

# AAR/RSI QUALITY NEWSLETTER

Volume 11, 3<sup>rd</sup> Quarter 2019

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## METHODS TO COMPLY WITH REQUIREMENTS TO SECTION 2.9 PURCHASING/CONTRACTING

Submitted by Bob Wolbert – Progress Rail

Section 2.9 of the AAR M-1003 specification sets forth the requirements for purchasing / contracting. It is up to the contractor to determine the “who” and the “how” aspects of this section.

**Who does this apply to?** In a company producing an AAR M-1003 required activity it could apply to:

- ✓ Raw material suppliers
- ✓ Subcomponent suppliers of other M1003 activity required items
- ✓ Assemblers
- ✓ Service companies
- ✓ Special Process providers
- ✓ Equipment providers
- ✓ MTE (measurement & test equipment) calibration service providers

It is up to each company to designate the products and services purchased and subcontracted and to ensure that it is in compliance with AAR requirements. Section 9.0 of Appendix C states “A single list identifying parts and service suppliers is acceptable for paragraph 2.9.1.1.”

**How this is accomplished** is left to your discretion through the provisions in 2.9.1.2.1 through 2.9.1.2.5 typical methods, but you are not limited to these as stated in in 2.9.1.2. So let’s discuss these options:

1. Inspection by subcontractor – You may opt to hire a subcontractor to inspect your supplier’s product or service quality.
2. Source inspection by contractor – You or a member of your company inspects the contractor’s compliance to quality requirements.
3. Incoming inspection - Products / documentation of service documents are checked by your personnel for compliance to requirements per your requirements as stated in your quality plan(s).
4. Objective Evidence – You may elect to require certificates of analysis or conformance for properties, heat treating, plating, etc. as a part of your evaluation process.

5. Surveillance of a contractor – You may elect to plan ongoing audits of a contractor, schedule quality testing of products based on a defined schedule / plan, utilizing any of these in combination with incoming inspection results, etc.

Regarding the five options above, 2.9.2.1 states ... “Typical methods include but are not limited to the following”. **So what does that mean and what other methods are there?**

- ✓ You can choose to do any combination of the five above
- ✓ You can document your rationale to do or not do all of the above in lieu of another method
- ✓ You could utilize the AAR approved vendor list as the rationale to support limited inspections
- ✓ You could use sampling plans to minimize the work load for performing incoming inspection
- ✓ You could use Critical to Quality (CTQ's) to determine which attributes to inspect
- ✓ You could use Production Part Approval Process (PPAP) package submission and approval for suppliers

The method you choose is up to you based on the best fit for your company and product/service to ensure product/service quality.

## IEWS AND INTERPRETATIONS

**Q:** Why does the M-1003 specification in section 1.4 “Definitions” define “Facility” in such a way as to imply activities can only be performed at the physical location certified?

**A:** The definition below does not preclude the activity for which the facility is certified being performed at a location via mobile repairs. While there are examples of mobile operations referenced within MSRP's there is no provision to certify a mobile operation within M-1003. Excerpts are provided below in support of this discussion.

### Excerpt from MSRP J:

*Facility - A fixed or geographical location built or established to perform manufacturing, reconditioning, repair, or servicing of products within the scope of the AAR M-1003 program requirements.*

### Excerpts from MSRP C-III:

*Mobile unit - A vehicle that is supplied with the equipment, material(s), and personnel to perform certain activities from a tank car facility.*

*Each mobile unit must be physically present and available for evaluation at every AAR in-plant audit.*

### Section 2.4.4 Management Review:

As further clarification to this section, corporations operating multiple facilities / divisions operating under the M-1003



## Have a Question?

Submit your M-1003 request for clarification or interpretation by emailing [QA@aar.com](mailto:QA@aar.com).



## Have an Idea for an Article?

Please submit your drafts to Donna Jacobi at [djacobi@amstedrail.com](mailto:djacobi@amstedrail.com) or Gary Alderson at [alderson@alltranstek.com](mailto:alderson@alltranstek.com).

specification may elect to perform group management reviews in an effort to leverage improvement through wider participation while addressing the requirements of this section.

**Q:** Why does M-1003 appendix C utilize the term gauge in addition to measuring and testing equipment?

**A:** Shelf life for gauges was used in section 8.1 to address the requirements for gauges affected by regulatory and manufacturer requirements such as single car test devices and pressure gauges.

*8.1 Shelf-life of gauges: The contractor must determine (and document) the shelf life of gauges based on the nature and use of the gauge, storage conditions, and any specification or contract requirements that may apply.*

**Q:** Why does appendix C encourage the use of long-form certificates in section 8.11 “While requests for long-form certificates cannot be enforced, contractors are encouraged to request before-and-after readings on gauges sent in for calibration.”

**A:** Section 2.8.2 requires gauges and measuring and testing equipment (used for validating the quality of a product) be calibrated at prescribed intervals. The determination of intervals is best accomplished through data analysis of the long form certificates in order to determine the prescribed interval is appropriate so as to better prevent the need of an assessment resulting from out of tolerance condition. The additional cost of long-form certificates is often negated through the ability to better manage calibration intervals and more importantly prevent quality spills from an out of tolerance condition.

## **PROBLEM SOLVING TOOLS – ROOT CAUSE**

Submitted by David Book – McConway & Torley

There are multiple types of root cause analysis. One of those tools is a fishbone analysis. It can be used alone or in combination with other root cause analysis tools.

### **Fishbone Analysis**

A fishbone diagram is also known as a cause and effect diagram, or an Ishikawa diagram (named for its originator, Kaoru Ishikawa). The fishbone is simply brainstorming in a more structured format.

#### **Purpose:**

The fishbone analysis is a type of cause/effect diagram, which is used to graphically relate the causes of a problem to the problem itself. It is used to find the primary, or “*root cause*”, of a problem. It allows us to work on causes for a problem one at a time resulting in uncomplicated solutions.

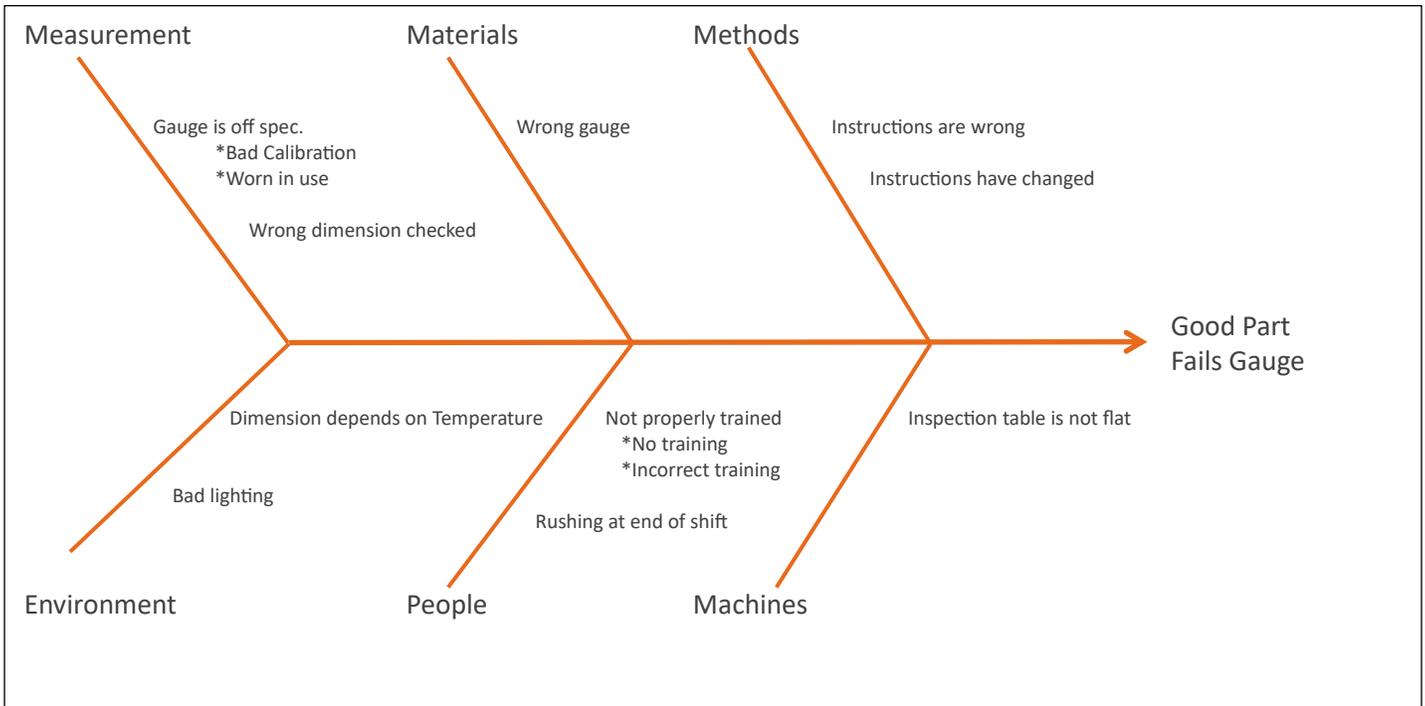
#### **When to Use:**

- When broad thinking about possible causes is desired.
- When significant experience with the problem exists on the problem solving team.
- When the team thinking tends to fall into ruts.
- When you are trying to determine possible causes.

#### **Procedure:**

1. Draw the fishbone on a flip chart.
2. State the problem at the head of the fish.
3. Brainstorm the major categories of causes on the main bones (generic headings: People, Materials, Processes, Equipment, Design, Miscellaneous)

4. Brainstorm possible causes for each main bone.
5. Complete the fishbone and let the ideas incubate.
6. Focus additional thought on major bones where there are few items.
7. Gather data to validate and eliminate causes for the problem.



## AAR QAC & RSI QAC UPDATE

Submitted by Randy Thomure – RSI

AAR Quality Assurance Committee (QAC) and RSI Quality Assurance Committee (QAC) recently held meetings during the annual AAR technical committee meetings in Colorado Springs during the week of August 12<sup>th</sup>. RSI QAC's meetings focused on expanding the educational offerings through the development of training materials and sessions. The focus will be on providing more training on modern quality management systems to new and current quality assurance rail professionals. During the joint meeting with AAR QAC and RSI QAC these educational topics were discussed, as well as participation in the annual AAR Quality Assurance Conference conference in January 2020. At the conclusion of the meeting, the current chairman of the RSI QAC, Gary Alderson of AllTranstek, stepped down and the new chairman, Jason Riggs of Union Tank, was installed. The committees expressed their appreciation for all the work that Gary Alderson has done to revitalize the RSI QAC. Chairman Riggs has established a goal to reach out to a broader cross section of the industry to expand the scope of the RSI QAC to reflect the breadth of the RSI companies.

## 2020 AAR QUALITY ASSURANCE CONFERENCE

Registration is now open for the 2020 AAR Quality Assurance Conference. The conference will be the week of January 28<sup>th</sup> in Fort Worth, TX. Click on the link for more information or to register:

<https://aar.com/downloads/Conference%20flyer%206-4-19%20linked.pdf>



The banner features a blurred image of a train in motion against a bright sky. The AAR logo is in the top left corner. The main text is in large, bold, yellow and white fonts. Below the main text is a blue bar with white text, and a yellow bar with blue and black text and a logo.

# AAR 32nd Annual Quality Assurance Conference

January 28-30, 2020  
Hilton Downtown ▪ Fort Worth, TX

Improving the Safety and Productivity of Rail Transportation through Quality

The Association of American Railroads' (AAR) 32nd annual Quality Assurance Conference is coming January 2020!

**REGISTER TODAY**  
Cost: \$814/person  
Register at <https://tinyurl.com/y5qhph4j>  
Hilton Downtown Fort Worth - \$185/night: <https://tinyurl.com/y3vzseud>

AAR M-1003 CERTIFIED 

Tues./Wed., Jan. 28-29:

### Open Sessions for all attendees

Sessions presented by AAR QAC members and railway industry professionals:

- Root Cause Analysis Tools
- M-1003 Audit Findings & Best Practices
- Statistical Process Control/Statistical Methods
- Rail Supply Institute presentation
- Keynote Address (to be announced)
- AAR Committee Updates
- New M-1003 Revisions

Thursday, January 30:

### Hands-on Workshops for all attendees

To be announced.

While this conference is designed as a forum for the AAR Accredited Auditors, anyone interested in the M-1003 auditing process is invited to attend this valuable learning event!

For more information, please contact Don Guillen or Mark Rusovick at [QA@aar.com](mailto:QA@aar.com)

 TRANSPORTATION  
TECHNOLOGY CENTER, INC.

 ASSOCIATION OF  
AMERICAN RAILROADS

## CALENDAR OF EVENTS AND IMPORTANT LINKS

### 2019 Calendar of Events

Training	Date	Location
Basic Auditor Training	October 8-10	Guadalajara, Mexico
	November 5-7	Orlando, FL
Advanced Auditor Training	October 8-10	Topeka, KS

An AAR Circular Letter will be issued several months prior to each class announcing when registration is open

### Important Links

[Registry of M-1003 Certified Companies](#)

[M-1003 Frequently Asked Questions](#)

[AAR M-1003 Certification on-line Application](#)

[AAR M1003, Section J Specification for Quality Assurance](#)

[AAR Training Schedule](#)

[AAR Circulars](#)

[MSRP Publication Current Revision Status](#)

[AAR Online Material Nonconformance Reporting System \(Chapter 7\)](#)

[Railway Supply Institute](#)

[RSI QAC & Previous Newsletters](#)

[RSI Tank Car Resource Center](#)

The AAR /RSI Joint QA Newsletter is provided through the efforts of AAR Quality Assurance Committee and Railway Supply Institute Quality Assurance Committee members in an effort to provide information that is important to our industry in support of improving the quality of products and services provided. You can support this process by submitting your questions and ideas for improvement to [QA@aar.com](mailto:QA@aar.com).

**THE FOLLOWING AAR QAC AND RSI QAC TEAM MEMBERS WORKED ON THIS NEWSLETTER  
AS PART OF THE COMMUNICATION TECHNICAL ADVISORY GROUP:**

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Ray Morgan – The Greenbrier Companies

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Sheena Prevette – Union Tank

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