WABTEC TRANSIT
Supplier Quality Requirements

TR-F-QUA-004

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

REVISIONS						
Pos.	Change Date	Change Description	Revision Level	Compiler	Checker	Approval
1	12/10/18	Change of document name and number to TR-F-QUA-004 for upload to ECM	1	RBU	EDN	CLN

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

TABLE OF CONTENTS

1. INTRODUCTION 7
1.1 WABTEC CORPORATION – QUALITY MISSION STATEMENT 7
1.2 BACKGROUND AND PURPOSE 7
1.3 GENERAL REQUIREMENTS 8

2. SUPPLIER SELECTION AND EVALUATION 9
2.1 SUPPLIER ASSESSMENT AUDIT 9
2.2 PROCESS AUDIT / PRODUCT AUDIT 10
2.3 CUSTOMER AUDIT 10
2.4 QCD MANAGEMENT 10
2.5 EMPHASIS ON SAFETY IN THE RAIL INDUSTRY 10

3. PRODUCT QUALITY 10
3.1 ARTICLE STATUS 10
3.2 INITIAL SAMPLES (IS) / FAI (FIRST ARTICLE INSPECTION) 11
3.3 PRODUCT SURVEILLANCE 11
3.4 TECHNICAL DOCUMENTATION 12
3.5 SUPPLIER PROCESS CHANGE 12
3.6 TRACEABILITY 13
3.7 PRODUCT MARKINGS FOR TRACABILITY 13
3.8 FIFO (FIRST IN - FIRST OUT) / FEFO (FIRST EXPIRING FIRST OUT) 13
3.9 SPECIAL PROCESSES 13-14

4. SUPPLIER APQP / PPAP 14
4.1 TEAM FEASIBILITY COMMITMENT 15
4.2 CLAUSE BY CLAUSE 15
4.3 CRITICAL QUALITY CHARACTERISTICS 15
4.4 CRITICAL PROCESS CHARACTERISTICS 15
4.5 INITIAL SAMPLES PRESENTATION AND INSPECTION REPORT 16
4.6 SHIPMENT DOCUMENTS 16
4.7 VALIDATION OF INITIAL SAMPLES 17
4.8 EMPHASIS ON SAFETY AND ENVIRONMENT IN PPAP 17

5. MANAGEMENT OF NON-CONFORMITIES 17
5.1 CONCESSION / WABTEC CORPORATION WAIVER 18
5.2 COPQ (COST OF POOR QUALITY) 18
5.3 SERIAL DAMAGES / RETROFITS 19
5.4 PLANNED OBSOLESCENCE 19

6. TRANSPORTATION & PACKAGING 20

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

Printed out on: 25 February 2026

7. MONITORING SUPPLIER PERFORMANCE 20-21
7.1 SUPPLIER RANKING 21
7.2 PERFORMANCE REVIEW 21
7.3 SUPPLIER STATUT & VENDOR LIST 21

8. HEALTH SAFETY & SUSTAINABILITY 22

9. RESTRICTED MATERIALS AND CHEMICAL SUBSTANCES 22-23

10. DISPOSAL AND RECYCLABILITY 24

APPENDIX 1 – DELIVERIES IDENTIFICATION LABEL 26
APPENDIX 2 – INSPECTION REPORT FORM 27
APPENDIX 3.1 – PROCESS FLOW DIAGRAM EXAMPLE 28
APPENDIX 3.2 – PROCESS FLOW TEMPLATE 29
APPENDIX 4 – MANUFACTURING CONTROL PLAN 30
APPENDIX 5 – REACH CERTIFICATE, OBLIGATION QUESIONNAIRE & REGISTRATION OF HAZARDOUS SUBSTANCES FORM 31-34
APPENDIX 6 – TEAM FEASIBILITY COMMITMENT 35-36
APPENDIX 7 – SUPPLIER CLAUSE BY CLAUSE ANALYSIS 37
APPENDIX 8 – GROUP 8D REPORT FORM 38-39
APPENDIX 9 – DEVIATION / CONCESSION REQUEST 40
APPENDIX 10 – NON-CONFORMITY FORM 41
APPENDIX 11 – GENERIC FMEA (DESIGN OR PROCESS) FOR SUPPLIERS 42
APPENDIX 12 – PARTS SUBMISSION REQUIREMENTS (PSR) 43
APPENDIX 13 – PARTS SUBMISSION WARRANT (PSW) 44
APPENDIX 14 – SUPPLIER QUALITY ASSESSMENT (SQA) - SUMMARY SHEET 45
APPENDIX 15 – EMC REQUIREMENTS 46
APPENDIX 16 – PRE- ASSESSMENT SUPPLIER FORM 47-48

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

TERMS & DEFINITIONS

3.1 certificate	Certificate of compliance to be issues based on EN 10204 standard (compare: 2.1 / 2.2 and 3.2 cert.)
5W2H	5 W' (What, Who, When, Why, Where) s and 2 H's (How, How much) is a simplified tool for a description of a problem
8D	A tool for permanently resolving quality issues
APQP	Advanced Product Quality Planning
BOM	Bill of Materials (parts list)
CAR	Corrective Action Request
CF 1 – 3	Safety Criticality (1 denotes highest level and 3 the lowest)
CIR	Corrective Immediate Request
DFMEA	Design Failure Mode and Effect Analysis
ECA	Engineering change authorization
ECR	Engineering Change Request
EMC	Electromagnetic Compatibility
FAI	First Article Inspection
FIFO	First In, First Out (a method of stock control which maintains good tractability)
FEFO	First Expiring, First Out (a method of stock control which ensures first expiring goods are used first)
FMEA	Failure Modes and Effect Analysis (Design, Process, Logistics)
Free Pass	Parts/products that are fed directly into the production line without inspection by WABTEC CORPORATION
GHS	UN Global Harmonized System of classification and labelling of chemicals
II	Inward Inspection / Incoming Inspection
IS	Initial Samples
ISIR	Initial Sample Inspection Report
KPI	Key Performances Indicators
NCR	Non-Conformity Report
NCG	Non-Conform Goods
MSA	Measurement System Analysis (part of PPAP)
MSDS	Material Safety Data Sheet
OEM	Original Equipment Manufacturer
OTD	On Time Delivery (delivery percentage)
PCR	Process Change Request
PDCA	Plan Do Check Act (Improvement process management)

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

PDCA-FTA	Plan Do Check Act – Factor Tree Analysis (analysis methodology for issue treatment)
PFMEA	Process Failure Mode and Effect Analysis
PPAP	Production Part Approval Process
PPM	Parts Per Million
PSDS	Product Safety Data Sheet
PSW	Parts Submission Warrant (certificate to confirm PPAP is good for production)
PSR	Parts Submission Requirement
Q&D	Quality and Delivery
QCD	Quality/Cost/ (on time) Delivery
QMS	Quality Management System
QRQC	Quick Response Quality Control
IRIS	International Railway Industry Standard, (currently version 3, which has been transferred to ISO/TS 22163)
REACH	Registration, Evaluation, Authorization of Chemical. EU Regulation 1907/2006/EC
SCM	Supply Chain Management
SQA	Supplier Quality Assurance
SQE	Supplier Quality Engineer
SQC	Supplier Quality Category
WIM-S	Wabtec Incident Management Supplier: Report, Analyze and Track all incidents in responsibility of suppliers following QRQC methodology. Same database used in all WT sites. Keep the traceability of each incident and make the Lesson learn for new supplier or components validation.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

1. INTRODUCTION

1.1 WABTEC CORPORATION – QUALITY MISSION STATEMENT

To provide quality products that fully satisfy the needs and expectations of our internal and external customers is our key priority. This means to deliver to our customers good value for money products and services on time in superior quality, reliability and durability.
WABTECs ***passionate*** commitment is, to ensure this target in a ***reliable*** and ***collaborative*** way across the whole Supply chain from raw material provider to the end user of our products.

1.2 BACKGROUND AND PURPOSE

WABTEC CORPORATION designs, manufactures and sells a range of railway equipment many of which are **safety critical** and must comply with local and international directives, norms and customer engineering specifications.

WABTEC CORPORATION and its customers work in an environment which requires highest quality level of products and services. Our suppliers play a major role and must be directly involved in ensuring OEM and aftermarket customer satisfaction.

The requirements, directives and conditions stipulated in this document form an integral part of the contractual agreements between WABTEC CORPORATION and its supplier. The additional specific quality requirements referred to in the purchase order or in the contract take precedence in all cases, unless otherwise stated.

The document is valid for all WABTEC CORPORATION suppliers who provide all kinds of products and services, that are directly incorporated into our products. For example:

- Raw material and semi-finished parts (castings, bars, tubes, wires, oils, etc.)
- Pre-machined and finished parts whether of metallic material or not
- Components, sub-assemblies and complete functions and systems
- Sub-contracting and treatments
- Outsourced productions or services on customer sites (e.g. commissioning, repairs, overhauls, etc.)
- Engineering, external laboratories, production & laboratory equipment and tooling

This manual and the documents to which it refers, is called the SQR (Supplier Quality Requirements). The SQR states the terms and conditions and the principles of quality management that WABTEC CORPORATION expects from its suppliers.

Unless otherwise agreed and to the extent permitted under applicable law, all the requirements described in this SQR shall be applied. If any provision of this SQR (or any portion thereof) is held invalid, illegal or unenforceable in any respect by a court of competent jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision of this SQR (or the remaining portion thereof).

All questions or comments about the SQR are to be directed to the quality contact or the buyer at WABTEC CORPORATION.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

1.3 GENERAL REQUIREMENTS

The following requirements are the **standard requirements** regarding general quality assurance. The **specific technical requirements** for different commodities are described in their own requirement specifications.

It is understood that the supplier assumes full responsibility for the quality, on time delivery and reliability of all materials and services provided to WABTEC CORPORATION.

The spirit of WABTEC CORPORATION's supplier quality management is based on prevention. To ensure compliance of the product or service purchased to its defined requirements is an integral part of this system, the fundamentals of which are:

- Selection of competitive, capable and quality oriented suppliers
- Product and Manufacturing Process qualification
- Continuous monitoring and improving supplier performance

To ensure this, WABTEC CORPORATION demands of all its suppliers to:

- implement and maintain an effective Quality Management System (QMS) based on preventing defects rather than detecting or correcting them. Suppliers shall have deployed a certified QMS, minimum in accordance with standard IS09001 (latest revision). Suppliers that have a special focus on Railway business should aspire a certification in accordance to ISO/TS 22163 (known as IRIS), suppliers delivering to automotive sector should aspire the IATF 16949 (former ISO/TS 16949) certification.
- ensure, that required additional process related certifications are available and maintained. This is for example EN15085 (or comparable local standards if applicable) for welding, DIN 6701 for gluing/bonding or other special process qualifications and releases demanded by end customers or Railway operators. The different requirements will be defined in project specifications or contracts.
- take all necessary measures, to guarantee compliance of the product delivered or service provided.

WABTEC CORPORATION is aware of its responsibility for health and safety of its own, as well as its customers work force, and for the protection of environment. Sustainability and care for health and safety are our key priorities. The same understanding is required to suppliers and service providers. WABTEC CORPORATION is preferring suppliers and service providers that implemented HSE management systems like ISO45001(former OHSAS18001) and ISO14001 or adequate.

Neither WABTEC CORPORATION nor its customers will entertain, approve or condone child labor or discrimination in the supply chain's workplaces. Child labor means using the services of persons under the age of 16 years. Discrimination means direct or indirect employment prejudice or unjust treatment against persons on the grounds of race, religion, age, color, gender, sexual orientation or identity, national or ethnical origin, physical or mental disability.

WABTEC CORPORATION reserves the right immediately to cancel orders and terminate the business relationship with suppliers which do not comply with such requirements.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

2. SUPPLIER SELECTION AND EVALUATION

The release and selection of a supplier is made based on:

- the profile of the supplier,
- the economic analysis,
- the result of the assessment audit by WABTEC CORPORATION.

WABTEC CORPORATION requires a copy of the registration certificates of the supplier's quality system for its own records. The supplier will inform WABTEC CORPERATION in case of loss or change of the certification status. When required by regulations or statute, the required Technical and/or Quality System approvals shall be maintained (e.g. Association of American Railroads, etc.).
The initial assessment document is always required from the supplier, to gather the commercial data and engineering/industrial processes/techniques used.
The WABTEC quality policy is to work with Qualified Suppliers only. Qualification is partly made through evaluations of the supplier using SQA audits. Results from SQA audits are used for qualification decisions.

2.1 SUPPLIER ASSESSMENT AUDIT

The release (approval) of a new supplier and the permanent vendor panel management is based on Assessment Audits. These audits may be performed by WABTEC CORPORATION or by external auditors based on WABTEC CORPORATION request and procedure.

The Audit covers ten General Process Questionnaires and additional questionnaires related to the applicable Special, Specific or Critical Processes (see Chapter 3.9).

Suppliers will be ranked in categories “A” (**P**referred), “B” (**I**nvestigate action plan required) or “C” (**H**old). Criteria for the ranking and consequences can be found hereafter:

Criteria	ranking	Consequences
PI < 60 % or ≥ 3 CAR	C	Immediate Corrective Actions required No Go for Pre-selection
60 % ≤ PI ≤ 80 % or CAR ≤ 2 or PI ≥ 80% and 1 or 2 CAR	B	Improvement action plan requested Supplier Nomination, under accepted deviation.
PI ≥ 80% and No CAR	A	Supplier assessment approval. Go for Supplier Nomination

WABTEC CORPORATION will offer every assistance in improving supplier performance to “A” status however suppliers that consistently remain at “C” status may be de-sourced.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

2.2 PROCESS AUDIT / PRODUCT AUDIT

The Supplier shall pay special attention to the control of specific processes as defined in the Supplier Audit Questionnaire. WABTEC CORPORATION can perform Process Audits according to its own standard, both in case of a product audit (focus on one product) or process audit (focus on the manufacturing process and its critical key parameters).

2.3 CUSTOMER AUDIT

WABTEC CORPORATION and its customers reserve the right to initiate and/or participate in validation and process audits of products supplied to WABTEC CORPORATION, including audits of both, the supplier facilities and/or sub-contractors of the Supplier.

When participating in such audits, the customer of WABTEC CORPORATION could be the lead auditor.
However, WABTEC CORPORATION is responsible for actions realized towards suppliers.

The direct Supplier of WABTEC CORPORATION shall implement the requirements in this SQR, the agreed customer requirements and documents with their own suppliers and subcontractors.

2.4 QCD MANAGEMENT

WABTEC CORPORATION auditors will assess supplier QCD (Quality / Cost / Delivery) management. Suppliers are required to use indicator tables to analyze and demonstrate to staff and operators the impact of non-conformity on quality statistics, costs and opportunity losses and lost manufacturing time, customer delivery delay time.

2.5 EMPHASIS ON SAFETY IN THE RAIL INDUSTRY

Suppliers must be aware that any accident caused by a faulty component can affect the life and health of people working or travelling on train or living nearby railways. Such fatalities and loss of capital equipment can result in substantial damages and criminal actions against the supplier of faulty components through negligence or incompetence.

3. PRODUCT QUALITY

The requirements of the supplier's quality assurance for WABTEC CORPORATION products are described in different steps to cover the process from tender to continuous serial delivery and further on until end of defined lifetime of our products.

3.1 ARTICLE STATUS

For components and functional parts, there are three types of status:

- **Prototypes**,
  Parts made for design (R&D) validation
- **Initial Samples (IS)**
  Validation parts made under serial production conditions (tools, materials and processes) to release parts for serial production. The process is considered as frozen (no changes allowed without new approval) once the initial sample is approved.
- **Serial parts**
  Parts approved for serial delivery through initial samples and used for running production.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

3.2 INITIAL SAMPLES (IS) / FIRST ARTICLE INSPECTION (FAI)

IS are ordered by WABTEC CORPORATION to ensure that suppliers have the capability to fulfill the specifications given by WABTEC CORPORATION. The purpose of IS is to validate parts made under serial production conditions. An IS validation should be applied for:

- New items
- New tools and patterns
- New supplier
- Restart of production after an interruption of production above 12 months
- Process changes
- Design changes
- Relocation of manufacturing

To ensure permanent compliance to the requirements and to avoid creeping deviations, periodical re-validation can be defined in addition.
Scope and details of an IS validation will be defined by the responsible Supplier Quality Engineer (SQE) of WABTEC CORPORATON prior the first delivery of a new item. To organize the process of validation for new items on project level, WABTEC CORPORATION has established a Supplier APQP procedure (see chapter 4 APQP- PPAP).
WABTEC CORPORATION reserves the right to perform - with or without its customers – a First Article Inspection (FAI) on specific products and processes at supplier site, to validate the product and related processes at the manufacturing location. In case WABTEC CORPORATION requires a FAI visit, the supplier is not allowed to deliver without any formal approval or written derogation note from WABTEC CORPORATION.

To validate the stability of a production process and whenever it is appropriate, WABTEC CORPORATION can also order pre-serial deliveries after the IS presentation.

The scope of inspection for IS / FAI will depend on criticality level of the part, special processes and on reliability of the supplier.

3.3 PRODUCT SURVEILLANCE

The scope and methods of inspection on serial deliveries shall be agreed between WABTEC CORPORATION and supplier prior the first delivery.
The supplier shall perform and record defined inspections to ensure that all requirements on part level are met. All defined requirements (scope and methods) to measurement, tests and inspections shall be listed in a document called “Control plan”.
To ensure that inspection is performed and documented, WABTEC CORPORATION requires all suppliers to ensure that all inspections are performed by staff trained for the specific task and is carried out as per control plans. Control Plans must also indicate where Special Processes are outsourced. The use of methods derived from applicable standards and calibrated equipment are required. For the use of Non-Destructive Testing (NDT) and Destructive Testing (DT) following requirements must be met:

- Procedures and interpretation of result must follow standards and norms
- Operator must hold a valid (documented) certification or training for the specific test
- For DT performed in laboratories, the lab must be accredited

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

3.4 TECHNICAL DOCUMENTATION

WABTEC CORPORATION requires its suppliers to ensure that all received documents of validation are carefully inspected with appropriate actions if non-conformities are found.
The archiving requirement for test reports, certificates, records and other documents of validation with belonging acceptance criteria must be archived safely for 15 (fifteen) years unless a different term is specifically requested. No difference is made if the document is issued by the supplier or anyone else (e.g. sub supplier, laboratory etc.). If the requirement of enclosing documents to deliveries note is stated, the supplier must have the document available to WABTEC CORPORATION upon request within one working day.

WABTEC CORPORATION requires the supplier to apply the standard EN-10204 (or equivalent) when using and referring to validation documents. The usual level for deliveries to WABTEC CORPORATION is 3.1 inspection certificate; any other level of certificates must be agreed between WABTEC CORPORATION and supplier.
Same applies to any other additional requirement for documentation (e.g. test results, measurements etc.).

3.5 SUPPLIER PROCESS CHANGE

Any modifications having its origin at the Supplier shall be formally validated by WABTEC CORPORATION. It must strictly follow the ECR/ECO (Engineering Change Request/Order) or the PCR/PCO (Process Change Request/Order) whichever is applicable.

For suppliers who own the design, the impact of the shape, interfaces, fiT, function, execution, safety, intended use, appearance and/or longevity/durability must be determined in collaboration with WABTEC CORPORATION in such a way that the effects can be correctly assessed. Before applying the change, the Supplier shall also assess the risks of any change in terms of impact on safety, quality performance and the contractual requirements. An upgraded / modified sample for approval by WABTEC CORPORATION shall be sent on demand.

Any upgrade or modification to the following shall require prior written approval by WABTEC CORPORATION:

1. relocation of the production site
2. production process
3. tooling, jigs, fixtures
4. materials (including source of the materials)
5. sub-contractors
6. design (if supplier responsible)

All modifications shall be recorded in contractual documents and validated by Initial Samples. The announcement of the change request shall be prepared in advance to secure deliveries and other supply chain considerations.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

3.6 TRACEABILITY

All delivered batches must be traceable through the WABTEC CORPORATION purchase order number, allowing a follow-up through the complete supplier production (e.g. time, date, cavity, machine, factory) and supply chain process, back to the material certificates and test results of sub-suppliers.
All documents for ensuring traceability shall be made available to WABTEC CORPORATION upon request within 2 working days. The standard duration is 15 years (archive time) after the last delivery of the product.
Deviating / Additional requirements for part tractability could be defined in Technical Delivery Standards for any given product / product commodity or otherwise in the purchase order.

3.7 PRODUCT MARKINGS FOR TRACEABILITY

The supplier must ensure the possibility of identification (e.g. via serial or batch number) for any customized production (means not shelf ware / mass production) to create a link between the delivered part and the production and its documents for traceability.

Additional requirements for part tractability could be defined in Technical Delivery Standards for any given product / product commodity or otherwise in the purchase order, e.g. (not exhaustive):

- Forms with multiple cavities (to identify which cavity any respective component came from)
- Welding parts must be stamped with identification of the welder that performed the welds
- Glued / bounded parts must be marked with identification of certified operator (if required)
- Safety relevant parts that require a test / inspection by certified staff (if required).

3.8 FIFO (FIRST IN FIRST OUT)/ FEFO (FIRST EXPIRING FIRST OUT)

Supplier must ensure the FIFO or FEFO principle for the consumption and shipping of stored goods. WABTEC CORPORATION auditors will look for the appliance of FIFO/FEFO during audits (e.g. for raw materials, glues, paintings, electronic components, etc.) and shipping method to WABTEC CORPORATION. FIFO is important to WABTEC CORPORATION to maintain good batch control, traceability and linear quality performance.

3.9 SPECIAL PROCESSES

Special Process definition: A process used in manufacturing or maintenance where the conformity of the resulting product cannot be readily determined without destructive analysis prior to use. Special Processes must at a minimum have qualified procedures, personnel, and equipment in accordance with the technical and/or quality guidelines stipulated by Wabtec Corporation. If no reference is made, then compliance with national applicable codes and standards are required and must be so stipulated to Wabtec Corporation. Wabtec Corporation reserves the right to require compliance to alternative codes and requirements.

For Wabtec, the following processes are identified as Special Processes:

Bonding
Brazing (Piping)
Casting (Metal) / Foundry
Coating
Crimping / Wiring
Extrusion
Force fitting

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

Forging
Heat Treatment
Molding (Plastic)
Painting (Corrosion Protection & esthetic Purposes)
PCBA
Sealing
Sintering
Surface Treatment / Plating
Torque Tightening
Welding

These processes can be either in use internally or outsourced. If the processes are outsourced the same Wabtec requirements for the supplier apply to the subcontracted supplier.
This list can be extended at site level upon introduction of new processes

4. SUPPLIER APQP / PPAP

The PPAP (Production Part Approval Process) is part of a global projects activity which is the APQP: Advances Product Quality Planning. Its target is to control overall project milestones, including the ones related to suppliers.
The purpose of PPAP is to determine if all requirements are properly understood by the supplier's organization and that the manufacturing processes have the capability to produce the product consistently at the quoted production rate until the expected end of production. The specification of the individual PPAP is made in the document Part Submission Request (PSR).
Upon successful completion of the PPAP PSR stages, a PSW (part submission warrant) is issued to WABTEC CORPORATION by the supplier. The PSW summarizes the whole PPAP package. This form shows the reason for submission (new part, design modification, etc.) and the level of documents submitted to the customer. If there are any deviations the supplier must note on the warrant or inform that PPAP cannot be submitted.

It may be required, that WABTEC CORPORATIONs customers or the final customer (operator) has defined specific requirements for the release of processes and/ or products. WABTEC CORPORATION will transmit those requirements to its suppliers whenever this is needed. The supplier is requested to support the achievement/ fulfillment of those requirements.

Prior to placing the first production order for material, WABTEC CORPORATION will assess the need for the supplier to participate in a Technical Review and to submit samples and process approval documentation as per the Production Part Approval Process. This procedure is called Parts Submission Request (see APPENDIX 12) and typically consists of:

1. Design Records (Drawings, TSS, TPS)
2. Authorized Engineering Change Documents
3. Engineering Approval
4. Design Failure Mode and Effect Analysis
5. Process Flow Diagram
6. Process Failure Mode and Effect Analysis
7. Control Plan
8. Measurement System Analysis Studies (MSA)
9. Dimensional Results
10. Record of Material/Performance Tests
11. Initial Process Studies
12. Qualified Laboratory Documents
13. Appearance Approval Report

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

14. Sample Production Parts
15. Master Sample
16. Checking Aids
17. Customer Specification Requirements
18. REACH (Registration, Evaluation, Authorization of Chemicals)
19. Fire and Smoke standards (based on contractual requirements)
20. Part Submission Warrant

The PSR process is culminated by the submission of a Parts Submission Warrant which is a document that demonstrates supplier SOP readiness with all necessary steps being completed.

4.1 TEAM FEASIBILITY COMMITMENT

Supplier and WABTEC CORPORATION shall agree on the feasibility of delivering the parts as required in the technical specifications and drawings. This includes all processes, including testing and inspections. For this purpose, a commitment is being signed by both parties (APPENDIX 6 – Team Feasibility Commitment). This is also understood as being a specification review, a contract review or a drawing sign-off between both parties. In addition, the Technical Specification Sheet shall be signed by the supplier and by WABTEC CORPORATION.

4.2 CLAUSE BY CLAUSE

Clause-by-Clause (CbC) analysis **about technical requirements** is a mandatory activity for all new products as well as for all updated specifications for functional or safety relevant parts handed over to the supplier.
The final CbC document, containing clear descriptions of **all fully and/or** not fully confirmed initial requirements, is the result of the alignment/agreement process between WABTEC CORPORATION and its suppliers, to ensure and document the same understanding of the requirements (see example in APPENDIX 7). It shall be signed mutually by supplier's and WABTEC CORPORATION's representatives.
Definition of Wabtec Corporation's representatives: mean two duly authorized individuals, one from Engineering and one from Quality from the Wabtec's organization.

4.3 CRITICAL QUALITY CHARACTERISTICS

WABTEC CORPORATION will identify critical quality characteristics on drawings or in specifications by means of DFMEA (Design Failure Mode and Effect Analysis) wherever this is needed. WABTEC CORPORATION requires suppliers to ensure that all critical characteristics are included in their control plans.

4.4 CRITICAL PROCESS CHARACTERISTICS

The supplier shall perform PFMEA (Process Failure Mode and Effect Analysis) for all its relevant processes, to identify the critical process parameters. During audits or FAIs WABTEC CORPORATIONs representatives shall be allowed to see examples for those PFMEAs and the corresponding process control plans.
In case of doubts or found insufficiently covered risks, WABTEC CORPORATION reserves the right to request actions to reduce the risks.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

4.5 INITIAL SAMPLES PRESENTATION AND INSPECTION REPORT

A comprehensive inspection report shall be provided by the supplier with each IS (Initial Sample). The SQE of WABTEC CORPORATION, who is in charge of the APQP/PPAP will define the number of needed Initial Samples. The parts shall be marked (e.g. 1, 2, 3...n) with a clear link to the records. The Initial Samples Inspection Report shall be fully documented with the information prior defined (by the PSR) by WABTEC CORPORATION. This may contain for example the following information (not exhaustive):

- Part Submission Warrant (PSW), comprehensive document for the validation
- Dimensional report on 100% of the dimensions / items specified on the drawing(s)
- Raw material certificate as per the EN10204 (if no other specific requests by WABTEC CORPORATION)
- Manufacturing Process Flow diagram
- Control Plan in Production
- Surface and/or Heat Treatment certificates (including record of the thickness and grid-test performed on standard tests plates)
- Hardening Treatment laboratory report (showing conformity of “structural status / metallographic analysis”)
- Fire & Smoke certification
- Restricted substances declaration and REACH certificates (see chapter 9)
- Destructive Tests report
- Durability Tests report
- Impact Test report
- Salt Spray Test report
- Water Tightness or Pressure Test report
- X-rays
- EMC certification and Test report
- Chemical Compatibility reports
- Aging report (for elastomeric and thermoplastic components)

For non-metallic materials such as plastic, resins or rubber parts Fire and Smoke certificates shall be issued by a laboratory certified by ISO 17025 and released by WABTEC CORPORATION. Specific requirements in terms of released laboratories will be defined on contractual level (e.g. project or frame contract) in test procedures or related part specifications. For expiring Test reports (e.g. Fire and Smoke) the supplier shall provide updated reports to WABTEC CORPORATION (at least for the period of delivery of the product) without additional request.

4.6 SHIPMENT DOCUMENTS

The shipment of an Initial Sample shall be announced prior the shipment to the responsible WABTEC CORPORATION SQE.

The provided IS (or Initial delivery batch) shall be marked clearly on documents and on packages itself as first delivery of a new item. Some WABTEC CORPORATION entities may require a specific identification label (see example in APPENDIX 1).

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

4.7 VALIDATION OF INITIAL SAMPLES

The Quality Department of WABTEC CORPORATION checks the compliance of all the documentations with the requirements. An inspection is performed on 100 % of the dimensions of one of the Initial Samples taken at random out of the lot, tests and measurements are carried out.
When the samples are found compliant, a Parts Submission Warrant (see APPENDIX 14) is signed by the SQE / SQA Manager in charge of the PPAP validation is sent to the Supplier. This approval allows the Supplier to start production of pre-serials and/or serial.
In case of discrepancies with the requirements, the PSW will be rejected by the SQE. In addition, a claim will be created in WIM-S. The supplier in that case must send new samples and will supply a credit note for the returned parts and the cost of the inspection. WABTEC CORPORATION can also back-charge and invoice the costs of the failed inspections.

4.8 EMPHASIS ON SAFETY AND ENVIRONMENT IN PPAP

WABTEC CORPORATION assumes that supplier plays an active role in environmental protection, pursues a continuous improvement for his products/services about the impact on humans and the environment throughout the product life cycle and/or the service chain. WABTEC CORPORATION will measure this commitment in the PPAP process and where it does not meet a required standard, the PPAP will be refused.

5. MANAGEMENT OF NON-CONFORMITIES

WABTEC CORPORATION considers as a non-conformity any deviation from quality and supply chain requirements:

- Quality: for example, documents, dimensional, material and functional deviations which is out of tolerance compared to drawing or other specification.
- Supply chain : Wrong delivery date, identification, packaging and quantity compared to the specific requirements given by WABTEC CORPORATION.

The Supplier is responsible for the quality of its products. The responsibility covers integration within WABTEC CORPORATION's products, the delivery and final acceptance by the final customer up to the end of warranty of the product. In case of serial damages (see chapter 5.3) the supplier remains responsible for his product, means he is obliged to fully support the root cause investigation and needed immediate and corrective actions.
In case of an incident is identified, WABTEC CORPORATION will make a formal complaint, using WIM-S (WABTEC Incident Management – Supplier).

To prevent further incidents, the supplier shall manage:

Within 2 working days:

- Confirmation of non-conformity description.
- Determination of risks on similar products/processes and
- Management of Containment actions to limit the impact, including sorting (parts in shipment and already delivered), potentially implementing Quality Wall identifying

Within 10 working days:

- Root cause identification for occurrence and non-detection and
- Definition of corrective action plan

Within 30 working days:

- Implement and complete corrective action plan for occurrence and non-detection and
- Implement preventive actions on occurrence and non-detection (lesson learnt)

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

WABTEC CORPORATION reserves the right to request onsite containment (at WABTEC CORPORATIONs or its customers sites) or to return the complete affected batches to the supplier for sorting or rework.

The analysis report and action follow-up shall be done online in WIM-S, based on the implemented logic in the tool.

5.1 CONCESSION / WABTEC CORPORATION WAIVER

Unless a valid and authorized concession or deviation is in place, supplier is not allowed to deliver non-conform products.
In addition, for any product or process change (in pre-serial or serial phase), the supplier shall inform WABTEC CORPORATION in writing and request authorization of shipment. This request will be validated by WABTEC CORPORATION before any authorization of the change or delivery.

WABTEC CORPORATION will validate the deviation request and decide an acceptance only if following information is shared:

- Relevant and detailed description of the deviation such as defect, number of affected parts, risk evaluation, safety and customer risk.
- Analysis and linked action plan to eliminate the defect.

5.2 COPQ (COSTS OF POOR QUALITY)

It is the responsibility of the supplier to supply a product in compliance with the agreed specifications and standards. COPQ occurs, when the supplier provides faulty material, which cannot be used by WABTEC CORPORATION with expected level of performance or aspect. In the event of incidents regarding product liability WABTEC CORPORATION will request evidence of adequate insurance coverage made of such risks and liabilities at the supplier’s cost, in respect of failure due to poor quality.

It is required that replacement material must be shipped using the quickest transport method. All costs incurred by WABTEC CORPORATION, whatever their origin, associated with the failure of a supplier product, such as the expenditure incurred to restore compliance or for analysis will be charged back to the supplier, under the terms of the contract. Below is the non-exhaustive list of events which can be associated with such a failure:

Sorting, pick-up, line breakage, downtime, overtime, reinforced inspection check, freight, pick-up cost at a customer's plant, depot, facility or warehouse, travel expenses, labor, repair, analysis and expertise study for correction, notification of customers and standardization bodies, reimbursement of all charges to the final customer penalties, insurance costs, loss of sales due to the quality problems or delivery delay.

When the failure is detected, WABTEC CORPORATION may debit the supplier's account for the corresponding sum which is the direct consequence of this failure.

For any non-conformity caused by a supplier, the supplier will be charged. Inspection, reworks or other internal efforts will be charged back at the rate of $95/hour (or approximately 80Euros per hour) plus $210 (or approximately 180Euros) for administrative cost. These charges may vary in certain contracts and countries.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

5.3 SERIAL DAMAGES / RETROFITS

WABTEC CORPORATION and its customers will monitor the reliability of the delivered goods in service.
In case of repeated failures / defects on same products WABTEC CORPORATION will raise a SERIAL DAMAGE NOTE to the supplier. To the supplier, up to 10 years after the initial delivery of the product, even if the original warranty period has expired.
If not specified otherwise, a serial damage note can be raised, if 3% or more of a delivered item per project (in case of project contract) or per whole delivery quantity within one year (standard parts), will fail due to the same defect cause in responsibility of supplier (design or epidemic failures). If the failure is production / delivery batch related, this rule is applicable also for the affected batches.
In this case the supplier is obliged to support the replacement or repair of all delivered products - as defined above - free of charge (Retrofit).
WABTEC CORPORATION reserves the right to charge back partly or fully the related costs for the replacement to the responsible supplier, including also costs charged to WABTEC CORPORATION by its customers and final customers. The supplier shall have covered such risks by an adequate insurance.

5.4 PLANNED OBSOLESCENCE

The Supplier shall warrant the interchangeable features and compatible function of original product specification with repair, manufacture and test activities. This is valid for a period of 30 years from the date of Delivery of the first serial delivery (First Article Inspection). This period is referred to as the "Obsolescence Management Period". The Supplier shall sustain the technical expertise, drawings, software, and tools in order to manage the product along the Obsolescence Management Period.
The Supplier will check periodically its ability to buy, procure and supply all components and to manufacture and to repair the product. Periodicity ensures that recovery actions be taken timely and therefore shall not exceed 12 months.
Once a year, the Supplier shall deliver to WABTEC CORPORATION an obsolescence status report regarding any listed component or product and including:

- Detail on visibility and risk for each component, material, and sub-assembly included into Product,
- Progress of actions of risk mitigation

On request the Supplier shall provide WABTEC CORPORATION with the updated specific obsolescence manufacturer references for the Product. Unless duly specified, and after written consent from the Supplier, WABTEC CORPORATION shall use this Bill Of Material exclusively for obsolescence management purpose.
As soon as obsolescence is known, the Supplier shall take the necessary recovery actions: replacement, stock, re-design. The Supplier shall keep all records and update and release any related documentation as relevant.
Any decision impacting the equipment in which the product is fit shall require prior WABTEC CORPORATION's written approval.
Any design change as consequence of obsolescence shall be done in accordance with design change rules, including validation and delivery of logistic support set (e.g. documentation, drawings, software, maintenance tools, consumable components).
Lifetime buy stock decision shall not be made unless all other solutions are proven to be inappropriate. When so, the Supplier shall buy the quantity of components as necessary for the completion of Contracts and for maintenance of installed base along the obsolescence management period. Upon request the Supplier shall justify the calculation by means of reliability data and risk assessment. The Supplier shall timely give WABTEC CORPORATION the opportunity for procurement of additional components, and purchase components on WABTEC CORPORATION's request.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

6. TRANSPORTATION & PACKAGING

If not specified otherwise, the supplier must guarantee a safe packaging for delivery and handling, considering the local conditions of the transport, storage and use. The packaging must be validated during process audits and/ or initial sample process. For specific packaging instructions / specifications refer to the purchase order or packaging instructions for respective WABTEC CORPORATION site.
Packaging must be adequate and sufficient to avoid all kinds of damage of goods in storage or transit. Work instructions must be used to ensure a consistent packaging method.
Before packaging, verification of the absence of burring, chips, sand, welding grain, paint splash marks, corrosion, scale, etc. (non-exhaustive list) is required.

7. MONITORING SUPPLIER PERFORMANCE

WABTEC CORPORATION is monitoring the operational performances of its suppliers on a monthly, quarterly and annual basis.

All WABTEC CORPORATION suppliers are compiled into a vendor data list, with the quality and delivery performance track records.

Among a range of different KPI, performances are measured through the following indicators:

Indicator	Explanation	Type
NCR rate %	Number of NCR's / PO lines	Quality
PPM rate on parts received	Rejected parts / purchased parts x 1000000	Quality
OTD (service rate) %	S-OTD % = (Nb of PO lines delivered on time in the month / Nb of PO lines to be delivered in the month) x 100	Logistic
Final Customer Claims (0km/WR)	Number of Final Customer Claims related to respective suppliers parts	Quality
Recovered Cost of Poor Quality	Percent of recovery of COPQ that is the suppliers responsibility.	Quality

The KPIs are recorded for each individual plant of the WABTEC CORPORATION, for Business Units that are served by the Supplier and will be also consolidated at Group and Segment levels.

Annual targets (Supplier Performance Commitments - SPC) shall be agreed mutually between the Supplier and WABTEC CORPORATION, to actively promote continuous improvement and consistently drive quality towards excellence.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

7.1 SUPPLIER RANKING

On monthly basis WABTEC CORPORATION will identify its TOP WORST SUPPLIERS in quality and delivery (OTD) performance. Those suppliers will be notified by a letter. Containment and corrective actions will be requested to exit the TOP WORST SUPPLIER list in adequate time.

7.2 PERFORMANCE REVIEW

In case of poor supplier performances, WABTEC CORPORATION might decide to conduct performance reviews at regular intervals with the Supplier, to align measurements methods and records with the Supplier, analyze root causes of the poor performances and build & follow-up an action plan to recover the situation.

7.3 SUPPLIER STATUS AND VENDOR LIST

WABTEC CORPORATION maintains a Vendor List of all its Suppliers worldwide, which contains Operation Performances metrics described previously (PPM, OTD%, NCR%).

In this Vendor List, the WABTEC CORPORATION attributes to each of its suppliers one of the following Supplier Status:

P — **Prefered** supplier
Fully approved supplier for development & production which have to be privileged for business awards. All contracts signed. Competitive. Good Sustainability & Audit ratings. Alignments of strategy with Wabtec.

I — under **Investigation** supplier
Either a new supplier under probation during its first year
Either an active suppliers which need to improve its performances

H — **new business on Hold** supplier
Active supplier with current production orders maintained
but no new quotations or new business awards allowed

E — **to Eliminate** supplier
Suppliers to be eliminated / desourced.
Obviously new quotations and business award are forbidden

D — **Dead** supplier
Suppliers have been fully desourced. Business with the suppliers is over.
The suppliers' account(s) into the ERP are disactivated

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

8. HEALTH SAFETY & SUSTAINABILITY

WABTEC CORPORATION places the highest priority on the health and safety.
Production, transport or use of any WABTEC CORPORATION product shall never jeopardize or compromise the safety or health of any individual within the complete supply chain.

Suppliers must ensure a healthy working environment for their employees and contractors with protective equipment provision, in good working order, where hazards present themselves for accidental injury, industrial disease or health detriment. These include helmets, protective shoes, glasses, masks, ear protection and specialist clothing used for handling.

A safety officer should be appointed, who monitors all industrial accidents with a view to reappraising and improving safety policy and procedures. Employees and contractors must comply with the safety policy of the supplier and/or safety officer.

The facilities of the supplier must be suitably equipped and tested to deal with emergency situations such as fire, spillage of hazardous chemicals or toxic gas emissions with ample containment devices and escape route provisions. WABTEC CORPORATION expects suppliers to carry out an annual audit with a suitable qualified emergency assessor such as a local fire station inspector.

Corporate Social Responsibility (CSR) policy, with a main objective of being able to manage the impacts of the company's operations in a responsible manner. In this context, one of our objectives is to monitor social and environmental performance in our supplier management process. To do this, EcoVadis CSR monitoring platform to support us in this assessment process. This platform combines CSR assessment expertise and data management tools, which will allow you to demonstrate your sustainability best practices in the years to come. To be a Wabtec Corporation Preferred supplier you shall have the following ranking: Outstanding or Advanced.

9. RESTRICTED MATERIALS AND CHEMICAL

WABTEC CORPORATIONs suppliers must ensure the fulfillment of local obligations in terms of prohibited materials, components or chemical substances. Same is valid also for all sub-suppliers in the supply chain.
Suppliers are requested to support as much as possible the provision of required information to fulfill and prove those requirements.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

In addition to local laws and regulations, at least the following regulations are mandatory to fulfill within the scope described:

Regulations from United States:

- **Dodd-Frank Act Section 1502** "Conflict-minerals" (tantalum, tin, gold, tungsten from Democratic Republic of the Congo or any adjoining country), Supplier agrees that it will promptly supply such information, requested by WABTEC CORPORATION for compliance with the U.S Security and Exchange Commission's rules to implement provisions of the U.S Dodd-Frank Wall Street Reform and Consumer Protection Act relating to the disclosure and reporting of "conflict minerals" or similar laws/regulations.
- **Export Control.** Supplier will not export or transfer information, technical data, or materials provided by WABTEC CORPORATION, whether directly or indirectly, to any person or entity, even if such disclosure or transfer is otherwise permitted under the Purchase Order, without first complying strictly and fully with all export controls (including, but not limited to the International Traffic and Arms Regulations) which may be imposed on such information, technical data or materials by the United States Government or any country or organization of nations within whose jurisdiction the transaction takes place or the Supplier operates or does business. Supplier further acknowledges and agrees that WABTEC CORPORATION may unilaterally terminate any obligations under the Purchase Order without damages, penalties or liabilities of any kind, if at any time, WABTEC CORPORATION become aware that any aspect of the Purchase order or related transaction may violate any applicable export control laws and regulations. Notwithstanding any term or condition herein to the contrary, for any international deliveries, Supplier shall be exporter of record and shall be responsible for obtaining any and all required export licenses or other authorizations and carrying out all customs formalities associated with export of the Products or any other contract deliverables, at Supplier's cost and expense.
- **Anti – Bribery.** All activities of the Supplier under or pursuant to the contracts shall comply with all applicable laws, rules and regulations, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and any applicable anti-corruption or anti-bribery laws in the territory where the products are being sold.

Regulations from European Union (EU) and associated countries:

- Regulation (EC) No **1907/2006** - REACH (**R**egistration, **E**valuation, **A**uthorization and Restriction of **Ch**emical substances), mandatory for all suppliers delivering form or to the EU and associated countries. The supplier shall provide a Certificate of Compliance (CoC) on request.
- **2012/19/EU** Waste of Electrical and Electronic Equipment (WEEE), mandatory for all suppliers delivering form or to the EU and associated countries
- **2011/65/EU** (+ annex 2015/863) Restriction of Hazardous Substances Directive (RoHS 2), mandatory for all suppliers delivering form or to the EU and associated countries.

P.R. of China:

For any supply from or to the P.R. of China the supplier must check and comply to the local policy and regulations which are published in the official website of the Ministry of Ecology and Environment (http://www.mep.gov.cn)

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

Suppliers are obliged to follow any evolution of the above-mentioned regulations as they are published by the authorities. WABTEC CORPORATION must be informed about any change of information shared before as soon as it is known to the supplier.
On demand, the supplier must be able to prove the fulfillment of those regulations by himself and across his supply chain.

Suppliers that deliver to WABTEC CORPORATION are obliged to inform WABTEC CORPORATION prior delivery in case of any of the above-mentioned requirements will not be fulfilled.

To fulfill railway specific requirements in terms of materials declarations, the supplier shall be aware about the following regulation (can be provided on request):

- **R**ailway **I**ndustry **S**ubstance **L**ist (RISL) issued by UNIFE (Union des Industries Ferroviaires Européennes)

The supplier shall provide on request the Bill of Material (BoM) related to the materials mentioned in the RISL, including their amounts. Any change to information shared before shall be informed to WABTEC CORPORATION as soon as it is known to the supplier.

Once a material information or certification has been requested for a supplied product, the supplier can be requested to ensure a regular update of given information (6 /12 / 24 months period to be agreed depending on project requirement).
Any required laboratory analysis shall be issued by a laboratory certified by ISO 17025 and accredited for the required scope of analysis.

10. DISPOSAL AND RECYCLABILITY

Any storage and disposal of dangerous of hazardous materials or substances at supplier must be done under full responsibility of the supplier in respect to local laws and regulations. WABTEC CORPORATION reserves the right to cancel orders and terminate the business relationship with suppliers which don't comply with this requirement.

Supplier needs to hand over to WABTEC CORPORATION any relevant information for recycling and final disposal of materials used in the supplied product.

On demand, the Supplier shall also send to WABTEC CORPORATION the following information:

- The weight of the materials that can be recycled
- The weight of the materials that can be converted
- The weight of the materials that can be reused
- The weight of the materials considered as industrial waste

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

THE UNDERSIGNED REPRESENTATIVE OF THE SUPPLIER NAMED BELOW INDICATES THE APPROVAL OF THE FOREGOING AGREEMENT HERE, ON BEHALF OF THE SAID SUPPLIER AND FULLY UNDERSTANDS THAT THE ENGLISH TRANSLATION ONLY, IS A LEGALLY BINDING DOCUMENT.

Supplier:	Signature, Name & Title	Date:

For the Wabtec:

Brian Blackwell Vice President, Corporate and Freight Quality	W. Kent Jones Chief Procurement Officer
	
Hakim AOUDIA Vice President Transit Quality and Safety and Corporate Sustainability	François GAMBIER Direct Material Sourcing Director
	

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 1 – Deliveries Identification Label

Size: 15 x 20
Color: YELLOW

Wabtec CORPORATION

SPECIAL BATCH

Supplier name: .....

DELIVERY FOR ATTENTION OF :

.....

PART NUMBER:_____ REV. N°_____

DESCRIPTION:_____

QUANTITY: _____ DATE:_____

REASON FOR SPECIAL BATCH:

1. INITIAL SAMPLE
   Reasons:
   - *modification actual product* ❑
   - *new material* ❑
   - *new process* ❑
   - *new machine* ❑
   - *new testing tool* ❑
2. FIRST BATCH AFTER QUALITY INCIDENT _____ ❑
3. DEROGATION n°_____ ❑
4. PARTS FOLLOWING DESIGN MODIFICATION n°_____ ❑
5. FIRST OFF TOOLS ❑
6. OTHERS:_____ ❑

Rev.02 Rev.02

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 2 – Inspection Report Form

This document is copyright and property of Wabtec Corporation. It cannot be used for the construction of the object. It must not be copied (in whole or in part) without prior written comment the Company. Any copies of this document, made by any method must also include a copy of this legend.

Document Number: D-002-03 Document Name: IRF Document Control : SQA

Faivelev Wabtec CORPORATION	INSPECTION REPORT FORM - IRF Edition.2

Meas	Date	Page	Reg number
		1	

Product		Customer	
Part number	Part name	Drawing Number & Revision Level	
Order number	Supplier	Batch Number	Batch Quantity
Program number	Operation number	Machine number	

Inspection Type

☐ Sample inspection ☐ Serial inspection ☐ Production inspection

☐ Final inspection ☐ Other purpose

Measurement Standard:

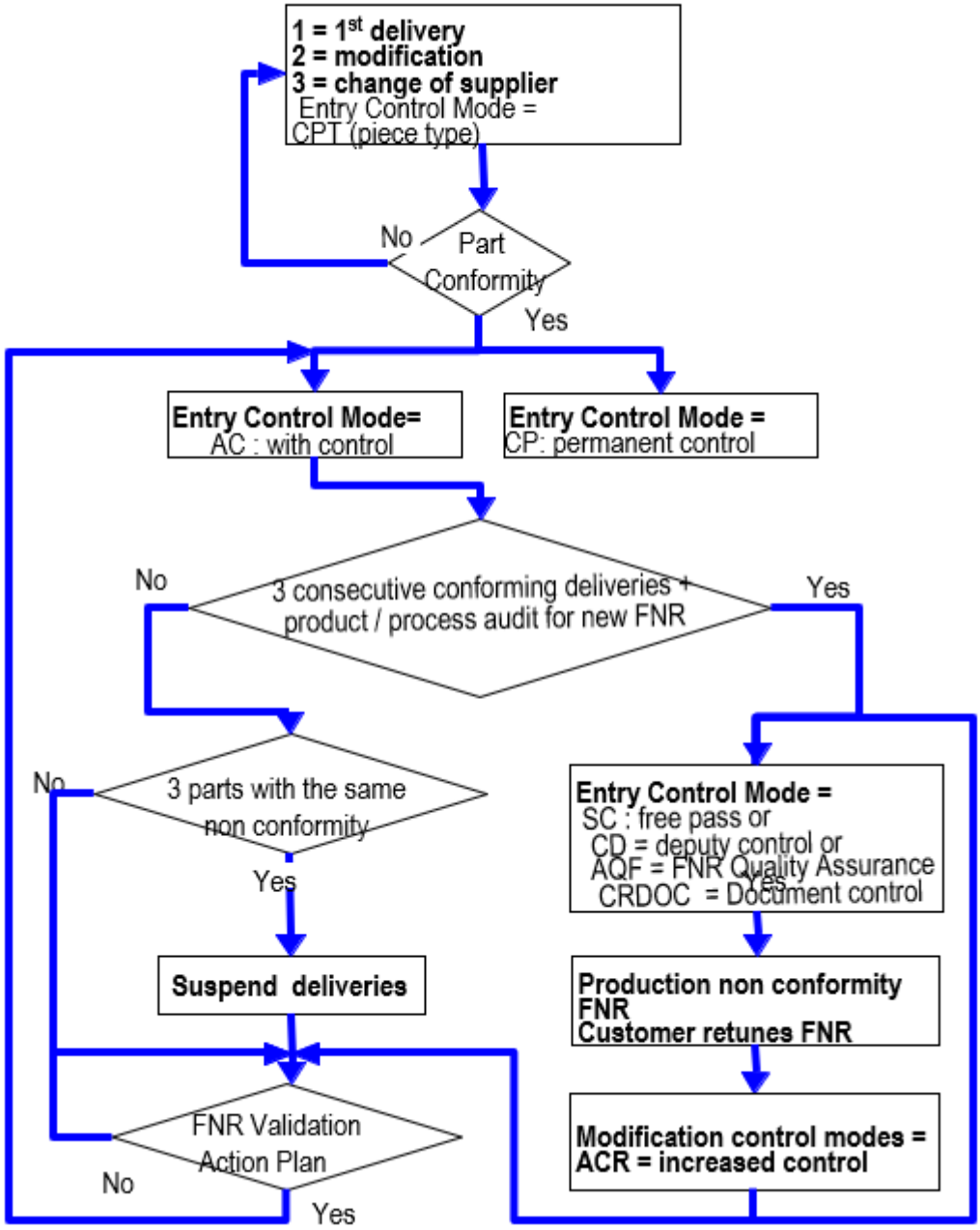
Pos.	Nominal	Max	Min	Measured data						Measurement Instrument #
				1	2	3	4	5	OK / NOK	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										

Inspectors Remarks

Signed	Approved	Not approved	

File: Inspection Report Form_D-002-03.xls All rights reserved Page: 1 of 3

APPENDIX 3.1 – Process Flow Diagram



This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 3.2 – Process Flow Template

PROCESS FLOW DIAGRAM

PART NUMBER: NUMBER
PART DESCRIPTION: NAME
DATE:
Rev : ECN
PREPARED BY:

STEP	FABRICATION ◇	MOVE ○	STORE △	INSPECT □	OPERATION DESCRIPTION	ITEM #	PRODUCT AND PROCESS CHARACTERISTICS	ITEM #	CONTROL METHODS

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 4 – Manufacturing Control Plan

CONTROL PLAN *(example)*

Page 1 of 1

Control Plan Number: CP-0001			Key Contact/Phone: Robert Smith / 216.845.6548						Date (Orig.): 23-Sep-05		Date (Rev.): 02-Oct-05						
Part Number/Latest Change Level: 12345/ Rev. B 4-Jul-05			Core Team: R. Smith, V. Sing, A. Forester, W. Watt						Customer Engineering Approval/Date (If Req'd.): N/A								
Part Name/Description: Spring			Supplier/Plant Approval/Date: ABC / Robert Smith / 2-Oct - 05						Customer Quality Approval/Date (If Req'd.): N/A								
Supplier/Plant: ABC / Kent, OH USA		Supplier Code: A 888	Other Approval/Date (If Req'd.): N/A						Other Approval/Date (If Req'd.):								
PART/ PROCESS NUMBER	PROCESS NAME/ OPERATION DESCRIPTION	MACHINE, DEVICE, JIG,TOOLS, FOR MFG.	CHARACTERISTICS			SPECIAL CHAR. CLASS	METHODS										REACTION PLAN
			NO.	PRODUCT	PROCESS		PRODUCT/PROCESS SPECIFICATION/ TOLERANCE	EVALUATION/ MEASUREMENT TECHNIQUE	SAMPLE SIZE	SAMPLE FREQ.	CONTROL METHOD						
12345	Incoming Material			Compression Spring			1055 Steel	Material Certification		ea. Lot	Incoming Inspection						Red reject tag; Reject entire lot back to sub-contractor
						Key	1.025-1.000 Length	Height Gage	N≥1 C=0	ea. Lot	Incoming Inspection						
						Key	0.800- 0.750" O.D.	0-1" Micrometer	N≥1 C=0	ea. Lot	Incoming Inspection						
							No tool marks or inclusions	Spec Sheet 098 / Visual x10 Magnification			Incoming Inspection						
							Parts sprayed with oil (001-ppp)	Visual	N≥1 C=1	ea. Container	Incoming Inspection						
							10,000 cycle testing	Spring cycle test stand C-009	10	ea. Lot	Test Lab						
12345-02	DN Sub-Assembly	SK Fixture		Spring-DN Assembly	3.5		.500± 0.010 in. Working Load Height	Height gage #1234	5	per hour	X-bar, R Chart						Identify non-conforming material with red tag, isolate and 100% sort. Rework procedure R2345; discard non-conforming material to red bin.
					3.7		No Missing Components	Visual	100%	ea. Sub.	Visual per template DN123						
	End of Line Load Test	Load Cell			4.2	Critical	12-15 lb.	DN electronic load test	5	per hour	X-bar, R Chart						
	Packaging	Carton # 505-95			4.4		Package per 505-95	Size: 10"X10" , 10 lb. gross weight, Q'ty: 10 subs per carton	100%	Carton	Visual per package 505-95 visual display						Identify non-conforming packaging with red tag, isolate and repack to conform to 505-95.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 5 – REACH Certificate

Hazardous Substances – Certificate of conformity

This document is copyright and property of Wabtec Corporation. It cannot be used for the construction of the object. It must not be copied (in whole or in part) without prior written comment the Company. Any copies of this document, made by any method must also include a copy of this legend.

Supplier: _____

Address: _____

declares that all articles delivered to WABTEC CORPORATION are compliant with the regulation in force and particularly:

Regulation	Item
Regulation 1907/2006/EC	Registration, Evaluation, Authorization of Chemicals (REACH).
Directive 67/548/EC	Concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations.
Directive 2004/42/EC	Concerning the limitation of emissions of volatile organic compound due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products.
Regulation 842/2006	Concerning certain fluorinated greenhouse gases.
Regulation 1272/2008	Concerning the classification, labelling and packaging of substances and preparations.
Directive 1999/13/EC	Concerning the limitation of emissions of organic volatile compounds due to the use of organic solvents in certain activities and installations.
Directive 91/157/EC	Concerning on batteries and accumulators containing certain dangerous substances.
Regulation 2037/2000/EC	Concerning substances that deplete the ozone layer
Directive 2002/95/EC	Concerning the restriction of the use of certain hazardous substances in electrical and electronic equipment.
Directive 2002/96/EC	Concerning waste electrical and electronic equipment (WEEE).

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

WABTEC CORPORATION Restricted
and prohibited substances list

In the case where the supplier provides a product which contains substance(s) from the WABTEC CORPORATION list, the detail of this product must be listed in the form “Registration of Hazardous substances”.

With this certificate, the Supplier commits to use the same manufacturing process, same raw material during all the contract time.

If the Supplier wants/needs to modify the manufacturing process, supplier must inform Wabtec Corporation. If WABTEC CORPORATION agrees, the Supplier will have to provide a new Certificate of Conformity, new material certification and if required new test report.

Date: _____

Stamp and Signature

(Legal Representative or Quality Chief)

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

REACH OBLIGATION - QUESTIONNAIRE

1) Do you currently market articles concerned with the REACH regulation? May we assume that you record all the substances present in the manufactured or imported articles with volumes exceeding one ton / annum.
   Yes No

2) In the event of suspension of marketing, would you offer a substitute product?
   Yes No

   a) Within which time? _____

   b) With which cost? _____

3) Have you changed the composition of the article?
   Yes… No

   We kindly request that you inform us of the modifications you are considering:
   a) In the case of a modified product; will continue to comply with our specifications
   Yes No
   b) Is the modified product likely to be involve in a processes change.
   Yes No

4) Are there any articles containing the following substances:

   - Classified Cancerogenic, mutagenic or reprotoxic, categories 1 and 2:
   Yes No
   - Classified *Persistent Organic Pollutants* or *Persistent Bioaccumulable Toxic chemicals*
   Yes No
   - Extreme *Persistent Organic Pollutants* or *Persistent Bioaccumulable Toxic chemicals*.

   - Cause disruption of the endocrine system
   Yes No
   We kindly request you to provide us with the name of the substance in each case and the percentage net mass/gross mass or net volume/ gross volume in the articles we purchase from you.

Name: _____ Date: _____

Function: _____ Signature: _____

Company: - Address: _____

_____

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

Wabtec CORPORATION

REGISTRATION OF HAZARDOUS SUBSTANCES

Supplier Name: Date:

Address:

Contact: Email: Telephone:

ARTICLES

Articles	Supplier reference	Faiveley Reference	N°CAS	Hazardous substance name	Weight of hazardous substance in article	Safety data sheet (SDS)* available (Y/N)	Comments

APPENDIX 6 – Team Feasibility Commitment

TEAM FEASIBILITY COMMITMENT

Supplier: _____ **Date:** _____

Part Number: _____ **Part Name:** _____

Feasibility Considerations

Our product quality planning team has considered the following questions, not intended to be all-inclusive in performing a feasibility evaluation. The drawings and/or specifications provided have been used as a basis for analyzing the ability to meet all specified requirements. All "no" answers are supported with attached comments identifying our concerns and/or proposed changes to enable us to meet the specified requirements.

YES	NO	CONSIDERATION
		DESIGN REQUIREMENTS
		Is product adequately defined to enable feasibility evaluation?
		Are all specifications /standards listed on the drawing known and available for the supplier?
		Can product be manufactured to tolerances specified on drawing?
		Can the raw material requested by Wabtec be sourced / used as designed?
		Can the surface treatment be realized as described and meet the specification e000010
		Can Engineering Functional Specifications be met as written?
		Are the critical characteristics defined by Wabtec?
		Are the critical characteristics defined by Wabtec 100% under control?
		SECURITY REQUIREMENTS
		If the part is classified Security (N1S/N1 /N2/ N3) – Will you meet the associated requirement listed in the commodity specification?
		QUALITY
		Do you commit to Wabtec Year To Date requirements 500ppm and 0.5% NCR?
		If not what is your commitment?
		PACKAGING
		Is the packaging requirement from Wabtec clearly defined and agreed?
		If not can you make a proposal with your quotation

Conclusion

	Feasible	Product can be produced as specified with no revisions.
	Feasible	Changes recommended (see attached).
	Not Feasible	Design revision required to produce product within the specified requirements.

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

Sign-Off

Team Member/Title/Date

Team Member/Title/Date

Team Member/Title/Date

Team Member/Title/Date

Team Member/Title/Date

Team Member/Title/Date

RFQ Number: _____

QUALITY ASSURANCE-SUPPLIER

We require that the supplier will adhere to all elements described in Supplier Quality Requirements manual (SQR) sheet.

FEASIBILITY REVIEW

Please complete the 'Team Feasibility Commitment' form and attach along with any comments you have regarding the design of this part/system. For example specifications missing/not understood, design alternatives or assumptions.

If no remarks, please state so!!

Item	Remarks	Actions from Customer (mandatory if feasibility review)

Part Specific Quality requirement? ☐ ☐ **Yes, see enclosed**_____

Company: _____ **DUNS#** _____

Signature: _____ **Title** _____ **Date:**_____

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 7 – Supplier Clause-by-Clause Analysis

Point FT specification	Req value, tolerance, test, standard	Status CbC	Comment of the supplier	Final agreement
2.1	Manual use and maintenance 225339-I00MUM	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
2.2	Standard reference documents	WE TAKE NOTE»		
2.2	CEI EN 61373 Shock and Vibration	WE TAKE NOTE		
2.2	CEI EN 50155	WE TAKE NOTE		
2.2	CEI EN 50125-1	WE TAKE NOTE		
2.2	CEI EN 60068-2-1	WE TAKE NOTE		
2.2	CEI EN 60068-2-2	WE TAKE NOTE		
2.2	DIN EN 60529	WE TAKE NOTE		
2.2	ISO 8573-1	MORE INFORMATION ARE NECESSARY		
2.2	CENT TS 45545	MORE INFORMATION ARE NECESSARY		
2.2	UNI CEI 11170	WE TAKE NOTE		
2.2	NF F16 101-102	WE TAKE NOTE		
2.2	EN 50306	WE TAKE NOTE		
3	Rated supply voltage 24 VDC	OK COMPLY »		
3	Operating temperature	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
3	Life N≥10.000 cycles T = 20 °C ± 5°C	KO NOT CONFORM TODAY	COMECEL TEST IN PROGRESS	
3	Shock and Vibration	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
3	Degree of protection	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
3	Surface Treatment	OK COMPLY		
3.1	Minimum working voltage	OK COMPLY		
3.1	Maximum working voltage	OK COMPLY		
3.1	Nominal current and Inrush current	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
3.1	Insulation Voltage	MORE INFORMATION ARE NECESSARY	DISSENT FROM POINT. 5.1	
3.1	Insulation Resistance	OK COMPLY		
3.1	Switching time	OK COMPLY		
4.A = 5.1.	Insulation Test	OK COMPLY		
4.A = 5.2	Test of dielectric strength	OK COMPLY		
4.A = 5.3	Insulation Test	MORE INFORMATION ARE NECESSARY	SPECIFY THE TEST IN ACCORDING TO?	
4.B = 6.1.1	Functional test	OK COMPLY		
4.B = 6.1.2	Functional test 24 Vcc + 30%	OK COMPLY		
4.B = 6.1.3	Functional test 24 Vcc - 30%	OK COMPLY		
4.B = 6.1.4	Functional test Overvoltage	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
4.C = 7.1	Functional test at operating temperature	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11 -25 °C TO 70 °C	
4.D = 8	Test of Mechanical life	KO NOT CONFORM TODAY	COMECEL TEST IN PROGRESS	
4.E = 9	Shock and Vibration	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
4.F = 10.1 – 10.2	Check of dew formation, Thermal shock and Humidity 95%	MORE INFORMATIONS ARE NECESSARY	THE STANDARD CEI EN 50155 DOES NOT REQUIRE THESE TEST TPYE	
4.G = 11	Degree of protection IP66	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
4.H = 12	Salt Spray test	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
4.I = 13	Fire and Smoke behavior	KO NOT CONFORM TODAY	INFORMATION AFTER TEST TYPE 21/11/11	
14	Test Report	OK COMPLY		
	Operating Instruction	OK COMPLY		
	Register matr.	OK COMPLY		

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 8 – Group 8D Report Form

Wabtec CORPORATION

8D Report N°

Customer :
Part :
Supplier :
Leader/ Group :

Opened date:
Updated date : 27/04/2011
Closed date:

Title :	

1 Description of the problem (Who? What? Where? When? How much?...)

Faiveley view:

What happened?	
Why is it a problem?	
When it happened?	
Who detected?	
Where detected?	
How detected?	
How many bad parts?	

BAD PART	GOOD PART

2 What are the immediate contermeasures (24 hours)?

IMMEDIATE COUNTERMEASURES IN FAIVELEY PERIMETER ?	WHO	DATE	WHERE

IMMEDIATE COUNTERMEASURES IN SUPPLIER PERIMETER ?	WHO	DATE	WHERE

3 Root Cause analysis

5 WHY FOR OCCURRENCE: 1st Factor		
RELEVANT FACTOR:		
1st WHY		
How was it verified ?		Evidence
2nd WHY		
How was it verified ?		Evidence
3rd WHY		
How was it verified ?		Evidence
4th WHY		
How was it verified ?		Evidence
5th WHY		
How was it verified ?		Evidence

5 WHY FOR NON DETECTION: 1st Factor		
RELEVANT FACTOR:		
1st WHY		
How was it verified ?		Evidence
2nd WHY		
How was it verified ?		Evidence
3rd WHY		
How was it verified ?		Evidence
4th WHY		
How was it verified ?		Evidence
5th WHY		
How was it verified ?		Evidence

5 WHY FOR OCCURRENCE: 2nd Factor		
RELEVANT FACTOR:		
1st WHY		
How was it verified ?		Evidence
2nd WHY		
How was it verified ?		Evidence
3rd WHY		
How was it verified ?		Evidence
4th WHY		
How was it verified ?		Evidence
5th WHY		
How was it verified ?		Evidence

5 WHY FOR NON DETECTION : 2nd Factor		
RELEVANT FACTOR:		
1st WHY		
How was it verified ?		Evidence
2nd WHY		
How was it verified ?		Evidence
3rd WHY		
How was it verified ?		Evidence
4th WHY		
How was it verified ?		Evidence
5th WHY		
How was it verified ?		Evidence

This document is copyright and property of Wabtec Corporation. It cannot be used for the construction of the object. It must not be copied (in whole or in part) without prior written comment the Company. Any copies of this document, made by any method must also include a copy of this legend.

Wabtec CORPORATION

8D Report N°

Customer :
Part :
Supplier :
Leader/ Group :

Opened date:
Updated date : 27/04/2011
Closed date:

Title :

4 Root Causes validation

To validate a Root Cause, you must reply at the 6 questions for each potential Root Cause.
- WHAT WAS DONE TO REPRODUCE THE CONCERN ?
- WHEN WAS IT DONE ?
- HOW WAS IT DONE ?
- WHY WAS IT DONE ?
- WHAT WAS THE RESULT ?
- IS THE ROOT CAUSE VERIFIED ?

Root Cause N°	Root Cause Description	How to prove that the cause is real?	Resp.	When (jj/mm/aa)	% progress	Results	R.C. validated	Actions defined
							O	Non
							N	

5 Action plan for permananet contermeasures - Occurrence

Root Cause N°	Root Cause	Corrective action	Due date	Resp.	Done date	% in progress

6 Action plan for permananet contermeasures - Non Detection

Root Cause N°	Root Cause	Corrective action	Due date	Resp.	Done date	% in progress

7 Expected result efficiency

Documents	Y/N	WHO	Due date	Done date
Poka-Yoke				
Product FMEA				
Process FMEA				
Control Plan				
Maintenance plan				
Procedure				
Design standard				
Audit				

Generalization of countermeasures to similar lines / products

YES		NO	

Lines:	
Products:	

Warn other sites / Divisions / Customer sites

YES		NO	

Customer Sites:	
Faiveley Sites & Divisions:	

Efficiency Control

Indicator	Initial level	Level reached	Team objective

8 WHAT DID YOU LEARN OF THIS INCIDENT?

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 9 – Deviation / Concession Request

Supplier	**SUPPLIER NAME**	**SUPPLIER QUALITY MANAGER (Signature):**	
	FINAL APPLICATION	**PURCHASE ORDER**	
	PRODUCT DESCRIPTION	**PREVIOUS REQUEST FOR EXCEPTION**	
	PART NUMBER	**REFERENCES**	
	QUANTITY CONCERNED	**DATE**	
	DESCRIPTION OF THE REQUEST FOR EXCEPTION		
	REASON OF NON-COMPLIANCE		
	MEASURES TO PREVENT FUTURE APPEARANCE OF NON-COMPLIANCE	**ACTION PLAN DUE DATE:** ……	
SQA - Wabtec	**QUALITY:**		
	COST:		
	DELIVERY:		
	CORRECTIVE ACTION:	**DUE DATE:** ……	
Wabtec	**ENGINEERING** Name: …… Signature : …… *Date:* ……		
	QUALITY Name: …… Signature : …… *Date:* ……		
	SUPPLIER QUALITY ASSURANCE Name: …… Signature : …… *Date:* ……		

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 10 – Non-Conformity Report (NCR)

Wabtec

NON CONFORMITY REPORT

Page | 1

REPORTED BY ...
PHONE ...
EMAIL .

REPORT NO ...
DATE ...

SUPPLIER INFORMATION

Company ...
Contact ...
Email ...

Address ...
Phone ...

PRODUCT INFORMATION

Order no ...
Part name ...
Part Nr ...
Drawing

Rejected quantity ...
Checked quantity ...
Other information ...

NON CONFORMITY DETAILS

Description:

Photo:

COST DETAILS

Parts cost
Other costs*
Total cost 0.00 EUR

Wabtec Corporation claims full cost recovery for expenses due to the non conformity caused by the supplier, its products, processes and services.

FURTHER INFORMATION

The supplier is requested to provide answers in the 8D report on page 2 and send back the report to Wabtec Corporation. Contact persons:

Wabtec Corporation Contact Person 1
Name Name, phone: +XXXXXXXX, email: XXXXXXXX@wabtec.com

Wabtec Corporation Contact Person 2
Name Name, phone: +XXXXXXXX, email: XXXXXXXX@wabtec.com

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 11 – Generic FMEA (design or process)

(DESIGN / PROCESS FMEA)
FAILURE MODE AND EFFECTS ANALYSIS

Drawing no.: Rev. Reference:
Item Descr.: Process Responsibility: Prepared by:
Project: Key Date: Date (Orig.):
Core (Support)Team: Date (Rev.):

PWI OP NO:	Process Function / Requirements	Potential Failure Mode	Potential Effects of Failure	SEV	Class	Potential Cause / Mechanism of Failure. How could the Potential Failure Mode be caused?	OCC	Current Process Controls PREVENTION	Current Process Controls DETECTION	DET	RPN	Recommended Actions	Responsibility and Target Completion Date	Action Results: Actions taken	SEV	OCC	DET	RPN
											0							0
											0							0
											0							0

APPENDIX 12 – PSR (Part Submission Requirement)

Part Submission Requirement

Wabtec Corporation applies the PPAP methodology for qualification of parts and manufacturing processes.
The following marked elements shall be performed and recorded before any approval.

Part Name XXXXXXX Customer Part No. XXXXXX_____PO XXXX_____

Drawing nb _____Rev _____

DOCUMENTS TO SUBMIT (If N/A; not requirement)

☒ 1. Design Records
FT drawing with supplier's visa ;
TFC – Team Feasibility Commitment (company's commitment to the feasibility of parts, signed by : engineering, methods, quality) ;
Products Specifications

☐ 2. Authorised Engineering Change Documents
N/A

☐ 3. Engineering Approval
NA

☐ 4. Design Failure Mode and Effect Analysis (DFMEA)
N/A

☐ 5. Process Flow diagram
Clearly describe productions steps and sequences including all operations, from incoming material to shipment.
Can be applied on a family of parts in the manufacturing process

☐ 6. Process Failure Mode and Effect Analysis (PFMEA)
Clearly describes where risks are and which actions are performed to limit issues.

☐ 7. Control Plan
The document must define all methods used for the process control.
Can be applied on a family of parts if the manufacturing process is similar; a specific recording sheet is also requested.

☐ 8. Measurement Systems Analysis Studies (MSA)
N/A

☒ 9. Dimensional Results
Scope: all dimensions Result in 5 parts numbers identified

☒ 10. Records of Material/Performance Tests
Material certification of/including: Certificate 3.1B of conformity according to EN 10204 or ISO 10474
Other material/performance tests: Raw Material Certificate. (Chemical and mechanical characteristics)

☐ 11. Initial Process Studies
N/A

☐ 12. Qualified Laboratory Documentation
N/A

☐ 13. Appearance Approval Report (AAR)
Report to include:

☒ 14. Sample Production Parts

☐ 15. Master Sample
Submit report with number of master pcs and purpose (parts need to be approved by Wabtec Corporation)

☐ 16. Checking Aids
N/A

☐ 17. Customer Specific Requirements
N/A

☒ 18. REACH (Registration, Evaluation, Authorisation of Chemicals) 1907/2006/EC

☐ 19. Fire and Smoke standards: NF F 16-101 / NF F 16-102 or EN 45545
Applicable Standard:
Laboratory Certificate:

☒ 20. Parts Submission Warrant (PSW)

Wabtec Corporation PSW 4th Edition PPAP

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 13 – PSW

Part Submission Warrant

Part name _____ Customer Part Number _____ Rev _____ if applicable

Engineering Drawing
Tool PO Number _____ Change Level _____ Dated _____
Additional Engineering Changes _____ Dated _____
Shown on Drawing Number _____ Purchase Order No _____ Weight (kg) _____
Checking Aid Number _____ Engineering Change Level _____ Dated _____

ORGANISATION MANUFACTURING INFORMATION

Organisation name and code
Street Address
City Region Post Code

SUBMISSION INFORMATION

Customer Name/Division
Customer Contact
Application

NOTE Does this part contain any restricted or reportable substances? ☐Yes ☑No
Are plastic parts identified with appropriate ISO making codes? ☐Yes ☑No

REASON FOR SUBMISSION (check at least one)

- ☐ Initial Submission
- ☐ Engineering Changes
- ☐ Tooling Transfer, Replacement, Refurbishment
- ☐ Correction or Discrepancy
- ☐ Tooling inactive > than 3 year
- ☐ Change to Optional Construction or Material
- ☐ Sub-Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts produced at additional location
- ☐ Other – please specify below

Initial Sample validation >3 Years _____

SUBMISSION LEVEL (Check one)

- ☑ Level 1 -Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to the customer
- ☐ Level 2 -Warrant with product sample and limited supporting data submitted to customer
- ☐ Level 3 –Warrant with product samples and complete supporting data submitted to customer
- ☐ Level 4 –Warrant and other requirements as defined by customer.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
(CHECK)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- ☐ Level 5 -Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts made to the applicable customer drawings and specifications and are from specified materials on regular production tooling with no operations other than the regular production process. I also certify that documented evidence of such compliance is on file and available for review.

EXPLANATION / COMMENTS STANDARD PART

List Moulds / Cavities / Production Process _____

Organisation Authorising Signature _____ Date _____

Print Name _____ Phone No. _____ Fax No _____

Title _____ e-mail _____

FOR CUSTOMER USE ONLY

PPAP Warrant Disposition ☐ Approved ☐ Rejected ☐ Interim Approval

Comment:

Customer Signature _____ **Date** _____

Print Name _____

Wabtec Corporation PSW 4th Edition PPAP

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 14 – Supplier Assessment summery form

Supplier Assessment

Supplier:	Site:	Country:	Supplier code:
Hunan Xiangyi	Zhuzhou city, Hunan Province	China	

Page 1

Reason for assessment:	Assessment history / results of previous assessments: Result:	Date:	Auditors (Name, function)	Auditees (Name, function)
☑ New assessment Generic & Specific Process			Marky Yin	Ms. Chen(Qaulty Manager)
☐ Follow-up assessment Action plan PDCA			Peter Chen	Mr.Xia(Engineer department)
☐ Re-assessment Specific Process				Guohua Yin(Vice GM)

Commodity Audited:	Speed sensor	Date of this report:	Apr.28th.2018

Quality & EHS Registration:				
ISO 9001:2008	Expiry date:	Sep.14th.2018	Registrar:	Jun.1st.2016
ISO 9001:2015	Expiry date:		Registrar:	
IRIS	Expiry date:	Apr.28th.2018	Registrar:	May.25th.2015
ISO/TS 22163:2017	Expiry date:		Registrar:	
AAR M1003	Expiry date:		Registrar:	
ISO TS 16949	Expiry date:		Registrar:	
ISO 14001	Expiry date:	Sep.14th.2018	Registrar:	Jun.1st.2016
OHSAS 18000	Expiry date:		Registrar:	

Assessment evaluation

Number of CIR	5
Number of CAR	0
Process Indicator (PI)	87.78%

RANKING	A	88%

Criteria	ranking	Consequences
PI < 60 % or ≥ 3 CAR	C	Immediate Corrective Actions required No Go for Pre-selection
60 % ≤ PI ≤ 80 % or CAR ≤ 2 or PI ≥ 80% and 1 or 2 CAR	B	Improvement action plan requested Supplier Nomination, under accepted deviation.
PI ≥ 80% and No CAR	A	Supplier assessment approval. Go for Supplier Nomination

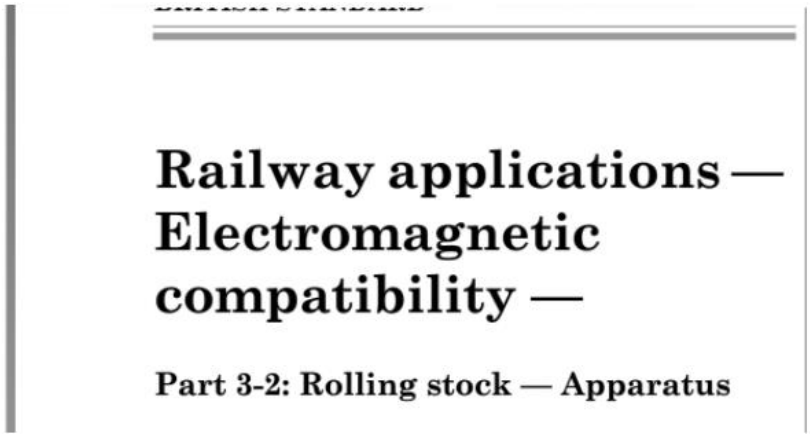
Marky Yin	Peter Chen
Signature/name Lead Auditor	Signature/name Co-auditor

This document is electronically controlled. Printed copies are not considered controlled.

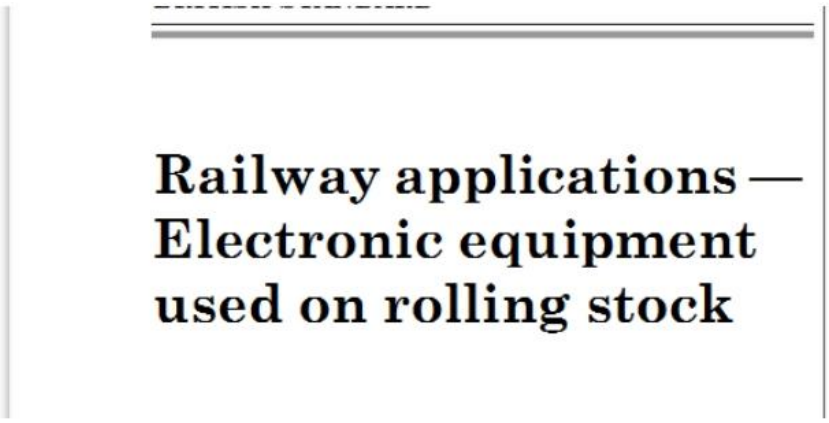
This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 15– EMC requirements

- ***EN 50121-3-2:2006***



- ***EN 50155:2007***



This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

APPENDIX 16 – Pre-assessment Supplier Form

Wabtec CORPORATION

SUPPLIER ASSESSMENT FORM
(ONE PER PRODUCTION CENTER)

SUPPLIER NAME :

Created :
Updated :

Wabtec Corporation is willing to develop with its suppliers, relationships based on mutual trust.

To allow us to better value you, we thank you to fill in this assessment form.

Be assured that all documents & information that you'll entrust us with this assessment form will be treated as strictly confidential.

This assessment form has been filled-in by :

NAME :

POSITION :

Date and signature

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.

I - GENERAL INFORMATION

1.1 - Production center Data

Full address (of the production center) :

Phone: Fax :

Activity :

E-mail address : WebSite :

Dun & Bradstreet Nbr

1.2 - Group Data

Full Adress (of the corporate head quarter, if relevant):

Phone: Fax :

Activity :

E-mail address : WebSite :

If your company belongs to a group, please write below:

Name of the group: Currency:

Activities: Group Turnover: A-3

A-2

A-1

SUBSIDIARIES Or OTHER PRODUCTION CENTERS OF THE GROUP

Name of the company					
% of capital belonging to the Holding					
Sales revenues					
Nbr of employees					
Activities					

Nota: Please feel free to attach a separate list or a presentation of the group on an electronic format if necessary

Other companies controlled by the main shareholders :

This document is electronically controlled. Printed copies are not considered controlled.

This document and its contents are the property of Wabtec Corporation, or its subsidiaries or joint ventures. This document contains confidential proprietary information. The reproduction, distribution, utilization or the communication of this document or any part thereof, without express authorization is strictly prohibited.