AAR/RSI QUALITY NEWSLETTER

Volume 9, 1st Quarter 2019

INSIDE THIS ISSUE

THE MISSING PIECES – PART 4: INNOVATION

Submitted by Bob Wolbert – Progress Rail

We have addressed to date the missing pieces driving quality improvement of Goals, Visual Management, Engagement and now Innovation. What do these all have in common? People and communication. People with a vision that results in SMART goals being established, a methodology to measure the delta between the goal and actual results via visual management tools that are utilized to engage our employees in the improvement process.

So where does innovation come from or how do you encourage it? We have all heard it said that our employees closest to the work process in question are typically the best ones to consult on ways to improve. Do we maintain a two-way line of communication? Do we allow our employees to offer and make changes? Do we rotate our employees to promote additional viewpoints / input? Do we encourage employees to try new methods under controlled conditions? Do we provide training in new technologies? Do we allow our employees to work alongside the management team with suppliers of tooling, equipment and consumables in an effort to promote improvement? Do we empower our employees to participate and lead Kaizen / 5S events?

Employees who are engaged as process owners are much more likely to be innovators. Employees who receive consistent support from their management are more likely to contribute innovative ideas. So why is this an issue that eludes us? It's cultural, it's educational based, it's executive leadership dependent, it's supervisory dependent and it's employee dependent. People. Involving and encouraging participation of our employees supports innovation growth.

So the next time you attend or conduct a shift meeting, pay particular attention to how engaged your employees are. Are they interacting and freely asking questions or offering information? The next time you walk a supplier out into the shop to review tooling or consumables, introduce the employee(s) in the area of interest and let them know you value their input as well. The next time you meet to consider a capital equipment purchase requirements for quotation, involve the employee(s) that will operate it. The next time you do a runoff / factory acceptance test on a new piece of equipment, involve the employee who will operate it. Innovation is a priority in a thriving company as well as an indicator of a healthy and well-deployed Quality Management System.

VIEWS AND INTERPRETATIONS

Q: Is it acceptable for the AAR auditor to write a finding that was already discovered during the internal audit?

A: Yes, it is acceptable, even if something was found previously; if it still exists, it is still a finding. Occasionally an internal audit will be completed just prior to an external audit. When that happens the auditee may not have time to correct the nonconformances found. In this case, the AAR Auditor should use common sense and write the finding if he or she feels it is necessary to improve the system. If the finding has been corrected but not effectively or the finding was found but a corrective action was not implemented in a timely fashion, there are two potential findings: one concerning the problem found and one concerning the effectiveness of the internal audit process.

RSI NAMES NEW DIRECTOR OF REGULATORY AFFAIRS AND SAFETY

Randall Thomure has been named director of regulatory affairs and safety for the Railway Supply Institute (RSI), RSI President Mike O'Malley announced. Thomure has been engaged to oversee technical and regulatory strategies related to safety and operational issues, manage the work of the organization's project committees, and collaborate with members and stakeholders to promote policies that incentivize new technologies to improve safe, efficient railroad operations.

"Randy is a seasoned industry executive with expertise in railroad equipment operations, maintenance and design and an in-depth understanding of federal regulations, industry rules and standards," said O'Malley. "Having Randy take on this role will provide important direction and support for the work of RSI's project committees, and strengthen our relationships with industry and regulatory agencies," O'Malley stated.

Said Thomure, "Railway supply manufacturers play a key role in safe, efficient and innovative transportation solutions. I look forward to working with RSI's committees, its members, the rail industry and regulatory agencies on issues involving engineering, design and best practices."

In addition to his work for RSI, Thomure is the founder of Rail Asset Advisors, LLC, a rail consulting company. Over the course of his career, Thomure has held senior positions with companies that own, lease and manufacture railcars, including The Andersons, Sapa Extrusions (now part of Hydro), TrinityRail Group LLC, Thrall Car (now part of TrinityRail), U.S. Leasing (now part of Ford Credit) and Itel Rail (part of

Have a Question?

Submit your M-1003 request for clarification or interpretation by emailing QA@aar.com.

Have an Idea for an Article?

Please submit your drafts to Donna Jacobi at **djacobi@amstedrail.com** or Gary Alderson at **alderson@alltranstek.com.**

Reminder

Per Section J, 1.1.3 "An AAR official representative shall have free entry at all times to all parts of the contractor's works that concern the processing, test, and inspection of materials for use in interchange service. This access is for the purpose of providing assurance that industry standards are being maintained. The contractor shall afford the AAR representative all reasonable facilities to ensure that materials are being furnished in accordance with the specification."

the former GE Rail). He began his career with the former Missouri Pacific Railroad. Thomure is a board member and past president of the Mechanical Association Railcar Technical Services (MARTS) and is a member of the American Society of Mechanical Engineers, Rail Division. He holds a BS in Mechanical Engineering from the University of Missouri at Rolla and an MBA from Golden Gate University.

SPECIAL PROCESS "ABRASIVE BLASTING, PAINTING AND COATING" – AUDITING CONSIDERATIONS AND GUIDELINES

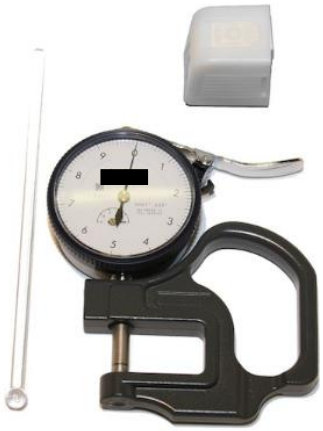
Submitted by Jim Shomo – Progress Rail

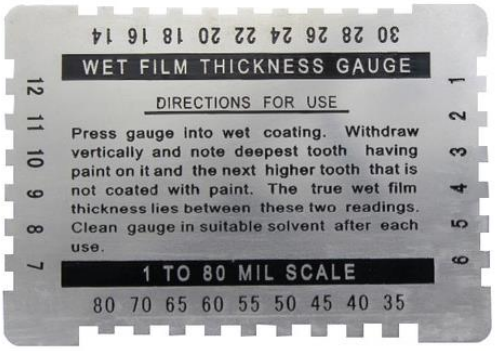
MSRP Section J addresses the special processes in Section 2.15, Process Control. Companies must ensure special processes are performed under controlled conditions with qualified personnel and processes. The following requirements are evaluated when auditing the special processes of abrasive blasting and painting.

Before we get into the M1003 sections that address this special process, let's discuss some of the terms and their meaning / application:

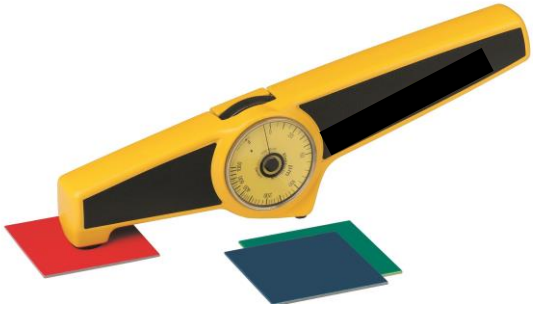
Blasting is the operation of propelling a stream of abrasive material against a surface under high pressure to prepare the surface for painting / coating. The materials used are commonly metal shot, slag or sand media. The abrasive material can be propelled by air, water or centrifugal force.

Blast Profile is the surface condition after the blasting process is completed. Dependent blast methods, blast media on the type and pressure / force used such as tip size and distance maintained from the work surface, the resulting texture of the area to be painted / coated will vary. Paint / Coating manufacturers specify a range for the blast profile to meet in order to provide adequate surface conditioning to allow the paint / coating to adhere to the surface. If the surface is too roughly prepared and the profile exceeds the limits specified, the resulting paint / coating system thickness specified could be inadequate to cover the peaks of the profile resulting in paint / coating system failure to provide protection.





Paint / Coatings Thickness and Uniformity are checked by the system applicator using a wet mill gauge which when applied gives the thickness of the system prior to drying. Applicators use this as a guide based on the system's manufactures guide. Different paint / coatings will dry to various thicknesses based on their chemical makeup and percent of solids. A simple example would be if the manufacturer recommends 3-5 mils DFT (Dry Film Thickness) and the percent of solids is 50% the applicator would check for a wet mill reading of 6-10 mils during the spray application. This allows the drying process to result in the required DFT range. As the paint/coating percent solids increases, the required wet mils decreases accordingly.



2.15.8 Ensuring that special processes (including but <u>not limited</u> to welding, heat treating, plating, and non-destructive testing) are performed under controlled conditions in accordance with applicable codes, standards, specifications, and governmental and contractual requirements by qualified personnel using qualified equipment and procedures

Audit guidelines for blasting controlled conditions:

- Is blasting being performed to a documented work instruction?
- Is the blast standard requirement being met? If not specified by the customer, consult the paint manufacturer's instructions for surface preparation. (Example; SSPC-SP6 Commercial, SSPC-SP10 Near White, SSPC-SP5 White)
- Are blast inspections & tests (example: blast profile readings) documented when required by the work instruction or customer requirements?
- Are components protected during blasting? Brake valves, slack adjusters, castings, wheels.

Common Points of Failure:

- There are no written work instructions or guidelines available to assure blasting is performed under controlled conditions
- Paint / Coating system requirements are not being met or are in conflict with work instructions or training.
- Work instructions or customer requirements do not provide Pass / Fail criteria.
- Documented records of inspections or tests are not available.
- Records of inspections and tests indicate they did not meet the Pass criteria and no actions were taken.
- Records of inspections or tests do not indicate who performed the inspection/test or the date performed.
- Components not protected during blasting and contaminated with blast media.

Audit guidelines for painting/coating controlled conditions:

- Is painting/coating operation being performed to a documented work instruction?
- Is the painting/coating operation being performed in a suitable environment (ambient conditions) as required by the work instruction, manufacturer's recommendations or regulatory requirements?
- Are painting inspections, tests (example; dry mil readings) documented when required by the work instruction or customer requirements?
- Have the locations where the test readings were taken been documented when required by the work instruction or customer requirements?
- Validate readings as compared to values recorded when possible by allowing the personnel to recheck areas and values recorded.
- Is the paint being stored in a suitable environment per the manufacturer's recommendations?
- Is the paint being utilized on first in/first out basis to avoid exceeding shelf life?

Common Points of Failure:

- There are no written work instructions or guidelines available to assure painting/coating is performed under controlled conditions
- There are no records of the ambient conditions at time of paint application.
- Work instructions or customer requirements do not provide Pass/Fail criteria.
- Documented records of inspections or tests are not available.
- Records of inspections and tests indicate they did not meet the Pass criteria and no actions were taken.

- Records of inspections or tests do not indicate who performed the inspection/test or the date performed.
- Paint stored at a temperature above or below the manufacturer's guidelines or paint in storage is past the manufacturers recommended shelf life.

2.15.9 Ensuring that the qualification of personnel, procedures, and equipment complies with the requirements of applicable codes, standards, and specifications

Audit guidelines for qualification of personnel, procedures and equipment:

- Have blasting and painting personnel been trained in accordance with a documented training program?
- Is the inspection and test equipment capable of providing the results to the applicable standards or specifications?
- Is the inspection and test equipment calibrated and traceable to a recognized standard or specification?

Common Points of Failure:

- Blast or painting personnel have not had training to qualify them for the special processes of blasting and or painting.
- Inadequate inspection and test equipment.
- Inspection and test equipment not in current calibration status or not calibrated to a national standard.

2.15.10 Ensuring that documentation for currently qualified personnel, processes, or equipment is maintained in accordance with the requirements of pertinent codes, standards, & specifications

Audit guidelines for documentation of currently qualified personnel and processes:

- Verify blast and/or painting personnel training records are available and current.
- Expect to see a training program provided internally and/or training externally by the paint or coating suppliers in addition to blast equipment suppliers
- Verify inspection and test equipment records are available.

Common Points of Failure:

- Records of training for blast or painting personnel are not available / kept current where requalification is required at specified intervals.
- Records of inspection and test equipment calibration are not available.
- Absence of process audits validating these processes are being performed per procedure(s).

MANDATORY ELEMENTS FOR AAR M-1003 AUDITS IN 2019

Submitted by Donna Jacobi – Amsted Rail

The annual AAR Quality Assurance Auditor and Industry Conference was held earlier this year on January 22 – 24 in New Orleans. Each year at the conference, the four mandatory elements to be audited as part of every AAR M-1003 audit are announced. For 2019, the four mandatory elements are as follows:

- 2.4 Management Responsibility
- 2.6 Corrective and Preventive Action
- 2.9 Purchasing/Contracting
- 2.18 Nonconformance Control

CALENDAR OF EVENTS AND IMPORTANT LINKS

2019 Calendar of Events

Training	Date	Location
Basic Auditor Training	April 23-25	New Orleans, LA
	June 18-20	Virginia Beach, VA
	July 16-18	Colorado Springs, CO
	November 5-7	Orlando, FL
Advanced Auditor Training	March 26-28	Vidor, TX
	June 4-6	El Dorado Hills, CA
	September 10-12	Pueblo, CO
	October 8-10	Topeka, KS
Root Cause & Corrective Action	April 10-11	Chicago, IL
	June 11-12	Denver, CO

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**.**

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

AAR QAC

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Ray Morgan – The Greenbrier Companies

Mark Rusovick – TTCI/AAR

Dan Thielemier – TTCI/AAR

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Gary Alderson – AllTranstek

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Donna Jacobi – Amsted Rail

Sheena Prevette – Union Tank

Michael Ruby - TrinityRail

Randy Thomure - RSI

Lee Verhey – TrinityRail