

# **GUIDELINE**

**of the European Committee for  
Welding of Railway Vehicles  
(ECWRV)**

**(2018-02-11)**

**PART 1**

**Procedure for the application of EN 15085 and certification  
of welding manufacturers for welding railway vehicles and  
components according to EN 15085-2**

**ECWRV**

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## **1 Introduction**

This guideline was prepared by the European Committee for Welding of Railway Vehicles (ECWRV).

The European Committee for Welding of Railway Vehicles (ECWRV) was established voluntarily. The aim of the ECWRV is to promote cooperation among the parties involved in the manufacture of welded railway vehicles, on a European basis.

Part 1 of this guideline describes the manufacturer certification process and the requirements for the manufacturer certification body (MCB).

Part 2 of this guideline provides a technical interpretation of the EN 15085 series of standards and has to be taken into account by MCB's that take part in this system.

Adherence to this guideline is mandatory for MCBs who are members of the ECWRV. National safety authorities and accreditation bodies can refer to this guideline.

The application of EN 15085 ff is based on generally accepted rules of technology. For the welding of railway vehicles and components, these generally accepted rules of technology are embodied in:

- the EN 15085-1 to EN 15085-5 series of standards, and
- additional reference standards mentioned in the EN 15085 series.

Manufacturers who carry out welding for new build, including finishing welding, or in repair must provide evidence of their qualification according to EN 15085-2.

Manufacturers who do not perform any welding work themselves but

- design, or
- purchase & assemble, or
- purchase & resell

welded components and subassemblies must be qualified to certification level CL 4.

Manufacturer qualification is considered to have been demonstrated if a certificate has been issued by a manufacturer certification body (MCB) and registered into the Online Register EN 15085. The certificate becomes invalid when the conditions upon which it was granted no longer exist.

## **2 References to standards, regulations and guidelines**

Reference standards are mentioned in the EN 15085 series.

### **3 Manufacturer Certification Bodies**

#### **3.1 General**

One of the main focal points of ECWRV is the certification of manufacturer activity according to EN 15085-2.

All manufacturer certification bodies (MCB) that are members of the ECWRV or wish to join ECWRV shall be actively involved in the committee, with the goal of harmonizing the implementation and application of EN 15085, achieving a unified European quality level for railway vehicle welding and promoting continuous improvement in these areas.

The ECWRV has agreed to use the existing EN 15085 Online Register, managed by GSI SLV Halle, as the main tool to guarantee a harmonized, transparent and valuable certification process.

The procedure to be followed and the corresponding requirements for granting the authorization of a MCB to join the ECWRV EN 15085 Online Register and for maintaining such authorization are reported in clauses 4 and 5 of this guideline.

The ECWRV EN 15085 Online Register Managing Company (GSI SLV Halle) is responsible for implementing the authorization in the Online Register after approval by the ECWRV.

#### **3.2 Transitional agreements**

Manufacturer certification bodies (MCB)s already operating in the GSI SLV EN 15085 Online Register before the ECWRV founding date are automatically authorized in the frame of this guideline and will not undergo the assessment procedure referred to in clause 4.

The authorization is valid for 5 years started from the date of funding ECWRV.

### **4 Authorisation process**

The authorization is established by a contract with the ECWRV EN 15085 Online Register Managing Company to be signed by the applicant MCB. The contract makes reference to this document and defines all financial matters for the authorization process and all duties and responsibilities for the use of the Online Register by the MCB.

#### **4.1 Application to ECWRV by the manufacturer certification body**

The manufacturer certification body (MCB) shall apply to the ECWRV EN 15085 Online Register using the application form linked to the web-site. ([http://www.en15085.net/ECWRV/Application for assessment.doc](http://www.en15085.net/ECWRV/Application%20for%20assessment.doc)).

The following documentation shall be attached to the application form (in electronic format only):

- General description of the organization, including the organization chart
  - Accreditation certificate according to EN ISO/IEC 17065 (EN ISO/IEC 17021), for the certification to EN 15085 (if applicable)
  - If there is an accreditation by the national accreditation body only the mandatory topics of the application form need to be answered.
- Authorisation by the National Safety Authority (if applicable)
- List of EN 15085 auditors and relevant CVs, in compliance with sub-clause 5.3
- Rules and procedures for the EN 15085 certification, in compliance with clause 5, 6 and 7
- Checklists and/or questionnaires and reports used for manufacturer assessment, in compliance with this guideline

All the above mentioned documents must be provided in the English language.

The application form divided into mandatory and voluntary topics and documents depending on the national accreditation.

## **4.2 Authorisation and registration in the Online Register**

After receiving the application form and attached documentation, the ECWRV assigns an Assessment Team to the MCB.

The ECWRV Assessment Team (AT) is a group of two auditors selected by the Chairman of ECWRV from the ECWRV members.

If a reasonable argument is provided, the MCB may ask for a different assessment team. The ECWRV makes the final decision with respect to the Assessment Team.

### **4.2.1 Documentation review**

The AT reviews the application form and attached documentation and evaluates them according to the requirements described in clause 5 of this guideline.

In case non-conformities are found, the AT will ask the MCB for corrective actions.

### **4.2.2 Audit on site**

If the MCB cannot be thoroughly evaluated during the documentation review by the AT, or in case a non-conformity corrective action cannot be evaluated and closed on a documental basis, an on-site audit at the MCB facilities may be requested by the AT.

This audit can be used for conducting professional interviews with MCB auditors as well.

### **4.2.3 Registration**

After closing all non-conformities the MCB can be granted the status of “Authorised ECWRV EN 15085 Manufacturer Certification Body” and can be registered on “The ECWRV EN 15085 Online Register”.

Once authorized, the MCB is allowed to insert the previously certified companies into the online register after the next satisfactory surveillance or renewal audit at manufacturer site is completed.

### **4.3 Initial Recognition of an MCB (Applicant MCB)**

The initial recognition covers the following procedure:

- Active participation of the MCB in the meetings of ECWRV as observer
- The MCB demonstrate his competence in a regular meeting of ECWRV to all the other members
- Description of competence according the application form
- Auditors has to be recognized by the assessment regulation of ECWRV
- Decision about status as applicant after paper assessment
- Free access to the online register

The conditions for applicant MCBs are as following:

- Number of auditors is limited on two
- Nomination as applicant MCB - limited to two years

### **4.4 Procedure to become the status of full member MCB:**

- After two years as an applicant MCB there will be an evaluation procedure including a screening and monitoring of all activities in the online register
- In case of successful evaluation the applicant will change to the status of full member MCB
- Additional auditors could recognized by the assessment regulation depending on the number of certificates (see ECWRV guideline part 1)
- Recognition is valid up to 5 years

### **4.5 Maintenance of the authorization**

The authorized MCB is responsible for maintaining compliance with the requirements described in clause 5.

Any important change in the MCB organization must be communicated to the ECWRV. If the ECWRV becomes aware of any MCB behavior which is in conflict with the requirements described in this guideline, the ECWRV EN 15085 Manufacturing Certification Body authorization will be revoked.

The authorization is valid for maximum 5 years.

After 5 years the MCB shall apply for an authorization renewal, valid for an additional 5 years maximum, in general following the same process as described in clause 4.

## **5 Requirements for Manufacturer Certification Bodies**

### **5.1 Cooperation with ECWRV**

The MCB shall participate actively in the ECWRV by attending meetings and joining working groups.

The Manufacturer Certification Body is requested to divulge ECWRV activity in its own country, promoting the ECWRV certification procedure of manufacturers in the national market.

### **5.2 Basic accreditation**

Only an MCB which is accredited by the national accreditation body according to EN ISO/IEC 17065 (EN ISO/IEC 17021), in the scope of EN 15085-2, can be authorized by ECWRV. If this type of accreditation is not available in the respective country authorisation of ECWRV can even though be granted.

Alternatively the recognition of a European National Safety Authority, or an authority working on behalf of a European Safety Authority, can be accepted.

### **5.3 Specific requirements**

#### **5.3.1 Certification Body**

The manufacturer certification body shall fulfill the following requirements:

- a) Professional competence and experience in welding of railway vehicles
- b) Participation in experience exchanges among national and/or European manufacturer certification bodies.
- c) Access to laboratories for destructive and non-destructive testing accredited to EN ISO/IEC 17025.
- d) Minimum of two auditors employed by a manufacturer certification body of ECWRV. The Auditors can perform audits for more than one MCB within the ECWRV. Each MCB is responsible to keep all documents for the recognition of the auditor according this guideline. Risk analyses are recommended to prevent conflicts of interests, impartiality, and independence. A written agreement between the MCBs is also necessary.
- e) An MCB shall have at least two auditors qualified as EWE/IWE.

#### **5.3.2 Auditors**

- a) In addition to the requirements established by EN ISO/IEC 17065 (EN ISO/IEC 17021), the auditor must be qualified, as a minimum, to the level of EWT/IWT according to EWF 416/IAB 252 guidelines.

In case of CL1 certification of a manufacturer at least one IWE must form part of the audit team during the assessment audit.

- b) The auditor must have a proven comprehensive technical knowledge and professional experience in the railway vehicle industry for a minimum of three years.

- c) The auditor must take part in a minimum of 5 internal or external audits according to EN 15085 before they are authorized to conduct an audit.
- d) The auditor must have the knowledge of audit practices (e.g. EN ISO 19011), assessed by an internal or external organization.

#### 5.4 Additional requirements for maintaining the authorization

- a) The MCB shall manage at least 10 certificates, including 2 CL1 certificates, each year.
- b) The MCB shall organize an internal or external exchange of experience meeting among auditors at least every year.
- c) The MCB shall only assign auditors who maintain their knowledge and competence up-to-date by carrying out at least 5 audits per year, or other appropriate measures (e.g. training course).

### 6 MCB auditing procedure

The MCB shall have a written procedure that describes the way an EN15085 audit is performed. Said procedure shall include all relevant documents and forms used in the manufacturer assessment.

Mandatory documents and/or forms shall be in the national language and in English. The English translation is necessary to facilitate ECWRV inspections and for audits in foreign workshops.

Audit details must be described by the auditor in a language the manufacturer can understand.

The audit report title, section headings and results must be given in both the national language and English.

If the audit is carried out in a foreign language, it is necessary to clarify the translation requirements. The interpreter must be able to understand the technical terms!

#### 6.1 Audit times for certification and surveillance audits:

	<b>CL1<sup>1)</sup></b>	<b>CL 1<sup>2)</sup></b>	<b>CL 2</b>	<b>CL 4</b>
<b>Initial certification</b>	2 auditors 16 h each	16 h <sup>3)</sup>	8 h	8 h
<b>Renewal certification</b>	16 h	8 h	6 h	6 h
<b>Surveillance visit</b>	8 h	6 h	4 h	4 h

<sup>1)</sup> Big welding manufacturer with several welding workshops

<sup>2)</sup> Small welding manufacturer with a single welding workshop.

<sup>3)</sup> The MCB shall determine if one or two auditors are necessary

Deviations shall be explained by the MCB in the audit report, e.g. single purpose production (less time), translation problems, adding new welding coordinators, items in the range of approval etc. (more time).



In case of initial and renewal certifications an application form must be submitted by the manufacturer. Surveillance visits can be done without an application, if no modifications in the certificate are necessary.

## **6.2 Mandatory documents used for the audit**

### **6.2.1 Audit plan for initial and renewal certification including time schedule**

- Members of audit team
- Audit date
- Introduction meeting with all participants
- Review of the application form
- Technical statements, **e.g. facilities, equipment, ...**
- Certification level, weld performance class, field of application, range of certification
- Organization chart, table of tasks and responsibilities acc. EN 15085-2 annex B
- Proof of declarations, **e.g. details of manufacturers documents**
- Personnel conditions, qualifications
- Technical conditions (WPQR, WPS, welders and operators approvals)
- Inspection of the workshop including storage of base and filler materials and equipment check
- Welding work tests including documentation, welding of test pieces
- Production order management
- Evaluation and execution of parts in production
- Check of production documents including welding planning documents (drawings, part lists...)
- Technical discussion (see report)
- Report preparation
- Evaluation, final discussion
- Handling of deviations, status of the certificate (renewal, certificate blocking until correction of deviations...)

### **6.2.2 Audit plan for the surveillance including time schedule**

- Members of audit team
- Audit date
- Introduction meeting with all participants
- Check field of application in the valid certificate
- Check of welders approvals, procedures and range of certification
- Check of execution of welded parts in production (if any) including workshop conditions
- Check of documentation
- Report preparation
- Evaluation, final discussion

- Handling of deviations, status of the certificate (renewal, certificate blocking until correction of deviations...)

### **6.2.3 Documentation**

File of the company:

- Personal documents (Diplomas, CV's, IWE/IWT/IWS-diploma)
- Documentation related to the audit
- Copy of certificate
- Other documents, e.g. invoices, transmittal letters...

Electronic storage (e.g. Online Register):

- Application (if necessary)
- Report
- Certificate

### **6.2.4 Application form**

Minimum contents:

- Workshop address, telephone, fax, email, web, contact person
- Welding personnel: welding coordinators (including CV., diploma and IIW/EWF certificate), NDT personnel, welders, operators
- Certification level, CP and CT level
- Design type
- Sub-supplier types
- WPQRs and WPSs
- Welding equipment
- Non-destructive and destructive testing equipment
- Heat treatment equipment
- Welding operation equipment (jigs, furnaces, etc.)
- Evidence of ISO 3834 compliance

### **6.2.5 Assessment of the coordinator**

The assessment of the coordinator shall be done on base of a table according to EN ISO 14731. See EN 15085-2, Annex B.

Remark: This paragraph needs to be revised when ISO 14731 is reworked.

### **6.2.6 Finding sheet**

Finding sheets can be inserted in the report or the application itself, or can be separated.

### **6.2.7 Audit closure form**

The audit closure form can be in the report or separated.

### **6.2.8 Transmission letter to the client**

The transmission letter to the client can be integrated in the report or separated.

### **6.2.9 Certificate form including nomenclature**

To be in line with the online register, it is necessary to use the established form including the nomenclature.

### **6.2.10 Report**

The report needs to show the results of the items the application has been issued for. It can be done based on the application itself and can include all documents under 6.2 or it can be separated.

Results in the report have to be shown, e.g.:

- a) Result acceptable - no findings
- b) Result acceptable - minor findings
- c) Result unacceptable- major findings  
(Which ones? Time table for correction)

## **7 Optional documents used for an audit**

Optional document forms shall be in the national language and in English if they are essential for foreign workshop audits, or if the document needs to be checked by ECWRV.

Forms for internal use of the MCBs can be issued in the national language, such as:

- Order
- Mission statement
- List of persons met during the audit  
Can be shown in the report or separated
- Documents examined during the audit  
Can be shown in the application/report or separated
- Assessment of the commission  
Can be documented in the application/report or separated
- Synthesis data sheet  
Can be shown in the report or separated
- Planning of next audit  
Can be shown in the report or separated