

Standardization Working Group Work Plan

Objectives:

- (1) To embrace a long-range effort to achieve commonality of systems or components across a spectrum of vehicle platforms specified for acquisition under the Next Generation Corridor Equipment Pool Committee (NGEC) process.
- (2) To encourage the vitality of the US domestic railcar supply industry.
- (3) To identify potential candidates for standardization, as well as establish a process for the recommendation of candidates. These may be components, sub-systems, systems or their specifications.
- (4) To develop and refine a common process for the evaluation of each system/component that identifies both the technical suitability, and the likely range of costs and benefits of implementing a standard, through the probable range of the life of the standard in accordance with the life cycle costs of the system/component.
- (5) To emphasize the use of open and industry standards where possible.
- (6) To determine the process by which potential revisions to existing standards would be proposed, their benefits and costs evaluated, and recommendations made for revisions.
- (7) To establish a schedule for the periodic revalidation (and updating, as necessary) of issued standards.

Approach:

- (1) All personnel involved in the standardization process shall avoid conflicts of interest, or the appearance of conflicts of interest, and perform their work in an ethical manner.
- (2) A Standard shall be formulated and applied, as much as possible, to the broadest number of vehicles. Greatest benefit is derived from a Standard which applies to all vehicles or all passenger cars, for example, than from a Standard which can only be applied to a few types of vehicles.
- (3) The NGEC Standardization process shall be under the general direction of a Standardization Working Group (SWG), with the details of the process managed by a designated Coordinator.
- (4) Various Technical Working Groups (TWGs) shall perform the technical and financial evaluation of each submission. The TWGs shall normally be based upon the five NGEC Technical SubGroups (Mechanical, Structural, Electrical, Interiors and VTI), and shall each be managed by their SubGroup Team Leader. The Coordinator may also designate additional Subject Matter Experts (SME) as required on an individual standardization candidate basis, for the proper analysis of the subject matter to assist the TWG in their evaluation.
- (5) Individual candidate items for standardization shall be submitted to the Coordinator, who shall perform an initial review for completeness of the submission. The Coordinator shall then forward the candidate to the appropriate TWG Team Leader for analysis.
- (6) The Team Leaders shall have their TWG perform both a technical analysis and a financial benefit analysis of the submission. They shall work with a Financial Analyst to verify the financial

aspects of the proposal. If the analysis shows that the candidate is a suitable item for standardization, the TWG shall then prepare the final wording of the standard and its applicability, as required.

- (7) The TWG Team Leader shall report back to the Coordinator with the results of its analysis of the candidate and any recommended Standard. Each recommended Standard shall be sent by the Coordinator to the SWG for secondary review and approval.
- (8) If approved by the SWG, the proposed Standard shall be sent to the Executive Committee for final approval.
- (9) The standardization approach is illustrated in the flowchart which appears at the end of this document.

Process:

- (1) Identify standardization candidates. This is to be accomplished through the use of the "Candidate for Standardization Form" which is included at the end of this document. (Note that potential initial candidates were identified by the Standardization Working Group.) Submit the form to the Coordinator.
- (2) The Coordinator will review the form for completeness, and work with the originator to complete any missing items. The submission will be assigned a tracking number. The Coordinator will forward the form to the Team Leader of the appropriate Technical Working Group (TWG), which are based on the NGEC Technical SubGroups. The Coordinator shall also assign any additional Subject Matter Experts (SME) as needed or as requested by the Team Leader for the analysis.
- (3) Under the management of the Team Leader, the TWG shall perform an analysis of the benefits, drawbacks, and other concerns of standardizing the nominated component/system/interface. Data and assumptions upon which all analyses, evaluations and recommendations are based shall be documented as part of each analysis.
- (4) If the TWG determines that significant technical impediments to standardization exist, the item is rejected as a standard with a clear statement of the reason for the rejection, and no additional evaluation is performed.
- (5) If the TWG determines that a standard should be created, it shall make a determination of whether the standard should be at the component, sub-system, or interface level, and make an initial determination of the potential sources for the new standard. Primary emphasis should be placed on the use of existing third-party technical standards where possible (such as APTA, ASTM, SAE, etc.) in lieu of proprietary (commercial) standards. In some cases, the Technical SubGroups may need to create a new standard.
- (6) In parallel to the Technical activity described above, the TWG shall also work with a Financial Analyst to verify the financial benefits of the proposal. They shall evaluate the likely range of life cycle costs and benefits (if any) of standardizing the component. This analysis should consider the likely range of the life of the standard and the level of penetration into the fleet, the likely range of potential financial benefits of standardizing the item, potential up-front non-recurring costs of implementing a standard, and life cycle costs. A baseline cost comparison can be made against the non-standardized approach.
- (7) If the TWG determines that the proposed standard has both technical and financial merit, it shall prepare the final wording of the standard and identify its applicability to the NGEC family of vehicle specifications.

- (8) If the TWG determines that a standard should be based on the selection of a component or system that is already in existence, or could be designed by the supplier base and the ownership of that component/system will be necessary, a process shall be created that allows the selection of that component/system to be undertaken in an open and competitive manner. The outcome of that selection shall be based on the best value over the life cycle, and the data from that selection shall be compared with the original standardization assumptions to ensure the decision making process for adopting a standard is still valid.
- (9) The TWG Team Leader shall report back to the Coordinator with the documented results of its analysis, its determination of approval or disapproval of the candidate, and any recommended Standard. Its report shall include a description of the proposed standard, the scope of the standard (what vehicles are affected and the projected range of quantities involved), the facts and assumptions upon which the analysis is based, a description of the analysis performed, and the results of the analysis.
- (10) The Coordinator shall forward the TWG report to the Standardization Working Group (SWG) for concurrence. The SWG shall review the facts, assumptions, and results of the analysis, verify that it was conducted in accordance with the defined process, and address any concerns or recommendations resulting from the review. If necessary, it may recommend further action by the TWG. The SWG shall report back to the Coordinator with its final determination.
- (11) If the SWG agrees to issue a NGEC standard, the Coordinator shall submit the proposed Standard and its vehicle applicability to the Executive Board for approval.
- (12) Following Executive Board approval/disapproval, the Coordinator shall notify the originator of the final action on its candidate for standardization. If a Standard is approved for issuance, the Coordinator shall assign an appropriate identification number, and forward the new Standard to the Document Management System for its incorporation into the appropriate vehicle specifications.
- (13) The Document Management System shall be the repository of issued Standards, and shall work with the Coordinator to provide appropriate access to users (Internet website access, dissemination to Technical SubGroups, etc.).
- (14) The Coordinator shall establish appropriate documentation and tracking systems as required to coordinate the standardization efforts.
- (15) On a periodic basis as determined by the SWG, the Coordinator shall submit a previously issued Standard to the appropriate TWG for revalidation, updating as found necessary, or withdrawal if required. Its analysis shall be submitted to the SWG for concurrence, and to the Executive Committee if changes are made to a Standard.

Pilot Effort:

The Coordinator shall initiate the above process on one or more of the previously-nominated candidates for standardization as a pilot project, over the next 30 to 60 days. The purpose shall be to provide a verification of each step of the process. It is to be expected that changes and refinements will be needed to the process as the first candidates are processed. After the first one or two candidates have been fully processed and the SWG judges the adjusted process to be adequate, the process shall be opened up to accept candidates for standardization outside of its initial list.

Staff Needs:

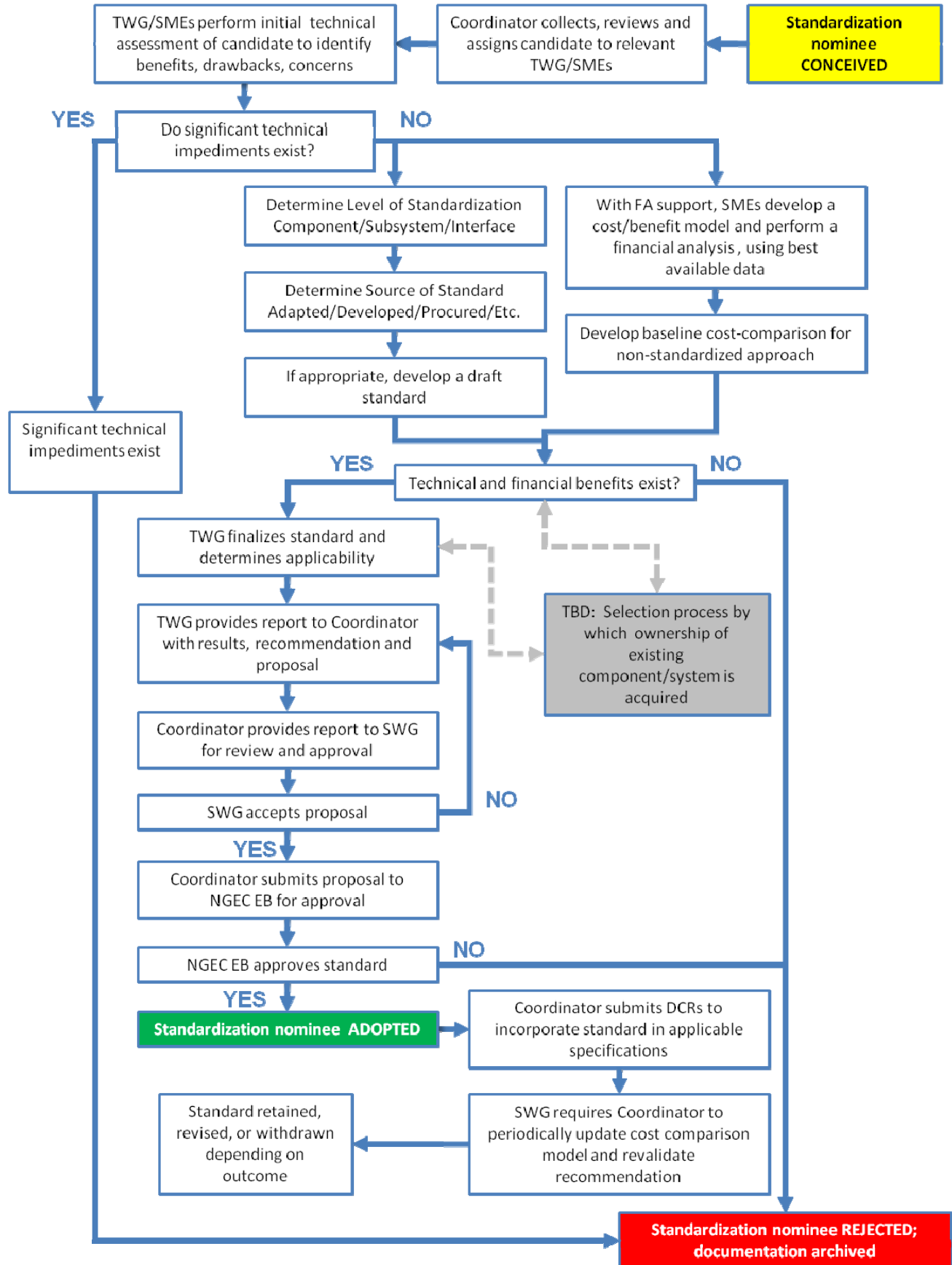
Coordinator	<p>The primary function of this position is to coordinate and facilitate the activities of the standardization processes, and reporting recommendations to the Standardization Working Group. The Coordinator should be a Technical Staff Member who is appointed by the Technical SubCommittee. Duties include:</p> <ul style="list-style-type: none"> - Provide the management of the process for conducting the evaluation, - Initiate the evaluation through the Technical SubGroups and Subject Matter Experts, - Coordinate the approval of recommendations by the Standardization Working Group and Executive Committee, - Be responsible for documenting the process such that it can be understood and adopted/implemented by others as required.
Standardization Working Group	<p>This group will consist of representatives from Amtrak, the States, Federal Railroad Administration, and other supporting members. This group will:</p> <ul style="list-style-type: none"> - Provide overall direction for the standardization effort, - Provide guidance and support to the Coordinator and the Standardization process, - Provide any needed support to the Technical Working Groups and the financial modeling effort, and - Vote on concurrence of the TWG analysis regarding standardization.
Technical Working Groups	<p>The team leaders for the Technical Subcommittee's subgroups along with relevant individuals from those subgroups and others as appropriate may be engaged either through the NGEC or alternate process for the initial technical evaluations.</p>
Financial Analyst	<p>A representative from the Finance SubCommittee who will assist the TWG in validation of the financial aspects of the standardization candidate. To also provide guidance on the approach taken to determining an acceptable selection process for any standard to be adopted.</p>
Subject Matter Experts	<p>Assigned by the Coordinator and/or TWG Team Leader as needed for the analysis of specific candidates. They shall provide specialized technical data on the operating characteristics of the system under evaluation, including maintenance needs, spares management and operating constraints.</p>

Reporting Requirements:

The Coordinator shall be responsible to the Chair of the Technical SubCommittee for the work undertaken. It shall report on a monthly basis to the SubCommittee meetings on the progress being made. This report shall include:

- Systems/components currently under review
- Systems/components identified as upcoming candidates for review
- Timescales for completion of the reviews underway and projected
- Results of reviews completed
- Impact on specifications of issued Standards.

This report shall also be provided to the Executive Board on a quarterly basis to update it on the progress being made.



Submit via email Print form

CFS Number:

NGEC Candidate for Standardization

Date:

Name of originator:		Affiliation:	
Originator's Email:		Originator's Phone No:	

Type of Standard:	Functional (geometry, interface, performance)	
	Component (part)	
	Sub-system (assembly of parts)	
	System (assembly of sub-systems)	

Source of New Standard:	Adopting/adapting existing Amtrak standard	Std. No.:	
	Adopting existing industry standard	Std. No.:	
	Deriving a new standard through Technical SubGroups		
	Acquiring the standard as part of equipment procurement		
	Acquiring/procuring the standard outright		
Other (describe):			

Description of Standardization Sought:

Action:	Assigned for review:			NGEC EXECUTIVE BOARD ACTION	
	Mechanical	Date:			
	Structural	Date:		AMENDMENT or RATIONALE for REJECTION:	
	Electrical	Date:			
	Interiors	Date:			
	VTI	Date:			
Other SME	Date:		Name:		

Disposition:		Date:	
		Coordinator:	
		Phone No:	