permitted. The statistical evidence or sufficient data for a minimum of one material for each material group of the scope of the material manufacturer have to be present within the recertification audit.

Comment:

The proof of manufacturing safety with the aid of statistical data may be performed within the ongoing surveillance audits. Important is, that within the recertification audit the evidence is provided, that for the period since the last certification audit reps. recertification audit (three year period), for every material group at a minimum statistical data for one representative material is available. Concerning the possibility to divide materials in groups for this statistical evidence, refer to paragraph "re 2.3 Statistical proof of manufacturing safety of the material manufacturer".

re.3.10: Complaints/appeals

The contact for appeals/complaints is the manager of the notified body. Mr. Oliver Theisen (Tel.: +49 221-806 2015, email: oliver.theisen@de.tuv.com).



Page 23 of 48 Testing and certification regulations

Annex 1.1.3:

Specific Requirements:

Certification Body for Manufacturer Qualification - System for transfer of material markings

re 0: Preliminary remarks

These testing and certification regulations (together with technical conditions for testing and certification activities) apply to the following conformity assessment bodies of

TÜV Rheinland Industrie Service GmbH Business area GF I.01 "Pressure equipment and systems engineering" Am Grauen Stein, D-51105 Cologne

Certification body for Manufacturer Qualification

(hereinafter referred to as "certification body").

The activities of the certification body in a assessment of system of transfer of material markings, also called re-stamping, of the applicant, also called manufacturer, are described in this testing and certification regulation.

That means, the certification body offers following services to interested manufacturers:

1. assessment of the system for the transfer of material markings

The certification body performs the following steps

- first audit, reps. certification audit of the plant and the system for transfer of material markings.
- ongoing surveillance, assessment and evaluation of the system for transfer of material markings.

re 1: Scope

This testing and certification regulation defines

- the process of the test- and certification procedure,
- the duties and the responsibility of the certification body plus the tasks, duties and rights of the material manufacturer.

The appropriate determinations follow the requirements of the pressure equipment directive plus the applicable certification procedures resp. underlying technical rules. Within the assessment will be ensured, that through suitable measures, the correct and proper transfer of material identification markings of products with certification of material testing is carried out by the responsible employee (also called person authorised for re-stamping) and therefore traceability in accordance with the technical specification (e.g. Pressure Equipment Directive 2014/68/EU, Annex I section 3.1.5) is performed. It is limited to their own scope of delivery and/ or to processing in their own factory or on the construction site. It is expected and assumed that the products are marked with the requisite markings (origin markings) by the material manufacturer.

The scope of the certification procedure comprises

- the initial assessment and certification,
- the regular assessment and maintenance of the certification of the system for transfer of material markings.



Page 24 of 48 Testing and certification regulations

The system for the transfer of material markings applies to products,

- which are determined for the manufacture of pressure equipment (pressure vessels, steam boilers, piping and equipment accessories) as well as for parts or components thereof.
- for the fabrication of products of different law sector this certification may be used analogous,
- which are documented with an inspection certificate 3.1, test report or certificate of compliance, according to DIN EN 10204:2005. It does not apply to products with an inspection certificate 3.2, according to DIN EN 10204:2005,
- which conform to a technical specifications.
- in addition regulations can be made for the re-stamping of small parts with APZ 3.2 (e.g. according to AD 2000-Merkblatt HP 0).

re 2.3: Evaluation/inspection

The prerequisites for transfer of the material identification markings will be examined on site during an audit, documented in a test report and confirmed in a certificate. This also applies to construction site and assembly activities.

re 4.1: Obligations of the manufacturer

The applicant ensures that the following specifications are complied with:

- The manufacturer specifies stamp marks from which both the corporation as well as the person authorised for re-stamping can be identified. Persons authorised for re-stamping are to be specified by the manufacturer and to be confirmed by the Certification Body. The Certification Body is to be informed of any modifications or changes without delay.
- The person authorised for re-stamping has to document the re-stamping in such a manner that the material and/or product, dimensions, allocation, marking, associated certificates on material tests and the responsible person authorised for re-stamping are comprehensible and traceable.
- The person authorised for re-stamping specified in the test report has the requisite knowledge of materials, designations of materials and marking thereof according to the rules and regulations.
- In accordance with the legal regulations and the rules of this testing and certification regulation regulations agreed upon the manufacturer assumes responsibility for the products re-stamped on their premises.
- If re-stamped parts are delivered to a further secondary producer or to a construction site, then a re-stamping certificate must be attached to these parts or a corresponding notation must be made on the material certificate. If an identification number is used then the clear and unambiguous allocation to the material certificate must be ensured.
- Within the framework of the in-plant manufacture, the documentation can also be carried out in an alternative suitable manner.

re 4.1 Re-stamping procedure

Materials and products with certificates of material testing are to be re-stamped with a marking stamp before separation or processing of the parts, taking the requirements of the technical specifications into consideration.

Instead of by embossing, the identification marking can also be applied to products with certain thicknesses with permanent paint, or be carried out in any other suitable manner (e.g. with a vibrometer) taking the requirements of the technical specifications into consideration.

The person authorised for re-stamping adds his/her specific stamp mark to the markings transferred



Page 25 of 48 Testing and certification regulations

re 2.5: Certificate, test mark

The issuing date on the certificate is the date of the certification decision.

A certificate remains valid as long as the requirements and the conditions on which certification was based remain unaltered and that the annual surveillance will be performed with a positive result on time.

The certification body can also allot a test mark for the certification according to paragraph 2.5 items in addition to the actual certificate.

re 2.6: Ongoing surveillance

The correct and proper execution of re-stamping is examined each year by the Certification Body provided that no other terms or deadlines are specified in the technical specifications. In this connection the Notified Body shall be allowed to inspect all requisite documentation and also the operating sites or premises concerned

For maintaining the certification annual surveillance audits according to the in paragraph "re 2.3" described procedures will be performed. Thereby will above all else the effectiveness of the corrective actions from former non conformities be assessed.

The 1. sureveillance audit after the certification shall be performed in between 12 months after the last day of the audit ("due date"). From the 2. surveillance audit on a time frame of one year +/- 3 months starting from the last day of the last audit is allowed.

If this limit is violated the manufacturer will be informed by the certification body (possibly via the auditor), that a production within the range of the certified quality management system is not possible anymore. The certification body will decide on basis of the surveillance reports if the certification can be kept up.

re 2.7: Recertification

The recertification audit shall be performed no later than the validity date of the certificate. The audit may be shifted up to three months in advance to this date. An overriding of the validity date of the certificate is not allowed. Within the certification audit the proof of production safety with the help of material data from the ongoing production process of the material manufacturer has to be assessed by the certification body, see paragraph "re 2.3 Statistical proof of manufacturing safety of the material manufacturer".

re.3.10: Complaints/appeals

The contact for appeals/complaints is the manager of the certification body. Mr. Herbert Schwarz (Tel.: +49 221-806 2153, email: herbert.schwarz@de.tuv.com).



Page 26 of 48 Testing and certification regulations

Appendix 1.2: Specific requirements: Notified body for simple pressure vessels

re 0. Preliminary remarks

These testing and certification regulations (with technical conditions for testing and certification activities) apply to the following conformity assessment body:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

Notified body for simple pressure vessels

(hereinafter referred to as "certification body").

The certification body offers interested economic players involved in the manufacture of simple pressure equipment and making it available on the market of the European Union (hereinafter referred to as "applicants") the following services (conformity assessments) in accordance with the European Simple Pressure Vessels Directive 2014/29/EU (SPVD)) in conjunction with the selected code of practice:

- Module B: EU design type testing (design type) and EU design type testing (design pattern)
- Inspection of the manufacturer's documentation (as part of Module C)
- Module C2:
 - Conformity with the design type based on an internal manufacturing control with monitored inspections of the vessels at irregular intervals
- Module C1:
 - Conformity with the design type based on an internal manufacturing control with monitored inspections of the vessels

The certification body has been notified by the "Central Office of Federal States for Safety Technology (ZLS)" to the European Commission under the identification number 0035 as an authority issuing authorisations for these activities.

re. 1. Scope of application

Certification programme:

Simple pressure vessels made available on the European market are subject to the following rules and regulations:

- EU Directive 2014/29/EU
 (implemented in Germany by the 6th Ordinance to the Product Safety Act) "Simple pressure
 vessel ordinance"
- the code of practice selected by the applicant (harmonised standard such as EN 286, or other technical specification)



Page 27 of 48 Testing and certification regulations

Conformity assessments must be carried out on simple pressure vessels during their manufacture (design and manufacturing phase) by a notified body in accordance with the requirements in these regulations.

If the corresponding certificates of conformity of the notified body for the above-mentioned modules required in each case are available, the manufacturer will issue the EU declaration of conformity and provide each piece of pressure equipment with the CE mark as well as with the registered identification number of the notified body. This enables the pressure equipment to be made available on the European market.

The conformity assessment of simple pressure vessels is regulated by law.

The "Certification programme for simple pressure vessels" is set out in the above-mentioned rules and regulations.

These documents have been prepared and passed by the European Parliament and the legislators of the individual states and, in the case of the harmonised standards, by the European Committee for Standards (CEN) which works under the mandate of the European Commission. The certification body is therefore not the owner of the certification programme for simple pressure vessels but merely the user of this programme.

re.2.1: Application/request

The following details and information about the applicant are required:

- Company name, address, contact details, contact partner
- Type of simple pressure vessel
- Details about the applicant's company, if applicable
- Type of inspection and certification (such as: first certification/monitoring/re-certification/modification)
- Type of conformity assessment procedure (module, module combination)
- Prospective scope of application and scope of the certification/inspection

re.2.3: Evaluation/inspection

Carrying out the inspections

The certification body commissions authorised experts to carry out the corresponding inspection and certification. The activities "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

The applicant is sent a test plan which notifies him/her of the procedure and scope of the inspection.

The key aspects of the inspection are as follows:

- Inspection of the technical documents
- Checks whether the simple pressure vessel has been manufactured in compliance with the technical documents
- Inspections and examinations of the simple pressure vessel

The examining expert carries out the inspections in accordance with the predefined test plan. The results of the inspection are summarised in a report.

Any defects and deviations as well as any corrective measures required are highlighted.

re.2.4: Assessment and decision on certification

The assessing expert assesses on the basis of the test results whether the pressure equipment complies with the requirements prescribed in the regulations.

If conformity is confirmed, the assessing expert issues the certification.



Page 28 of 48 Testing and certification regulations

re.2.5: Certificate, test mark

The certification body does not allot a test mark.

re.3.10: Complaints/appeals

The contact partner for appeals/complaints is the manager of the certification body: Mr. Oliver Theisen (Tel.: +49 221-806 2015, email: oliver.theisen@de.tuv.com).

re.4.4 Use of the certificate/test mark

The certificates and certifications certify the conformity of the simple pressure vessel with the prescribed requirements.

If conformity is confirmed for all required steps, the manufacturer provides each piece of simple pressure equipment with the CE mark and the identification number of the notified body. The identification number of the notified body for simple pressure vessels of TÜV Rheinland Industrie Service GmbH is 0035.

The simple pressure vessel can therefore be made available on the European market.



Page 29 of 48 Testing and certification regulations

Appendix 1.3:

Specific requirements:

Notified body for transportable pressure equipment

re 0. Preliminary remarks

These testing and certification regulations (with technical conditions for testing and certification activities) apply to the following conformity assessment body:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

Notified body for transportable pressure equipment

(hereinafter referred to as "certification body").

The certification body offers interested economic players who deal with transportable pressure equipment (hereinafter referred to as the "applicants") the following services in accordance with the European Directive for Transportable Pressure Equipment 2010/35/EU (TPED) in conjunction with the ADR/RID regulations:

The **conformity assessment procedure for transportable pressure equipment** for pressurised gases, comprising:

- Type approval
- Monitoring the manufacture
- First inspection
- Periodic inspections/intermediate inspections/exceptional inspections

The approval and monitoring of in-house inspection services (IS inspection bodies) for inspecting transportable pressure equipment (in this case pressure vessels only) comprising:

- first re-inspection (or first audit and certification)
- regular periodic re-inspections (monitoring audits) to maintain the approval (or certification)
- re-auditing/re-certification after expiry of the approval

The re-assessment of conformity of transportable pressure equipment

The certification body has been

- accredited for these activities by the "Deutschen Akkreditierungsstelle GmbH (DAkkS)" under the accreditation number: D-IS-11052-03 as an inspection body/Xa inspection body for transportable pressure equipment as per DIN EN ISO/IEC 17020
- notified by the "Central Office of Federal States for Safety Technology (ZLS)" to the European Commission under the identification number 0035 as an authority issuing an authorisation for these activities.

re. 1. Scope of application

Certification programme:

Transportable pressure equipment made available on the European market or placed on the market and subsequently operated is subject to the following rules and regulations:

- EU Directive 2010/35/EU (implemented in Germany by the "Transportable Pressure Equipment Ordinance (ODV")
- EU Directive 2008/68/EC
 (implemented in Germany by the "Ordinance concerning the carriage of dangerous goods by road, rail and inland waterways (GGVSEB")



Page 30 of 48 Testing and certification regulations

> European Agreement on the international carriage of dangerous goods (ADR/RID), taking into account the standards referred to therein

Inspections must be carried out on transportable pressure equipment during its design phase, during manufacture and during operation by a suitably authorised or approved body in accordance with the requirements in these regulations by:

- a notified body for transportable pressure equipment or Xa body
- or, if applicable, by an approved in-house inspection service or IS body.

Before it is placed on the market new transportable pressure equipment must undergo a conformity assessment to prove that it meets the technical requirements of the ARD/RID regulations and therefore the formal requirements of the TPED as well.

This conformity assessment comprises the following individual steps:

- Type approval
- Monitoring the manufacture
- First inspection

The type approval must be carried out by a Xa body.

The monitoring of the manufacture and the first inspection can be carried out by a Xa body or, in the case of vessels, by an IS body.

The monitoring of manufacture and first inspection steps are then to be carried out by the same body. Splitting up or delegating the steps is not permissible.

If the corresponding certificates of conformity for each individual step (i.e. for design type testing, monitoring the manufacture and the first inspection) are available, the manufacturer provides each piece of transportable pressure equipment with the Pi marking and the registered identification number of the notified body.

Transportable pressure equipment that had already been placed on the market before 01.07.2001 and had not as yet been allotted a Pi marking can subsequently undergo the re-assessment of conformity procedure. This procedure is carried out by the Xa body. Re-assessment by in-house inspection services is not possible.

If conformity is confirmed and the periodic inspection is passed the Pi marking is affixed to the pressure equipment.

During the operation of transportable pressure equipment regular periodic inspections and intermediate inspections are required. (In the case of tanks exceptional inspections may also be required).

In the case of transportable pressure vessels the periodic inspections can be carried out both by Xa bodies and by IS bodies.

The periodic inspections of tanks remains reserved for the Xa body.

The pressure equipment that has been tested is labelled appropriately to prove that the periodic inspection has been carried out.

The inspection and certification of transportable pressure equipment is regulated by law.

The "Certification programme for pressure equipment" is set out in the above-mentioned rules and regulations.

These documents have been prepared and passed by the European Parliament and the legislators of the individual states or have been agreed by the contracting member states.

The certification body is therefore not the owner of the certification programme for transportable pressure equipment but merely the user of this programme.



Page 31 of 48 Testing and certification regulations

re.2.1: Application

The following details and information about the applicant are required:

- Company name, address, contact details, contact partner
- Type of pressure equipment (pressure vessel, tank etc.)
- Details about the applicant's company, if applicable
- Type of inspection and certification
 - (First certification/monitoring/re-certification/modification)
- Type of conformity assessment procedure (type approval, monitoring of the manufacture, first inspection, periodic inspection, reassessment of conformity, approval of an in-house inspection service)
- Prospective scope of application and scope of the certification/inspection

re.2.3 - 2.7: Inspection, assessment, certification, monitoring, extension

Type approval

Documents to be submitted:

The applicant has to provide the following technical documents to the certification body:

- Description of the design type
- Index of the standards and regulations used
- Index of the dangerous goods to be conveyed
- Drawings, calculations
- Information on safety devices, equipment
- Information on materials, manufacturing process, inspections

In addition, one or more examples of the transportable pressure equipment to be assessed is to be provided to the certification body.

Carrying out the inspections

The certification body commissions authorised experts to carry out the corresponding inspection and certification. The activities "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

The applicant is sent a test plan which notifies him/her of the procedure and scope of the inspection.

The key aspects of the inspection are as follows:

- Inspection of the technical documents
- Checks whether the pressure equipment has been manufactured in compliance with the technical documents.
- Inspections and checks of the pressure equipment (including inspections of materials, manufacturing processes, qualifications of personnel)

The examining expert carries out the inspections in accordance with the predefined test plan. The results of the inspections are summarised in a report.

Any defects and deviations as well as any corrective measures required are highlighted.

Assessment, certification:

The assessing expert assesses on the basis of the test results whether the pressure equipment meets the requirements prescribed in the regulations.

If conformity is confirmed, the assessing expert confirms the type approval and issues the corresponding certification.



Page 32 of 48 Testing and certification regulations

The type approval is valid for a maximum period of 10 years.

Extension:

The type approval can be extended after the expiry of the period of validity. To that end the experts carry out a complete inspection and assessment of conformity with the requirements prescribed at the time of the extension.

Monitoring in-house inspection services

An applicant can set up an in-house inspection service (IS body) and then have the following inspections of transportable pressure equipment carried out by this service:

- Monitoring the manufacture
- First inspection
- Periodic inspections

The requirement for this is that the in-house inspection service maintains a documented quality assurance system and is regularly monitored by an Xa body.

Documents to be submitted:

The applicant has to provide to the certification body the following technical documents on the inhouse inspection service:

- Documents on quality assurance
 (with organisational structure, responsibilities;
 procedures and instructions for systematic processes, document control, personnel, customer requirements, inspections, quality assurance, non-conforming products)
- Records on testing equipment, inspections, personnel
- Records on inspections of the quality assurance system

Carrying out the inspections

The certification body commissions authorised experts to carry out the appropriate inspection and certification. The activities "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

The applicant is sent an audit plan which notifies him/her of the procedure and scope of the inspection. On the basis of this audit plan the expert carrying out the inspection will check by inspecting the test facility on site whether the in-house inspection service meets the requirements specified in the regulations. He/she will consider in particular the following questions:

- Documents on the quality assurance system
- Application of the quality assurance system
- Are the inspections being carried out in accordance with the regulations?
- Are trained and competent personnel being used?
- Is suitable testing equipment being used?
- Are the inspections being correctly documented?
- Is the in-house inspection service independent of the design, manufacturing, repairs or maintenance processes?
- Are the labelling requirements for the pressure equipment tested being complied with?



Page 33 of 48
Testing and certification regulations

The results of the inspections are summarised in an audit report.

Any defects and deviations as well as any corrective measures required are highlighted.

Assessment, certification:

The assessing expert assesses on the basis of the test results whether the in-house inspection service meets the requirements prescribed in the regulations.

If conformity is confirmed, the assessing expert issues the certification.

The certification on monitoring of in-house inspection services is valid for a maximum period of 3 years.

Monitoring:

Regular periodic re-inspections of the inspection service ensure that the inspection service continues to maintain and use its quality assurance system.

During the period of validity at least 2 periodic re-inspections are carried out in a period of 12 months, equating to an inspection period of 6 months.

Extension:

The type approval can be extended after the expiry of the period of validity.

To that end the experts carry out an inspection and assessment of conformity of the same scope as the first re-inspection - in the manner described above - on the basis of the requirements prescribed at the time of the extension.

re.2.5: Certificate, test mark

The certification body does not allot a test mark.

re.3.10: Complaints/appeals

The contact partner for appeals/complaints is the manager of the certification body: Mr. Erik Holzhauser (Tel.: +49 261 8085 187, email: erik.holzhauser@de.tuv.com).

re.4.4 Use of the certificate/test mark

The certificates and certifications certify that the pressure equipment conforms with the prescribed requirements.

If conformity is confirmed during manufacture for all required steps (i.e. for design type testing, monitoring the manufacture and the first inspection), the manufacturer provides each piece of pressure equipment with the Pi marking and the registered identification number of the notified body. The identification number of the notified body for transportable pressure equipment of TÜV Rheinland Industrie Service GmbH is 0035.

The pressure equipment can therefore be made available to and placed on the European market.



Page 34 of 48 Testing and certification regulations

Appendix 1.4:
Specific requirements:
Notified body for construction products

re 0. Preliminary remarks

These testing and certification regulations (with technical conditions for testing and certification activities) apply to the following conformity assessment body:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

Notified body for construction products

(hereinafter referred to as "certification body").

The certification body offers interested manufacturers of construction products (hereinafter referred to as "applicants" the following services:

- Inspection/monitoring and certification
 of the in-house production control (WPK) as per the System 2+
 in accordance with the European Construction Products Ordinance EU No. 305/2011
 for the following construction products:
 - "Metallic base materials" product group
 - "Filler metals" product group
 - "Supporting structures" product group

The certification body has been

- accredited for these activities by the "Deutschen Akkreditierungsstelle GmbH (DAkkS)" under the accreditation number: D-ZE-11052-07 as a certification body for products as per DIN EN ISO/IEC 17065
- notified by the "Deutschen Institut für Bautechnik (DIBt)" (German Institute of Building Technology) to the European Commission under the identification number 0035 as an authority issuing an authorisation for these activities.

re. 1. Scope of application

Certification programme:

Construction products made available to and placed on the European market are subject to the European Construction Products Ordinance (ordinance EU No. 305/2011). Such construction products subject to European law must be manufactured in conformity with the requirements of harmonised, technical specifications (especially harmonised standards).

The conformity assessment or assessment and inspection of the constancy of performance of construction products is carried out, on the one hand, by the manufacturer themselves by means of certain monitoring activities and, on the other hand, by the notified bodies for construction products by means of monitoring activities. The manufacturer makes a declaration of performance for construction products which conform with the requirements made of them and also provides them with the CE mark.

The following construction products are examined in the field of application of this certification programme (in each case for compliance with the relevant harmonised standard on which certification is based):

"Metallic base materials" product group



Page 35 of 48 Testing and certification regulations

- EN 10025-1: Hot rolled products of structural steels
- EN 10088-4:

Stainless steels - sheet/plate and strip of corrosion resisting steels for construction purposes

- EN 10088-5:

Stainless steels - bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes

- EN 10210-1:

Hot finished structural hollow sections of non-alloy and fine grain steel.

- EN 10219-1:

Cold formed welded structural hollow sections of non-alloy and fine grain steels

- EN 10340: Steel castings for structural uses
- EN 10343: Steels for quenching and tempering for construction purposes
- EN 15088: Aluminium and aluminium alloys structural products for construction works

"Filler metals" product group

 EN 13479: Welding consumables -Filler metals and fluxes for fusion welding of metallic materials

"Supporting structures" product group

- EN 1090-1: Execution of steel structures and aluminium structures with different execution classes EXC 1, 2, 3, 4, according to quality requirements as regards damage, load, manufacture)

The conformity assessment or assessment and inspection of the constancy of performance is carried out for these named construction products in accordance with the System 2+ specified in Appendix V to the EU Ordinance on Construction Products (EU-BauPVO).

The manufacturer of the construction product carries out the following steps in accordance with this system:

- Determination of the product type/type test
- In-house production control
- Inspection of the samples taken in the factory according to a pre-defined test plan

And the notified body works as a certification body for the in-house production control and carries out the following steps:

- Initial inspection of the factory and the in-house production control
- Continuous monitoring, assessment and evaluation of the in-house production control

If conformity is confirmed for these steps, the manufacturer issues the declaration of performance for the essential characteristics of the construction product and affixes the CE mark to the construction product. This enables the construction product to be made available on the European market.

The certification of these construction products is regulated by law.

The "Certification programme for construction products" is set out in the EU ordinance on construction products (EU-BauPVO) as well as in the associated harmonised standards (supplemented possibly by guidelines).

These documents have been prepared and passed by the European Parliament or by the European Committee for Standards (CEN) which works under the mandate of the European Commission.

The certification body is therefore not the owner of the certification programme for construction products but merely the user of this programme.



Page 36 of 48 Testing and certification regulations

re.2.1: Application

The following details and information about the applicant are required when an application is made:

- Applicant's name and address and contact name
- Type of inspection and certification
 - (First certification/monitoring/re-certification/modification)
- Prospective scope of application and scope of the certification:
 system of assessment and checks of the constancy of performance
 Description of the product: construction product, requirements, harmonised rule, product class
- Details about the applicant's company description of the manufacturing plant and the in-house production control: personnel/number of employees, locations, equipment, manufacturing process any certifications held, e.g. ISO 9001, outsourced processes

re. 2.3: Evaluation/inspection

Documents to be submitted:

The applicant has to provide the certification body with the following documents:

- Details about the construction products and the production process
- Documents on the in-house production control, (such as a completed list of questions provided by the certification body)
 System description of the in-house production control, records of testing equipment, test results)

Carrying out the inspections

The certification body commissions authorised monitoring representatives to carry out the corresponding inspection on site at the applicant's premises.

The applicant is sent a monitoring plan which notifies him/her of the procedure and scope of the inspection.

The key aspects of the monitoring are as follows:

- Organisation of the in-house production control
- System description of the in-house production control
- Manufacturing process: raw materials, manufacturing plant, production facilities
- Qualifications of the technical personnel
- In-house production control: testing laboratory, testing equipment, calibrations
- Carrying out the in-house production control: monitoring/test plan, Tests of the specified product properties
- Documentation of the tests/test results
- Product assessment, non-conforming products, corrective measures
- Records

In the case of serious deviations, such as

- no system description of in-house production control is held
- technical personnel not qualified
- lack of equipment

a re-inspection can be directed by the monitoring representative.



Page 37 of 48 Testing and certification regulations

re. 2.4: Assessment and decision on certification

The certification body commissions authorised certifiers to carry out the assessment and make the decision on certification.

The activities "Evaluating", "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

re.2.5: Certificate, test mark

The following specific details are recorded on the certificate:

- Applicant's name
- Scope of application and scope of the certification:
 Product, harmonised rule, system of the conformity assessment, product class
- Date of issue, period of validity
- Specified characteristic values and parameters

The certificate also entitles the applicant to use the identification number of the notified body for construction products.

The certificate does not have a period of validity but is re-issued after a maximum period of 3 years.

The certificates remain valid until there is a change in the certification requirements. such as:

- a change in the requirements imposed by the harmonised rules,
- a fundamental change in the conditions in the manufacturing plant or in the in-house production control
- a change in the scope of validity of the certification
- the suspension or revocation of the certificate

Additional monitoring must be carried out at regular intervals to maintain the certification,

The certification body can also allot a test mark in addition to the actual certificate. The following test mark is allotted in the case of the "Supporting structures" product group (standard EN 1090):











Page 38 of 48 Testing and certification regulations

re. 2.6 Monitoring the certification

Monitoring inspections are carried out at regular intervals by the monitoring representatives to maintain the certification.

The monitoring periods depend on the construction product and possibly on the performance class of the product as well as on the status of the certification.

Continuous monitoring is therefore carried out at the following intervals:

Harmonised standard	Intervals for continuous monitoring: (years following the first inspection)		
EN 10025-1: EN 10088-4: EN 10088-5: EN 10210-1: EN 10219-1: EN 13340: EN 10343: EN 15088:	1 (yearly monitoring)		
EN 13479:	1 (yearly monitoring)		
EN 1090-1	according to execution class (see EN 1090-1:2009, Table B.3): EXC1, EXC2: 1 - 2 - 3 - 3 EXC3, EXC4: 1 - 1 - 2 - 3 - 3 The first monitoring is to be carried out one year after the first inspection. Provided no major corrective measures are necessary, the frequency of the inspections can be reduced, provided none of the following cases occur: Renewal/change/introduction of crucial equipment Change of welding coordinator Change in the starting materials Change in the qualification of welding methods, Introduction of new welding methods, If more than one year has elapsed between two inspections, the customer has to make a declaration every year to the certification body that none of the above-mentioned cases has occurred. If a response is not received by the due date, an additional on-site inspection will be carried out. After compliance has been restored following cases of serious non-compliance with the requirements, the same inspection frequency as that following the first monitoring will apply.		

Continuous monitoring will be carried out within a period of ± 3 months around the due date (the month in which the first monitoring is carried out).

The applicant is obliged to inform the certification body - on request - of all physical, chemical and technological properties of the construction products that are relevant to the monitoring.



Page 39 of 48 Testing and certification regulations

re. 3.8: Register of the certificates

All valid certifications will be published on the TÜV Rheinland website "Certipedia" (www.certipedia.com)

In addition, certification procedures in connection with the "Supporting structures" product group (standard EN 1090) will be listed and published on the Online-Register on "www.en1090.net".

re.3.10: Complaints/appeals

The contact partner for appeals/complaints is the manager of the certification body: Mr. Achim Makowka (Tel.: +49 221 806 2250, email: makowka@de.tuv.com).

re.4.4 Use of the certificate/test mark

Conformity with the prescribed requirements of the in-house production control will be certified on the certificate.

The certificate for monitoring the in-house production control is a step in the conformity assessment or assessment and inspection of the constancy of performance of construction products. If conformity is confirmed for all the required steps, the manufacturer issues the declaration of performance for the essential characteristics of the construction product and labels the construction product with the CE mark.

Additional information on the construction product and in particular the identification number of the notified body are shown next to the CE mark. The identification number of the notified body for construction products of TÜV Rheinland Industrie Service GmbH is 0035.

The construction product can therefore be made available to and placed on the European market.

During the period of validity of the certificate the applicant is also entitled to:

- to use the certification (certificate/test mark)
 for advertisement purposes in printed matter (such as brochures, leaflets, business documents and delivery notes)
- to depict the certificate/test mark) in an unaltered form in advertisements.

The test mark must not be affixed together with the CE mark on the construction product or on the declaration of performance. The certificate/test mark must not be used in any manner that might mislead or cause confusion.

The test mark serves merely to identify the certified area "In-house production control" of the applicant.

The applicant must not use the certificate (including test mark and identification number) in a misleading way but must use it solely for the designated scope of application.

If a certificate becomes invalid, the applicant loses the right to provide his/her products listed on the certificate with the CE mark (and identification number of the notified body).

If, during the monitoring of the applicant, defects or infringements of the technical specifications are detected which could lead to danger to public safety or order, especially to life, health or natural resources, the certification body will immediately notify the most senior construction supervisory board and the "German Institute of Building Technology (DIBt)".



Page 40 of 48 Testing and certification regulations

Appendix 1.6:

Specific requirements:

Manufacturer-certification body for welding firms for railway vehicles and railway vehicle components

re 0. Preliminary remarks

These testing and certification regulations (with technical conditions for testing and certification activities) apply to the following conformity assessment body:

TÜV Rheinland Industrie Service GmbH Am Grauen Stein, D-51105 Cologne

Manufacturer-certification body for welding firms for railway vehicles and railway vehicle components

(hereinafter referred to as "certification body").

The certification body offers interested manufacturers and welding firms (hereinafter referred to as "applicants").

the following services for welding railway vehicles and railway vehicle components:

 Inspection, certification, monitoring and re-certification of companies which in the course of the manufacture and maintenance of railway vehicles and railway vehicle components use welding processes complying with the requirements of the standards DIN EN 15085-2 as well as DIN 27201-6.

The certification body has been

- accredited for these activities by the "Deutschen Akkreditierungsstelle GmbH (DAkkS)" under the accreditation number: D-ZE-11052-10 as an certification body for products as per DIN EN ISO/IEC 17065
- authorised for these activities by "the European Committee for Welding of Railway Vehicles (ECWRV)" to use the Online-Register on "www.en15085.net" to publish the certificates issued
- (Official approval by the responsible national authorities the Federal Railway Authority (EBA)" in Bonn - ceased to be mandatory in August 2013.)

re. 1. Scope of application

Certification programme:

The law (in Germany the Railway Ordinance) requires that railway vehicles must comply with the recognised state of the art.

The corresponding requirements are based on the requirements of the following standards and regulations:

- DIN EN 15085-2:

Welding of railway vehicles and railway vehicle components Quality requirements and certification of welding firms

in conjunction with:

DIN EN 15085-1:

Welding of railway vehicles and railway vehicle components - General

DIN EN 15085-3:

Welding of railway vehicles and railway vehicle components - Design requirements

- DIN EN 15085-4:

Welding of railway vehicles and railway vehicle components - Production requirements

- DIN EN 15085-5:

Welding of railway vehicles and railway vehicle components - Inspection, documentation



Page 41 of 48 Testing and certification regulations

and, in addition, for maintenance:

- DIN 27201-6: State of railway vehicles - Welding

The following directives and guidelines also apply:

- ECWRV guideline:
 - Guideline of the European Committee for Welding of Railway Vehicles (ECWRV)
- Guideline of the "Railway Vehicles" coordinating committee (KoA guideline, including "Supplement to the guideline", "A to Z of the coordinating committee")

The certification body carries out the following inspection and certification activities:

- First audit and certification
- Monitoring inspection and maintenance of certification
- Extension of the certification or re-certification

The certification body checks as part of an audit whether welding firms comply with the relevant quality requirements for welding railway vehicles and railway vehicle components.

The certification procedure confirms and certifies that the applicant meets the formal, personnel and technical requirements and that he/she have introduced a welding organisation and welding instructions and perform welding work in accordance with these instructions.

If conformity is confirmed, the certification body issues a certificate and enters this into the public Online-Register on "www.en15085.net".

The scope of the certification of a welding firm for railway vehicles comprises:

- Field of application as per DIN EN 15085-2: New build/conversion/repair
- Repair as per DIN 27201-6
- Scope of application: welding processes/material groups/dimensions etc.
- Certification stage

These certification stages have been defined as follows:

Certification	Description
stage	
CL 1	Welding firms which make welded joints
	of weld performance class CP A to CP D
	on railway vehicles or railway vehicle components.
CL 2	Welding firms which make welded
	joints of weld performance class CP C2
	to CP D on railway vehicles components.
CL 3	Welding firms which make welded joints
	of weld performance class CP D on
	railway vehicles components.
CL 4	Firms which do not carry out welding themselves
	but do, however, build or purchase and install or
	purchase and market railway vehicles or railway
	vehicle components.

The weld performance classes are based on the safety relevance of the welded component as well as the stress conditions and are defined in the standard DIN EN 15085-3. (weld performance classes: CP A, CP B, CP C1, CP C2, CP C3 and CP D).

The certification of welding firms for welding railway vehicles and railway vehicle components is required by national supervisory bodies and prescribed in official documents



Page 42 of 48 Testing and certification regulations

The "Certification programme for welding firms - railway vehicles" is set out in the standards DIN EN 15085-2/DIN 27201-6 as well as in the "ECWRV guideline" and in the guideline issued by the co-ordinating committee for railway vehicles (KoA).

These documents have been drawn up and approved by multilateral working groups (DIN standards committee, the European committee for standardisation (CEN), the European Committee for Welding of Railway Vehicles (ECWRV) and the co-ordinating committee for railway vehicles (KoA).

The certification body is therefore not the owner of the certification programme for construction products but merely the user of this programme.

re.2.1: Application

The interested applicant makes an application for the certification procedure to the certification body by submitting to the certification body the form "Application for certification in accordance with EN 15085-2".

The following details and information about the applicant are required:

- Company name, address, contact details, contact partner
- Type of inspection and certification
 - (First certification/monitoring/re-certification/modification)
- Prospective scope of the certification:

Certification stage

Field of application as per DIN EN 15085-2: new build/conversion/repair/construction type

Repair as per DIN 27201-6

Scope of application: welding processes/material groups/dimensions

Weld performance class

Details about the personnel

Welding coordinators/representatives (including CVs, corresponding proofs of qualifications)

Other details:

with/without design,

Compliance with the quality requirements (cf. ISO 3834)

Number of welding production areas

Subcontractors

re. 2.3: Evaluation/inspection

Documents to be submitted:

By way of preparation for the inspection and certification the applicant has to provide the certification body with the following documents at the latest by the date of the audit.

- Completed audit checklist EN 15085-2
- Responsibility matrix
- Certificates of the welding coordinators
 - if applicable, proofs of welding qualifications and/or technical CVs
- List of the welders
- if applicable, proofs of welding qualifications or certificates of the NDT personnel
- List of the welding process qualifications including cover sheets of the WPQRs with scope of application
- Declaration of consent by the welding coordinators



Page 43 of 48 Testing and certification regulations

Carrying out the inspections

The certification body commissions auditors authorised by it to carry out the corresponding audit on site at the applicant's premises.

The audits must be carried out for the following minimum periods:

Services: (Inspection on site)	Duration: (man hours)		
	CL 1 (large company)	CL 1 (small company)	CL 2, CL 3, CL 4
First inspection (as part of the first certification)	2 auditors, together: 32 h	16 h	8 h
Monitoring inspection (to maintain the certification)	8 h	6 h	4 h
Periodic inspection (as part of the re-certification)	16 h	8 h	6 h

(a large firm comprises several welding shops,

a small firm has only one welding shop)

The applicant is sent an audit plan which notifies him/her of the procedure and scope of the audit. The key aspects of the inspection are as follows:

- Scope of the certification
 - (field of application, scope of application, certification stage, weld performance class)
- Welding organisation
 - (organisational structure, responsibilities, competences, planning, quality assurance, subcontracting)
- Personnel requirements:
 - (welder/welder operator, welding coordinator; inspection personnel):
 - valid welder/welder operator test certificates
 - Proofs of qualifications of the welding coordinators
 - Technical discussions with the welding coordinators (if required, extended technical discussion)
- Technical requirements:
 - Operating equipment for welding-related production
 - if applicable, vehicle workshops for the repair of railway vehicles, welding planning documents (drawings, welding procedure sheets, test plan) compliance with the quality requirements (as per ISO 3834)
 - Operating equipment for non-destructive testing
 - (including non-destructive testing, if necessary, by external testing laboratories)
- Welding procedures:
 - Welding instructions
 - Qualification of welding procedures,
 - Reports on the welding procedure qualification (WPQR)
 - Welding tests, work samples
- Site inspection
 - Welding-related production
 - Welding quality assurance
 - Assessment of components from current production

In the case of serious (or impermissible) deviations, such as

- lack of qualifications by personnel (e.g. welding coordinators),
- lack of equipment

the auditors can require a re-inspection to be carried out at a later time.



Page 44 of 48 Testing and certification regulations

re. 2.4: Assessment and decision on certification

The certification body commissions authorised certifiers to carry out the assessment and make the decision on certification.

The activities "Evaluating", "Inspecting" and "Certifying" are independent of each other and are carried out by different persons.

re.2.5: Certificate, test mark

The following information is shown on the certificate:

- Applicant's name and address
- Certificate number
- Scope of the certification, with relevant standards (DIN EN 15085-2 / DIN 27201-6), certification stage field of application (new build/conversion/repair), construction type scope of application (welding processes/material groups/dimensions.)
- Names of the welding coordinators/supervisors (including representatives
- Auditor's name
- Date of issue
- Period of validity of the certification
- Signature of the certifier
- Name of the certification body

The certificate is valid for a maximum of 3 years from the date of the decision on certification. The certificate is only valid for the location of the welding firm and its welding coordinators.

The certification body also allots a test mark in addition to the actual certificate:



re. 2.6 Monitoring the certification

During the period of validity of the certification the certification body regularly checks that the requirements of the certification are being complied with.

To that end a monitoring audit is carried out yearly with a waiting period of \pm 6 months around the due dates (the month of the first audit).

There should be an interval of at least 4 months between two monitoring audits.

The certification body commissions auditors to carry out the appropriate audit. New auditors must be engaged on a regular basis - at least every 3 years - to ensure objectivity in carrying out the audits.



Page 45 of 48 Testing and certification regulations

re. 3.8: Register of the certificates

All valid certifications will be published on the TÜV Rheinland website Certipedia (www.certipedia.com)

The valid certificates as well as the associated test reports will also be listed and published on the Online-Register on "www.en15085.net" operated by the ECWRV.

re.3.10: Complaints/appeals

The contact partner for appeals/complaints is the manager of the certification body: Mr. Achim Makowka (Tel.: +49 221 806 2250, email: makowka@de.tuv.com).

re.4.4 Use of the certificate/test mark

The test mark must not be used as a product logo.



Page 46 of 48 Testing and certification regulations

Appendix 2: Conditions of use for the TÜV Rheinland test mark

General conditions of use for all variants of the TÜV Rheinland test mark of TÜV Rheinland Industrie Service GmbH (hereinafter referred to as licenser)

General points

- (1) These general conditions of use for the test mark (hereinafter: "conditions of use") apply to all customers who conclude a contract for participation in the licenser's certification system (hereinafter: "certification contract") with the licenser for a certain product or service (hereinafter: "contractual product").
- (2) On concluding the certification contract, but at the latest on acceptance of the offer after downloading the test mark on the test mark download page, the customer accepts these conditions of use, the testing and certification regulations and the licenser's general terms and conditions which have been drawn to his/her attention and whose validity is not affected by the regulations set out below.
- (3) The customer may use the licenser's test mark in the agreed form in accordance with the certification contract and these conditions of use in order to refer to the testing and certification of his/her contractual product.
- (4) The test mark is protected, inter alia, by the German trademark 30 2012 028 733 "TÜVRheinland" registered for TÜV Rheinland AG and the international trademark 1 185 075 (hereinafter referred to as "trademark"). The licenser is affiliated to the holder of these and other trademarks under company law and affirms that he/she has been granted the necessary rights by the holder of the trademark to grant permission to use the test mark.

Section 1 Permission for use

- (1) Starting with the granting of the certificate issued pursuant to the certification contract and for the duration specified therein, the licenser grants the customer a simple licence for the use of the test mark for the contractual product in the entire territorial scope of validity of the trademark pursuant to the requirements of Section 4.
- (2) The use of the licence for other products or services, even if they are of similar construction or content, is neither provided for nor permitted by these conditions of use. In the event of a breach, the licenser is free, inter alia, to demand a contractual penalty pursuant to Section 5 from the customer.
- (3) The customer is not entitled to issue sublicences or rights from the licence relationship or transfer his/her contractual status in its entirety to third parties and/or to legally or commercially affiliated companies pursuant to Section 15 of the Stock Corporation Act (AktG).
- (4) By way of clarification it should be emphasised that this usage authorisation does not entitle the customer either to use the licenser's group logo, registered as German trademark 306 69 064, or the corporate design of the licenser

Section 2 Loss of the right of use

- (1) The customer may use the test mark until the expiry, revocation or the declaration of invalidity of the certificate issued pursuant to the certification contract, or until the non-implementation of monitoring audits that are required. If the certificate is declared invalid for a restricted period during the term of contract or its validity is suspended and/or terminated by a contractual party, this also applies to the granting of the right of use under these conditions of use. The customer undertakes to cease immediately any use of the test mark after the end of his/her right of use.
- (2) The customer has the right to market the stocks of the contractual products held at its premises for a period of 3 years from the end of the contract. Moreover, the customer has to ensure that the aforementioned sell-off period is granted by his/her own customers.
- (3) The licenser is entitled to terminate the permission pursuant to Section 1 with prospective effect if the customer infringes the trademark or supports a third party in such an infringement. Notwithstanding the regulations set out above, the licenser has the right at any time to prohibit with imme-



Page 47 of 48 Testing and certification regulations

diate effect the use of the test mark forming the subject of the contract in the event of any culpable breach by the customer against his/her obligations arising from these conditions of use.

Section 3 Usage fee

The right of use is granted pursuant to the certification contract either for a fee or free of charge.

Section 4 Usage

- (1) The customer undertakes to use the test mark solely on the contractual product, its outer packaging or to advertise the contractual product and to use it solely in such a way that it is clearly and exclusively assigned to the customer's contractual product, company name and company logo. Productrelated advertising with a test mark is not permitted if only a certificate of conformity or system certificate has been issued.
- (2) The test mark may be used solely in the form, variant and language if agreed with the text and certification statements ("key words") and with all details and information texts (such as product and/or model descriptions, reference to the certificate holder) that are defined in the certification contract and are specified on the test mark download page. In addition, the customer is obliged to depict, together with the test mark, the individual identification number assigned to him/her for the contractual product under the certification contract.
- (3) The "key words" and any agreed information texts and the design of the test mark must not be modified in any way or used in a modified way. In the event of a breach, the licenser is free, inter alia, to demand from the customer a contractual penalty pursuant to Section 5.
- (4) The customer is not permitted to add to the test mark other elements, irrespective of their type, such as company name and/or company logo of the customer or third party, product name and/or product logo or other graphic depictions. Breaches substantiate a claim to a contractual penalty pursuant to Section 5. Other elements, irrespective of their type, are deemed not to have been added to the trademark if they are placed at a minimum distance from the test mark of one quarter of its total height.
- (5) The test mark is to be used in the specified proportions. A minimum height of 15 mm is recommended. The same colour scheme is to be used in all cases for the test mark as specified in the certification contract and as downloaded by the customer from the test mark download page. Under the provisions of the TM Advertising Guideline, a redesign in colour of the black-and-white line art version of the test mark as part of the customer's advertising is not permitted unless this is all in one colour and the area covered by the redesigned test mark in colour is at least 70% of the area covered by the original black-and-white line art version. Furthermore, the customer shall ensure at all times the full legibility of all picture elements of the redesign of the test mark in colour. In addition, a redesign of the downloaded test marks in colour is expressly prohibited.
- (6) The customer must not use the test mark in such a way as to give a misleading impression of the scope and content of the certification. In particular he/she must not give an impression that the test mark has been awarded following testing by a government body.
- (7) The customer himself/herself is wholly responsible for ensuring the test mark issued is used in a permitted way and is also responsible for the permissibility of all the statements made about it. This also applies to the correct use/advertising by his/her customers.
- (8) In using the test mark for advertising purposes, the customer is obliged to provide a means of supplying information about the test item to which the test mark relates. In addition to the publication of the complete certificate based on the respective test, suitable information can also be provided by an individual entry on the certificate database "certipedia" on www.certipedia.com operated by TÜV Rheinland AG. The customer has to transfer the aforementioned obligation to his/her own customers who use the test mark for advertising purposes. The licenser is entitled to publish for consumer information purposes the names of the certificate holders and the tested products, audited systems and the like.
- (9) The test mark is to be used by the customer solely in a form that does not jeopardise the reputation and appearance of the test mark and the reputation and the validity of the trademark and/or the reputation of the licenser and the companies affiliated to him/her pursuant to Section 15 of the Stock Corporation Act (AktG) as independent third parties and/or recognised testing service provid-



Page 48 of 48 Testing and certification regulations

- ers. In the event of such a risk, the customer has to discontinue the use of the test mark concerned immediately at the licenser's request.
- (10) The customer accepts that any use of the test mark and the trademark by the customer constitutes use by and for the benefit of the licenser. Records on the use of the test mark and the trademark by the customer are to be kept for at least 5 years by the customer and are to be provided to the licenser on request.
- (11) All costs incurred as a result of the use of the test mark by the customer shall be borne by the latter himself/herself. In addition, the customer will indemnify the licenser against all claims of third parties that result from breaches against Section 4. If the licenser should nevertheless incur material and/or immaterial damage, he/she are free, inter alia, to demand a contractual penalty pursuant to Section 5 from the customer.

Section 5 Contractual penalty, applicable law and place of jurisdiction non-contest clause

- (1) For each legally ascertained culpable breach by the customer against his/her obligations under these conditions of use, the licenser is entitled to demand an appropriate contractual penalty to be defined by the licenser for each individual instance of a breach and to be reviewed in the event of dispute by the court responsible. The possibility of claiming further compensation is unaffected by this. An offsetting of a contractual penalty by any compensation claims is not permitted.
- (2) The conditions of use are governed by the law of the Federal Republic of Germany. The place of jurisdiction for disputes arising from or in connection with these conditions of use is Cologne.