

Washington Metropolitan Area Transit Authority

DEPARTMENT OF TRANSIT INFRASTRUCTURE & ENGINEERING SERVICES

Administrative Procedure

CATEGORY		TOPIC					
Organization and Administration		First Article Inspection Procedure					
PROCEDURE NO.	TITLE						
113-06	First Article Inspection Procedure						
LATEST REVISION NO.	LATEST REVISION DATE	LATEST REVIEW DATE	EXPIRATION DATE				
REV.0	March 26, 2010	March 26, 2010	None				
PROCEDURE APPLIES TO		· · · · · · · · · · · · · · · · · · ·					
Department of Transit Infrastructure an	d Engineering Services						
OFFICE/INDIVIDUAL OF PRIMARY RESPONSI							
QAAW / Director of Quality Assurance							
EFFECTIVE PAGES							
DISTRIBUTION		COORDINATION WITH OTHER	RPUBLICATIONS				
All Transit Infrastructure 9 Engineer	inn Comileon Officer						
All Transit Infrastructure & Engineer	ing Services Offices						
APPROVAL: Director of Quality Assurance a	ind Warranty (QAAW)		t Infrastructure and				
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Chief Engineer (CENV)	Lile alacha	2010	. 05.0				

1. PURPOSE

The purpose of this procedure is to define the process for initiating, evaluating and approving part(s)/component(s) used to maintain and/or enhance the Metro rail system while conforming to the Engineering approved drawings specifications.

In addition, to provide TIES a consistent process to enforce compliance with engineering and design requirements prior to part/component approval for purchase and/or use.

2. SCOPE

This procedure is applicable to all Transit Infrastructure & Engineering Services (TIES) employees involved with preparing, processing or approving proposals for the validation of new suppliers, validation of new part/component or changes that alter the form, fit or function of equipment, components and sub-components, systems or subsystems, maintained or managed by TIES.

3. RESPONSIBILITIES

Adherence to this procedure is the responsibility of all WMATA employees.

QAAW is responsible for:

- a) Overall control and compliance enforcement of the TIES First Article Inspection procedure.
- b) Completing FAI reviews, following the process described below.
- c) Approving FAI packages.
- d) Communicating FAI status to requestors and users (CE, PRMT, etc.).

CE is responsible for:

a) Establishing the part/component specifications.

4. DEFINITIONS

AGM	Assistant General Manager
CE	Chief Engineer
CMNT	Car Maintenance
FAI	First Article Inspection
MSDS	Material Safety Data Sheet
OEM	Original Equipment Manufacturing
PRMT	Office of Procurement
QAAW	Office of Quality Assurance and Warranty
TIES	Transit Infrastructure & Engineering Services
TSSM	Track Structure and System Maintenance

5. POLICIES

Within TIES, all part(s)/components used in the Metro rail system shall be verified through the FAI process prior to authorization for purchase and/or use.

An FAI is required for:

- a) New Supplier
- b) New part/component
- c) Changes in the production/manufacturing process that affects form, fit, function or design characteristics of the part/component.
- d) Changes of raw material used to produce/manufacture the part/component, when the change might affect fit, function or design characteristics.
- e) Drawing changes that will add, remove or change:
 - i. Test requirements
 - ii. Dimensional characteristics that will affect fit or function.
 - iii. Bill of material

Parts/components procured from unapproved suppliers and/or not FAI approved shall be handled as nonconforming material.

The Office of PRMT can request a FAI for parts/components to qualify a new Supplier to supply a previously approved part, as long as the supplier is providing an identical replacement part, where the part can be traced to a part number clearly stamped or marked on the part. If the new supplier's part is not identical, it will require Engineering approval prior to the FAI.

Original parts/components provided by an OEM are granted FAI approved status by default, unless the OEM deviates from the original design approved by the CE office.

The FAI will verify component compliance with the design and engineering requirements. The FAI shall establish the quality of workmanship (including inspection acceptance criteria, if applicable) for the balance of like components.

The FAI will not be conducted until the design drawings or specifications of the article have been approved. If conditionally approved drawings are used, the Authority's conditions for approval shall be satisfied prior to authorization for the first shipment.

6. PROCEDURE

Request for a FAI

- The requestor must complete and submit and FAI request form to TIES/QAAW (Attached).
- b. TIES/QAAW will log the FAI request in the FAI Status matrix.

2. FAI Process

- a. QAAW will contact the supplier to provide a list of items required to complete the FAI package. In circumstances where contractual requirements are established, this effort will be coordinated with the responsible project office.
- b. Depending on the type of article being evaluated, the FAI could be conducted at the Authority facility or at the Supplier(s) manufacturing facility. QAAW will coordinate with the Supplier.
- c. If the FAI is conducted at the Supplier facility, the Supplier shall:
 - i. Submit in advance all required documentation (see d.) to the Authority representative prior to the physical FAI visit; see steps d. of this section.
 - ii. Provide a well-lit workspace with the necessary inspection and handling aids.
 - iii. Display the inspection article on a stand or table.
 - iv. Provide tools and labor to take mechanical or electrical measurements.
 - v. Shall have performed or have the capability to perform a functional test.
- d. All FAI packages shall include the following items:
 - i. Drawing set to the approved revision level.
 - ii. Dimensional inspection results (all Key Product Characteristics must be listed). Note: Dimensional KPCs are those that affect fit, form or function. For Parts/components, the dimensional report shall include a minimum of 10 samples for parts purchased in volume. (when applicable)
 - iii. For parts/components:
 - Material test that certifies the part meets the material specifications and applicable industry standards.
 - The 10 samples used for the dimensional inspections shall be submitted. (when applicable).
 - iv. For assemblies/subassemblies:
 - Test documentation that supports compliance with design requirements.
 Note, inspection records used to control and accept in-process work shall be available upon request. (if applicable).
 - v. Surface Finish Acceptance Criteria (if applicable).
 - vi. Material Safety Data Sheet (MSDS) (when applicable)
 - vii. Packaging standards (if applicable).
 - viii. Article identification standard. (how the supplier identifies its product)

- e. Review and Disposition
 - i. QAAW will review the FAI package to verify compliance with the above requirements.
 - ii. QAAW representative shall complete the FAI Check Sheet.
 - iii. QAAW will provide disposition as follows:
 - · Passed FAI:
 - QAAW completes the "FAI Certificated of Compliance" form.
 - QAAW uploads FAI package information to the data base kept in Documentum.
 - QAAW notifies the Supplier, CE and PRMT by providing a copy of the "FAI Certificate of Compliance".
 - QAAW must document the disposition in the FAI Status matrix.
 - Failed FAI:
 - QAAW completes the "FAI Not Approved Notification" form.
 - QAAW notifies the Supplier, CE and PRMT by providing a copy of the "FAI Not Approved Notification".
 - QAAW must document the disposition in the FAI Status matrix.

7. ATTACHMENTS

FAI Status Matrix

FAI Request

FAI Certificate of Compliance

FAI Not Approved Notification

FAI Check Sheet



TIES/QAAW First Article Inspection "FAI" Status Log

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Comments "Approved or Rejected (reason)"							:				
Closed By (QAAW officer)											
Closed on											
item Description											
WIRATA Part Number											
Suppler Part Number											
Supplier											
QAAW Officer											
Date											



OFFICE OF QUALITY ASSURANCE AND WARRANTY FIRST ARTICLE INSPECTION (FAI) REQUEST FORM

Requestor's Information:			
Office:	Nan	ne:	Date:
Part / Component Informati			
New Part to WMATA?	YES	NO	
New Supplier for an existing part?	YES	NO	
Part Description:			
WMATA part number:			_
Supplier's part number:			
Is a MSDS required?	YES	NO	<u> </u>
Supplier Information	, 222		
Supplier's Name:			
Supplier Address:			
Contact Person:		Phone #	t:
E-mail (if available):			



To /Funntiarle

Washington Metropolitan Area Transit Authority

First Article Inspection

Certificate of Compliance

supplier s wumber
Phone:
WMATA Part Number:
umentation submitted for the item described above, the Office on nined that the Supplier has complied with the First Article amples submitted comply with engineering specifications.
an Approved Supplier only for the part listed above and as long and material remain unchanged. The Supplier is responsible for n materials and or manufacturing process affecting the part
Date:



Washington Metropolitan Area Transit Authority

First Article Inspection

Not Approved Notification

To (Supplier):	Supplier's Number						
Supplier Contact Person:	Phone:						
Supplier Part Number:	WMATA Part Number:						
Part Description:							
Quality Assurance and Warranty deter	cumentation submitted for the item described above, the Office of mined that the Supplier failed to comply with the First Article Supplier request to be approved as a supplier for the part listed						
Reasons for Rejection:							
Please provide any additional informat	tion that can correct the discrepancies listed above.						
QAAW Representative:	Date:						
Phone:							



OFFICE OF QUALITY ASSURANCE AND WARRANTY FIRST ARTICLE INSPECTION (FAI) CHECK SHEET

Supplier:			Date:						
Supplier part number:		Wmata p	art number:						
Documents/Items required									
	YES	NO	Comments						
Approved drawings and to the correct rev level									
Dimensional test results									
Material test results				-					
Material Safety Data Sheet (If applicable)									
Material samples	,								
Test documents (for assemblies)									
Surface Finish Acceptance Criteria (if applicable)									
Packaging standards (If applicable)									
Article identification Standards									
QAAW Representative:									
Phone:									