Supplier Quality Manual

1 Introduction and Purpose

The **Supplier Quality Manual (SQM)** is a crucial document aimed at establishing clear quality standards and management expectations for all suppliers to HaslerRail. Its **primary purpose** is to outline the requirements necessary for suppliers to be approved for supplying goods and services, ensuring they adhere to internationally recognized standards, thus enhancing overall product quality and compliance.

1.1 Scope of the Manual

This standard applies to all suppliers providing materials and services to HaslerRail, with particular emphasis on defect prevention and reduction. By setting these expectations, the SQM aims to foster an environment focused on **continuous improvement**.

1.2 Policy Implications

As a **HaslerRail policy**, adherence to the SQM is contractually mandated for all suppliers. This binding agreement ensures that suppliers understand their obligations concerning quality management systems, particularly in line with ISO 9001 and ISO 22163 certifications, thus creating a consistent quality framework across the supply chain.

2 System Management Requirements

HaslerRail states that all suppliers maintain a comprehensive **Quality Management System (QMS)** certified to **ISO 9001**. This certification serves as a foundational standard within the railway industry, establishing the necessary protocols for ensuring quality across all operations. In addition, suppliers are strongly encouraged to achieve compliance with **ISO 22163**, which outlines specific quality management practices pertinent to railway supplies.

To effectively uphold these quality standards, suppliers must demonstrate the following essential processes:

1. **Documented Processes**: Suppliers are required to maintain clear documentation of all quality-related processes, ensuring traceability, repeatability, and adherence to defined standards.

2. **Internal Audit Plans**: Regular audits must be conducted to ensure that the QMS remains effective and compliant with ISO standards. These internal audits should identify potential areas for improvement, ensuring that quality management practices are continuously refined.

3. **Key Performance Indicators (KPIs)**: Suppliers should establish comprehensive KPIs that monitor and measure quality performance. These metrics enable suppliers to track progress and identify trends that may require corrective action.

4. **Risk Management**: An effective QMS incorporates a robust risk management strategy. Suppliers must utilize tools such as **FMEA (Failure Mode Effects Analysis)** and control plans to identify potential risks to quality and mitigate them proactively.

Suppliers of critical materials and components, as detailed in HaslerRail document **QMD-00797**, are obligated to adhere to additional standards and regulatory requirements relevant to the specific materials they supply. These standards might include compliance with environmental and safety norms, such as **ISO 14001** for environmental management and **ISO 45001** for occupational health and safety.

Through these severity requirements, HaslerRail aims not only to ensure compliance but also to foster a culture of continuous quality enhancement throughout its supply chain.

3 Health, Safety, and Environmental Protection

Suppliers to HaslerRail are expected to adhere strictly to health, safety, and environmental protection requirements, crucial for maintaining a safe and responsible supply chain. Compliance with the following standards:

1. **ISO 14001**: These standard mandates the establishment of an effective Environmental Management System (EMS) that helps organizations minimize their environmental impact, comply with applicable laws, and continually improve their environmental performance.

Suppliers must demonstrate their commitment to sustainability through documented processes and ongoing evaluations.

2. **ISO 45001**: This standard focuses on occupational health and safety, ensuring that suppliers implement necessary measures to promote a safe working environment. A robust management system addressing risks and hazards must be established to protect employees and comply with national safety regulations.

3. **REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals)**: Suppliers are required to comply with REACH regulations to manage the risks posed by chemical substances, ensuring safety for human health and the environment.

4. **RoHS (Restriction of Hazardous Substances)**: This directive restricts the use of specific hazardous materials in electrical and electronic products, reinforcing HaslerRail's commitment to environmental sustainability and safety.

Suppliers must adhere to both national and international laws, emphasizing their responsibility to ensure the safety of products and the environment. Regular assessments, training, and updates to their compliance practices are vital for continuous adherence to these stringent health, safety, and environmental standards.

4 Information Security

Suppliers to HaslerRail are required to comply with **ISO 27001**, which establishes the framework for an effective **Information Security Management System (ISMS)**. This standard, along with other relevant laws and regulations, mandates that suppliers implement comprehensive security measures to protect sensitive data from unauthorized access, breaches, and vulnerabilities.

Given the critical nature of the railway industry, safeguarding sensitive information such as design data, supplier contracts, and customer information is paramount. A breach could not only jeopardize business operations but also compromise public safety and trustworthiness. Therefore, suppliers must ensure that:

- **Access Controls**: Strict access management policies are in place to limit data access to authorized personnel only.
- **Data Encryption**: Sensitive information is encrypted both in transit and at rest to prevent unauthorized interception.
- **Incident Response Plans**: Suppliers should establish protocols to detect, respond to, and recover from information security incidents swiftly.

By adhering to these requirements, suppliers contribute to a safer, more secure partnership with HaslerRail, enhancing both operational integrity and stakeholder confidence.

5 Corporate and Social Responsibility (CSR)

Suppliers to HaslerRail are expected to actively demonstrate commitment to **Corporate and Social Responsibility (CSR)** principles by adhering to the guidelines set forth in **ISO 26000** and applicable national laws. This includes promoting sustainable business practices, ethical labor standards, and community engagement. Suppliers must take the following actions to exemplify their CSR commitment:

5.1 Compliance and Evidence of CSR

- **ISO 26000 Alignment**: Suppliers should integrate CSR principles into their management systems, focusing on respect for human rights, fair labor practices, and environmental stewardship.

5.2 Ethical Business Practices

- **Supply Chain Transparency**: Suppliers must ensure ethical sourcing and traceability of raw materials to minimize the risk of exploitation and environmental damage.
- **Engagement with Stakeholders**: Regular communication with employees, customers, and the communities they operate in is essential to understanding and addressing CSR impacts.

Through these practices, suppliers not only meet regulatory requirements but also contribute to a sustainable and ethical supply chain beneficial to all stakeholders.

6 Supplier Audits

Supplier audits are critical for both new and existing suppliers partnering with HaslerRail. These audits ensure compliance with established quality standards and allow for continuous improvement in the supply chain.

6.1 Certification Requirements

New suppliers must possess an **ISO 9001** certification and demonstrate compliance with additional standards such as **ISO 22163**, **ISO 14001**, **ISO 45001**, **ISO 26000**, and **ISO 27001**. If a new supplier lacks ISO 22163 certification, they may still conduct business with HaslerRail, provided they complete the necessary **Supplier Assessment form** and successfully pass an initial audit.

6.2 Audit Schedule

Existing suppliers are subject to a regular audit schedule, typically every three years. However, audits may occur sooner if quality issues arise. In instances of significant changes in supplier operations, HaslerRail reserves the right to perform follow-up audits as necessary.

6.3 Addressing Non-Conformities

Should a supplier fail an audit, they are required to develop and implement a **Corrective Action Plan**. This action plan must address any identified deficiencies and is subject to HaslerRail's approval. Suppliers will be given a timeline, usually within three to six months, to rectify the shortcomings and can subsequently request a re-audit to verify their corrective measures.

6.4 Role of Third-Party Auditors

To enhance the audit process, HaslerRail may employ independent third-party auditors to oversee compliance with quality management systems. These auditors evaluate the supplier’s processes to ensure they align with benchmarks for performance and quality. All costs associated with third-party audits will be the responsibility of each party involved, without reimbursement obligations. Such measures reinforce HaslerRail's commitment to maintaining high-quality standards across its supply chain.

7 Project Management

HaslerRail emphasizes the importance of structured **project management** among its suppliers to ensure successful project execution. Suppliers are required to implement an established project management process that aligns with risk management strategies, focusing on **timely delivery**, **quality assurance**, and effective cost management.

7.1 Key Project Management Requirements

1. **Established Processes**: Suppliers must utilize a defined project management methodology appropriate for the complexity and risk level of the project. This approach should encompass comprehensive planning and resource allocation.

2. **Risk Management**: Suppliers are expected to engage in proactive risk management, including the identification and analysis of potential risks. Tools such as **process flow charts, FMEA** (Failure Mode and Effects Analysis), and control plans should be integral to the project plan.

3. **Reporting Obligations**: Regular reporting on project timelines, quality metrics, and associated costs is essential. Suppliers must communicate status updates and any deviations from planned timelines to HaslerRail promptly.

4. **Proactive Communication**: Timely communication regarding potential delays or issues is critical. Suppliers should escalate these matters appropriately to mitigate impacts on the project timeline and overall quality.

By adhering to these project management practices, suppliers contribute significantly to the efficient operation of their projects, ultimately enhancing service delivery and fostering an effective partnership with HaslerRail.

8 Sub-Supplier Management

Effective management of sub-suppliers is crucial for ensuring that quality, timing, and cost expectations are met consistently. HaslerRail emphasizes several key responsibilities for suppliers regarding their sub-supply chains:

8.1 Performance Monitoring

Suppliers must actively monitor sub-supplier performance through established metrics that consider quality, delivery schedules, and cost efficiencies. Regular evaluations should include:

- **Quality Performance Metrics**: Regular feedback and communication regarding quality assurance metrics.
- **Timeliness of Deliveries**: Adherence to lead times to ensure that production schedules are not disrupted.
- **Cost Efficiency**: Analysis of cost structures to maintain competitiveness without compromising quality.

8.2 Material Certification

To maintain integrity within the supply chain, all sub-supplied components must have proper documentation, including material certifications. Suppliers are required to:

- Obtain **Certificates of Conformity** for all critical materials and components for rail vehicles (defined in HaslerRail document QMD-00797 List of Safety relevant products),
- Ensure that records are kept up to date as minimum for 10 years and available for review during audits.

8.3 Handling Counterfeit Parts

Suppliers must implement stringent procedures to prevent and manage counterfeit parts within their supply chain. This includes:

- **Preventive Measures**: Screening of suppliers and common sourcing practices.
- **Identification and Reporting**: identification of suspected counterfeit components, which must be documented, investigated, and reported to HaslerRail immediately.

8.4 Communication & Accountability

Clear and effective communication with sub-suppliers is essential in managing non-conformities (NCRs). Suppliers should have processes in place that ensure:

- **Immediate Notifications**: Rapid reporting of any non-conformance to ensure prompt resolution.
- **Defined Responsibilities**: Identification of accountability at all levels of the supply chain for timely corrective actions.
- **Documentation of Actions**: All actions taken in response to non-conformities should be recorded and monitored closely by both suppliers and sub-suppliers.

By adhering to these guidelines, suppliers can enhance the overall quality and reliability of their products, directly impacting the success of HaslerRail's operations.

9 Product Assurance

9.1 Process Controls

Suppliers must implement effective **Process Controls** to ensure that both process and product characteristics adhere to HaslerRail specifications. The establishment of a **Control Plan** is essential. This plan should include:

- **Product Safety**: Measures that safeguard against potential hazards towards the product.
- **Product Performance**: Verification that products meet design specifications.
- **Assembly Capability**: Confirming the product's fit, form and function.

Robust process monitoring techniques, (e.g. Statistical Process Control (SPC)), should be employed to oversee production consistency. Documented processes facilitate traceability and compliance, enabling immediate corrective action when deviations occur.

9.2 First Article Inspection (FAI)

The **First Article Inspection (FAI)** is a critical validation step for new or altered manufacturing processes. It verifies that parts meet required specifications before full production. Suppliers must ensure that FAI documentation aligns with HaslerRail's requirements. Key elements include:

- Submission of an FAI package in electronic format to the designated HaslerRail representative.
- Maintaining records of FAI results, which must be approved and acknowledged by HaslerRail through a signed return. It is vital that any changes in manufacturing processes are communicated and documented pre-emptively align with specifications.
  (The IRIS Guideline 2 International Railway Industry Standard Guideline 2 is used as a basic standard)

9.3 Part Identification and Traceability

Proactive **Part Identification and Traceability** is crucial throughout the supply chain. Suppliers must consistently identify materials and components across all production stages. Compliance with HaslerRail's requirements, such as maintaining unique serial numbers, ensures traceability and accountability. This identification process aids in effective quality management, enabling prompt resolution of issues and bolstering compliance with safety and regulatory standards (e.g. HaslerRail document QMD-00312 Creation of serial numbers by suppliers).

By rigorously adhering to these assurance practices, suppliers enhance product quality and reliability, thereby supporting HaslerRail's operational integrity.

10 Inspection, Testing, and Warranty

Ongoing control activities during production are essential for maintaining product integrity and ensuring compliance with HaslerRail's quality standards. **Inspection and testing** are pivotal components of this process, designed to verify that products meet the defined specifications throughout the manufacturing cycle.

10.1 Inspection and Testing Expectations

Suppliers are required to implement a robust framework for inspection and testing, which must encompass the following elements:

- **Defined Parameters**: Establish clear parameters for inspection based on HaslerRail-approved drawings and specifications.
- **Inspection Plans**: Create and maintain comprehensive inspection plans that detail the competencies required for each inspection task.
- **Regular Audits**: Schedule ongoing audits to ensure adherence to the inspection criteria and to assess the effectiveness of testing protocols.

The results of all inspections and tests should be recorded and processed, allowing for traceability and predictive analysis. Suppliers must utilize this data to identify potential errors and initiate corrective actions swiftly.

10.2 Warranty Commitments

Suppliers are also obligated to meet warranty commitments, which play a crucial role in customer satisfaction and trust. This includes:

- **Timely Responses to Issues**: Providing prompt support during warranty periods, including supplying spare parts and qualified personnel for any product failures.
- **Documentation of Warranty Claims**: Maintaining accurate records of warranty-related communications and actions, which ensures clarity and accountability in resolving issues.

In the event of warranty claims, suppliers must act swiftly to assess the situation, conduct necessary inspections, and deliver resolutions without unnecessary delays. Through these rigorous inspection, testing, and warranty practices, suppliers uphold HaslerRail's commitment to quality and reliability, ultimately benefiting all stakeholders in the supply chain.

11 Control of Non-Conforming Products

Suppliers must have a robust process in place to identify, document, and manage non-conforming products effectively. The process begins with **identification**; any supplier discovering a defect or deviation from specifications must immediately isolate the affected products to prevent further processing or delivery.

11.1 Documentation Responsibilities

It's essential for suppliers to maintain thorough records of non-conformities, including:

- **Details of the non-conformance**: including the nature of the defect, affected products, and the extent of the issue.
- **Corrective actions taken** document steps taken to address and rectify the failure.

Documentation should be readily accessible for audits and performance reviews, ensuring transparency in quality management.

11.2 Handling non-conformities (incl.) Quality Escape Protocol

In the event of a quality escape—when non-conforming products are inadvertently delivered to HaslerRail, the supplier must adhere to the following protocol:

1. **Immediate Notification (Quality Escape)**: Suppliers must inform HaslerRail within **24 hours** upon discovery of a quality escape, providing details regarding the nature and implications of the non-conforming product.

2. **Immediate Notification** (**NC reported by Haslerrail):** Response to non-conformities reported by HaslerRail to suppliers

3. **Root Cause Analysis**: Conduct a thorough investigation using established methodologies such as the **8D report,** 5-WHY, or fishbone diagram to identify underlying causes of the issue

4. **Action Plan Development**: Suppliers must formulate an action plan to address the non-conformance, including measures to prevent recurrence. This should employ systematic problem-solving techniques, such as the **8D method**.

5. **KPI Monitoring**: Non-conforming products and resolution effectiveness should be tracked as part of the supplier's Key Performance Indicators (KPIs), allowing for ongoing quality improvements.

By following these steps, suppliers can demonstrate accountability and commitment to quality, fostering a reliable partnership with HaslerRail.

11.3 Timelines for Resolution

Suppliers must respond to complaints within specified timelines to ensure compliance with HaslerRail's service and quality commitments. Specifically:

- **Initial Response Time**: Acknowledge receipt of the complaint and provide a preliminary assessment within **2 days**.
- **Root Cause Analysis**: within **7 days**
- **Corrective Action Plan**: Detailed containment measures within **10 days** and long-term solutions, within **30 days** of the initial complaint.

11.4 Documentation and Follow-Up

Proper documentation is essential for tracking the resolution of customer concerns. Suppliers must maintain:

- **KPI Tracking**: Use Key Performance Indicators (KPIs) to monitor the effectiveness of actions taken, particularly concerning supplier reactivity and execution of corrective actions.
- **Feedback Loop**: Establish a system to communicate updates and final resolutions back to HaslerRail, ensuring transparency and accountability throughout the process.

By implementing these frameworks, suppliers will demonstrate their commitment to quality management and customer satisfaction, thereby enhancing the overall effectiveness of the supply chain.

11.5 Non-Compliance Implications

Failure to comply with these requirements can lead to significant consequences. Non-compliant changes may result in:

- **Product Rejections**: HaslerRail reserves the right to reject any products that do not meet the approved specifications due to unauthorized changes.
- **Financial Liabilities**: Suppliers may incur costs associated with returned products or the re-evaluation and re-inspection of non-conforming products, impacting overall financial stability.
- **Quality Risks**: Unauthorized changes can pose risks to safety and product performance, potentially endangering users and damaging reputations.

12 Cost of Non-Quality Management

Effective quality management is fundamental for suppliers to HaslerRail, and failure to meet these standards results in significant cost implications. Suppliers face financial accountability for non-conforming products that do not adhere to agreed quality standards. Key costs associated with non-quality management include:

1. **Handling Fees**: Should products not meet quality expectations, HaslerRail shall be entitled to charge a handling fee of EUR 300 for each return shipment This financial penalty not only affects profits but underscores the importance of maintaining quality controls.

2. **Corrective Actions**: Suppliers are responsible for various variable costs incurred in addressing non-conformities. These may include sorting, rework, repair, and additional testing, all necessary to rectify issues and meet contractual obligations.

3. **Production Impact**: Non-quality incidents can lead to production disruptions, such as line stoppages, resulting in delayed deliveries and additional overhead costs.

4. **Liabilities for Recalls**: Suppliers will bear the costs associated with recall actions of non-conforming products and any consequential costs. This also includes costs linked to public relations, customer service handling, and lost business opportunities.

Ultimately, adherence to quality standards is paramount for suppliers to avoid these risks and safeguard their financial viability in collaboration with HaslerRail.

13 Supplier Change Management

When suppliers initiate changes that affect approved products or processes, adherence to documented requirements is paramount. This process ensures that any modifications do not compromise product quality or compliance with established standards.

13.1 Change Initiation and Approval

Suppliers must formally document any proposed changes, especially those impacting safety, form, fit, or functionality. To initiate this change, suppliers are required to:

- **Submit a Written Request**: Utilize the appropriate HaslerRail document (QMD – 00799 Request for Deviation) to provide comprehensive details of the proposed changes.
- **Obtain Approval**: Changes cannot be made until they receive formal approval from HaslerRail, ensuring that all alterations are evaluated for compliance with quality standards.

Adherence to the outlined change management processes safeguard both suppliers and HaslerRail, promoting a culture of accountability and continuous improvement in quality management.

14 Continuous Improvement

14.1 Principles of Continuous Improvement

Suppliers to HaslerRail are encouraged to adopt principles of **Continuous Improvement** (CI) as a core aspect of quality management. CI involves systematically analyzing processes, identifying inefficiencies, and implementing improvements. Key elements include:

- **Action Definition**: Clearly define improvement actions based on identified issues or inefficiencies. Suppliers should prioritize these actions according to their impact on quality and efficiency.
- **Impact Evaluation**: After implementing improvements, suppliers must measure their effectiveness This helps evaluate the success of changes and informs further action.
- **Lessons Learned**: Suppliers should engage in regular feedback loops to capture insights from successful initiatives and setbacks alike. Documenting these lessons aids in refining processes and preventing recurrences of past mistakes.

Additionally, employing methodologies such as Plan-Do-Check-Act (PDCA) enables structured cycles of improvement, fostering a culture that values quality and operational excellence. Through these practices, suppliers will not only comply with HaslerRail standards but also enhance their competitive edge in the marketplace.

15 Special Processes

15.1 Definition of Special Processes

A **special process** refers to any manufacturing or maintenance process where the resultant product cannot be directly evaluated for compliance without destructive testing. Such processes are often critical in industries like railways, where safety and functionality are paramount. Ensuring that these processes are under stringent control is essential for maintaining product integrity and meeting regulatory compliance.
(The IRIS Guideline 6 International Railway Industry Standard Guideline 6 is used as a basic standard)

15.2 Audit Requirements

Suppliers are expected to conduct surveillance on special processes as part of an internal audit plan, with a minimum frequency of 12 months. This ensures ongoing compliance and effectiveness of processes managing these critical elements.

15.3 Controls for Effective Outcomes

Suppliers are required to establish robust controls for their special processes, including:

- **Identification and Documentation**: Clearly document process parameters and required qualifications for personnel involved.
- **Training and Qualification**: Ensure all personnel are adequately trained and authorized for specific tasks.
- **Record-Keeping**: Maintain comprehensive logs for each process, facilitating traceability and accountability.

By implementing these controls, suppliers minimize risks, ensuring high-quality outcomes aligned with HaslerRail's stringent standards.

16 Abbreviations

Abbreviation	Definition
ISO	International Organization for Standardization
ISO 9001	Quality management system
ISO 14001	Environmental management system
ISO 45001	Occupational health and safety management systems
ISO 22163	Railway quality management system
ISO 26000	Social responsibility
ISO 27001	Information security management systems
IAF	International Accreditation Forum
NC	Non-Conformity
FAI	First Article Inspection
QMS	Quality Management System (part of the IMS)
NCP	Non-Conforming Product
EHS	Environment, Health, Safety
QM	Quality Management
KPI	Key Performance Indicator
8D	Eight Disciplines Methodology
RAMS	Reliability, Availability, Maintainability, Safety
EMS	Environmental management system
IS	Information safety
IRIS Guideline 2	International Railway Industry Standard Guideline 2
IRIS Guideline 6	International Railway Industry Standard Guideline 6
FMEA	Failure Mode and Effects Analysis
IMS	Integrated Management System

17 Linked documents

General Terms & Conditions - HaslerRail	https://www.haslerrail.com//general-terms-conditions/
QMD-00797	List of Safety relevant products
QMD – 00799	Request for Deviation