

PRIIA 305 Next-Generation Equipment Committee



Document Management Process

PRIIA Procedure 305-100

Initial Release

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Procedure Change Sheet

From Initial Release to Revision A		
DCR	Section(s)	Description

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1.1 Document Management System

This Document Management System is intended to be a method by which the vehicle specifications, processes, designs and support documents as approved by the PRIIA 305 Next-Generation Equipment Committee (NGEC) are managed, reviewed, revised, controlled and stored in a manner that preserves the integrity, intention and detail of the approved documents while simultaneously allowing these documents to be edited, revised and corrected as needed to reflect changes in technology, resolve inconsistencies, improve document language for clarity or correct errors.

1.2 Glossary and Abbreviations

AASHTO: American Association of State Highway and Transportation Officials

APTA: American Public Transportation Association

DCB: Document Control Board

DCC: Document Change Coordinator

DCR: Document Change Request

FRA: Federal Railroad Administration

NGEC: Next-Generation Equipment Committee

PRIIA: The Passenger Rail Investment and Improvement Act of 2008

RCC: Revision Control Coordinator

TSC: Technical Subcommittee (of the NGEC)

1.3 Description of Process

1.3.1 Purpose

The purpose of this process is to provide a controlled means by which NGEC-approved specifications and other approved, standard documents, can be revised, edited and updated through a formal and controlled process.

1.3.2 Benefit

This process provides benefit to the NGEC, its constituents and members, and to the rail equipment supply industry by:

- Standardizing and documenting the means by which specifications are controlled
- Ensuring changes made to NGEC-approved documents are consistent with guiding procedures
- Providing the appropriate level of review for revisions, and
- Verifying that revisions do not degrade or negatively affect the integrity of documents controlled by this process.

1.4 Applicability

1.4.1 Documents Controlled Through This System

The following documents shall be controlled and revised through this process once they are approved by the NGECC:

- Vehicle specifications
- Support documents
- Process documents
- Drawings and engineering documents

Only those documents that have been formally approved by the NGECC Executive Board shall be managed by this system. Draft documents and specifications shall be managed by the authors and/or committees responsible for their development.

1.5 Document Change Request Process

1.5.1 Process for Revising Approved Document

The process for revising approved specifications and documents is outlined below.

The Document Change Request (DCR) form (Appendix A) and Workflow Process Flowchart (Appendix B) are included in this document.

1.5.2 Authority to Request Changes

Changes may be requested by any member of the NGECC, Technical Subcommittee (TSC) or others by submitting a DCR that is found on the AASHTO web site.

All changes must be requested by using a DCR.

1.5.3 Documentation and Justification Requirements

Change requests must document the provision that is proposed to be changed, the new language that is proposed and a justification as to the reason the change is to be made. The justification shall explain the problem being addressed, the advantage of the change, and any effect the change may have on existing equipment or other specifications or documents.

The DCR may be returned to the originator at any step in the process if it is determined that inadequate information was provided for the DCR to be approved or rejected.

1.5.4 Revision Control Coordinator

The Revision Control Coordinator (RCC) shall be responsible for administering DCRs: reviewing for completeness, assigning a tracking number, collating and compiling completed DCRs and making the appropriate changes to the affected documents, and managing the document revision process. The RCC shall also develop and administer a document archiving, tracking and storage system for all DCRs, previous revisions of specifications, and other documents.

The RCC shall appoint an understudy, who shall be fully trained on all aspects of the DCR process, and who can act as primary RCC if needed.

The name, affiliation and contact information for the RCC and RCC understudy shall be communicated to all members of the TSC.

1.5.5 Numbering of DCRs

DCRs shall be sequentially numbered by the RCC once a document has been approved by the NGENC Executive Board.

Each document and specification shall have a unique alphanumeric numbering scheme.

Example: DCR-xxx-yyyy

where:

xxx = PRIIA specification number or 3-letter code for other documents

and:

yyyy = sequential number

DCRs that apply to two or more specifications or documents will require separate DCRs for each affected specification/document. Where the RCC knows that a particular DCR will apply to certain additional specifications/documents, he shall create additional DCRs as appropriate. In cases where the RCC is not sure about additional document applicability, he shall discuss the matter with the DCCs.

1.5.6 Document Change Coordinator

The Document Change Coordinator (DCC) shall manage the DCR review process for a specific document. Each NGENC-approved document shall be assigned a DCC. All relevant DCRs are to be submitted to the appropriate DCC by the RCC. DCRs will be distributed to the Document Control Board (DCB) upon receipt by the DCC.

1.5.7 Document Control Board

The organization of the DCB shall mirror that of the TSC that developed, reviewed and approved the specifications. The DCB shall include representatives of the same technical subgroups (initially the Technical Subgroup leads):

- Mechanical
- Electrical
- Interiors
- Vehicle/Track interaction
- Structural
- Locomotives
- Individual(s) with operations, maintenance and vehicle interoperability expertise
- Individual(s) with equipment procurement expertise

The DCB for documents other than specifications shall be determined by the owner of the document, and shall include enough individuals to effectively manage the review of DCRs.

1.5.8 Definition of Revision Scope

The DCC shall determine whether a DCR meets the criteria for Urgent (if not already so designated by the RCC), Major or Minor:

Urgent revisions are those which are identified at critical times during the vehicle acquisition process that may affect the following:

- Safety of operations
- Expeditious engineer approval
- Material orders

- Production
- Design Review
- Other time-sensitive matters

If the originator submitting a DCR believes it should be handled as Urgent, the RCC should be informed of that by the originator. If the RCC agrees, the RCC has the authority to classify it as Urgent, and the DCR will be handled in accordance with the process outlined below.

Major revisions are those revisions that make substantive changes to a specification, process or document, that may affect the following:

- The final design of a vehicle or components;
- The performance requirements for the vehicle, or the way that vehicle is operated or maintained;
- The way NGENC-approved procurement processes are administered; or
- The interoperability of vehicles with other rail equipment.

Minor revisions are administrative in nature that will not substantially affect the specification, process or document. Examples of minor revisions include:

- Corrections of typographical errors;
- Updates to reference documents to reflect changes to revision levels or supersession of existing reference documents with new;
- Formatting or organizational changes that do not change content; and
- Addition or clarification of abbreviations, units of measure.

The DCC has the authority to approve Minor DCRs. In the event that it is unclear as to whether a DCR falls into the Major or Minor category, the DCR shall be considered Major.

1.5.9 Frequency and Schedule for Compilation of DCRs and Documentation Updates

DCRs shall be accepted into the DCR process at any time. The frequency of DCR compilation and document revision advancement shall be aligned with meetings of the NGENC Executive Board. The RCC will be responsible for preparing change summaries and submitting them to the TSC according to a schedule which will provide adequate time for the final review of changes for a document prior to a NGENC Executive Board meeting.

Once the change summary and final review process has begun for a specific revision level of a specific document, no further DCRs will be accepted for that DCR compilation. DCRs submitted after the final review process has begun for a specific revision level, will be held by the RCC until the review and update process is complete. The RCC and DCC shall use their judgment and experience to determine the cut-off date to accept DCRs for each document revision cycle.

1.5.10 DCR Review Process (Urgent DCRs)

- The Originator sends the DCR to the RCC, informing the RCC that the matter addressed by the DCR is time-sensitive, and should be handled as Urgent.
- RCC shall enter the DCR into a log and then forward it to the appropriate DCC. In parallel with this, the RCC shall also notify the Executive Board and Review Panel that an Urgent DCR has been received and sent to the DCC.

- The DCC shall, as soon as possible, forward the DCR to the to the appropriate DCB Technical Subgroup leader for the functional group that is most appropriate for the DCR. If the DCR affects two or more subgroups, the DCC will select the most appropriate Technical Subgroup leader, and it will be up to that individual to coordinate the DCR review with other affected Subgroups.
- The Technical Subgroup(s) will review the DCRs and make a recommendation within two working days of receipt whether to approve, approve with amendment or reject each DCR. Once the DCR has been dispositioned by the Technical Subgroup, it is returned to the DCC, who will then return it to the RCC.
- If a DCR is rejected at any point in this process, the RCC will return the DCR to the DCC or Originator, as appropriate.
- The RCC will forward DCRs that were approved or approved with amendment to the Technical Subcommittee and Review Panel for review. Both groups will have three working days to review the DCR and return it to the RCC.
 - The Technical Subcommittee shall determine how best to obtain a vote on the DCR, e.g., by email or by conference call.
 - The Review Panel role is to determine that the change is in keeping with the requirements document (for a specification) or in keeping with other PRIIA requirements. Panel members shall determine how best to obtain a vote on the DCR.
- Once approved and determined compliant, the RCC will forward the DCR to the Executive Board. The Executive Board will vote on the DCR by email within two working days.
- After the DCR has been approved by the Executive Board:
 - The RCC will notify the Originator that the DCR has been approved, and return the DCR to the originator with the approved wording. At this point, the wording in the DCR has the authority of an approved document.
 - The RCC will forward the DCR to Technical Support, where it will be incorporated into a Sub-Revision of the affected document.
 - Upon receipt of the Sub-Revision from Technical Support, the RCC forwards it and the DCR, as well as any supporting documents, if applicable, to AASHTO for posting.
 - The Sub-Revision will be included in the next periodic revision to the affected document.

1.5.11 DCR Review Process (Major and Minor DCRs)

- As they are received, the RCC shall enter DCRs into a log and then forward them to the appropriate DCC.
- The DCC shall determine whether a DCR is Urgent (if not already so designated by the RCC), Major or Minor.
- Minor DCRs can be approved or rejected by the DCC, and then returned to the RCC for holding until the beginning of the final review process.
- Major DCRs will be forwarded to the appropriate DCB Technical Subgroup leader for the functional group that is most appropriate for the DCR. If the DCR affects two or more subgroups, the DCC will select the most appropriate Technical Subgroup leader, and it will be up to that individual to coordinate the DCR review with other affected Subgroups.

- The Technical Subgroup(s) will review the DCRs and make a recommendation within 10 working days of receipt whether to approve, approve with amendment or reject each DCR. Once the DCR has been dispositioned by the Technical Subgroup, it is returned to the DCC, who will then return it to the RCC.
- At the beginning of the final review process, the RCC will create a Change Summary that will be routed to the Technical Subcommittee for approval. The Change Summary will provide the TSC, Review Panel and NGENC with the relevant information regarding each change, including the following:
 - Specification(s) or documents affected by the change;
 - Description of the change;
 - Rationale for the change; and
 - Recommendation of the DCB as to whether the change should be approved, approved with amendment, or rejected.
- The intention is that all changes in a Change Summary will be voted on as a group, though the TSC can vote to reject individual DCRs in the Change Summary.
- Upon approval of the Change Summary, the RCC will forward it to the Review Panel for its review. The purpose of this review is to ensure the changes approved have not inadvertently or negatively affected a document's compliance with the original requirements document. This step is analogous to the review of a completed specification before approval by the NGENC Board. The Review Panel will provide a recommendation to the NGENC Board to approve or reject the changes included in the Change Summary.
- Upon completion of the Review Panel review of the Change Summary and issuance of a recommendation for approval (or, disapproval of certain changes, as appropriate), the recommendation and Change Summary will be forwarded to the NGENC Executive Board for approval. The NGENC Executive Board has the ability to hold individual DCRs in question aside while still approving or rejecting the remaining package of DCRs included in the Change Summary.
- The disposition of each submitted DCR will be provided to the originator, both approved, approved as amended and rejected, together with the rationale for amending a DCR or its rejection.

1.5.12 Criteria for DCR Approval, Denial and Appeal Processes

The DCB shall develop the criteria to be used to determine whether a DCR should be accepted, accepted with amendment or rejected. These criteria shall be based on sound technical, contractual and operational factors, and on the effect the change may have on existing vehicles and future procurements. The criteria developed by the DCB shall be submitted to the TSC for review and approval, to ensure that revised specifications and documents continue to meet the TSC's stated goals for standardized rail equipment. Rejected DCRs may be resubmitted by the originator upon receipt of rationale for rejection.

1.6 Configuration Management and Revision Control

1.6.1 Revising an Approved Document

Once all DCRs have been dispositioned for an update cycle of a specification or document, the revision level is moved up to the next letter of the alphabet and the revision date is changed to reflect the date on which the NGEC Executive Board approved the Major Changes. The RCC shall forward all the changes to the Technical Support individual charged with the editing and formatting of the actual documents, who will enter the changes into the document.

As described above, Sub-revisions are created when Urgent DCRs have been approved. Sub-revisions will use the letter of the currently-approved periodic revision, and then be sequentially numbered, e.g., A.1, A.2, etc.

1.6.2 Archiving and Records Retention

All DCRs shall be archived for recordkeeping. The RCC shall be responsible for archiving and storage of all records relating to the DCR process.

Obsolete specifications and documents, and their relevant DCRs, shall also be archived and stored by the RCC.

1.6.3 Document Availability and Notification of Document Revision Change

Current versions of all documents will be available at the NGEC Repository at a location (URL) to be determined by the NGEC (see below). This website will include the ability to register for e-mail notification of document revisions. Once a document revision has been approved, notification shall go out to all parties who have registered for notification of revisions/changes to documents. The DCB shall create, and the RCC shall maintain, a database of the name, affiliation, address, phone number and email address of each person who has electronically registered for such notifications. It is the responsibility of each equipment purchaser or user of any document to ensure that the most recent version of any document is used.

1.6.4 Creation and Maintenance of As-Built Specifications

<<**Placeholder:** for section which needs to be developed in the future to manage revisions to documents which occur after vehicle delivery. Essentially part of the Operations & Maintenance aspect of the Systems Engineering Process>>

1.7 Repository of Specifications and Documents

1.7.1 Specification Ownership and Repository

The NGEC shall specify how the approved and controlled documents are owned and what organizational entity should be the designated custodian of NGEC-approved documents

**Appendix A: Document Change Request
(DCR) Form**

SUPERSEDED BY REVISION A - RELEASE DATE JUNE 21, 2012

Submit by Email

Print Form

DCR Number:
(assigned by RCC)

Document Change Request

Date:

One technical change per DCR (ex. Sections 1.4.10, 1.01 and 10.5: refrigerant shall be changed from R400-series to R134a)

Specification/Document:	<input type="text"/>	Current Revision:	<input type="text"/>
Specification/Document Sections Affected:	<input type="text"/>		
Name of Originator:	<input type="text"/>	Affiliation:	<input type="text"/>
Originator's Email:	<input type="text"/>	Originator's Phone No:	<input type="text"/>
Language to be Changed: (attach additional pages if needed)			
<input type="text"/>			
Suggested Replacement Language: (attach additional pages if needed)			
<input type="text"/>			
Rationale for Requested Change: (attach additional pages if needed)			
<input type="text"/>			

To be filled out by Originator

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DCR Number:
(assigned by RCC)

Document Change Request

RCC	Date Sent to DCC	Date:		Date Returned to Originator	Date:	
	<i>RCC's Digital Signature 1</i>					
DCC	Change Criteria Category:	Minor <input type="checkbox"/>	Major <input type="checkbox"/>	Urgent <input type="checkbox"/>		
	Change Recommendation:	Approved <input type="checkbox"/>	Rejected <input type="checkbox"/>	Approved as Amended <input type="checkbox"/>		
	Explanation of Recommendation:					
Date Sent to DCB		Date:		<i>DCB's Digital Signature 1</i>		
DCB	Disposition:	Date:		Accepted <input type="checkbox"/>	Rejected <input type="checkbox"/>	Accepted as Amended <input type="checkbox"/>
	Explanation of Rejection/Amendment:					
	Approved/Amended Language:					
Date Sent to DCC		Date:		<i>DCB's Digital Signature</i>		
DCC	Date Sent to RCC	Date:		<i>DCC's Digital Signature 2</i>		
RCC	Specification Revised by:				Date:	
	New Revision Level:			Date Originator Notified	Date:	
	<i>RCC's Digital Signature 2</i>					

Abbreviations:

- DCB:** Document Control Board
- DCC:** Document Change Coordinator
- RCC:** Revision Control Coordinator

Appendix B: Workflow Process Flowchart

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Appendix C: Document Control Board Members

Effective October 11, 2011

SUPERSEDED BY REVISION A - RELEASE DATE: JUNE 21, 2012

C.1 Document Control Process Key Personnel (effective October 11, 2011)

Revision Control Coordinator (RCC): David Warner, Amtrak

Alternate Revision Control Coordinator: Stan Hunter, Caltrans

C.1.1 Bi-Level Passenger Rail Car Specification (305-001)

Document Control Coordinator: Tammy Krause, Amtrak

Document Control Board	
Area	Assignment
Structures	Anand Prabhakaran, Sharma & Associates
Vehicle/Track Interface	Brian Marquis, Volpe Center
Mechanical	Jeff Gordon, FRA
Electrical	Tammy Krause, Amtrak
Interiors	Andrew Wood, Amtrak

C.1.2 Single-Level Passenger Rail Car Specification (305-003)

Document Control Coordinator: Michael Burshtin, Amtrak

Document Control Board	
Area	Assignment
Structures	Anand Prabhakaran, Sharma & Associates
Vehicle/Track Interface	Brian Marquis, Volpe Center
Mechanical	Jeff Gordon, FRA
Electrical	Tammy Krause, Amtrak
Interiors	Andrew Wood, Amtrak

C.1.3 Diesel-Electric Locomotive Specification (305-005)

Document Control Coordinator: David Warner, Amtrak

Document Control Board	
Area	Assignment
General	Steve Fretwell, CalTrans
Vehicle/Track Interface	Rich Stegner, Keolis
Mechanical	Al Bieber, STV
Cab and Customer Amenities	Steve Fretwell, CalTrans
Environmental	Tammy Nicholson, Iowa DOT

C.1.4 Trainset Specification (305-007)

Document Control Coordinator: Michael Burshtin, Amtrak

Document Control Board	
Area	Assignment
Structures	Anand Prabhakaran, Sharma & Associates
Vehicle/Track Interaction	Brian Marquis, Volpe Center
Mechanical	Jeff Gordon, FRA
Electrical	Tammy Krause, Amtrak
Interiors	Andrew Wood, Amtrak

C.1.5 PRIIA Specifications/Drawings/Standards (305-7xx, -8xx and -9xx)

Document Control Coordinator: Michael Burshtin, Amtrak

Document Control Board	
Area	Assignment
Structures	Anand Prabhakaran, Sharma & Associates
Vehicle/Track Interaction	Brian Marquis, Volpe Center
Mechanical	Jeff Gordon, FRA
Electrical	Tammy Krause, Amtrak
Interiors	Andrew Wood, Amtrak

C.1.6 PRIIA Management Documents (305-1xx)

Revision Control Coordinator (RCC): David Warner, Amtrak

Alternate Revision Control Coordinator: Stan Hunter, Caltrans