Summary of PRIIA Bi-Level Final Review Requested Changes
(consecutive numbers starting at 1)

1) e-mail from J Schultz 7/23/10 6:43pm EDT

PRIIA 305
Recommendation
Submittal Number __30__

Team Leader: Andrew Wood
Team: Interior
Date July 23, 2010
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive Multi-Level Food Service
(Circle one)

1. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed :

   Section 14.1 Overview

   Delete the entire section and replace it with the language below.

2. Define reason for recommended change to the existing specification:

   Café/lounge cars should have the option customized to meet the food service needs of a corridor service. Therefore, there should be an "option" for the purchaser to change the configuration of the café/lounge car. For example: to eliminate lounge seating and add revenue seating in its place. Replacement language will not limit the café/lounge car to only this configuration,

3. Write proposed verbiage to be inserted into the specification to incorporate the recommended change:

   Section 14.1 Overview

   The café/lounge car shall provide the food service aspect of passenger rail service, through the incorporation of a number of elements into the car. These elements may include a galley, serving area, lounge area, and revenue coach or business class seating on the upper level of the car and a small service galley, crew office/seating and passenger seating area and accessible toilet room on the lower

level as specified in this chapter. However, these elements may be deleted and/or modified to meet the specific service objectives of a region or corridor service in subsequent versions or supplements to this specification. The specifications contained in this chapter are considered the standard base specification for Food Service and shall be the default specification unless expressly indicated by the purchaser.

Modifications to this standard food service car specification should generally be confined to items such as interior arrangement and appliances. Every effort should be made to minimize changes to mechanical and electrical systems. It is envisioned that modifications may include such interior arrangement options as:

- Business class seating instead of coach seating.
- Coach or Business class seating instead of a lounge area.
- Replacement of a combination oven with a microwave.

Review Panel Status: **ACCEPTED**

2) e-mail from J Schultz 7/23/10 6:43pm EDT

PRIIA 305
Recommendation
Submittal Number __32__

Team Leader: Andrew Wood
Team: Interior
Date July 23, 2010
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive Multi-Level Food Service
(Circle one)

4. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed :

   None. New language

5. Define reason for recommended change to the existing specification:

   To provide business class service as a service option

6. Write proposed verbiage to be inserted into the specification to incorporate the recommended change:

Add new Section: **9.3.4 Business Class Coach Car**

See Figure 9-xxx ***(Note someone will need to create this)***

The business class coach car shall be configured as the basic coach car with the following differences:

- Maximum seating on the upper level shall be ____.
- The seats shall have a nominal seat pitch of _____inches.
- Maximum seating on the lower level shall be ____.

Review Panel Status: **ACCEPTED**

3) e-mail from J Schultz, WADOT, 7/23/10 6:43pm EDT

PRIIA 305
Recommendation
Submittal Number __31___

(consecutive numbers starting at 1)

Team Leader: Andrew Wood
Team: Interior
Date July 23, 2010
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive Multi-level Food Service
(Circle one)

7. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed :

   Section 14.3 Café/Lounge Car Interior Arrangement
   Delete:
   "The café/lounge car shall be configured with the following major features:"

8. Define reason for recommended change to the existing specification:

   Café/lounge cars should be customized to meet the food service needs of a corridor service. Therefore, there should be an "option" for the purchaser to change the configuration of the café/lounge car. For example: to eliminate lounge seating and add revenue seating in its place.

9. Write proposed verbiage to be inserted into the specification to incorporate the recommended change:

   Section 14.3 Café/Lounge Car Interior Arrangement

   There are two options available for this specification. Please select one option:

   - The café/lounge car standard base configuration has the following major features:

     (keep all the 13 bulleted items in the existing specification)

   At the end of Section 14.3 add a new paragraph:

   - The Café/Lounge car interior arrangement is modified from the standard base specifications. The details of this are contained in Chapter 14 supplement to this specification.

Review Panel Status: **ACCEPTED**

4. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 1 Urgent
Section 19.5.5.1 Test Requirement Side Door System Reliability Test

Original Text: …Once the first car has been completely assembled, and the entire side door system has been installed and the functionality has been verified, the side doors shall be operated for 14,400 continuous trouble-free cycles each.

Proposed Text: …Once the first car has been completely assembled, and the entire side door system has been installed and the functionality has been verified, the side doors shall be operated for **1,440** continuous trouble-free cycles each.

Reasons: Too many cycles on the first car. The reduced number as proposed achieves the purpose of reliability verification on car per our experience.

Status: **NOT ACCEPTED**

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5. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 1 Urgent

Section 19.6.5 Test Requirement Door System Tests

Original Text: All power operated side doors shall be operated a minimum of 1,000 consecutive, separate successful cycles.

Proposed Change: All power operated side doors shall be operated a minimum of **100**

consecutive, separate successful cycles.

Reasons: Too many cycles on all the cars reduced number as proposed achieves the purpose of routine test per our experience.

Accepted Language With Amendments: All power operated side doors shall be operated a minimum of **800** consecutive, separate successful cycles.

Review Panel Status: **ACCEPTED with Amendments**

6. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 2 Non-Urgent

Section 7.4 Design Review

Original Text: Operation of long trains (six to 24 cars including the locomotive(s))

Proposed Change: Operation of long trains (six to 24 cars including the **appropriate number** of locomotive(s), **dependent upon the locomotive's air supply capacity**)

Reasons: Proposing to change for clarity. The number of locomotives required is determined by the air supply capacity of the locomotive(s).

Review Panel Status: **NOT ACCEPTED – after discussion on the floor of the meeting of PRIIA technical subcommittee 7/29/10.**

7. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 2 Non-Urgent

Section 15.2.2 Waste System Features

Original Text: (first paragraph, forth sentence) The waste system shall be designed with a minimum service life of 30 years, a minimum overhaul cycle of eight years and a minimum maintenance cycle of one year.

Proposed Change: The waste system shall be designed with a minimum service life of 30 years, a minimum overhaul cycle of eight years and a minimum maintenance cycle of one year. **Overhauling of waste system components may be included in the maintenance cycle.** [Amendment] Recommended waste system components included in maintenance cycle is to be approved by Customer.

Reasons: Vacuum toilet systems requires component level overhauls much more frequently than eight years and such overhaul should be considered as part of the periodic maintenance requirement.
Review Panel Status: **ACCEPTED with Amendments**

8. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 2 Non-Urgent

Section 15.4.3.1 Retention Tank

Original Text: (second paragraph) Usable retention tank capacity shall be minimum of 75 gal.

Proposed Change: Usable retention tank capacity shall be minimum of **250** gal.

Reasons: Typo. For consistency with 15.2.2.

Review Panel Status: **ACCEPTED**

9. e-mail from Masashiro Watanabe, KRC, 7/26/10 2:22 EDT, Priority 2 Non-Urgent

Section 19.5.4.4 Brake Capacity Test

Original Text: The first production disc brake assembly…….shall not be exceeded.

Proposed Text: The first production disc brake assembly…….shall not be exceeded**. The test shall be coordinated according to the planned operating pattern.**

Reasons: Proposing to change for clarity. The brake capacity test result is largely dependent on intervals between brakes, therefore coordination of brake design and operation plan is important.

Review Panel Status: **ACCEPTED with Amendments – wording that fulfills the intent of this recommended changed as been added to this section in the specification.**

10. e-mail from Ken Takeda, KRC, 7/26/10 5:29 PDT, Priority 2 Non-Urgent

Section 10.3 Design Parameters

Original Text: In accordance with the Contractor's car body insulation design to meet the requirements of this Specification, and not less than 1200 BTU/hr-F for Stainless steel. Aluminum is 1600 BTU/hr-F.t:

Proposed Changes: In accordance with the Contractor's car body insulation design to meet the requirements of this Specification, and not less than 1200 BTU/hr-F. **[**for Stainless steel. Aluminum is 1600 BTU/hr-F.**] Text in brackets deleted.**

Reasons: Because section 4.3.3 "Carbody Materials" shows that the carbody shall be constructed of stainless steel, carbody heat transmission for aluminum should be deleted.

Review Panel Status: **ACCEPTED**

11. e-mail from Ken Takeda, KRC, 7/26/10 5:29 PDT, Priority 2 Non-Urgent

Section 9.6.1.2 Skid Resistant Composite Flooring (third paragraph, first sentence)

Original Text: Transition strips shall be provided between rubber flooring and carpet areas.

Proposed Change: Transition strips shall be provided between composite flooring and carpet areas.

Reasons: For consistency with the first sentence.

Review Panel Status: **ACCEPTED**

12. e-mail from Ken Takeda, KRC, 7/26/10 5:29 PDT, Priority 2 Non-Urgent

Original Text: The heater transfer through the car body, using only the carbody's own floor heaters, shall not exceed 1200 Btu/Hr/F under the environmental conditions specified in Amtrack specification 963 while carbody is stationary.

Proposed Change: The heater transfer through the car body, using **[**only the carbody's own floor heaters**] [Text in brackets Deleted] portable heaters and fans**, shall not exceed 1200 Btu/Hr/F under the environmental conditions specified in Amtrack specificaiton 963 while carbody is stationary.

Reasons: "Vehicle heat transfer test" of section 19.5.7.8 shows that portable heaters and fans shall be distributed through the car. Therefore, the sentence of section 4.14.2 should be consistent with section 19.5.7.8.

Review Panel Status: **NOT ACCEPTED – withdrawn after discussion on the floor of the meeting of PRIIA Technical Subcommittee 7/29/10.**

13. e-mail from Andrew Wood, 7/26/10 2:30EDT, Priority 2 Non-Urgent

PRIIA 305
Recommendation
Submittal Number __19___

Team Leader Andrew Wood
Team Interiors
Date May 28, 2010

Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive
(Circle one)

10. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed :

Chapter 18, Section 18.19 Flammability and Smoke Emissions. Add additional language to resolve a conflict in the specification.

11. Define reason for recommended change to the existing specification:

The specification requires the use of Lexan in several applications. This material has been known to exhibit flame dripping when tested to ASTM E-162

12. Write proposed verbiage to be inserted into the specification to incorporate the recommended change:

Add after the first paragraph in section 18.19, “There are instances where the specification calls for use of specific materials, such as Lexan, when it is known that they do not meet all requirements of this section. It is predetermined that use of materials defined by this specification is acceptable.”

Review Panel Status: **ACCEPTED**

14. e-mail from Eloy Martinez, 7/27/10 11:10 am EDT, Priority 1 Urgent

PRIIA 305
Recommendation PRIIA-STRCT-019Kawasaki Comment1.doc

Team Leader: Elory Martinez
Team: Structural
Date: 7/26/10
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive
(Circle one)

13. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed:

Section 4.4.4.1	*End Underframe*	*Fusion welding of one sided joints in the fabrication of the end underframe shall incorporate the use of back-up strips where 100% penetration of a single beveled weld is desired. ..... All welds in the end underframe assembly shall be non-destructively tested in conformance with AWS.*

14. Define reason for recommendation:

All welds in the end underframe assembly will be visual inspected and all welds in the end underframe assembly, where 100% penetration is desired, will be non-destructively tested in conformance with AWS. It has been standard practice throughout our North American projects.

15. Define justification for recommendation:

N/A

16. Write proposed verbiage to be inserted/incorporated into the specification:

Fusion welding of one sided joints in the fabrication of the end underframe shall incorporate the use of back-up strips where 100% penetration of a single beveled weld is desired. ..... All welds in the end underframe assembly, where 100% penetration is desired, shall be non-destructively tested in conformance with AWS.

17. Priority (1:Technical or 2:Non-technical)

1

Review Panel Status: **ACCEPTED**

15. e-mail from Eloy Martinez, 7/27/10 11:10 am EDT, Priority 1 Urgent

PRIIA 305
Recommendation PRIIA-STRCT-021Kawasaki Comment3.doc

Team Leader: Elory Martinez
Team: Structural
Date: 7/26/10
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive
(Circle one)

18. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed:

Section 4.19.4	*Validation of Stress Analyses*	*If the analyses results do not agree with the test results within the above-specified tolerance, the Contractor shall revise the stress analyses, update the FEM, and re-run all FEA. All manual analyses using data from the FEA shall be recalculated using the corrected values. This process shall be repeated until agreement of results is within the specified tolerance. The stress analysis report shall be revised and re-submitted. All results from re-analysis shall meet specification requirements. The design shall be corrected if such requirements are not met.* *For any of the remaining 25% of the compared values, if the analytical values disagree with the test value by more than 20% and the test value is equal to or greater than 35% of the yield strength of the material, a detailed explanation of the reasons for the excessive variance shall be included in the carbody and truck test report. This explanation may include supporting manual calculations.* *For any of the remaining 25% of the compared values, if the analytical values disagree with the test value by more than 20% and the test value is equal to or greater than 35% of the yield strength of the material, a detailed explanation of the reasons for the excessive variance shall be included in the carbody and truck test report. This explanation may include supporting manual calculations.*

19. Define reason for recommendation:

Analytical stresses are used for design purpose and test stresses represent actual values in the structure. Therefore it is not quite meaningful to repeat analysis assuming that the engineering evaluation properly justifies differences of analytical and test stresses.

20. Define justification for recommendation:

N/A

21. Write proposed verbiage to be inserted/incorporated into the specification:

Delete these three paragraphs

22. Priority (1:Technical or 2:Non-technical)

1

Review Panel Status: **NOT ACCEPTED**

16. e-mail from Eloy Martinez, 7/27/10 11:10 am EDT, Priority 1 Urgent

PRIIA 305
Recommendation PRIIA-STRCT-020Kawasaki Comment2.doc

Team Leader: Elory Martinez
Team: Structural
Date: 7/26/10
Vehicle Multi-level Coach Multi-level Cab Car Single Level Coach
Diesel Locomotive
(Circle one)

23. Identify the location and specific verbiage within the existing specification that you want to recommend to be changed:

Section 4.19.4	*Validation of Stress Analyses*	*The percent difference between the two values shall be within 20% for 75% of the compared values of the test results and analytical results.*

24. Define reason for recommendation:

We propose that specific percent values be made a guideline not a definite requirement and that engineering evaluation process be taken instead of repeated analysis submittal process.

25. Define justification for recommendation:

N/A

26. Write proposed verbiage to be inserted/incorporated into the specification:

As a guideline target, the percent difference between the two values shall be within 20% for 75% of the compared values of the test results and analytical results. Engineerig evaluation shall be submitted on the comparison of analytical and test stress values.

27. Priority (1:Technical or 2:Non-technical)

1

Review Panel Status: **NOT ACCEPTED**

17. e-mail from Ken Takeda, KRC, 7/26/10 5:29 PDT, Priority 2 Non-Urgent

Section 5.1 Overview

Original Text: Each car shall be equipped with two four-wheel trucks with mechanical suspension:

Proposed language: Each car shall be equipped with two four – wheel trucks.

Reasons: Same words are already deleted from 1st sentence of chapter 5.2 (Consistency with the other chapters.)

Review Panel Status: **ACCEPTED**

18. e-mail from Deep Satsangi, Braken - Atchison/St. Joseph, Inc, V/T I Group 7/28/10 12:01 pm

section 1.4.5	Requirement: "Primary and secondary suspension is provided through the use of steel coil springs"	Objection : This statement contradicts the requirements defined in section 5.4.3 , which allows the use of Chevron Primary suspension.	Urgent	Change section 1.4.5

Revision: Revise or delete above sentence in Section 1.4.5 eliminating the description specifying exclusive use of coil springs.

Review Panel Status: **ACCEPTED**

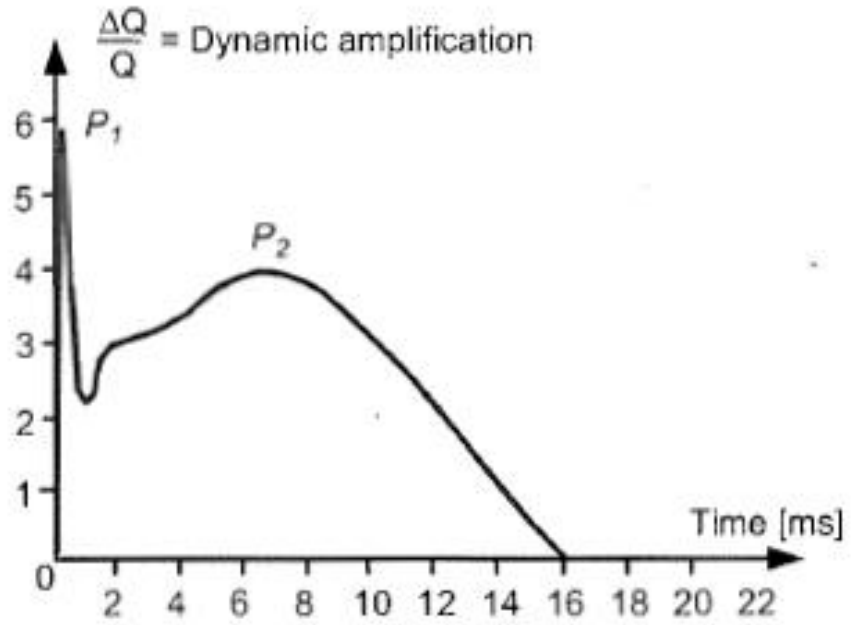
19. e-mail from Deep Satsangi, Braken - Atchison/St. Joseph, Inc, V/T I Group 7/28/10 12:01 pm

5.4.3 (4th paragraph)	P2 forces shall not exceed 68000 lbs with a 1^0 dip angle using the Esveld equation.?	• Please add the equation and description of variables in the specification. • Rail parameters (damping and stiffness) need to be defined by the transit authority. We believe These levels were 'Theoretically Generated" by a class 55 Locomotive at 100 MPH with an axle loading of 86 KN. The proposed vehicle speed and axle loadings are higher.	Urgent	This should be a design guideline or recommended practice instead of an absolute requirement.

See Revision on the Following page:

Revision: add the following to Section 5.4.3, 4th paragraph, 1st sentence (After the text, "Vertical P2 forces shall not exceed 68,000 lbs with a 1° dip angle using the Esveld equation."

P1 – P2 Force versus Time



(From Esveld)

$$P_2 = P_0 + 2\alpha v \sqrt{\frac{m_u}{m_u + m_{T2}}} \left[1 - \frac{c_T \pi}{\sqrt{k_{T2}(m_u + m_{T2})}}\right] \sqrt{k_{T2} m_u}$$

The parameters in the P_2 force calculation are:

P_0 is the nominal static vertical wheel load (pounds)
2α is the total dip angle at a joint, weld dip or other rail discontinuity (radians)
v is the speed (inches/sec)
m_u is the unsprung mass of the wheelset (pounds-sec^2/inch)
m_{T2} is the equivalent track mass (pounds-sec^2/inch)
C_T is the equivalent track damping (pounds-sec/inch)
K_{T2} is the vertical track stiffness (pounds/inch)

The assumed values of selected parameters are:

$2\alpha = 0.017$ rad, (1 degree) with half of this (α) on either side of the dip.
$m_{T2} = 1.1335$ pounds-sec^2/inch, for nominally stiff concrete tie track
$C_T = 671$ pounds-sec/inch, from literature for nominal track conditions

K_{T2} = 330,000 pounds/inch, for nominally stiff concrete tie track which corresponds to a track modulus of 4000 pounds/in/in (assuming a track deflection of 0.10 inches under a wheel load of 33,000 pounds)

Review Panel Status: **ACCEPTED**