



**ASSOCIATION OF  
AMERICAN RAILROADS**

**Tank Car  
Committee  
Open Meeting  
Agenda & Docket**

**October 18<sup>th</sup> & 19<sup>th</sup>, 2023  
Addison, Texas**

## MEETING SCHEDULE

|  |                           |
|--|---------------------------|
| <b>October 18<sup>th</sup> &amp; 19<sup>th</sup>, 2023</b> |                           |
| <b>Addison, Texas</b>                                      |                           |
| 1:00 PM- 5:00 PM ( local time)                             | Wednesday: Closed Session |
| 8:00 AM- 5:00 PM (local time)                              | Thursday: Closed Session  |

### AAR TANK CAR COMMITTEE MEMBERS

**Railroads:**

John Birkmann (Chair- 1/22/15)  
 Anthony Ippolito (Vice-Chair 12/21/16)  
 Paul Williams (4/30/04)  
 Jim Kozey (7/21/10)  
 Ryan Haskin (4/19/23)  
 JR Gelnar (12/28/16)  
 Alvaro Almaguer (10/18/17)  
 Joseph Caccamo (1/2/19)  
 Pat Brady (4/17/19)  
 John Vergis (12/11/20)  
 Joe McCann (12/7/21)  
 Scott Croome (2/23/23)  
 Scott Kuhn M Clay (9/21/23)

**Affiliation:**

Union Pacific Railroad  
 Canadian National Railway  
 Norfolk Southern Railway  
 Canadian Pacific Railway  
 BNSF Railway Company  
 ASLRRRA  
 Kansas City Southern de México, S.A. de C.V.  
 Consolidated Rail Corporation  
 Hazmat Committee Liaison (BNSF)  
 Wheeling & Lake Erie Railway  
 CSX Transportation  
 Railway Association of Canada  
 Canadian Pacific Kansas City

**Non-Railroad Shippers:**

|                  |  |
|------------------|--|
| Kevin Flahive    | The Fertilizer Institute (Koch Fertilizer) |
| N. Scott Murray  | ACC (ExxonMobil Chemical Company)          |
| Robyn Kinsley    | The Chlorine Institute                     |
| Stoy Taylor      | U.S. Clay Producers Traffic Association    |
| D. Elliot Apland | American Petroleum Institute               |
| Craig Jorgenson  | The Sulphur Institute                      |
| Justin Schultz   | The Ethanol Producers                      |

**Non-Railroad RSI:**

|              |      |
|--------------|------|
| Dan Welch    | SMBC |
| Ben Miller   | GBRX |
| Roger Dalske | AITX |

**AAR**

|            |                                   |
|------------|-----------------------------------|
| Ken Dorsey | Association of American Railroads |
|------------|-----------------------------------|

\*Note: (date) next to the names of the committee members represents the starting date of their membership.

## MEETING AGENDA

| Docket                               | Subject  | Discussant            | Action                   | CFP                        | Proposal Timeline       |
|--------------------------------------|--|-----------------------|--------------------------|----------------------------|-------------------------|
| <b>Administration</b>                |  |                       |                          |                            |                         |
|                                      | Safety Briefing, Anti-Trust Introductions, Opening Remarks from The Chairman | Dorsey & Birkmann     |                          |                            |                         |
| <b>T146</b>                          | Tank Car Committee Meeting Schedule  | Dorsey                |                          |                            |                         |
| <b>New Business</b>                  |  |                       |                          |                            |                         |
| <b>100-21</b>                        | New Business   | Dorsey                |                          |                            |                         |
| <b>Regulatory / Research Dockets</b> |  |                       |                          |                            |                         |
| <b>T59.1</b>                         | Government Regulations   | FRA/TC/PH<br>MSA/NTSB | Update Provided          |                            |                         |
| <b>T59</b>                           | Tank Car Research Program  | RSI-<br>AAR/FRA/TC    | Update Provided          |                            |                         |
| <b>Active Dockets</b>                |  |                       |                          |                            |                         |
| <b>T1.1.4</b>                        | Procedures for Securing Approval   | Zimmerman             |                          | (CFP)/IIR<br>X<br>contract | Charge 1: TBD<br>2024   |
| <b>T1.5</b>                          | AAR204, AAR206W, DOT113 and DOT115 Design Approval Process                   |                       | Assign TF chair & charge |                            | Implemented<br>CPC-1406 |
| <b>T1.6</b>                          | Cryogenic Service Equipment Approval and Facility Certification              |                       | Assign TF chair & charge |                            |                         |
| <b>T1.7</b>                          | Underframe Design Template Revision  | Miller                | Assign charge            |                            | Implemented<br>CPC-1406 |
| <b>T5.31</b>                         | Review Tank Car Elements in UMLER  | Siebold               | Update provided          | (CFP)                      |                         |

|                 |   |                   |                                |       |   |
|-----------------|---|-------------------|--------------------------------|-------|---|
| <b>T5.32</b>    | Review Tank Car Requirements in the AAR Office and Field Manual               | Siebold           | Update Provided                | (CFP) | Charge 3: Implemented CPC-1400.         |
| <b>T10.31</b>   | Performance of Bottom Fitting Protections System                              | Birkmann          |                                | (CFP) | Charge 1 & 2: Pending CPC               |
| <b>T15.11.1</b> | Review Umler Elements to Support Re-tanking Tank Cars                         | TBD               | New Docket                     |       | Timeline on Charge: TBD                 |
| <b>T31.2.2</b>  | Improve fire performance of service equipment and attachments to the tank car | Brady             |                                | (NC)  | Work to begin after republishing M-1002 |
| <b>T50.57</b>   | Operational Effects on Safety Relief Device Performance                       | Schultz           | Update Provided                | (N/C) | Proposal: TBD                           |
| <b>T60.17</b>   | Review of Volume Determination for Tank Cars                                  | Hopper            |                                | (CFP) | Implemented CPC-1406                    |
| <b>T79.41.1</b> | Petition DOT on ID Plate for 49 CFR 179.24                                    | TBD               | Assign a chair, add TF members | (NC)  | Work to begin after republishing M-1002 |
| <b>T79.42</b>   | AAR FRA/TC Audits for Tank Car Committee                                      | Dorsey            | Handling by AAR Staff          | (CFP) | Work after republishing M-1002          |
| <b>T79.43</b>   | Identification Plates of Tank Cars  | TBD               | New Docket                     |       | Timeline on Charge: TBD                 |
| <b>T80.2.4</b>  | Welding Task Force Proposals  | Gamblin           |                                | (CFP) |   |
| <b>T80.22</b>   | Incorporation by Reference  | Dorsey/<br>Khalid | Handling by AAR staff          | (CFP) | Work after republishing M-1002          |
| <b>T85.11</b>   | TCC Approval Process for RME  | Dorsey            | Docket moved under 1.1.4       |       |   |
| <b>T88.12</b>   | Visual Inspection   | Gamblin           | TCC Docket                     | (CFP) | Work after republishing M-1002          |
| <b>T90.39</b>   | Rupture Disc Tolerance Requirements   | McKisic           |                                | (NC)  | Work after republishing M-1002          |

|                 |   |                     |  |       |   |
|-----------------|---|---------------------|--|-------|---|
| <b>T91.52</b>   | Appendix B to Reflect M-1003 Changes  | Dorsey              | Consider RFD                                     |       | Implement CPC-1405                      |
| <b>T91.62</b>   | Activity Code Technical Approval Process/AQTF                               | Dorsey (Discussant) | Assign a chair                                   | (N/C) | Work to begin after republishing M-1002 |
| <b>T91.86</b>   | Appendix B DOT113/AAR204 Rupture Disc Replacement                           | TBD                 | Assign a charge                                  |       | Implemented CPC-1405                    |
| <b>T91.89</b>   | Definitions and requirements of facilities                                  | TBD                 | Assign a chair & TF members<br>New Docket        |       |   |
| <b>T91.90</b>   | Clarification On Subcontracting   | Miller              | New Docket                                       |       |   |
| <b>T91.91</b>   | Conditions of RJL, B89 and Mobile Shops on Jackets                          | TBD                 | Assign chair & charge & TF members<br>New Docket |       |   |
| <b>T92.21</b>   | Review Feasibility to add the EINN Number to the Tank Identification Plate  | Dorsey              | Assign TF members                                | (NC)  | Work to begin after republishing M-1002 |
| <b>T92.22</b>   | Optional Reporting Mark   | Edmonds             | Update Provided                                  |       |   |
| <b>T93.25</b>   | Develop Process for granting variance from M-1002 App D requirements        | Dorsey              |  |       |   |
| <b>T94.31</b>   | Review M-1002 Appendix E paragraph 3.3 Design- Covers for Non-Pressure Cars | Schultz             | Update Provided                                  | (CFP) | Charge 1 & 2: Proposals TBD             |
| <b>T95.26.2</b> | Review Appendix M Materials for Service Equipment                           | Nunez               |  | (CFP) | Work after republishing M-1002          |
| <b>T100.26</b>  | Standardized format for requesting Tank Car information                     | Dalske              |  |       |   |
| <b>T147</b>     | Tank Car Committee Structure and Procedures/ Publication of Appendix P      | Dorsey              |  | (CFP) | Work after republishing M-1002          |

### Standing Dockets

|                |   |                     |                                |  |  |
|----------------|---|---------------------|--------------------------------|--|--|
| <b>T15.1</b>   | AAR Circular Letters/MA &EW               | Dorsey              | Update Provided/<br>Attachment |  |  |
| <b>T15.9</b>   | Equipment Engineering Committee Update    | Miller              |                                |  |  |
| <b>T15.11</b>  | Umler Committee Update                    | Dorsey (Discussant) | Update provided                |  |  |
| <b>T15.12</b>  | CRB/ARB Committee Update                  | Fimple              |                                |  |  |
| <b>T55</b>     | Service Trials                            | Khalid              | Attachment                     |  |  |
| <b>T79.36</b>  | Locomotive Fuel Tender Initiative         | Dorsey              |                                |  |  |
| <b>T80.4</b>   | AAR Hazardous Materials Committee Liaison | Brady               |                                |  |  |
| <b>T80.12</b>  | North American N.A.R. Program             | Caccamo             |                                |  |  |
| <b>T100.24</b> | AAR Online System Update                  | Dorsey/<br>Khalid   |                                |  |  |

### Executive Committee Docket

|                  |  |           |            |       |                          |
|------------------|--|-----------|------------|-------|--------------------------|
| <b>T91.85</b>    | Appendix B admin, B89 and RLJ  | Dorsey    |            |       |                          |
| <b>T91.87</b>    | B-2 Updates to Reflect Changes made on M-1002 Appendix B               | Killian   | Attachment |       |                          |
| <b>T100.22.2</b> | Service Equipment Component Tracking- All Service Equipment Categories | Zimmerman |            | (CFP) | Pending Solicitation CPC |
| <b>T100.23</b>   | Auditor Handbook   | Williams  |            |       |                          |



|                  |  |                                |            |  |  |
|------------------|--|--------------------------------|------------|--|--|
| <b>T100.23.1</b> | Auditor Test Questions   | Dorsey/<br>Carrier/<br>Killian |            |  |  |
| <b>T100.25</b>   | Status of Compliance with<br>AAR Component Tracking of<br>Tank Car Service Equipment | Dorsey                         | Attachment |  |  |



## Administration

### DOCKET T146

#### TANK CAR COMMITTEE MEETING SCHEDULE

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**At the July 2023 meeting,**

- October 2023 meeting to take place in Addison, Texas.
- January 2024 meeting- options: Jacksonville, Florida, or the Railinc Facility
- April 2024 meeting- options: Salt Lake City, Utah; Roseville, California
- July 2024 meeting- options: Roanoke, Virginia; Charlotte, North Carolina

**At the April 2023 meeting,**

- July TCC meeting will take place the week of the 17<sup>th</sup> to 21<sup>st</sup> in Omaha, Nebraska

**March 2023 teleconference update,**

- July TCC Meeting options : Homewood, Montreal and Minneapolis are not available.
- Entertained options Tulsa, Omaha (UP), Fort Worth ( BNSF), Roanoke.
- October Meeting 2023 will take place in Addison, Texas
- January Meeting 2024 will take place in Jacksonville, Florida

**At the January 2023 meeting,** K. Dorsey reported 2023 TCC meeting dates and locations.

- January 24<sup>th</sup> – 26<sup>th</sup> – Atlanta -NS headquarters.
- April 18<sup>th</sup> – 20<sup>th</sup> -Denver- Westin Denver Downtown
- July 18<sup>th</sup>- 20<sup>th</sup> – several locations were discussed (Minneapolis, Montreal, Roanoke, Chicago/ Homewood); no place has been determined.
- October 17<sup>th</sup>- 19<sup>th</sup> – Texas- Addison Renaissance hotel

**At the October 2022 meeting,** K. Dorsey reported 2023 TCC meeting dates and locations.

- January 24<sup>th</sup> – 26<sup>th</sup> – Atlanta -NS headquarters.
- April 18<sup>th</sup> – 20<sup>th</sup> – Looking into Denver
- July 18<sup>th</sup>- 20<sup>th</sup> – TBD

**At the July 2022 meeting,**

- It was noted that the October TCC meeting will be in Addison, TX. The September meeting will be held in the first week. NS headquarters to be considered for the January 25<sup>th</sup> and 26<sup>th</sup> meeting in Atlanta.

**At the April 2022 meeting,** K. Dorsey reported that the TCC October 2022 meeting will be held in Addison, Texas. Detailed information to be provided on the AAR website.

**February 2022 teleconference update,**

- K. Dorsey reported that space is available in Addison, Texas for the October 2022



Teleconference. AAR seeks a host member location for the July 2022 meeting (if face-to-face). The April 2022 teleconference will be held in person only at the Omni Hotel in Oklahoma City.

**At the January 2022 teleconference meeting,** K. Dorsey reported that there is space contracted in Oklahoma City for the April 2022 committee meeting. The committee agreed to hold an in person meeting in April pending any travel restrictions being imposed. There is also an opportunity at the Renaissance in Addison, TX for October 2022 committee meeting.

**At the October 2021 meeting,** it was reported that no physical meeting is scheduled for April 2022 as of right now. A teleconference meeting will be held in December 2021 and January 2022. The October 2022 meeting will most likely will be in person.

**September 2021 teleconference update,**

- TCC members attendance October meeting:
  - It was noted that some committee members might not be able to attend to the in person meeting in Addison, TX.
  - AAR staff to try to arrange a virtual meeting for the committee and government members who will not attend the meeting in person.
  - C. Machenberg will not be attending but will have a replacement on his behalf at the meeting.
  - J. Kozey, Transport Canada, J. Vergis, J. Caccamo will not be attending.
  - Open meeting structure to be determined with details once AAR knows for sure how many committee members will not be attending. Members to email K. Dorsey.

**At the July 2021 teleconference meeting,** it was reported that the October meeting will be held in Addison, TX. Covid-19 cases are being monitored by AAR incase this meeting needs to be changed to a webinar instead. AAR policy requires that anyone attending the meeting be fully vaccinated. As of right now, hotel details can be shared with members.

**At the April 2021 teleconference meeting,** K. Dorsey reported that the October 2021 TCC meeting is planned to be held in person in Addison, TX. The current AAR policy is that anyone attending an AAR sponsored in person meeting needs to be full vaccinated for Covid-19.

**March 2021 teleconference update,** following were discussed.

- K. Dorsey reported that the April TCC Meeting will be held on Go to Webinar since the platform can hold up to 500 participates. The AAR event calendar will have a RSVP registration for companies to start registering a week before the meeting. AAR staff will approval the list of participates.
- The private session will be held on Wednesday morning, April 21<sup>st</sup>. The government updates and new business to also be held on Wednesday afternoon. The closed session will take place on Thursday, April 22<sup>nd</sup>.

- All TF chairs will be requested to send presentations/information a week before the meeting.
- Action item: K. Dorsey to send out an invite the week of the April 12<sup>th</sup> to set up a practice webinar for the committee. Registration sign up link to be sent to the committee before putting it on the AAR event calendar page.

**At the February 2021 teleconference meeting,** it was discussed that the April meeting will be planned on a different platform. October 2021 TCC meeting is still booked to take place in person in Addison, TX.

- Action Item: R. Kinsley to provide information from CI's investigation of virtual platforms and procedures for how AAR can manage the meeting with several hundred people since April meeting will need to be executed on a different and bigger platform. AAR staff to send out save the dates on future TCC meetings.

**At the October 2020 teleconference meeting,**

- Action Item:
  - February 2021 TCC meeting is scheduled as a webinar. AAR staff is unclear about in person meetings till after April 2021. April meeting will also most likely be scheduled as a teleconference.
  - Dates for February 2021 meeting: 3<sup>rd</sup> and 4<sup>th</sup>
  - Dates for April 2021 meeting: 21<sup>st</sup> and 22<sup>nd</sup>
  - Dates for July 2021 meeting: 21<sup>st</sup> and 22<sup>nd</sup>
  - Dates for October 2021 meeting: 20<sup>th</sup> and 21<sup>st</sup>

**At the July 2020 teleconference meeting,**

- TCC meetings to be held through a webinar until further notice. A detailed meeting schedule for August, September, and October 2020 TCC meetings to be sent out week before the meeting.
- AAR presumes that April 2021 TCC meeting will be the first in person meeting since the Coronavirus pandemic.

**June 2020 teleconference update,**

- A webinar will take place on July 22<sup>nd</sup> and 23<sup>rd</sup> for the TCC meeting. A detailed meeting schedule will be sent out weeks before the meeting. It was also reported that October TCC meeting will be held through a webinar.

**At the April 2020 teleconference meeting,**

- A decision on whether the July TCC meeting will be held in Montreal, CA will be decided in late June.

**March 2020 teleconference meeting,**

- TCC April 2020 meeting is cancelled due to the pandemic. An executive session will be held through a webinar. A schedule will be developed later this month.

- Two options are given to the Tank Car Committee. No decision as to when the meeting will be held has been made as of right now. It appears that the meeting dates may be moved to the first full week in October.

**At the January 2020 meeting,** the following new dates and locations were set for 2020 TCC meetings:

| Year | Dates   | Meeting | Location         |
|------|---|---------|------------------|
| 2020 | April 22-23 <sup>rd</sup>                           | TCC     | Addison, Texas   |
| 2020 | July 22-23 <sup>rd</sup>                            | Exec    | Montreal, Canada |
| 2020 | October 28-29 <sup>th</sup><br>(Dates under review) | TCC     | TBD              |

**At the October 2019 meeting,** the following dates and locations were set for 2020 TCC meetings:

| Year | Dates   | Meeting | Location  |
|------|---|---------|---|
| 2020 | January 29- 30 <sup>th</sup>                        | Exec    | Fort Worth, Texas (QAC meeting will also be during this time a joint meeting is scheduled for Friday) |
| 2020 | April 22-23 <sup>rd</sup>                           | TCC     | Addison, TX ??  |
| 2020 | July 22-23 <sup>rd</sup>                            | Exec    | Montreal, Canada/K.C.   |
| 2020 | October 28-29 <sup>th</sup><br>(Dates under review) | TCC     | TBD   |

**At the July 2019 meeting,** dates and locations mentioned below were set for upcoming meetings. The committee agreed to add a town hall meeting on October 15<sup>th</sup> in Addison, TX.

| Year | Dates                                      | Meeting  | Location                   |
|------|--|----------|----------------------------|
| 2019 | October 15 <sup>th</sup>                   | Townhall | Addison, TX (8 am to 5 pm) |
| 2019 | October 16 <sup>th</sup> -17 <sup>th</sup> | TCC      | Addison, TX                |

|      |   |      |  |
|------|---|------|--|
| 2020 | January 29 <sup>th</sup> - 30 <sup>th</sup> | Exec | Fort Worth, Texas (QAC meeting will also be during this time. BNSF HQ can be alternate meeting location if no room at QAC venue. |
| 2020 | April 22 – 23 <sup>rd</sup>                 | TCC  | TBD  |
| 2020 | July 22-23 <sup>rd</sup>                    | Exec | Montreal, Canada   |
| 2020 | October 21-22 <sup>nd</sup>                 | TCC  | TBD  |
| 2021 | February 3-4 <sup>th</sup>                  | Exec | Jacksonville, FL   |
| 2021 | April 21-22 <sup>nd</sup>                   | TCC  | TBD  |
| 2021 | July 21-22 <sup>nd</sup>                    | Exec | Roanoke, Virginia  |
| 2021 | October 20 -21 <sup>st</sup>                | TCC  | TBD  |

❖ Staff Note: Teleconferences will be added by AAR staff.

**At the April 2019 meeting,** K. Dorsey gave an update to the July 2019 meeting in Chicago. The meeting will be held at the O’Hare Marriott; the October 2019 meeting will be held in Addison, TX at same location as 2018. The committee agreed that the January 2020 meeting will be at CSX/Jacksonville (Jan 23-24).

**At the January 2019 meeting,** K. Dorsey reported that he will send out calendar invites for monthly calls on the third Thursday of each month with the exception of the months that face-to-face meetings are held.

| Year | Dates                       | Meeting | Location       |
|------|-----------------------------|---------|----------------|
| 2019 | April 17-18 <sup>th</sup>   | Main    | Denver, CO     |
| 2019 | May 16 <sup>th</sup>        | TCC     | Teleconference |
| 2019 | June 20 <sup>th</sup>       | TCC     | Teleconference |
| 2019 | July 24-25 <sup>th</sup>    | TCC     | Chicago, IL    |
| 2019 | August 15 <sup>th</sup>     | TCC     | Teleconference |
| 2019 | September 19 <sup>th</sup>  | TCC     | Teleconference |
| 2019 | October 16-17 <sup>th</sup> | Main    | Addison, TX    |

|      |                           |     |                |
|------|---------------------------|-----|----------------|
| 2019 | November 21 <sup>st</sup> | TCC | Teleconference |
| 2019 | December 19 <sup>th</sup> | TCC | Teleconference |

**At the October 2018 meeting,** the dates of 11/14 and 12/13 were added to the schedule for monthly teleconferences in 4Q18.

**Starting with the April 2019 TCC meeting,** AAR plans to host learning events / workshops. Depending on public interest, pre-registration may be required. TCC meeting schedule / main session will have to be revised to accommodate this change.

Additionally, it was reported that CSX will host the January 2019 Jacksonville, FL TCC meeting and can host 48 people due to room availability. The 23 TCC voting members, AAR staff, and government representatives noted below are included. Any alternates & guests must submit their names to the TCC chair and Ken Dorsey.

The following are authorized to attend the January and July executive committee: 23 – TCC Voting Members

- 5 – AAR Staff (RG, Bob, Ken, Matt, Alice)
- 5 - Government: FRA – Randy Keltz, Mark Maday, Francisco Gonzalez; PHMSA – Leonard Majors; TC – Shawn Singh
- 4 – Additional Non-Voting Association Representatives (AFPM Rob Benedict, ACC Jeff Sloan, API (TBD), TFI Justin Loucheim)
- 11 – Remaining seats for approved alternates / guests.

**Point of Contact:**

| Name   | Company                           |
|--------|-----------------------------------|
| Dorsey | Association of American Railroads |

**Purpose of Docket:** For executive TCC to decide the schedule for future Tank Car Committee.

## New Business

### DOCKET T100-21 NEW BUSINESS

#### September 2023 teleconference update,

- Re-tanking issue
  - The committee discussed opening two dockets.
    - Docket #1
    - Action item: Charge- “Aline TP-14877, 49 CFR part 179 and MSRP to include guidance on retanked Tanked cars.
    - Tf chair- Ben miller, Ken Dorsey, Dan Welch
    - Motion was taken by ACC, seconded by Clay P, and passed.
    - Docket #2
    - Action item: Charge- “Address Umler A298 and A183 instructions to accommodate retanked cars. Contact UTC”.
    - TF members- Ken Dorsey, AD McKisic, Dan Welch, Ben Miller
    - Motion was taken by UP, seconded by RSI and passed.
- Discuss marking of bottom outlet valves with fitting protections
  - Unable to find information on BOV protected by protection during an NAR. A possible solution is component tracking although 5800 (has issues) and 7.1 process. Having car numbers is a critical piece of information. The Hazmat committee is working on a standard way to record car number data.
  - Action item: AAR staff to ask for an update for DOT on 5800 update from the Hazmat committee.
- Discuss Rail worthiness CPC.
  - Action item: AAR to draft a simplified CPC to update movement guidance to RWD cars. Update to be run past DOT and TCC. To be complete by Wednesday, 27<sup>th</sup> of September.
- Information on Salco pressure plate service
  - It was reported that information on the service pressure plates was provided, and the committee is currently only away of HCL.
- Discuss TCC Meeting locations.
  - The following potential location were discussed:
    - January 2024 – CSX Jacksonville, NS Roanoke, MXV Pueblo, Railinc/Rego Charlotte NC, Alexandria LA
    - April 2024 – Houston near Intercontinental, Minneapolis, Salt Lake City, Pueblo, Orlando
    - July 2024 – Calgary, Minneapolis, C Springs Double Tree, St Charles, Mt Laurel
    - October 2024 - Houston near Intercontinental, Salt Lake, Pueblo, Orlando

- CPKC- change their voting member.
  - Scott Kuhn M Clay was voted in.
  - Motion taken by Clay P, seconded by ACC, and passed.


#### August 2023 teleconference update,

- Railworthiness Directory:
  - Late July, FRA issued a rail worthiness directive to SMBC. FRA found that SMBC owned DOT 111 general purpose tank cars, equipped with SMBC owned rubber linings are in a non-compliant state and are in an unknown safety condition that could result in the release of hazardous materials in transportation.
  - FRA stated “Applicants wanting to move tank cars under the SMBC RWD should choose the OTMA 3 Defect Category known as “SMBC Railworthiness Directive” then choose Defect No. 18: Railworthiness Directive No. 2023-01: Railworthiness Directive for Certain Railroad Tank Cars Owned by Sumitomo Mitsui Banking Corporation Rail Services (SMBC) and Equipped With SMBC-owned Rubber Linings. This condition applies to tank cars that are covered by the railworthiness directive, and includes cleaned and purged, residue and tank cars that were loaded and offered for transportation prior to August 2, 2023. No loaded tank cars may be offered for transportation after August 2, 2023”.
  - Based on the details provided, AAR staff published a CPC and an EA with 2 supplements with the list of cars provided from the FRA.
  - During the call it was also discussed that currently there is no way to attach an OTMA to the DDCT system.
- Re-tank issue:
  - During the July meeting, it was discussed that re-tank cars should be considered as new construction rather than a modification since no part of the original tank car tank and underframes are in use therefore the cars structure and tank are not accurately represented by keeping the EINN number and built date of the car that the components were originally assigned to. The COC shown in Umler should represent the manufacture for the specification package that is in transportation.
  - Action item: AAR staff to publish a CPC that states that when a Re-tanking modification is being done the re-tanking COC should be listed in Umler. Motion made by RSI, seconded by ACC, and passed.
- RSI discussed the following topics sent:
  - Definition of Tank Car Owner (Chapter 1)
    - The current version of C-III defines the *Tank car owner* as (Implemented 2018 CPC-1338): “The party responsible for the continued qualification and maintenance of the tank car whose primary reporting mark is identified in the Equipment Management Information System (Umler) element **UMOW**.”
    - RSI believes this definition is incorrect because it is inconsistent with the historic understanding of the term, DOT regulations, other AAR

interchange rules, and potentially with itself and the correct definition should revert to the 2014 definition: “The owner of the reporting mark stenciled on the car. Where multiple owners exist under one reporting mark, the Owner’s Mark field in UMLER is to be used.”

- Internal Inconsistency:
  - “The party responsible for the continued qualification and maintenance of the tank car” could, and possibly should, refer to Umler field MNPT (Maintenance Party).
  - Per the Umler manual, Maintenance Party means “[t]he parent reporting mark of the company responsible for the maintenance and repairs of the equipment.”
- AAR Interchange Rules:
  - “The Office Manual Rule B.12. Car owners equal the car mark owner.
  - Office Manual Rule 1.4.a. Ownership Information: In the application of all Rules contained in this Manual, cars shall be treated as belonging to companies or individuals whose reporting marks are stenciled on the car.
  - C-III 2000 (Incorporated by reference) Appendix C 3.3.4.2 : The reporting mark assigned by the AAR must be stenciled as shown on car sides and ends.
  - C-III 2014-Chapter 1.2 Definitions: Tank car owner - The owner of the reporting mark stenciled on the car. Where multiple owners exist under one reporting mark, the Owner’s Mark field in UMLER is to be used.
  - C-III Current- Appendix C: 3.3.4.2 The reporting mark assigned by the AAR must be stenciled as shown in Fig. C.4 on car sides and ends.
- Action item: AAR staff to open a docket titled, “ Review definition of car owner”, with the charge to be “review definition of tank car owner in appendix B”. TF members to be B. Miller, K. Dorsey, R. Haskin. Motion made by ACC, seconded by BNSF, and passed.
- Appendix E Implementation Dates
  - Current CPC-1406 version states January 1, 2024, in 8.0 & 8.4: This needs to be updated to align with the TCC minutes from April 2023 (Handle through comments)





ASSOCIATION OF  
AMERICAN RAILROADS

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**DOCKET T10.31**

**PERFORMANCE OF BOTTOM FITTING PROTECTION SYSTEM**

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**At the April 2023 meeting,**

- Pending tech writer
- **Action item: Implement date will be 12 months from when the CPC is issued. Motion was taken by SMBC, seconded by Clay P and passed.**

**At the January 2023 meeting,**

- Pending tech writer final pdf. |
- Charge 1 and 2 are pending implemented CPC-1406

- **Action item:** AAR staff to change the implementation date to July 1<sup>st</sup>, 2024, to align as stated in the minutes.
- CPC-1335 (Midland Manufacturing 720 Series Valve Modification and Replacement) Compliance date of July 1, 2024
  - RSI Members discussed the compliance date outlined in CPC-1335. The following is joint RSI supporting data.

|   | <b>Total</b> |
|---|--------------|
| Cars Covered by CPC-1335                                  | 41802        |
| Cars Modified per CPC-1335                                | 21306        |
| Cars Remaining to be Modified per CPC-1335                | 20496        |
| NAR's Reported Since Issue of CPC-1335 for Self Actuation | 0            |
| OTMA's Since CPC-1335 for Self Actuation                  | 0            |

- Progress
  - Issued in July 2018, 5-year progress is the mid-point for typical SE Qual Due dates, typically on a 10 yr. cycle.
- Challenges
  - Pursuing cars in the field is very difficult due to off sites not set up for purge / clean, pressure supply for bubble leak test is not readily available and extreme caution to work off-site (mobile units).
  - In 2020, unforeseen events of labor shortage, supply chain issue and capacity at facilities directly affected by the pandemic.
  - Pressure cars are typically at high utilization rates and negatively affect commerce when taken out of service.
  - Upcoming Qual bubble cannot accommodate an increase of throughput.
- Possible Solution
  - Allow cars to continue in service with a compliance date of 2028 and monitor % completion through UMLER qual date field.

- Action item: A docket to be opened with a request that RSI provide more data to TCC that includes NARS to help make a decision. Docket title to be “Compliance date extension for CPC 1335.” Motion made by UP and seconded by and passed. RSI members to be discussants.

**At the July 2023 meeting,** the following topics were discussed:

- Greenbrier- clarification of the use of subcontracting
  - Action item: open a docket on the clarification on the term “subcontracting” as used in the current version of Appendix B. There is a question concerning the need to use a B-1 form as a subcontractor for certified facilities. TF chair- B. Miller.
- Appropriate COC entry in Umler for re-tanked cars
  - It was discussed that EEC requires some cars to keep their original built date even after installation of new stub sills. Only the original COCs, not the updated information, is provided in Umler. More information regarding re-tank to come from DOT/TC.
- New member of CPKC
  - Action item: motion to approve Carol Zyu as the representative for the merged railroad company CPKC. Motion taken by Up, seconded by BNSF and passed.

**July 2023 update,**

- Appendix D discussion
- PHMSA ANPRM
- Greenbrier- clarification of the use of subcontracting
- Discussion on the timeline of the republication
- Appropriate COC entry in Umler for re-tanked cars

**At the April 2023 meeting,**

- ExxonMobil- Top reporting marks and reporting marks qualification and Nozzle issue
  - Action item: Motion was made to open a docket. Charge to be, “Determine if there should be exceptions to maintaining optional reporting marks on tank cars.” Title to be, “Optional reporting marks.” Proposal due in October 2023. Motion made by API, seconded by CI, and passed. TF chair- C. Edmonds. TF members- R. Kinsley-CI, K. Dorsey, E. Apland- API and B. Miller- GBRX
- Greenbrier- requesting a clarification of the use of subcontracting in the latest revision of Appendix B.
  - Action item: Committee to review this topic and changes that need to be made to the language in appendix B.
- J. Perez discussed the anti-draft proposal for the 2018 CPC 1385 on removing or rebuilding angle valves. The RSI members request that TCC revisit and extend the compliance date of July 1<sup>st</sup>, 2024.
  - Action item: RSI to provide failure rate data for the committee to consider the request for the extension.

- J. Perez discussed Education heating- A request was made to open a docket on Education heating technology.
  - Action item: Documentation will be submitted to the committee for consideration.

#### **April 2023 update,**

- Discussed the May 1, 2023, and July 1, 2023, phase out of certain DOT111 cars in flammable liquid service.
  - Attachment: product list developed by the Hazmat Committee
- ExxonMobil discussion on Top Reporting Marks and Reporting Marks Qualification Decal- Discuss the top reporting mark maintenance and car marks on or near the qualification stencil.
- ExxonMobil- Nozzle issue
  - Attachment: Appendix W pressure retaining boundary, CPC 1401 comment-welding.
- Greenbrier- requesting a clarification of the use of subcontracting in the latest revision of Appendix B.

#### **March 2023 teleconference update,**

- ExxonMobil discussion on Top Reporting Marks and Reporting Marks Qualification Decal
  - Committee discussed top reporting mark maintenance.
    - Action item: AAR Staff to discuss DOT and TC the agencies perspective on allowing the cars to run to next shop faded or illegible top marks.
  - A request to position car marks in or near the qualification stencil.
    - Action item: Reporting mark is required on or near stencil to be held over as new business for April 2023.
  - Also requested that the 2" Composition Shoe marking requirement be removed or made optional.
    - Action item: Members to poll their groups to determine the extent (number of findings) of the issue. S-910 alignment work needs to be accomplished after M-1002 is published.
- Appendix Tech writing update
  - MXV has a tech writer that has begun work on the publication of the remaining CPCs. Work is being progressed. CPC 1403 and CPC 1404 need to be implemented.

#### **February 2023 teleconference update,**

- Discuss issue 1 from January 2023 conference call- process on how to request for car information. New docket, "Standardized format for requesting Tank car information" (100.26 ). Proposal by April 2023.
  - R. Dalske reported that a strawman has been developed to socialize with stakeholders.
- Discuss the status of the CPC for appendix B paragraph 3.2.5.26 "Facility boundaries"

Status of CPC.

- Action item: CPC to be forwarded to tec- writer for publication for comment. Staff to discuss publication priorities with MXV for CPC's
- Discussed the May 1, 2023, and July 1, 2023, phase out of certain DOT111 cars in flammable liquid service.
  - Action item: AAR to distribute effected product list developed by the Hazmat Committee to the TCC

**At the January 2023 meeting,**

- Item 1: J. Caccamo discussed the process to request car information. RSI mentioned that there is currently a system in which you have to contact the car owner and attempt through Umler and Ask Rail. Suggestions were made on how to make the process easier such as industry wide awareness or RSI reminding their members to provide information when needed and also mentioning approval conditions under chapter 1.
  - Action item- Motion to open a docket, taken by UP, seconded by RSI and passed. Docket to be placed under active dockets. A rough proposal to be provided by April 2023 meeting.
  - Charge- "determine a formal process for attaining approvals and applicable drawings for Tank cars requiring maintenance".
  - TF members to be added- S. Murray, J. Caccamo, Chair- R. Dalske
- Item 2: discussion of conversion of legacy non I cars to H cars. Currently there is no path forward on how to convert these cars.
- Item 3: discuss procedures on how to review auditor handbook annually.
- Item 4: change to made appendix b due to situations encountered during audits.
  - ~~Appendix B 3.1.5.26~~ (new number to be determined)- A tank car facility with activity code A19, B78, C4A or C4M may have operations at more than one geographical location if;
    - Located within a 10 mile radius of the station stencil address.
    - Operating under a single station stencil
    - Using the same quality assurance program with a single production inspection and test plan for that activity.
    - Managed under a common organizational structure.
    - An auditor is able to observe all minimum demonstrations for that activity during a single audit.
    - Action item: Motion to add language to appendix b paragraph 3.1.5.26 was taken by CN, seconded by TFI, and passed. AAR staff to issue a CPC.

**January 2023 update,**

- Vote in new RAC Member, Scott Croome, which will be replacing Andy Ash as a committee member.

**December 2022 teleconference update,**

- Chapter 1 edits on the 4-2 process for DOT 113 process
  - M. Forister discussed the appendix C and standards of DOT 113. M. Forister presented some writing that was developed for new class AAR 204, AAR 206W, DOT 113 and DOT 115 tank cars. This was shown to be discussed with the committee. A proposal was presented, making an official format, attempt to get a circular and out for comment.
  - Action item: Motion made for a CPC soliciting industry for comment. 30 day comment period. Motion taken by CP, seconded by BNSF, and passed.
- Create Interim process via CPC for DOT 113, based on chapter 1 edits going out for comment.
  - Action item: Motion made, seconded, and passed to have AAR issue a CPC soliciting industry comment on chapter 1 and appendix C proposal final edits approved during the meeting. AAR staff to issue CPC for chapter 1 and Appendix C
- DOT 113 Service Equipment approvals
  - K. Dorsey discussed that due to decreased number of cryogenic cars in the industry, there were no service equipment approval requirements in the standards or regulations, cryo cars just need to have manufacturing facility approval.
  - Interchange rules currently do not have car valve for Cryo equipment, but rules are in the process of being developed and attempting to get the Cryo service equipment manufacturers, fully complaint with the interchange rules.
  - Would like the TCC to set a deadline for this work to be completed.
  - Action item: motion made, seconded, and passed to issue CPC notification to industry on cryogenic service equipment manufacturers to come into compliance with both the approval process in Chapter 1 of M-1002 and facility certification in compliance with M-1002 appendix b. The cryogenic service equipment manufacturing must come into compliance with chapter 1 and appendix B by July 1, 2024. AAR staff to issue CPC notice by the January 2023 TCC meeting.

**At the October 2022 meeting,**

- Request to evaluate the use of fixtures to demonstrate B89. Executive Committee teleconference to be scheduled to discuss.
- COC obtainment questions and alteration questions from FRA- How to obtain the COC as a railroad carrier.
- Suspicious packages on tank cars- J. Birkmann discussed 2 instances in the filed with this issue and the importance requirements for tank cars regarding remote monitoring equipment approval requirements.
- Resale of service equipment of valve bodies- M. Forister reported that a company is reselling service equipment. It was noted using third party sourced valve bodies in not permitted.

**October 2022 update,**

- Request to evaluate the use of fixtures to demonstrate B89.

**At the July 2022 meeting,** no new business was reported.

**June 2022 teleconference update,**

- Industry Gaging Issue DOT findings-
  - It was reported that DOT is examining magnetic gauging rods and their specific gravity. DOT is taking exception if the gauging rod does not match the product. Members can either change the gauging rod or remove the device to resolve this issue.
  - Action item: AAR to reach out to the committee members to set up a call to discuss this issue. A meeting to be scheduled with DOT afterwards.

**At the April 2022 meeting,** no new business was reported.

**March 2022 teleconference update,**

- K. Dorsey noted that the April TCC meeting will be in Oklahoma City, Oklahoma. CSX has offered Jacksonville, Florida headquarters for the July 2022 TCC meeting. NS requested that AAR consider Atlanta for the January 2023 TCC meeting.
- Handling of CPC-1381 comments:
  - M. Forister went through the CPC comments with the committee.
  - Action item: Motion made by BNSF to accept the recommendations from staff as presented and for commentors to be notified as reported, motion seconded by CP, and passed.
- AQTF
  - Action item: AAR to open a docket to track progress, title of the docket to be as mentioned in step 1a of the background document, b. Seibold to be the discussant.

**At the January 2022 teleconference update,**

- Compatibility of gaskets on transporting flammable liquid
  - TCC committee docket only
  - Action item: Motion made by CP and WELWY seconded to open a TF on this docket. Title, "Investigate the use of heat resist, gasket, connection type & service equipment". Charge, "Investigate the use of heat resist gaskets, connection type, and service equipment on tanks transporting flammable liquids. Determine achievable performance criteria for use in transportation. Lean on DOT research." TF Members: Kelly, Elliot, Brady (Chair), Dorsey, Birkmann, Vergis, Gonzales.
- 904 Stainless- used as material on a valve, not in the standards.
  - Being selected for corrosion resistance reasons
  - Committee requests a revision application be submitted for review

- TCID date entries
  - TCID data dependency manual reconciled against the TCID form used to enter the data.
  - Create a task group to review the data dependency manual against the TCID form and against the prior documents to which it was created for consistency.
  - Action item: Motion to open a docket made by BNSF, seconded by UP and passed. Title, “TCID Specifications Manual Updates”. Charge, “ Review and update the TCID data specification manual and AAR TCID-1 Data Collection Template and align both with respect to language, usage, and intent under the earlier R-1, R-2 and SS-3 reporting structures”. TF Members: Rader (chair), Dorsey, Schultz, Perez, Dalske
  - Add another standing docket on TCID

#### **December 2021 teleconference update,**

- TCC input into Auditor Training & Shipper Discussion TCC Direction
  - It was noted that audits are conducted however there are problems with the length of time it takes to get the audits to the committee for ballot and quality of reports. TCCI is working on the IIRX system to develop a plan to improve the auditing program and improve the reporting.
  - Action item: B. Siebold, P. Williams and J. Kozey volunteer to serve on the MC- TF to address whether delegated authority should be given back to DOT.
  - Action item: Develop a TF for auditor training and certification that will include updating the auditor handbook, training requirements and BOE auditor certification test. Members to be added to the TF, R. Kinsley, P. Williams, S. Taylor, J. Killian, K. Carriere and K. Dorsey.
- J. Rader- TCID Data
  - J. Rader noted that there are inconsistencies on who should sign the TCID reports. In past the paper R-1 had allowance for two signatures. Appendix R suggest should be the owner sending the report, but J. Rader suggested it should be the person submitting the report.
  - Action item: J. Rader to submit a request to the TCC to change the TCID manual to clarify what signatures are required to submit a report.
- TCC Review of Appendix B to reflect the new publication of M-1003
  - Review the responses to TCC comments the proposed revisions to M-1003
    - It was noted that some comments were accepted and some raised concern. A disconnect between QAC inspection test plans and M-1003 modifications not to require ISPs was discussed. M-1003 is not published yet therefore more discussions will take place once that has happened.
- Discussion Evans built Tank car Hand Brake Supports –
  - About 800 cars are affected. K. Dorsey displayed some photos, and it was discussed that jackets will need to be removed to inspect these cars.
  - Action item: AAR staff to develop an equipment notice for a focused inspection on these cars using an appropriate inspection method.

**At the October 2021 meeting,** no new business was reported.

**September 2021 teleconference update,**

- TCC comments to proposed M-1003:
  - M. Forister and B. Siebold went over the responses to the changes that were made to the M-1003. The format of the comments was decided before sending them to the QAC.
  - Action item: Motion was made to have the proposed comments consolidated and forwarded to the QAC. Motion made by WLERWY, seconded by RSI, and passed.
- HM219 discussion:
  - J. Byrne reported that no agreement has been made within the group regarding the qualifications of eligibility. A discussion over features of concerns such as stub sill design, load requirements and mechanical requirements was held.
  - Action item: J. Byrne to facilitate a proposal from the RSI members in terms of types of design features being eligible for retrofits HM219C. Proposal to include mechanical requirements.

**August 2021 teleconference update,**

- TCC comments to proposed M-1003:
  - K. Dorsey noted that the proposed revision circulated as a 30-day time was given. Improvements were made but certain sections such as 2.5.2, 3.2.3 were discussed by the committee.
  - Action item: List of questions to be compiled by TCC for the QAC to help clarify changes made, such as certain requirements removed/edited and how will they affect the approval process for activity code. Discuss an extension of the comment period by 30 days.
- HM219 discussion:
  - An updated presentation was discussed by J. Byrne and J. Rader. RSI believes there to be approximately 2,100 cars built just prior to CPC-1187 that would qualify for retrofit and meet HM-246 final rule. Railroads have concerns with “open-endedness” of potential retrofit cars built prior to 2009. Discussion took place around an interchange rule to provide bounds to retrofit (underframe design, fatigue mileage, known tank/nozzle issues).
  - Action item: J. Byrne to gather RSI and shipper members to discuss retrofit eligibility of cars and provide TCC with details/description of the 2,100 cars likely to be considered for “retrofit”.

**At the July 2021 teleconference meeting,**

- Component tracking for pressure relief valves were discussed. M. Forister has been working on approval labels, it was reported that some are facilities are waiting last minute to submit their data and putting other station stencils in their forms. Some issues on the Railinc side were discussed such as label size and company ids. Label size



issue was found during initial submittals, about 90 facilities were processed and 20-25 are waiting for resubmittals. Only C-6 and C-6R facilities can do the installations.

- Action items: Motion to open a new docket for Appendix C of M-1002 to track EEC Marking Reduction Effort. This will be managed by the TCC directly. Motion made by BNSF, seconded by WLERWY, and passed. J. Byrne to work with RSI members and EEC to draft a language for Appendix C of M-1002 to cover the EEC marking efforts.
- Action due date: September 2021 goals.

#### **June 2021 teleconference update,**

- Component tracking for pressure relief valves was discussed. RSI has sent in a request for some changes to the standard that need to be looked over with a discussion/direction from the committee. The proposed change was shown by K. Dorsey and was discussed by J. Byrne.
- RSI mentioned that a couple of concerns on permeant markings were raised. Cars are usually marked with the month and year and then serial number. The serial numbers are not identifiable. Once PRD is requalified, they no longer what they were when they were originally serialized. They are no longer useful for transability. RSI only wants to track build to build PRDs.
- M. Forister discussed some alternative points to RSI's proposal.
- Action item: K. Dorsey, M. Forister, J. Rader and S. Murray to work on developing a CPC.

#### **May 2021 teleconference update,**

- T 88.1-93- Evaluation and use of Nondestructive Evaluation Techniques Visual Inspection (Language CPC-1376).
  - Two follow up actions as a result of Appendix T. A docket on Hydrostatic testing will be opened along with a docket on Visual Inspections. These will follow through on the commitments made on the circular letter.
- T 88.11 Hydrostatic Testing
  - Opened after the CPC 1376
  - Charge of docket – “Establish sensitivity and reliability on the appendix D hydrostatic test procedures.”
  - RSI to gather builders for a taskforce and develop a task for this docket within the boundaries of the charge.
  - Action item: AAR staff to open this docket and note J. Byrne – RSI as TF chair
- T88.12 Visual Inspection
  - Opened after the CPC 1376. Critical to publication
  - Charge of docket- Review current chapter 1 terms of “visual” and “visual inspection” within M-1002 and determine when visual inspection must be conducted in accordance with appendix T.
  - Action item: AAR staff to open this docket and note B. Seibold as TF chair
- T 80.22- Terminated Audits Report (New Docket App B)
  - Charge- TCC to draft language for processing termination audit reports which will reside in the AAR Tank Car Committee Facility Balloting Policy document.

- Action item: AAR staff to change docket number and name to 91.2.9: Termination Audit Report Process by TCC

**At the April 2021 teleconference meeting,** no new business was reported.

**At the February 2021 teleconference meeting, update** provided earlier this month was discussed.

- The need for RME to be intrinsically safe (App A 3.13.1.1) : AAR raised concerns for the shipper's requirements regarding this subject. Placing a flammable liquid with a non-intrinsically safe device would be dangerous. The shippers stated that device should be intrinsically safe before being placed on a car. Stenciling on the cars regarding the status of device was a suggestion made.
  - Action item: TCC suggested that proponent send more information on this device to be reviewed by the private committee.
- The certification conditions for C4M facilities application of linings or coatings service equipment. (App B 3.1.5.10): Valves are produced overseas, shipped to the US and assembled in a certified facility. Is there a need to certify a facility that lines and coats? The facility is overseas and not certified. Is a lined body an assembly or a component?
  - Action item: TCC suggest that the proponent send in a formal written proposal detailing the issue and provide a probable solution to be reviewed.
- Suitable drawings for service equipment for application or manufacture: Proponent wants a clarification on suitable drawings and manufacturing drawings. Valve manufacture don't want to give up drawings and car owner don't have drawings. How can one maintain specification requirements without specifications? 1.1.4 docket TF has been aware of this issue and will be tackling this for the new publications.
  - Action item: AAR staff to get with regulators and set minimums for shops now with safety in accordance.

**February 2021 update,**

- The need for RME to be intrinsically safe (App A 3.13.1.1)
- The certification conditions for C4M facilities application of linings or coatings service equipment. (App B 3.1.5.10)
- Suitable drawings for service equipment for application or manufacture.

**December 2020 teleconference update,**

- K. Dorsey and B. Siebold discussed the EEC request to have the TCC review Chapter 2 paragraph 2.5, specifically 2.5.1.2, 2.5.1.3 requirements. TCC to have RSI-TCC members to draft a proposed revisions to Chapter 2 paragraph 2.5 requested by EEC.
- Action Item: K. Dorsey to provide the paragraphs from EEC on M-1002, Chapter 2 paragraph 2.5 and have the TCC-RSI members draft a proposed revision to the paragraphs by the January 2021 meeting.

**At the October 2020 teleconference update,** E. Apland reported on centralized database for

tank car gauge tables. It was noted that car lessors do provide gauging tables. They are available on websites and can be requested. K. Dorsey reported on concerns of estimating flow rates for PRV's of differing set pressures. This is being handled through the chapter 1 update. K. Dorsey also reported on portable electric torque wrench. Appendix J wording to be discussed/changed to allow this device to be calibrated and verified. Remote Auditing was discussed and is to be continued under private agenda.

**October 2020 update,**

- Centralized database for tank car gauge tables
- Flow Rates for PRV's of differing set pressures
- Portable Electric Torque Wrench

**September 2020 teleconference update,**

- Lined/coated service equipment components- subcontract or not for C4a/ C4m / C5 facilities. See Appendix B, 3.1.5.10, 3.1.5.11, and 3.4.1 (2nd to last bullet). Consider allowance for individual components, not subassemblies.
  - Needs a decision on Appendix B by October meeting.

**At the July 2020 teleconference update,** no new business was reported.

**May 2020 teleconference update,**

- TF chairs will be selected from railroads, suppliers (tank or component), car owners or shippers in the future. Any chair not from those groups will need to be switched out. This change should be clearly communicated in policy.
- Asset Health working on codifying submerged bearings and tank car exposed to water (insulation).
- UTLX spider manway cover underwent teardown inspection. K. Dorsey to ballot this approval.

**At the April 2020 teleconference meeting,**

- The audit of the TCC by DOT/TC identified load case issues for the DOT 115 class cars. A docket is to be opened to handle the outstanding issues for approvals on 115 cars.
- Visions of AAR online systems were discussed: J. Byrne and M. Forister to harmonize with different groups working on future changes to develop a document to present to the committee.

**April 2020 update,**

- Committee to discuss requirements for the gauging devices and openings to the inner tank on DOT 115 class cars.
- Committee to discuss establishment of specific requirement for fabricators of tank car components.
- Committee to discuss the difference between approving employee qualification program or process qualification program and approving employee qualification or a

process

- Vision of AAR online systems
- Add AAR FRA/TC audit of the tank car committee

**At the January 2020 meeting,** no new business was reported.

**November 2019 teleconference update,** J. Byrne discussed the TC equivalency certification and the several methods to determine API gravity. It was proposed that:

- API gravity at 50 degrees or less should be used
- Certificate number needs to be marked on the car and manway > 4”
- The wording “greater than” should be used rather than a symbol for clarity.
- It was discussed that the PRV STD pressure was required in the equivalency certificate by referencing the Appendix A template.

**At the October 2019 meeting,** actions were discussed by the committee:

1. Appendix W & T were discussed, K. Dorsey will distribute the proposals for these two Appendices to the committee by next meeting.
2. J Byrne discussed a concept to deal with DOT 117 R conversions configured with only fiberglass insulation. RSI will work with DOT to renew their equivalence certificate using API values, to prevent more volatile products from inadvertently being loaded in this type car.
3. The committee was asked to consider excluding external heater coils from the periodic qualification requirements of tank car tanks.

**For the July 2019 meeting** the following actions were taken by the committee.

1. The committee agreed that the T100.93 TF should take up the question of harmonizing table 1.19 and table 1.20, the retention interval for Radiography Testing and Ultrasonic Testing inspection data.
  2. GATX presented two proposals for interim guidance to AAR auditors and certified shops to define applicable drawings the lack of original drawings or approvals and what constitutes in kind replacement. This follows a discussion during the April 2019 TCC. As part of this topic the scope of using a previously approved 4-2 for approval of work on a different tank is to be clarified. The committee agreed to open a docket and the following personnel joined the TF:
    - Tony Sisto
    - Ken Dorsey
    - N. Scott Murray
    - AJ Konrad (FRA)
    - John Byrne
    - Joe Perez
- ❖ The charge of the TF:
- Develop interim guidance for certified facilities to comply with the requirement for approvals and drawings when performing work.

- Additionally, TCC approved the motion to provide BOE with interim guidance on applicable drawings BOE will continue to audit the standard/ regulations and record findings as Items of Concern for tracking.
3. RSI presented an update to RSI 100. The program has been modified to address DOT concerns expressed in their review of the program. RSI has removed from the list of covered components items that would have Appendix W or T processes used in their manufacture. No action of the TCC was requested at this time.

For the July 2019 meeting the following item was forwarded to the committee for consideration.

**Docket T100.9.3**

Proposed change:

Chapter 1 table 1.19

Current:

Radiographs and radiographic reports or UT reports                      10 years

Proposed:

Radiographs and radiographic reports or UT reports                      Current qualification interval

**At the April 2019 meeting,** K. Dorsey reported that there had only been one comment to the CPC. The comment requested that the changes in table 19 should be reflected in table 20. It was noted that it would only make sense the retention requirement for UT would be the same as radiography. The retention interval for local post weld heat treat records was discussed. The docket will be considered by the TCC.

**At the April 2019 meeting** the following actions were taken,

1. At the April 2019 meeting it was agreed that comments to dockets T80.2.4. and T88.1 will be gathered and TCC will forward them to the TF for action. The TCID portion of the appendix R update needs to be included in the update to appendix R. It was agreed to have comments by the May TCC call.
2. Applicability of a 4-2 vs. the use of TCID

Clarification of process of when an approval is required and when a previous approval can be referenced in a TCID entry. The following interim guidance was drafted.

Proposed Interim Procedure/Guidance:

- A) Replacing an approved valve with another approved valve with the same form, fit, and function.
  - PRVs must be in compliance with Appendix A
- B) Using an approved fittings arrangement with no modification/alteration for use or application on another rail car of the same tank class.

- C) Using an approved fittings arrangement with modification/alteration for use or application on another rail car of the same tank class.
    - Must comply with Appendix E for fittings protection and dimensions.
    - Reference OM Rule 88 for engineer qualifications (reference definitions 49 CFR 171.8 for design certifying engineer)
    - Function-specific training on Appendix E
  - D) Reporting
    - TCID could be used to report all three scenarios above
    - Develop an example for each scenario
  - E) Direction given to auditors
    - Auditors shall continue to report findings
    - Applies to new audits and any outstanding audit reports effective upon TCC approval date (TBD) of this guidance
  - F) Dorsey and Siebold to draft guidance on applicable drawings for service equipment at facilities.
- 
- 3. To support the new online system programming and consistency with member participation, the committee agreed to the following clarification on the voting process previously approved in January 2019. It was noted that abstentions DO count towards establishing quorum requirements.
  - 4. The TCC would like to see the revisions to Appendix W, T, R and A along with Chapter 1 given high priority. It would be the intention to publish a new revision of M-1002 when this work is complete.
  - 5. Presentation - J. Byrne gave an RSI-100 Standard overview. It was presented that this standard would be used by certified tank car facilities to manage subcomponent suppliers. Proposal would allow the certified facilities to include certain component supplier's product into the purchasing facilities QA program. This would apply to manway covers, spools, blind flanges, pressure plates, plate fittings. RSI plans to utilize DOT Notice of Review of Guidance (2/5/19) to deliver.

The following questions were raised:

- does this meet in-bound, material inspection requirements of M-1003 and element 2.9 subcontracting / purchasing?
- would TCC and QA committees still have visibility (oversight) to these tank car components?
- does this "alternate standard" meet the intent of 49 CFR Subpart 179.7?

New business April 2019.

- 1. **T80.2.4.** Proposal has been forwarded to the executive committee for consideration Please find the provided proposal.
- 2. **T88.1.** Proposal has been forwarded to the executive committee for consideration Please find the provided proposal.
- 3. **Applicability of a 4-2** for alteration, conversion, repair and modification of tank cars. At

issue is when an R-1 can be used referencing a previously approved 4-2 as documentation for work performed on a tank car. Reference M-1002 chapter 1 1.4.2.8 and appendix R 3.3.2.

4. **Applicable drawings.** The executive committee has been asked to develop guidance on the level of drawing necessary for valve installation and valve maintenance.
5. **Quorum clarification.** Review that abstentions DO count towards establishing quorum requirements

**Simple Examples:**

| <b>Facility</b>     | <b>Service Equipment</b> |
|---------------------|--------------------------|
| 3- Approve          | 3-Approve                |
| 2- Disapprove       | 4- Disapprove            |
| 6-Abstain           | 6- Abstain               |
| Quorum of 11/21 met | Quorum of 13/24 met      |
| 10- No votes        | 13- No Votes             |
| Ballot Approved     | Ballot Disapproved       |

**Point of Contact:**

| <b>Name</b> | <b>Company</b>                    |
|-------------|-----------------------------------|
| Dorsey      | Association of American Railroads |

**Purpose of Docket:** Discuss New Business

## Regulatory / Research Dockets

### DOCKET T59.1

#### GOVERNMENT REGULATIONS

##### At the July 2023 meeting,

R. Keltz provided an update for FRA:

- FRA hiring: HM HQ specialist Mel Massaro- has retired, will return in fall 2023.
- 2023 OTMAs (Jan 1- July 1): Total = 2820, OTMA 1= 428; OTMA 2=36; OTMA 3= 2356. OTMA data is posted on the FRA Hazmat web page. 2014- May 2023
- 2023 OTMAs (Jan 1- April 4): Total = 1336, OTMA 1= 193; OTMA 2=16; OTMA 3= 1127. OTMA data is posted on the FRA HAZMAT web page. 2014 to November 2022.
- Hazardous Materials Incident Investigations (HMII): Open HMIIs- 120 (78 w/Tank Car Team) and Closed HMII. 2020= 286, 2023=88 (YTD). Top six tank car components for current open incidents. Top process valves (42), BOV (24), PRD (9), Manway (21), Vacuum valve (10), Tank Shell (7).
- If not a human factor root cause, all are considered a “failure” of the owners. qualification and maintenance program.
- Photos of situation at time of incident in FRA’s recommended format. Taken by ER, RR or any first responders that may be on-site.
- Emergency responders remove and discard equipment. Equipment is needed by owners to determine root cause for their reliability assessments.
- Tank Facility & Owner Audit Activities:
- 2023 audits (Jan 1- July 1)
  - 36 facility audits by tank car team.
  - Field service work is being performed for the “shipper” and not the equipment owner.
  - Facilities not following shop procedures, owner instructions, design details, etc.
  - Owners not ensuring maintenance and qualification conforms to their program. 180.509(a).
- Tank car owners
  - 2023 Audits (Jan. 1 – April 1) 7 Owners audits by Tank Car Team.
  - Program should work towards the elimination of NARs and accurate due date intervals. Running to failure is not in accordance with the HMR.
  - Service Reliability Analysis (SRA) must support qualification intervals.
- RWD
  - FRA RWD McKenzie Valve 03-2015
  - FRA RWD ARI/ACF sump/outlet saddle welds 11-2016
- Tank Car Safety Issues
  - FRA Tank Car Compliance programs
  - Program= 31
  - Total car count = 7620
  - Salco Kynar Coating Acid Cover Assembly



- Salco is recommending the removal of the assemblies from service.
- Identified Tank Car Owners do not have established Qualification Programs per 49 CFR, Part 180,
- Subpart F, §180.501(b).
- Identified this to be a failure for its design application to tank car service equipment. What action plan does the AAR Tank Car Committee have regarding their approval of these designs?
- Other Activities:
  - Tank Car Approvals.
    - Tank car design approval audits. 100% Noncompliance.
    - “Paper match car, car match paper for the service that its in.”
  - Working with FRA R&D Team on two projects.
    - Stubsill shear performance in derailments.
    - Tank cars impacted by sharp objects in derailments.
  - Shipper Inspection.
    - Shipper has procedures dating back to 2011 where they instruct the vapor and liquid valves to be “zip tied” to ensure they do not open in transportation.
    - Shipper also provided a video from March 2019 showing a Rego angle valve self-actuating to the open position after hand tightening the valve.
  - Notification to Tank Car Owners
    - FRA continues to observe shippers and tank car facilities performing work to tank cars without owner permissions or instructions as required by 49 CFR, Part 180, Subpart F, §180.513(a) and (b); therefore, FRA is notifying tank car owners of these observed events via email.
    - FRA is requesting a block of time at the October 2023 meeting to conduct a presentation on service reliability.

E. Patrick provided an update for PHMSA.

- Rulemakings In-Progress
  - HM-264A: Suspension of LNG by Rail Final Rule: Development of the final rule is underway. We hope to publish the final rule later this summer. The rule is currently pending review with the White House Office of Office of Information and Regulatory Affairs (OIRA).
  - HM-264B: Improving the Safety of Transporting Liquefied Natural Gas NPRM-No update.
  - HM-263: Real Time Train Consist NPRM- PHMSA published the NPRM on June 27, 2023. Comments are accepted until August 28, 2023. The final rule is projected to publish in 2024.
  - HM-265: Advancing Safety of Modal Specific Provisions NPRM-No update, publication projected fall 2023.
  - HM-233G: Continuing Special Permits Conversion NPRM- No update the NPRM will publish in the Winter of 2023.

- HM-265A : Published July 5, 2023. Comments accepted until October 3, 2023. Hard coupling, freight container marking, unoccupied locomotives.
- Letters of Interpretation
  - 22-0134 – Request from SMBC related to tank car coating/lining qualification intervals. LOI issued 3/2/2023. PHMSA and FRA continue to stand by our response that tank car coating/lining inspection intervals may only exceed eight (8) years if the coating/lining owner receives an AIP authorization from FRA.
  - 22-0087 – Request from Olin Corporation related to determining the responsible equipment owner for qualification and maintenance plans in several scenarios. Response in progress.
  - 23-0054 – Request from Union Tank Car regarding weather-tight flashing on tank car jackets. Response in progress.
- NTSB Safety Recommendations- n/a
- Special Permits- n/a
- Special Topics:
  - PHMSA has issued a fourth safety advisory in response to the derailment and subsequent hazardous material release and fire in East Palestine, OH. This safety advisory encourages 9-1-1 call centers to download, train on, and use the Ask Rail app to create a redundant path for real time train consist information to get to local emergency responders.
  - The lawsuit filed by several states, environmental advocacy groups, and an American Indian tribe against the authorization to transport LNG in rail tank cars, which had been placed in abeyance since March 2021 has been ordered to recommence as of July 18, 2023. The Department of Transportation and Department of Justice are reviewing our next steps for this litigation.
  - Leonard Majors to discuss tank approvals, drawings, and documentation needed to justify an approval or special permit request.

### **July 2023 update,**

N. Roy provided an update for TC.

- Senior management update: as reported at the April meeting, Benoit Turcotte (now former Director General) left TDG. Farrah Fleurimond is currently acting Director General. Stephanie Lepage is now acting Director of Regulatory Frameworks and International Engagement branch while Farrah Fleurimond is acting Director General.
- Ethanol tank car phase-out dates of May 1, 2023, for legacy Class 111s and July 1, 2023 for unjacketed CPC-1232s have now passed. Next deadline is the May 1, 2025 deadline for all Class 111 tank cars (legacy and CPC-1232s, jacketed and unjacketed) in all flammable liquids service.
- TDG has [published a webpage](#) on the Transport Canada website outlining a list of recent regulatory consultations and upcoming regulatory amendments.

### **At the April 2023 meeting,**

R. Keltz provided an update for FRA:

- FRA has hired: HM Inspector D2 – Seth Lasure (DE), HM Inspector D5 - John Wood (LA), HM Inspector D5 - Michael Moore (TX), HM Inspector D6 - Ian Stevens (MO) (EOD 4/23/23), HM Inspector D7 - Kevin Keane (CA), HM Inspector D8 - Ray Hubbell (OR), HM Specialist D2 – Tim Brown (VA), HM Specialist HQ – Joe Weyandt, HM Deputy Staff Director, Field Operations – Chris Machenberg (EOD 4/23/23), HM DSD Gary Flores – Announced retirement, HM HQ Specialist Mel Massaro - Announced retirement, MP&E TCT, TC Engineer – Matt Forister
- 2022 OTMAs (Jan 1- Dec 31): Total = 5198, OTMA 1= 601; OTMA 2=73; OTMA 3= 4524. OTMA data is posted on the FRA Hazmat web page. 2014- February 2023
- 2023 OTMAs (Jan 1- April 4): Total = 1336, OTMA 1= 193; OTMA 2=16; OTMA 3= 1127. OTMA data is posted on the FRA HAZMAT web page. 2014 to November 2022.
- Hazardous Materials Incident Investigations (HMII): Open HMIIs- 98 (66 w/Tank Car Team) and Closed HMII-563. 2020= 10, 2021-210, 2022=286, 2023=57 (YTD). Top six tank car components for current open incidents. Top process valves (25), BOV (18), PRD (11), Manway (20), Vacuum valve (8), Tank Shell (8).
- If not a human factor root cause, all are considered a “failure” of the owners. qualification and maintenance program. OWNER MUST PERFORM ROOT CAUSE. (In future, these may result in civil penalty violations.)
- Photos of situation at time of incident in FRA’s recommended format. Taken by ER, RR or any first responders that may be on-site.
- Emergency responders remove and discard equipment. Equipment is needed by owners to determine root cause for their reliability assessments.
- Tank Facility & Owner Audit Activities:
  - 2022 audits (Jan 1- Dec 31)-
    - 104 facility audits by tank car team
  - 2023 audits (Jan 1- April 1)
    - 18 facility audits by tank car team.
    - Field service work is being performed for the “shipper” and not the equipment owner.
    - Facilities not following shop procedures, owner instructions, design details, etc.
    - Owners not ensuring maintenance and qualification conforms to their program. 180.509(a).
- Tank car owners
  - 2022 Audits (Jan. 1 – Dec. 31) 3 Owners audits by Tank Car Team.
  - 2023 Audits (Jan. 1 – April 1) 7 Owners audits by Tank Car Team.
  - Program should work towards the elimination of NARs and accurate due date intervals. Running to failure is not in accordance with the HMR.
  - Service Reliability Analysis (SRA) must support qualification intervals.
  - 2023 TCT has increased focus on tank car owner audits.
- RWD
  - FRA RWD McKenzie Valve 03-2015
  - FRA RWD ARI/ACF sump/outlet saddle welds 11-2016
- Tank Car Safety Issues

- FRA Tank Car Compliance programs
- Program= 29
- Total car count = 7150
- Other Activities:
  - Miscellaneous Required DOT Approvals. DOT approvals required for tank car designs; all applications must be approved by the AAR. TCC prior to coming to DOT for any type of approval. (Special Permits, Special Provisions, DOT 117P tank cars, 286K GRL, etc.)
  - Tank car design approval audits. “Paper match car, car match paper for the service that its in.” Finding a lot of cars in a state of nonconformance with approvals.
  - Working with NTSB on two derailment investigations involving hazardous materials tank cars. East Palestine, OH and Raymond, MN
  - Working with FRA R&D Team on two projects. Stubsill shear performance in derailments and Tank cars impacted by sharp objects in derailments.
  - FRA RSAC w/ HAZMAT charge. Expand the definition of HHFT.
  - NS Railroad Safety Culture Audit. All FRA Divisions.
  - FRA National HAZMAT Route Assessment. All FRA Divisions.
- Hazmat Research Update- RDI

#### **April 2023 update,**

S. Singh provided an update for TC.

- Senior management update: Benoit Turcotte left in March and Michel Beland is currently acting Director General.
- New tank car standard CAN/CGSB-43.147-2023 was published in March and is available for download.
  - TP14877-2018 continues to be in force until the TDG Regulations are amended.
- Ethanol tank car phase-out deadlines: May 1, 2023, for legacy class 111s and July 1, 2023, for unjacketed CPC-1232s
- Proposal to introduce fees for means of containment (including tank car) facility registration. Canada Gazette Part 1 60-day consultation ends May 24, 2023.

P. Eamonn provided the following update for PHMSA:

- Rulemakings In-Progress-
  - HM-264A – The suspension NPRM was published November 8, 2021, and the comment period is closed. The NPRM proposed to suspend the transportation of LNG in tank cars until completion of companion rulemaking HM-264B. We received over 7000 comments to the NPRM. Development of the final rule is underway.
  - HM-264B - his NPRM is under development with PHMSA and FRA staff. Both agencies are reviewing all available information and developing options for Departmental leadership review. All options are under consideration; however,

we cannot discuss specifics at this time. The National Academy of Sciences Transportation Research Board Phase II LNG study is available. PHMSA and FRA are reviewing as we consider our next steps for LNG transportation in tank cars.

- HM-263 – The 2021 Infrastructure Investment and Jobs Act that PHMSA implement a rulemaking to require that railroads provide electronic train consist information to authorized State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to, or investigation of, an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials, such as the derailment and fire in East Palestine, OH. Work on a notice of proposed rulemaking is underway, and we plan to publish a NPRM this year.
- HM-265 – The NPRM will address several rail-specific issues, including the RSAC recommendations. I cannot discuss the specifics of the content of the NPRM at this time. If all goes as planned, the NPRM will hopefully publish in mid-2023.
- HM-233G – This NPRM will include tank car special permits. I cannot discuss the specifics of the content of the NPRM at this time. If all goes as planned, the NPRM will publish in the Winter of 2023.
- EPA Risk Management Program (RMP) Regulations- PHMSA and FRA are working with EPA staff to address comments received to a 2022 EPA NPRM. This NPRM (docket EPA-HQ-OLEM-2022-0174) proposed to clarify the scope of Risk Management Plan requirements. Specifically, EPA proposed to require that a transport package stored incidental to movement for more than 48 hours be subject to RMP requirements, if applicable to the contents. A number of commenters opposed this proposed standard.
- Letters of Interpretation
  - 22-0138 – Request from AllTranstek related to § 173.31 requirements to prevent shifting or coupling during loading/unloading. LOI issued 1/19/2023 - SCAMP rail car indexers may not be used in place of blocking at least one wheel on a tank car and setting the hand brake.
  - 22-0094 – Request from AllTranstek related to structural inspection of tank cars when obstructed by heater coils. LOI issued 1/17/2023. Heater coils that cover the tank shell butt welds would not constitute reinforced tank shell butt welds.
  - 22-0134 – Request from SMBC related to tank car coating/lining qualification intervals. LOI issued 3/2/2023. Tank car coating/lining inspection intervals may only exceed eight (8) years if the coating or lining owner can establish, document, and show that the service history or scientific analysis of the coating or lining and commodity pairing supports a longer inspection interval. The authorization in § 180.509(i)(2) to exceed an 8-year qualification interval is an alternate inspection and test procedure than what is specified by rule in § 180.509; therefore, subject to § 180.509(l) and approval by the Associate Administrator for Railroad Safety, FRA.

- 22-0087 – Request from Olin Corporation related to determining the responsible equipment owner for qualification and maintenance plans in several scenarios. Response in progress.
- NTSB Safety Recommendations
  - n/a
- Special Permits
  - n/a
- Special Topics
  - PHMSA has issued 3 Safety Advisories in response to the derailment and subsequent hazardous material release and fire in East Palestine, OH. The safety advisories have been provided to AAR TCC staff for inclusion in the background material and are available on PHMSA’s website
  - The first safety advisory addressed an early finding of the inspection of the derailment site. Specifically, the aluminum manway covers on several of the DOT-105 tank cars containing vinyl chloride were consumed or melted in the fire. The impact of the destruction of the covers and the presence of melted aluminum inside the protective housing will be a focus of the NTSB’s on-going investigation.
  - The second safety advisory addressed PHMSA’s expectation that rail carriers maintain emergency response plans for the hazardous materials they transport on their network.
  - The third safety advisory addressed the performance of DOT-111 tank cars in the derailment. Over half of the 16 DOT-111s involved in the fire and derailment released at least some of their contents, with 7 head or shell breaches. PHMSA strongly encourages shippers to stop offering flammable liquids in DOT-111 tank cars prior to the required phaseout date in 2029. PHMSA also acknowledges that rail carriers may decide to apply HHFT requirements to trains transporting flammable liquids in DOT-111 tank cars in configurations of fewer tank cars than the current regulatory definition (20 cars in a block, 35 cars throughout the consist)

D. Church provided an update for TSB:

- Since October 2022, TSB Canada has issued 5 investigation reports and 4 Safety advisories.
- In this same time period, 5 new investigations have been started, one of which (R22S0165, Macoun SK) potentially involves tank cars and hazardous materials.
- Investigation reports: R20H0130, R21C0070, R21M0027, R19T0191, R20W0102
- Rail Safety Advisories:
  - 04/22 - Procedures and guidelines relating to train operations.

- 01/23 - Ongoing failures of cartridge roller bearing assemblies on Ottawa Light Rail Transit vehicles.
- 02/23 - Deficient track conditions on Canadian Pacific Railway Company's Swift Current Subdivision
- 03/23 - Switching and car securement practices at Canadian Pacific Railway Company's Toronto Yard

**At the January 2023 meeting,**

P. Eamonn presented the following for PHMSA:

- Recently Published Final Rule + NPRM – HM-260B – Editorial corrections. Some minor revisions, including to 180.507.
- Rulemakings In-Progress-
  - HM-264A – Suspension of LNG by Rail Final Rule. The NPRM was published November 8, 2021, and the comment period is closed. The NPRM proposed to suspend the transportation of LNG in tank cars until completion of companion rulemaking HM-264B. We received over 7000 comments to the NPRM. Development of the final rule is underway.
  - HM-264B - Improving the Safety of Transporting Liquefied Natural Gas NPRM. This NPRM is under development with PHMSA and FRA staff. Both agencies are reviewing all available information and developing options for Departmental leadership review. All options are under consideration; however, we cannot discuss specifics at this time. A pre-publication version of the National Academy of Sciences Transportation Research Board Phase II LNG study is available online now, and PHMSA and FRA are reviewing. We anticipate the final corrected report to be ready this fall.
  - HM-263 – Real Time Train Consist- The 2021 Infrastructure Investment and Jobs Act that PHMSA implement a rulemaking to require that railroads provide electronic train consist information to authorized State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to, or investigation of, an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials. The Act requires that PHMSA issue a regulation to accomplish this by December 5, 2022. Work on a notice of proposed rulemaking is underway, and we plan to publish a NPRM early this year.
  - HM-265 – Advancing Safety of Modal Specific Provisions NPRM. The NPRM will address several rail-specific issues, including the RSAC recommendations. I cannot discuss the specifics of the content of the NPRM at this time. If all goes as planned, the NPRM will hopefully publish in mid-2023.
  - HM-233G – Continuing Special Permits Conversion NPRM. This NPRM will include tank car special permits. I cannot discuss the specifics of the content of

the NPRM at this time. If all goes as planned, the NPRM will publish in the Winter of 2023.

- Letters of Interpretation
  - 22-0094 – Request from AllTranstek related to structural inspection of tank cars when obstructed by heater coils. Response in progress, nearing completion.
  - 22-0087 – Request from Olin Corporation related to determining the responsible equipment owner for qualification and maintenance plans in several scenarios. Response in progress.
  - 22-0134 – New request from SMBC related to tank car coating/lining qualification intervals.
  - 22-0138 – New request from AllTranstek related to § 173.31 requirements to prevent shifting or coupling during loading/unloading.
- NTSB Safety Recommendations
  - n/a
- Special Permits
  - DOT-SP 21098 issued to Dow Chemical Company for manway gasket inspection via leak detection in lieu of visual inspection.
  - DOT-SP 21007 issued to Kraton Corporation for manway gasket inspection via leak detection in lieu of visual inspection.
- Special Topics
  - Related to special permits DOT-SP 21098 and DOT-SP 21007, PHMSA is developing a request for information for publication in the Federal Register on the topic of manway gasket inspection. When we publish this RFI, we will be seeking information related to manway gasket inspection, methods for leak detection designed for use in lieu of a visual inspection of the gasket, and health, safety, and economic implications of replacing the visual gasket inspection with an alternate method.
  - Update from Leonard Majors on TIH tank cars

L. Majors provided an update for PHMSA.

- Reported on TIH tank cars. There was a discussion on I cars on special permits to be converted to H cars, if changes were made to the permit what would the process need to be to ensure everything is updated properly. AAR would need to be contacted since this will affect stencil, Umler and TCID.

R. Keltz provided an update for FRA.

- 2022 OTMAs (Jan 1- Dec 31): Total = 5198, OTMA 1= 601; OTMA 2=73; OTMA 3= 4524. OTMA data is posted on the FRA HAZMAT web page. 2014 to November 2022.



- Hazardous Materials Incident Investigations (HMII): Open HMIIs- 99 and Closed HMII- 515. Top five tank car components for current open incidents: Top process valve (30), Manway (14), PRD (11), BOV (19), Vacuum valve (9), Tank Shell (8).
- Photos of situation at time of incident in FRA’s recommended format. Taken by ER, RR or any first responders that may be on-site.
- Tank Facility & Owner Audit Activities:
- 2022 audits (Jan 1- Dec 31)-
  - 104 facility audits by tank car team
  - At time of maintenance and qualification, tank car facilities still not obtaining proper owner approvals.
  - Field service work is being performed for the “shipper” and not the equipment owner.
  - Facilities not following shop procedures, owner instructions, design details, etc.
  - Owners not ensuring maintenance and qualification conforms to their program 180.509(a).
- 2022 audits (Jan 1- Dec 31)
  - 3 owners audits by tank car team. Program should work towards the elimination of NARS. Service Reliability Analysis (SRA) to support qualification intervals.
  - 2023 TCT will increase focus on tank car owner audits.
- RWD
  - Monitoring is still active for 2015 McKenzie valves.
  - Monitoring is still active for ARI/ACF sump/outlet saddle welds. AAR MA reporting.
- Tank Car Safety Issues
  - FRA Tank Car Compliance programs
  - Program= 29
  - Total car count = 6650
- Other Activities:
  - Working with FRA RPD on two projects.
  - Stubsill shear performance in derailments.
  - Tank cars impacted by sharp objects in derailments.
- HAZMAT Research Update
  - Railroad Tank Car Nondestructive Methods Evaluation
    - Final reports under FRA’s review. TC will continue work in cooperation with FRA.
  - Tank Car Environment Study
    - Tank car is at TTC, and ENSCO will download the data and review it.
  - Full scale crash test of tank cars
    - Published the research report on the side impact test of the DOT113C120W9

- <https://railroads.dot.gov/elibrary/full-scale-shell-impact-test-dot-113c120w9-tank-car-filled-liquid-nitrogen>
- ENSCO is repairing the RAM car, because it was damaged with the liquid nitrogen and have some cracks.
- ENSCO will cut some rings from the DOT 113C120W9, so Sharma can perform some pendulum impact testing on parent and closure welds to compare the performance of those welds.
- Full-scale fire test on an UN-T75 ISO tank (LNG service)
  - Research Results Report under review. Working on the finite element model.
- Risk Analysis and Mitigation for Hazardous Material Unit Trains.
  - Reports are under FRA's review and expect to publish them in May.
- Pendulum Based Puncture Testing of Tanks and Tank Welds
  - Sharma is building the Pendulum Impact Machine to conduct impacts on the closure and parent welds of the DOT 113 tank car.

#### **January 2023 update,**

N. Roy provided an update for TC.

- CGSB-43.147
  - technical committee approved the draft.
  - will be published soon.
  - working on a regulatory amendment to adopt into TDG Regulations and replace TP14877.
- Part 12 (Air) and International Harmonization Update to TDG Regulations
  - published in Canada Gazette Part I for a 75-day consultation:  
<https://www.gazette.gc.ca/rp-pr/p1/2022/2022-11-26/html/reg3-eng.html>
  - proposes expanding the reciprocity provisions with 49CFR
  - add "non-odorized" marking for non-odorized LPG
  - text on placards
  - adopt CGSB-43.150 (small packaging), CGSB-43.145 (large packaging) and CGSB-43.125 (infectious substances) standards.
- Bill C-33
  - Minister of Transport tabled bill in Parliament to amend Transport Canada legislation, including the TDG Act: [C-33 \(44-1\) - LEGIS info - Parliament of Canada](#)
  - currently at "First Reading" in the House of Commons
  - would add Administrative Monetary Penalties as an enforcement option for TDG contraventions.
  - would strengthen the facility registration program by adding a foundation for it in the TDG Act
- Transport Canada review of ammonium nitrate regulations
  - review published: [A review of ammonium nitrate regulations and best practices in Canada](#)

**At the October 2022 meeting,**

R. Keltz provided an update for FRA.

- FRA Realignment – Hazmat Division into office of RR Infrastructure and Mechanical
- 2022 OTMAs (Jan 1- September 30): Total = 4012, OTMA 1= 466; OTMA 2=51; OTMA 3= 3495. OTMA data is posted on the FRA HAZMAT web page.
- Hazardous Materials Incident Investigations (HMII): Open HMIIs- 145 and Closed HMII- 421. Top five tank car components for current open incidents: Top process valve (30), Manway (18), PRD (23)\* one incident (44), BOV (30), Vacuum valve (11), Tank Shell (5).
- Photos of situation at time of incident in FRA’s recommended format. Taken by ER, RR or any first responders that may be on-site.
- Tank Facility & Owner Audit Activities:
- 2022 audits (Jan 1- September 30)-
  - 85 facility audits by tank car team
  - At time of maintenance and qualification, tank car facilities still not obtaining proper owner approvals.
  - Field service work is being performed for the “shipper” and not the equipment owner.
  - Facilities not following shop procedures, owner instructions, design details, etc.
  - Owners not ensuring maintenance and qualification conforms to their program 180.509(a).
- 2022 audits (Jan 1- September 30)
  - 2 owners audits by tank car team. Program should work towards the elimination of NARS. Service Reliability Analysis (SRA) to support qualification intervals.
- RWD
  - Monitoring is still active for 2015 McKenzie valves.
  - Monitoring is still active for ARI/ACF built tank cars with cast sump/skid, outlet saddle welds. AAR MA reporting.
- Trinity Stub Sill (other than Type 24) weld toe cracking at termination inboard of body bolster.
- Other Activities:
  - Working with FRA RPD on two projects.
  - Stubsill shear performance in derailments.
  - Tank cars impacted by sharp objects in derailments.
- LPG offerors utilize the winter loading exceptions in 173.314 Notes 9 &10, the notification is not listed on the Waybill only on the BOL.

M. Dougherty provided an update for NTSB

- The investigation into the performance of the DOT-117J tank cars involved in the January 8<sup>th</sup> Oklaunion derailment continues with final report expected to be released

after the new year. The docket and factual reports were released to the public on September 2<sup>nd</sup> via NTSB website.

- **Derailment Summary**
- On January 8, 2022, the derailment of 37 tank cars transporting denatured ethanol in a high hazard flammable train (HHFT) in Oklaunion, Wilbarger County, Texas, resulted in the release of about 601,819 gallons of hazardous material from 28 of the tank cars and a post-derailment fire. This investigation was focused on the performance of the DOT-117J tank cars involved in the derailment. The NTSB launched investigators to conduct on-scene tank car inspections that were completed on January 28, 2022, details of which are found in the docket for this investigation. Following the on-scene wreckage examinations, the NTSB Materials Laboratory examined tank car components that included a section of underframe assembly, shell plate material, and gasket materials.
- The heads and shells of 7 of the 37 derailed tank cars were mechanically breached releasing about 179,885 gallons. Mechanical damage to valves and fittings on 3 additional tank cars released about 68,459 gallons of ethanol. About **353,475** gallons of ethanol released from **thermally damaged** top and bottom fittings of **18** other derailed tank cars that were not otherwise mechanically breached.
- Additional information can be found on the NTSB website.

#### L. Majors provided an update for PHMSA

- Recently Published Final Rule + NPRM – n/a
- **Rulemakings In-Progress**
  - HM-264A- Suspension of LNG by Rail Final Rule. The NPRM was published November 8, 2021, and the comment period is closed. The NPRM proposed to suspend the transportation of LNG in tank cars until completion of companion rulemaking HM-264B. Received over 7000 comments to the NPRM. Development of the final rule is underway.
  - HM-264B- Improving the Safety of Transporting Liquefied Natural Gas NPRM. This NPRM is under development with PHMSA and FRA staff. Both agencies are reviewing all available information and developing options for Departmental leadership review. All options are under consideration. A pre-publication version of the National Academy of Sciences Transportation Research Board Phase II LNG study is available online now, and PHMSA and FRA are reviewing. Anticipating the final corrected report to be ready this fall.
  - HM-263- Real Time Train Consist. The 2021 Infrastructure Investment and Jobs Act that PHMSA implement a rulemaking to require that railroads provide electronic train consist information to authorized State and local first responders, emergency response officials, and law enforcement personnel that are involved in the response to, or investigation of, an accident, incident, or

public health or safety emergency involving the rail transportation of hazardous materials. The Act requires that PHMSA issue a regulation to accomplish this by December 5, 2022. Work on a notice of proposed rulemaking is underway, and a plan to publish a NPRM later this fall.

- HM-265- Advancing Safety of Modal Specific Provisions NPRM. The NPRM will address several rail-specific issues, including the RSAC recommendations. NPRM will publish in the Winter of late 2022 or early 2023.
- HM-233G- Continuing Special Permits Conversion NPRM. This NPRM will include tank car special permits. The NPRM will publish in the winter of 2022.
- **Letters of Interpretation**
  - 22-0082 – Issued 9/23/2022-This LOI confirms that tank car facilities may store, and use required documents, including quality assurance program policies and procedures, AAR approvals, tank car owner’s acceptance criteria, and engineering drawings, in an electronic format.
  - 22-0094 – New request from AllTranstek related to structural inspection of tank cars when obstructed by heater coils.
  - 22-0087 – New request from Olin Corporation related to determining the responsible equipment owner for qualification and maintenance plans in several scenarios.
- **Special Permits**
  - DOT-SP 21098 issued to Dow Chemical Company for manway gasket inspection via leak detection in lieu of visual inspection.
  - DOT-SP 21007 issued to Kraton Corporation for manway gasket inspection via leak detection in lieu of visual inspection.

- **Request of Information**

Related to the special permits just discussed, PHMSA is developing a request for information for publication in the Federal Register on the topic of manway gasket inspection. When publishing this RFI, PHMSA will be seeking information related to manway gasket inspection, methods for leak detection designed for use in lieu of a visual inspection of the gasket, and health, safety, and economic implications of replacing the visual gasket inspection with an alternate method.

### **October 2022 update,**

N. Roy provided an update for Transport Canada via email.

- The development of standard CGSB 43.147 (eventual successor to current TP14877) is progressing. A public review period for the draft copy of the standard was held from June 7, 2022, to August 7, 2022. Comments were received and reviewed by Transport Canada, the CGSB and the committee chair. Updated copy of the draft to be distributed to the committee shortly for review & comments.
- Transport Canada has developed a guide for reporting dangerous goods incidents. It is available on the Transport Canada website. Guide is for reference only, has no legal force or effect, but can assist individuals or entities in familiarizing themselves with the

reporting requirements for dangerous goods incidents.

- As a result of audits conducted of Transport Canada's Transportation of Dangerous Goods program and associated findings, TC is currently proposing the implementation of new requirements that would:
  - require that persons who import, offer for transport, handle or transport dangerous goods be registered in a new registration database; and
  - require that all registered persons provide administrative information and information concerning the dangerous goods and operations being conducted at the respective sites.
- These changes being proposed as a result of audit findings. This proposal for new requirements was in Canada Gazette 1 as of June 25, 2022. The comment period has now closed. Further information can be found on Transport Canada's website.

P. Eamonn to provide an update for PHMSA on the following:

- Rulemakings
  - HM-264A LNG by Rail Suspension
  - HM-264B Safety Improvements for LNG by Rail
  - HM-265 Modal Rule
  - HM-233G Special Permits Conversion
  - HM-263 Real Time Train Consist
- Interpretations
  - 22-0082 – Issued 9/23/2022
  - 22-0094 – New request from AllTranstek
  - 22-0087 – New request from Olin Corporation
- Special Permits
  - DOT-SP 21098 issued to Dow Chemical Company for manway gasket inspection via leak detection in lieu of visual inspection
  - DOT-SP 21007 issued to Kraton Corporation for manway gasket inspection via leak detection in lieu of visual inspection
- Federal Register Notices
  - Notice in development related to tank car manway gasket inspections

D. Church provided an update for TSB

- 1 April to 30 September 2022:
- Locomotive Voice and Video Regulations came into effect on 2 Sept 2022 in Canada
  - Primarily to support TSB investigations.
  - Cameras must provide unobstructed view of the instruments/controls and of the faces and upper bodies of operating employees.
  - Microphones must also provide clear recording of voices and aural warnings in the cab
  - TSB investigators will be requesting and reviewing LVVR data in future investigations
- 1 Investigation started: R22C0065 Bassano, AB – Main track derailment (unit grain train)

- 2 Safety communications released:
  - RSA 02/22 – Operational experience of RCLS employees
  - RSA 03/22 – Trespassing on CP Outremont spur
  - Recommendation R22-04 – Enhanced train control for key routes (R19W0002)
  - Recommendation R22-05 – Crew resource management training (R19W0002)
- 4 Investigations completed:
  - R19T0147 – Employee fatality
  - R21H0087 – Crossing collision
  - R19W0002 – Main-track collision and derailment – (2 TSB recommendations issued)
  - R19E0050 – St. Lazare, MB - Unit crude train derailment
    - 108 car key train derailed 37 DOT-117R tank cars at 49mph near St Lazare, MB
    - Ambient temperature = -16F (-27C)
    - 17 cars were breached
    - 5 cars lost their entire load
    - 12 cars lost part of their load
    - About 215 000 gallons of crude oil released (higher viscosity)
    - No fire, no injuries
    - Derailment caused by a broken joint bar
    - Speed of the train (49 mph) contributed to the number of cars derailed and to the overall severity of the derailment
    - Average outage = 11%; reduced risk of hydraulic burst of the shells
    - Most breaches were shell and head breaches
    - Some manways and/or top fittings breaches
    - No PRD or BOV breach
    - Several failures of the welds securing the tank car stub sill re-pads to the tank heads (no breach)
    - Investigation could not evaluate the thermal performance of the DOT-117R cars (no fire)
    - The overall performance of the DOT-117R tank cars was somewhat improved when compared to legacy Class 111 and CPC-1232 tank cars

## DOCKET T59 TANK CAR RESEARCH PROGRAM

**October 2023 update,**

- T. Treichel reported the following:

### RSI- AAR

| Project Title   | Abstract   | Sponsor(s) | Dockets | Contractor(s)   | Completion Target  | Status   |
|---|--|------------|---------|---|--|--|
| AFFTAC thermal model improvements   | A variety of upgrades being made to the model will improve its use as a research tool and a planning tool for future fire tests. | RSI-AAR    | T59     | Southern Rockies Consulting<br>(Dr. Scott Runnels)                            | New standard version released in December 2022.  | Contact Todd Treichel regarding the new software.  |
| Collection and analysis of tank car accident data<br><br>Conditional Probability of Release (CPR) study | Ongoing effort since the beginning of the RSI-AAR Tank Car Safety Project in 1970  | RSI-AAR    | T59     | Sims Professional Engineers<br><br>University of Illinois at Urbana-Champaign | Accident investigation and database population: n/a<br><br>Study: Completed; additional work in progress; publication to be determined | Sims collects data from many sources and creates and maintains a detailed record of the events and outcomes in accidents that damage tank cars. Assistance in Sims investigations is beneficial to tank car safety, and very much appreciated.<br><br>An updated study of conditional probabilities of release (CPR) of lading from tank cars, based on the accident data, has undergone additional work. Final report is under consideration by sponsors. |



**At the July 2023 meeting,**

- T. Treichel reported the following:

**RSI- AAR**

| <b>Project Title</b>  | <b>Abstract</b>  | <b>Sponsor(s)</b> | <b>Dockets</b> | <b>Contractor(s)</b>  | <b>Completion Target</b>   | <b>Status</b>  |
|---|--|-------------------|----------------|---|--|--|
| AFFTAC thermal model improvements   | A variety of upgrades being made to the model will improve its use as a research tool and a planning tool for future fire tests. | RSI-AAR           | T59            | Southern Rockies Consulting (Dr. Scott Runnels)                               | New standard version released in December 2022.  | Contact Todd Treichel regarding the new software.  |
| Collection and analysis of tank car accident data<br><br>Conditional Probability of Release (CPR) study | Ongoing effort since the beginning of the RSI-AAR Tank Car Safety Project in 1970  | RSI-AAR           | T59            | Sims Professional Engineers<br><br>University of Illinois at Urbana-Champaign | Accident investigation and database population: n/a<br><br>Study: Completed; additional work in progress; publication to be determined | Sims collects data from many sources and creates and maintains a detailed record of the events and outcomes in accidents that damage tank cars. Assistance in Sims investigations is beneficial to tank car safety, and very much appreciated.<br><br>An updated study of conditional probabilities of release (CPR) of lading from tank cars, based on the accident data, has undergone additional work. Final report is under consideration by sponsors. |

- F. Gonzalez provided an update and M. Carolan provided an update on stub sills.

### FRA Research Projects

| Project Title                                       | Abstract   | Sponsor(s) | Dockets                               | Contractor(s) | Completion Target  | Status  |
|---|--|------------|---------------------------------------|---------------|--|---|
| Railroad Tank Car Nondestructive Methods Evaluation | Evaluation and validation of nondestructive evaluation methods for use on tank cars and the quantification of the NDE process to improve the probability of defect detection.  | FRA        |                                       | AAR TTCI      | Finished. Final reports TC will continue work in cooperation with FRA                              | <p><b>Published:</b><br/> <a href="https://railroads.dot.gov/elibrary/nde-methods-corrosion-monitoring-railroad-tank-cars">https://railroads.dot.gov/elibrary/nde-methods-corrosion-monitoring-railroad-tank-cars</a></p> <p><b>And</b><br/> <a href="https://railroads.dot.gov/elibrary/feasibility-study-advanced-nondestructive-evaluation-nde-methods-characterize-weld-defects">https://railroads.dot.gov/elibrary/feasibility-study-advanced-nondestructive-evaluation-nde-methods-characterize-weld-defects</a></p>  |
| Tank Car Environment Study                          | The main goal of this project is to have the instrumented tank car couple with the FRA's T16 high-speed research vehicle and record the track geometry and train handling along with the trainloads to have a complete picture of the environment. | FRA        | (Note: Results to be shared with TCC) | ENSCO         | ONGOING<br>Over the road testing finished and preparing for next Phase. Final report under review. | <p><b>Ongoing Phase II ongoing. Published report on yard switching.</b><br/> <a href="https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard">https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard</a></p> <p><b>NEW:</b><br/> <a href="https://railroads.fra.dot.gov/elibrary/comparison-measured-and-simulated-longitudinal-coupler-force-tank-cars">https://railroads.fra.dot.gov/elibrary/comparison-measured-and-simulated-longitudinal-coupler-force-tank-cars</a></p> <p><b>NEW</b><br/> <a href="https://railroads.dot.gov/elibrary/low-cost-coupler-force-calculation-impact-testing">https://railroads.dot.gov/elibrary/low-cost-coupler-force-calculation-impact-testing</a></p> |

| Project Title   | Abstract   | Sponsor(s)  | Dockets | Contractor(s)             | Completion Target   | Status   |
|---|--|-------------|---------|---------------------------|---|--|
| Full scale Crash test of tank cars                      | Conduct four tank car crash tests in a period of two years. The specimens will be four different specification tank cars | FRA         |         | TTC, VOLPE<br>ENSCO       | December 2023   | Final report under review. Preparing for a side impact test (DOT 112) Published research results:<br><br><a href="https://railroads.dot.gov/eLibrary/full-scale-shell-impact-test-dot-113c120w9-tank-car-filled-liquid-nitrogen">https://railroads.dot.gov/eLibrary/full-scale-shell-impact-test-dot-113c120w9-tank-car-filled-liquid-nitrogen</a><br><br>Published a summary report on tests and Analyses of 2007–2019.<br><br>Review of Tank Car Side Impact Test REsearch and Analyses of 2007-2019 |
| Full-scale fire test on a UN-T75 ISO tank (LNG service) | Obtain experimental data in a full-scale fire test. Provide a realistic fire exposure to the tank and flatcar.           | FRA         |         | SwRI, Sharma & Associates | <b>December 2023</b>  | Test performed at SwRI in June 2022. Analyzing the data Published Research Results:<br><br><a href="https://railroads.dot.gov/eLibrary/fire-test-un-t75-portable-tank-flat-car-phase-ii">https://railroads.dot.gov/eLibrary/fire-test-un-t75-portable-tank-flat-car-phase-ii</a>   |
| LNG Tender Railroad Crossing Accident Scenario Test.    | Perform a full-scale test on a LNG tender in accordance with AAR M1004   | FRA, PHMSA, |         | TWA, SWrI, S&A, TTC,      | <b>Finished. Final report under review with FRA and Volpe</b> | Test conducted September 2021. Research Results and video published. Working on Final report<br><br><a href="https://railroads.dot.gov/eLibrary/highway-rail-grade-crossing-">https://railroads.dot.gov/eLibrary/highway-rail-grade-crossing-</a>  |

| Project Title   | Abstract  | Sponsor(s) | Dockets | Contractor(s)                                   | Completion Target           | Status   |
|---|---|------------|---------|---|-----------------------------|--|
|   |   |            |         |   |                             | <a href="#">collision-test-fuel-tender</a>   |
| Risk Analysis and Mitigation for Hazardous Material Unit Trains. 2018 Broad Agency Announcement.  | Risk analysis on unit trains carrying hazardous materials, and also on mix trains carrying HM.  | FRA        |         | 1.-Rutgers University<br>2.- Thornton Tomasetti | <b><u>May 2022</u></b>      | Currently underway. Reviewing Final report.  |
| Improving Crash Energy Management (CEM) of Tank Cars  | The main objective of the proposed effort is to identify and investigate the most promising mitigation concepts for tank cars, aimed at improving their puncture resistance.  | FRA        |         | Thornton Tomasetti, ArcelorMittal               | <b><u>December 2022</u></b> | Currently underway. Reviewing Phase I.   |
| Improved models for estimating tank car fire performance  | This research effort proposes to develop a higher fidelity, multi-zone, approach for modeling the thermal performance of tank cars (pressure vessels) under fire conditions that incorporates several critical, physical, and safety relevant phenomena such<br>The methodology developed through this project will be validated against available test data (from the several fire tests conducted by FRA), as well as other available test and simulation data. | FRA        |         | Sharma and Associate                            | <b><u>December 2023</u></b> | Working on Phase I   |
| Pendulum Based Puncture Testing of Tanks and Tank Welds   | Evaluating weld performance when the point of impact is on the weld seam<br>Evaluating puncture performance under cold weather conditions   | FRA Volpe  |         | Sharma & Associates                             | <b><u>December 2023</u></b> | Conducted scale testing with built specimens. Cutting some coupons from DOT 1113 for testing in October. |
| Improving Thermal Protection of Cryogenic Tank Cars through Testing, Analysis, and Evaluation of Pressure Relief Valve System Performance | This research will characterize the performance of PRV systems in crash and fire scenarios and support the development of testing and/or design requirements that will increase the safety of cryogenic tanks.  | FRA TC     |         | Friedman Research, SwRI, CVA                    | <b><u>December 2023</u></b> | Reviewing Draft Report   |

**July 2023 update,**

- R. Domaratzki provided the following update:

**Transport Canada – Research update – July 2023**

Contact for information or a report copy: France Bernier: (343) 542- 5124 [france.bernier@tc.gc.ca](mailto:france.bernier@tc.gc.ca)

Barbara Di Bacco : (613) 296-8731 [barbara.dibacco@tc.gc.ca](mailto:barbara.dibacco@tc.gc.ca), Amy Park: (613) 302-4565

[amy.park@tc.gc.ca](mailto:amy.park@tc.gc.ca)

Search for research publications here: <https://tc.canada.ca/en/dangerous-goods/publications>

| Project Title   | Abstract  | Sponsor                  | Contractor          | Target end date   | Status   |
|---|---|--------------------------|---------------------|---|--|
| <b>Performance of TC-117 Tank Cars under Derailment Conditions</b>                            | Develop and use train derailment simulation software to assess the differences in puncture resistance of TC-117J and TC-117R tank cars in derailment conditions.  | TC (in collab. with FRA) | Sharma & Associates | Published Winter 2023<br>Annex report March 2023                  | Modelling combined previous tank car shell and top fittings investigations in the same derailment simulations. Both 117J and 117R (from a variety of source tank cars) tank cars were assessed in term of puncture resistance and top fittings protection at a variety of speeds and ambient temperatures. Abstract is available online: <a href="https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_03_02_2023">https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_03_02_2023</a> Additional mixed consist scenarios have been run, report has been finalized, and results will be published in an annex to the main report in Summer 2023. |
| <b>Development of Rail Tank Car Test Plates for Non-Destructive Testing (NDT) Assessments</b> | TC and the US DOT FRA are developing replacements for the test plates and master gauge panels currently in the defect library used for rail tank car NDT method assessment, training, and probability of detection (POD) studies. | TC (in collab. with FRA) | NRC                 | Phase 1: Complete<br>Phase 2: Spring 2024<br>Phase 3: Winter 2025 | In Phase 1 we sourced TC128B panels for butt welded test plate production and performed structural analyses to design test fixtures for holding test plates in place while inducing defects. In Phase 2, we will use fracture mechanics analysis to determine defect locations and sizes and develop the procedure to create them. In Phase 3, we will create the test plates and develop a final report and inventory of defects. TC is looking for industry partners to contribute to Phases 2 and 3. Please contact <a href="mailto:Rachel.Domaratzki@tc.gc.ca">Rachel.Domaratzki@tc.gc.ca</a> with questions or interest in supporting this project.   |

| Project Title   | Abstract  | Sponsor                     | Contractor                          | Target end date  | Status   |
|---|---|-----------------------------|-------------------------------------|--|--|
| <b>Modelling of a Cryogenic UN Portable Tank during Fire Testing</b>          | Develop a model of an UN portable tank containing a cryogenic liquid, exposed to fire. The tank geometry will be incorporated into numerical simulation software capable of modelling chemical reactions, thermal loading and two-phase equation of state. Model will be validated using data from the FRA's full scale UN portable tank fires. | TC<br>(in collab. with FRA) | Friedman Research Corporation (FRC) | Phase 1: Completed March 2018<br>Phase 2: May 2023         | Phase 1 of the project included data analysis from the FRA's UN portable tank fire LN2 test, and proof of concept of a model to reproduce the tank, flat car and lading during the fire test conditions. Phase 2 has been completed and included model refinement to incorporate liquefied natural gas, simulating the effects of PRD exhaust and using the refined model to predict effects of various prolonged fire accident conditions and rollover conditions. Final report will be published in Summer 2023. |
| <b>Modelling of In-train Forces in DG Trains</b>                              | Computer simulations of DG-carrying train configurations (DG cars and buffer cars), track configurations, and operating scenarios to determine their effect on in-train forces and derailment risk of DG-carrying trains.   | TC                          | NRC                                 | Final updated report March 2023<br>Publication Summer 2023 | Work included modelling planned scenarios, assessing effects of varying train configurations (including buffer car location), track configurations, and operating scenarios on in-train forces, and reporting on the results. Peer review of final report identified several areas for clarification. Limited additional modelling has been performed and the updated final report will be published in Summer 2023.   |
| <b>Liquified Hydrogen Transport by Rail: Regulations and Standards Review</b> | A review of current regulations and standards that cover the transport of LH2 and NH3 by rail in Canada to identify any safety concerns or knowledge gaps about transporting large quantities of these products.  | TC                          | NRC                                 | Final report August 2023                                   | Work was undertaken to summarize current Canadian regulations and standards, and review regulations in international jurisdictions, for transport of cryogenic liquid hydrogen by rail. As it is a potential hydrogen carrier, the current Canadian regulations and standards for rail transport of anhydrous ammonia were also reviewed in the context of increased rail transport volumes. Gaps will be assessed for future TC research needs..  |
| <b>Hard Coupling Modelling</b>  | An assessment of the effectiveness of the dangerous goods cars coupling rules outlined in Section 10.7 of the <i>Transportation of Dangerous Goods Regulations (TDGR)</i> .   | TC                          | US DOT Volpe Center                 | Final report Spring 2025                                   | Previous FEA modelling showed no sign that a single hard coupling event at 6/10 mph would result in noticeable damage to an undamaged tank car at 25 -40°C. Volpe will perform additional modelling to investigate the effect of factors like prior damage, coupler mismatch, and draft gear performance on outcomes.  |

| <b>Project Title</b>   | <b>Abstract</b>  | <b>Sponsor</b>                           | <b>Contractor</b>                   | <b>Target end date</b>                                       | <b>Status</b>  |
|--|--|--|-------------------------------------|--|--|
| <b>Review of Non-pressurized Tank Car Weld Performance in Incidents</b>  | TC is conducting a review assessing the potential effect of cold temperatures as it relates to rail tank car weld performance in derailments and similar impact events.  | TC                                       | NRC                                 | Preliminary review March 2023<br>Final report September 2023 | The preliminary case review included a search of derailment and impact events involving rail tank cars carrying dangerous goods from available incident databases in the USA and Canada over the last 20 years. The final report will highlight a selection of relevant events (weld damage, temperature, tank car type, damage location, event type, etc.) from the preliminary review. |
| <b>Validation of recommended emergency actions for liquefied natural gas (LNG) in the Emergency Response Guidebook (ERG)</b>                           | The objective of this project is to validate the recommended emergency actions for LNG in the ERG.   | TC                                       | Fire Protection Research Foundation | Report February 2023   | The final report has been received. Recommendations based on the research results have been shared with ERG partners (including U.S. DOT PHMSA and Mexico's SCT).  |
| <b>Validation of new United Nations (UN) requirements for fibre-reinforced plastic (FRP) portable tanks, to consider for adoption in North America</b> | The objective of this project to validate and/or establish safety requirements and safety standards for FRP portable tanks, including confirming minimum design criteria, validating mechanical models, confirming acceptability of various dangerous goods in FRP portable tanks, and confirming periodic inspection and test requirements. | TC (in coordination with U.S. DOT PHMSA) | TBC                                 | TBD  | TC TDG is starting with research on material/chemical compatibility of dangerous goods to be transported in FRP portable tanks – the statement of work has been finalised, and it is anticipated that this work will kick off by Fall2023. U.S. DOT PHMSA (with the Volpe Center) is leading research on other aspects. TC TDG and U.S. DOT PHMSA are coordinating research efforts.     |
| <b>Damage assessment criteria for general-service tank cars</b>  | The objective of this project is to develop documented guidance/best practices on damage assessment of general-service (non-pressure) tank cars, which may aid TC TDG Remedial Measures Specialists (RMSs) and others in their decision-making at incident sites.  | TC                                       | TBC                                 | TBD  | The scope of work is being discussed with AAR's Hazardous Materials Committee.   |

**At the April 2023 meeting,**

- T. Treichel went over the update provided below.
- R. Domaratzki went over the update provided and talked about the work being done to prepare a new set of test plates for a defect library.
- F. Gonzalez provided an update and M. Carolan provided an update on stub sills.

### FRA Research Projects

| Project Title                                       | Abstract   | Sponsor(s) | Dockets                               | Contractor(s) | Completion Target   | Status   |
|---|--|------------|---------------------------------------|---------------|---|--|
| Railroad Tank Car Nondestructive Methods Evaluation | Evaluation and validation of nondestructive evaluation methods for use on tank cars and the quantification of the NDE process to improve the probability of defect detection.  | FRA        |                                       | AAR TTCI      | Finished. Final reports TC will continue work in cooperation with FRA   | <b>Published:</b><br><a href="https://railroads.dot.gov/elibrary/nde-methods-corrosion-monitoring-railroad-tank-cars">https://railroads.dot.gov/elibrary/nde-methods-corrosion-monitoring-railroad-tank-cars</a><br><b>And</b><br><a href="https://railroads.dot.gov/elibrary/feasibility-study-advanced-nondestructive-evaluation-nde-methods-characterize-weld-defects">https://railroads.dot.gov/elibrary/feasibility-study-advanced-nondestructive-evaluation-nde-methods-characterize-weld-defects</a>  |
| Tank Car Environment Study                          | The main goal of this project is to have the instrumented tank car couple with the FRA's T16 high-speed research vehicle and record the track geometry and train handling along with the trainloads to have a complete picture of the environment. | FRA        | (Note: Results to be shared with TCC) | ENSCO         | ONGOING<br>Over the road testing finished and preparing for next Phase. | <b>Ongoing Phase II ongoing. Published report on yard switching</b><br><a href="https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard">https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard</a><br><b>NEW:</b><br><a href="https://railroads.fra.dot.gov/elibrary/comparison-measured-and-simulated-longitudinal-">https://railroads.fra.dot.gov/elibrary/comparison-measured-and-simulated-longitudinal-</a> |



| Project Title   | Abstract   | Sponsor(s) | Dockets | Contractor(s)             | Completion Target           | Status   |
|---|--|------------|---------|---------------------------|-----------------------------|--|
|   |  |            |         |                           |                             | <a href="https://railroads.dot.gov/elibrary/low-cost-coupler-force-calculation-impact-testing">coupler-force-tank-cars</a><br><b>NEW</b><br><a href="https://railroads.dot.gov/elibrary/low-cost-coupler-force-calculation-impact-testing">https://railroads.dot.gov/elibrary/low-cost-coupler-force-calculation-impact-testing</a>  |
| Full scale Crash test of tank cars                      | Conduct four tank car crash tests in a period of two years. The specimens will be four different specification tank cars | FRA        |         | TTC, VOLPE ENSCO          | December 2023               | <p>Conducted a side impact test on a DOT113C120W9 filled with Liquid Nitrogen<br/> May 14,2022<br/> Published research results:<br/> <a href="https://railroads.dot.gov/elibrary/full-scale-shell-impact-test-dot-113c120w9-tank-car-filled-liquid-nitrogen">https://railroads.dot.gov/elibrary/full-scale-shell-impact-test-dot-113c120w9-tank-car-filled-liquid-nitrogen</a></p> <p>Published a summary report on tests and Analyses of 2007–2019.</p> <p><a href="#">Review of Tank Car Side Impact Test REsearch and Analyses of 2007-2019</a></p> |
| Full-scale fire test on a UN-T75 ISO tank (LNG service) | Obtain experimental data in a full-scale fire test. Provide a realistic fire exposure to the tank and flatcar.           | FRA        |         | SwRI, Sharma & Associates | <b><u>December 2023</u></b> | <p><b>Test performed at SwRI in June 2022.</b><br/> <b>Analyzing the data</b><br/> <b>Published</b><br/> <b>Research Results:</b><br/> <a href="https://railroads.dot.gov/elibrary/fire-test-un-t75-portable-tank-flat-car-phase-ii">https://railroads.dot.gov/elibrary/fire-test-un-t75-portable-tank-flat-car-phase-ii</a></p>   |

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|--|--|-------------------|----------------|---|---|--|
| LNG Tender Railroad Crossing Accident Scenario Test.   | Perform a full-scale test on a LNG tender in accordance with AAR M1004   | FRA, PHMSA,       |                | TWA, SWrI, S&A, TTC,                            | <b><u>Finished.</u></b><br><b><u>Final report under review with FRA and Volpe</u></b> | Test conducted September 2021. Research Results and video published Working on Final report<br><br><a href="https://railroads.dot.gov/eLibrary/highway-rail-grade-crossing-collision-test-fuel-tender">https://railroads.dot.gov/eLibrary/highway-rail-grade-crossing-collision-test-fuel-tender</a> |
| Risk Analysis and Mitigation for Hazardous Material Unit Trains. 2018 Broad Agency Announcement. | Risk analysis on unit trains carrying hazardous materials, and also on mix trains carrying HM.   | FRA               |                | 1.-Rutgers University<br>2.- Thornton Tomasetti | <b><u>May 2022</u></b>  | Currently underway. Reviewing Final report.  |
| Improving Crash Energy Management (CEM) of Tank Cars   | The main objective of the proposed effort is to identify and investigate the most promising mitigation concepts for tank cars, aimed at improving their puncture resistance.   | FRA               |                | Thornton Tomasetti, ArcelorMittal               | <b><u>December 2022</u></b>   | Currently underway. Reviewing Phase I.   |
| NEW; Rail Tank Thermal Protection Analysis   | The objective of the proposed work is to evaluate the heat transfer from a fire to the rail car content to understand the effectiveness of the proposed fire response from the local fire department. The results of this study will allow first responders to understand cooling time, and better define strategies for defensive or offensive response               | FRA               |                | ESI   | <b><u>December 2022</u></b>   | Reviewing Phase I  |
| Improved models for estimating tank car fire performance   | This research effort proposes to develop a higher fidelity, multi-zone, approach for modeling the thermal performance of tank cars (pressure vessels) under fire conditions that incorporates several critical, physical, and safety relevant phenomena such<br>The methodology developed through this project will be validated against available test data (from the | FRA               |                | Sharma and Associate                            | <b><u>December 2023</u></b>   | Working on Phase I   |

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|---|--|-------------------|----------------|------------------------------|--------------------------|--------------------------------------|
|   | several fire tests conducted by FRA), as well as other available test and simulation data.   |                   |                |                              |                          |                                      |
| Pendulum Based Puncture Testing of Tanks and Tank Welds   | Evaluating weld performance when the point of impact is on the weld seam<br>Evaluating puncture performance under cold weather conditions  | FRA Volpe         |                | Sharma & Associates          | <u>December 2023</u>     | <b>Building the Pendulum Concept</b> |
| Improving Thermal Protection of Cryogenic Tank Cars through Testing, Analysis, and Evaluation of Pressure Relief Valve System Performance | This research will characterize the performance of PRV systems in crash and fire scenarios and support the development of testing and/or design requirements that will increase the safety of cryogenic tanks. | FRA TC            |                | Friedman Research, SwRI, CVA | <u>December 2023</u>     | <b>Reviewing Draft Report</b>        |

**April 2023 update,**

- T. Treichel reported the following:

**RSI- AAR**

| <b>Project Title</b>  | <b>Abstract</b>  | <b>Sponsor(s)</b> | <b>Dockets</b> | <b>Contractor(s)</b>  | <b>Completion Target</b>   | <b>Status</b>  |
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| AFFTAC thermal model improvements   | A variety of upgrades being made to the model will improve its use as a research tool and a planning tool for future fire tests. | RSI-AAR           | T59            | Southern Rockies Consulting (Dr. Scott Runnels)                               | New standard version released.   | Contact Todd Treichel regarding the new software.  |
| Collection and analysis of tank car accident data<br><br>Conditional Probability of Release (CPR) study | Ongoing effort since the beginning of the RSI-AAR Tank Car Safety Project in 1970  | RSI-AAR           | T59            | Sims Professional Engineers<br><br>University of Illinois at Urbana-Champaign | Accident investigation and database population: n/a<br><br>Study: Completed; additional work in progress; publication to be determined | Sims collects data from many sources and creates and maintains a detailed record of the events and outcomes in accidents that damage tank cars. Assistance in Sims investigations is beneficial to tank car safety, and very much appreciated.<br><br>An updated study of conditional probabilities of release (CPR) of lading from tank cars, based on the accident data, has undergone additional work. Final report is under consideration by sponsors. |

- R. Domaratzki reported the following:

- Completed work:

- Performance of TC-117 Tank Cars under Derailment Conditions – annex report on severe mixed consist modelling finalized, publication below will be updated with results
- Modelling of In-train Forces in DG Trains – updated report has been finalized, publication to follow
- Validation of recommended emergency actions for liquefied natural gas (LNG) in the Emergency Response Guidebook (ERG) - final report has been received, recommendations based on the research results have been shared with ERG partners

- Recent publications:
  - Performance of TC-117 Tank Cars under Derailment Conditions – [https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract\\_03\\_02\\_2023](https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_03_02_2023)
- New projects initiated:
  - Hard Coupling Modelling – partnering with US DOT Volpe Center to investigate the effect of factors like prior damage, coupler mismatch, and draft gear performance on over speed coupling outcomes

### Transport Canada – Research update – April 2023

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| Project Title   | Abstract  | Sponsor                  | Contractor          | Target end date   | Status   |
|---|---|--------------------------|---------------------|---|--|
| <b>Performance of TC-117 Tank Cars under Derailment Conditions</b>                            | Develop and use train derailment simulation software to assess the differences in puncture resistance of TC-117J and TC-117R tank cars in derailment conditions.  | TC (in collab. with FRA) | Sharma & Associates | Published<br>Winter 2023<br>Annex report<br>March 2023          | Modelling combined previous tank car shell and top fittings investigations in the same derailment simulations. Both 117J and 117R (from a variety of source tank cars) tank cars were assessed in term of puncture resistance and top fittings protection at a variety of speeds and ambient temperatures. Abstract is available online: <a href="https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_03_02_2023">https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_03_02_2023</a><br>Additional mixed consist of scenarios have been run, final report is being finalized, and results will be published in an annex to the main report in Spring 2023. |
| <b>Development of Rail Tank Car Test Plates for Non-Destructive Testing (NDT) Assessments</b> | TC and the US DOT FRA are developing replacements for the test plates and master gauge panels currently in the defect library used for rail tank car NDT method assessment, training, and probability of detection (POD) studies. | TC (in collab. with FRA) | NRC                 | Phase 1: Complete<br>Phase 2: Spring 2024<br>Phase 3: Fall 2025 | In Phase 1 we sourced TC128B panels for butt welded test plate production and performed structural analyses to design test fixtures for holding test plates in place while inducing defects. In Phase 2, we will use fracture mechanics analysis to determine defect locations and sizes and develop the procedure to create them. In Phase 3, we will create the test plates and develop a final report and inventory of defects. TC has convened a group of technical experts from industry to support project work in Phase 2 and is looking for industry partners for  |

| Project Title   | Abstract   | Sponsor                     | Contractor                          | Target end date  | Status  |
|---|--|-----------------------------|-------------------------------------|--|---|
|   |  |                             |                                     |  | Phases 2 and 3. Please contact <a href="mailto:Rachel.Domaratzki@tc.gc.ca">Rachel.Domaratzki@tc.gc.ca</a> with questions or interest in participating.  |
| <b>Modelling of a Cryogenic UN Portable Tank during Fire Testing</b>          | Develop a model of an UN portable tank containing a cryogenic liquid, exposed to fire. The tank geometry will be incorporated into numerical simulation software capable of modelling chemical reactions, thermal loading, and two-phase equation of state. Model will be validated using data from the FRA's full scale UN portable tank fires. | TC<br>(in collab. with FRA) | Friedman Research Corporation (FRC) | Phase 1: Completed March 2018<br>Phase 2: May 2023         | Phase 1 of the project included data analysis from the FRA's UN portable tank fire LN2 test, and proof of concept of a model to reproduce the tank, flat car and lading during the fire test conditions. Phase 2 is underway and includes model refinement to incorporate liquefied natural gas, simulating the effects of PRD exhaust and using the refined model to predict effects of various prolonged fire accident conditions and rollover conditions. Second fire test and remaining validation tasks are complete, and final report will be published in Summer 2023. |
| <b>Modelling of In-train Forces in DG Trains</b>                              | Computer simulations of DG-carrying train configurations (DG cars and buffer cars), track configurations, and operating scenarios to determine their effect on in-train forces and derailment risk of DG-carrying trains.  | TC                          | NRC                                 | Final updated report March 2023<br>Publication Spring 2023 | Work included modelling planned scenarios, assessing effects of varying train configurations (including buffer car location), track configurations, and operating scenarios on in-train forces, and reporting on the results. Peer review of final report identified several areas for clarification. Limited additional modelling has been performed and the updated final report will be published in Spring 2023.  |
| <b>Liquified Hydrogen Transport by Rail: Regulations and Standards Review</b> | A review of current regulations and standards that cover the transport of LH2 and NH3 by rail in Canada to identify any safety concerns or knowledge gaps about transporting large quantities of these products.   | TC                          | NRC                                 | Final report May 2023                                      | Work is underway to summarize current Canadian regulations and standards, and review regulations in international jurisdictions, for transport of cryogenic liquid hydrogen by rail. As it is a potential hydrogen carrier, the current Canadian regulations, and standards for rail transport of anhydrous ammonia are also being reviewed in the context of increased rail transport volumes. Any gaps will be noted for further study. The draft report is under review, with publication in Summer 2023.  |
| <b>Hard Coupling Modelling</b>  | An assessment of the effectiveness of the dangerous  | TC                          | US DOT Volpe                        | Final report Spring 2025                                   | Previous FEA modelling showed no sign that a single hard coupling   |

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|  | goods cars coupling rules outlined in Section 10.7 of the <i>Transportation of Dangerous Goods Regulations (TDGR)</i> .  |  | Center                              |  | event at 6/10 mph would result in noticeable damage to an undamaged tank car at 25 -40°C. Volpe will perform additional modelling to investigate the effect of factors like prior damage, coupler mismatch, and draft gear performance on outcomes.  |
| <b>Review of Non-pressurized Tank Car Weld Performance in Incidents</b>  | TC is conducting a review assessing the potential effect of cold temperatures as it relates to rail tank car weld performance in derailments and similar impact events.  | TC                                       | NRC                                 | Preliminary review March 2023<br>Final report September 2023 | The preliminary case review included a search of derailment and impact events involving rail tank cars carrying dangerous goods from available incident databases in the USA and Canada over the last 20 years. The final report will highlight a selection of relevant events (weld damage, temperature, tank car type, damage location, event type, etc.) from the preliminary review. |
| <b>Validation of recommended emergency actions for liquefied natural gas (LNG) in the Emergency Response Guidebook (ERG)</b>                           | The objective of this project is to validate the recommended emergency actions for LNG in the ERG.   | TC                                       | Fire Protection Research Foundation | Report February 2023   | The final report has been received. Recommendations based on the research results have been shared with ERG partners (including U.S. DOT PHMSA and Mexico's SCT).  |
| <b>Validation of new United Nations (UN) requirements for fibre-reinforced plastic (FRP) portable tanks, to consider for adoption in North America</b> | The objective of this project to validate and/or establish safety requirements and safety standards for FRP portable tanks, including confirming minimum design criteria, validating mechanical models, confirming acceptability of various dangerous goods in FRP portable tanks, and confirming periodic inspection and test requirements. | TC (in coordination with U.S. DOT PHMSA) | TBC                                 | TBD  | TC TDG is starting with research on material/chemical compatibility of dangerous goods to be transported in FRP portable tanks – the statement of work is being finalised, and it is anticipated that this work will kick off in 2023. U.S. DOT PHMSA (with the Volpe Center) is leading research on other aspects. TC TDG and U.S. DOT PHMSA are coordinating research efforts.         |
| <b>Damage assessment criteria for general-service tank cars</b>  | The objective of this project is to develop documented guidance/best practices on damage assessment of general-service (non-pressure) tank cars, which may aid TC TDG Remedial Measures Specialists (RMSs) and others in their decision-making at incident sites.  | TC                                       | TBC                                 | TBD  | The scope of work is being developed.  |

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**RSI- AAR**

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At the January 2023 meeting, the January update was presented.

**January 2023 update,**

- T. Treichel reported the following:

**RSI- AAR**

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- R. Domaratzki reported the following:
  - TC is actively looking for industry partners, who are interested in using a new test plate library for NDT assessments, to participate in the project on Development of Rail Tank Car Test Plates for Non-Destructive Testing (NDT) Assessments. The next phase of work with the NRC will start in Spring 2023, and planning is now underway. Please contact Rachel Domaratzki ([rachel.domaratzki@tc.gc.ca](mailto:rachel.domaratzki@tc.gc.ca)) with any questions.

- A new publication (Validation of Dangerous Goods Car Location in Train Literature Review) is available online: [https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract\\_11\\_02\\_2022](https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_11_02_2022)
- Thank you to everyone who participated in the survey on hard or overspeed coupling events. Analysis of responses is underway and will help guide TC's work in this area.
- Several new projects have been added to the update document:
  - Modelling of DG Tank Car Hard Coupling Events
  - Validation of Recommended Emergency Actions for Liquefied Natural Gas (LNG) in the Emergency Response Guidebook (ERG).
  - Validation of new United Nations (UN) Requirements for Fibre-Reinforced Plastic (FRP) Portable Tanks, to consider for Adoption in North America.
  - Damage Assessment Criteria for General-Service Tank Cars

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|---|---|--------------------------|---------------------|---|--|
| <b>Performance of TC-117 Tank Cars under Derailment Conditions</b>                            | Develop and use train derailment simulation software to assess the differences in puncture resistance of TC-117J and TC-117R tank cars in derailment conditions.  | TC (in collab. with FRA) | Sharma & Associates | Final report received, publication Winter 2023<br>Annex report March 2023 | Modelling combined previous tank car shell and top fittings investigations in the same derailment simulations. Both 117J and 117R (from a variety of source tank cars) tank cars were assessed in term of puncture resistance and top fittings protection at a variety of speeds and ambient temperatures. Unit train scenarios of 100 cars in length have been completed, final report has been submitted to TC and results were shared at the October TCC meeting. Publication to follow in Winter 2023. Additional mixed consist scenarios are being run and will be summarized in an annex to the main report in Spring 2023.  |
| <b>Development of Rail Tank Car Test Plates for Non-Destructive Testing (NDT) Assessments</b> | TC and the US DOT FRA are developing replacements for the test plates and master gauge panels currently in the defect library used for rail tank car NDT method assessment, training, and probability of detection (POD) studies. | TC (in collab. with FRA) | NRC                 | Phase 1: March 2023<br>Phase 2: Spring 2024<br>Phase 3: Fall 2025         | Phase 1 includes sourcing TC128B panels for test plate production and starting structural analyses to allow for the development of test fixtures for holding test plates in place while inducing defects. In Phase 2, we will use fracture mechanics analysis to determine best location and size of defects and develop the procedure to create them. In Phase 3, we will create the test plates and develop a final report and inventory of defects. TC is actively looking for industry partners for Phases 2 and 3, particularly stakeholders with an interest in accessing the plates for NDT testing. Please contact <a href="mailto:Rachel.Domaratzki@tc.gc.ca">Rachel.Domaratzki@tc.gc.ca</a> with questions or interest in participating. |

| Project Title   | Abstract  | Sponsor                     | Contractor                                | Target end date                                      | Status   |
|---|---|-----------------------------|---|--|--|
| <b>Modelling of a Cryogenic UN Portable Tank during Fire Testing</b>          | Develop a model of an UN portable tank containing a cryogenic liquid, exposed to fire. The tank geometry will be incorporated into numerical simulation software capable of modelling chemical reactions, thermal loading and two-phase equation of state. Model will be validated using data from the FRA's full scale UN portable tank fires. | TC<br>(in collab. with FRA) | Friedman Research Corporation (FRC)       | Phase 1: Completed March 2018<br>Phase 2: May 2023   | Phase 1 of the project included data analysis from the FRA's UN portable tank fire LN2 test, and proof of concept of a model to reproduce the tank, flat car and lading during the fire test conditions. Phase 2 is underway and includes model refinement to incorporate liquefied natural gas, simulating the effects of PRD exhaust and using the refined model to predict effects of various prolonged fire accident conditions and rollover conditions. Second fire test is complete and remaining validation tasks will be completed prior to final report in Spring 2023. |
| <b>Validation of Dangerous Goods Car Location in Train Literature Review</b>  | An assessment of the effectiveness of the dangerous goods cars placement rules outlined in Section 10.6 of the <i>TDGR</i> .  | TC                          | National Research Council of Canada (NRC) | Published Fall 2022                                  | Report on Phase 2 tasks (analysis of literature on buffer cars and dangerous goods car placement, and detailed accident analysis comparing different buffer car rules) is complete. Abstract is available online: <a href="https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_11_02_2022">https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract_11_02_2022</a><br>Some findings were used to direct the modelling of in-train forces project (below).   |
| <b>Modelling of In-train Forces in DG Trains</b>                              | Computer simulations of DG-carrying train configurations (DG cars and buffer cars), track configurations, and operating scenarios to determine their effect on in-train forces and derailment risk of DG-carrying trains.   | TC                          | NRC                                       | Updated report March 2023<br>Publication Spring 2023 | Work included modelling planned scenarios, assessing effects of varying train configurations (including buffer car location), track configurations, and operating scenarios on in-train forces, and reporting on the results. Peer review of final report identified several areas for clarification. Limited additional modelling will be used to update the final report by Spring 2023.   |
| <b>Liquefied Hydrogen Transport by Rail: Regulations and Standards Review</b> | A review of current regulations and standards that cover the transport of LH2 and NH3 by rail in Canada to identify any safety concerns or knowledge gaps about transporting large quantities of these products.  | TC                          | NRC                                       | Final report May 2023                                | Work is underway to summarize current Canadian regulations and standards, and review regulations in international jurisdictions, for transport of cryogenic liquid hydrogen by rail. As it is a potential hydrogen carrier, the current Canadian regulations and standards for rail transport of anhydrous ammonia are also being reviewed in the context of increased rail transport volumes. Any gaps will be noted for further  |



| Project Title  | Abstract   | Sponsor                                  | Contractor                          | Target end date             | Status   |
|--|--|--|-------------------------------------|-----------------------------|--|
|  |  |  |                                     |                             | study.   |
| <b>Hard Coupling Survey</b>  | TC is looking for stakeholder input into how Section 10.7 of the <i>TDGR</i> related to the coupling of tank cars carrying dangerous goods has been implemented.   | TC                                       | N/A                                 | Closed                      | Responses to TC’s anonymous survey are being summarized and reviewed to give TC a better understanding of the challenges of complying with the coupling speeds and temperature limits set out in Section 10.7 of the <i>TDGR</i> . Thank you for your participation!   |
| <b>Hard Coupling Modelling</b>   | An assessment of the effectiveness of the dangerous goods cars coupling rules outlined in Section 10.7 of the <i>Transportation of Dangerous Goods Regulations (TDGR)</i> .  | TC                                       | TBC                                 | TBD                         | Previous FEA modelling showed no sign that a single hard coupling event at 6/10 mph would result in noticeable damage to an undamaged tank car at 25 -40°C. TC is planning additional modelling to investigate the effect of factors like prior damage, coupler mismatch, and draft gear performance on outcomes.  |
| <b>Review of Non-pressurized Tank Car Weld Performance in Incidents</b>  | TC is conducting a review assessing the potential effect of cold temperatures as it relates to rail tank car weld performance in derailments and similar impact events.  | TC                                       | NRC                                 | Final report September 2023 | The preliminary case review will include a search of derailment and impact events involving rail tank cars carrying dangerous goods from available incident databases in the USA and Canada over the last 20 years. The final report will highlight a selection of relevant events (weld damage, temperature, tank car type, damage location, event type, etc.) from the preliminary review. |
| <b>Validation of Recommended Emergency Actions for Liquefied Natural Gas (LNG) in the Emergency Response Guidebook (ERG)</b>                           | The objective of this project is to validate the recommended emergency actions for LNG in the ERG.   | TC                                       | Fire Protection Research Foundation | Report Spring 2023          | The final report is pending. Research results will be discussed with ERG partners (including U.S. DOT PHMSA and Mexico’s SCT).   |
| <b>Validation of new United Nations (UN) Requirements for Fibre-Reinforced Plastic (FRP) Portable Tanks, to consider for Adoption in North America</b> | The objective of this project to validate and/or establish safety requirements and safety standards for FRP portable tanks, including confirming minimum design criteria, validating mechanical models, confirming acceptability of various dangerous goods in FRP portable tanks, and confirming periodic inspection and test requirements. | TC (in coordination with U.S. DOT PHMSA) | TBC                                 | TBD                         | TC TDG is starting with research on material/chemical compatibility of dangerous goods to be transported in FRP portable tanks – the scope of work is being finalised. U.S. DOT PHMSA (with the Volpe Center) is leading research on other aspects. TC TDG and U.S. DOT PHMSA are coordinating research efforts.   |

| Project Title   | Abstract  | Sponsor | Contractor | Target end date | Status                                |
|---|---|---------|------------|-----------------|---------------------------------------|
| <b>Damage Assessment Criteria for General-Service tank Cars</b> | The objective of this project is to develop documented guidance/best practices on damage assessment of general-service (non-pressure) tank cars, which may aid TC TDG Remedial Measures Specialists (RMSs) and others in their decision-making at incident sites. | TC      | TBC        | TBD             | The scope of work is being developed. |

**At the October 2022 meeting,**

- T. Treichel went over the update provided below.
- R. Domaratzki went over the update provided earlier during the month along with derailment modelling and dangerous goods Tank Car Coupling survey presentation
- F. Gonzalez went over the update provided below along with a presentation

### RSI- AAR

| <b>Project Title</b>  | <b>Abstract</b>  | <b>Sponsor(s)</b> | <b>Dockets</b> | <b>Contractor(s)</b>  | <b>Completion Target</b>   | <b>Status</b>   |
|---|--|-------------------|----------------|---|--|---|
| AFFTAC thermal model improvements   | A variety of upgrades being made to the model will improve its use as a research tool and a planning tool for future fire tests. | RSI-AAR           | T59            | Southern Rockies Consulting (Dr. Scott Runnels)                               | Beta testing and revisions complete.<br><br>Release of new standard version: 4th quarter   | Beta test and revisions completed. Release of the new standard version during 4th quarter.  |
| Collection and analysis of tank car accident data<br><br>Conditional Probability of Release (CPR) study | Ongoing effort since the beginning of the RSI-AAR Tank Car Safety Project in 1970  | RSI-AAR           | T59            | Sims Professional Engineers<br><br>University of Illinois at Urbana-Champaign | Accident investigation and database population: n/a<br><br>Study: Completed; additional work in progress; publication to be determined | Sims collects data from many sources and creates and maintains a detailed record of the events and outcomes in accidents that damage tank cars. Assistance in Sims investigations is beneficial to tank car safety, and very much appreciated.<br><br>An updated study of conditional probabilities of release (CPR) of lading from tank cars, based on the accident data, has been undergoing additional work. Completion timeline is under consideration. |

## FRA Research Projects

| Project Title                                       | Abstract   | Sponsor(s) | Dockets                               | Contractor(s) | Completion Target   | Status   |
|---|--|------------|---------------------------------------|---------------|---|--|
| Railroad Tank Car Nondestructive Methods Evaluation | Evaluation and validation of nondestructive evaluation methods for use on tank cars and the quantification of the NDE process to improve the probability of defect detection.  | FRA        |                                       | AAR TTCI      | Finished. Final reports under FRA's review.<br><br>TC will continue work in cooperation with FRA  | <b>Published:</b><br><br><b>DOT/FRA/ORD-21/14</b><br><br><a href="https://railroads.dot.gov/elibrary/analysis-historical-non-destructive-evaluation-probability-detection-data-railroad-tank-0">https://railroads.dot.gov/elibrary/analysis-historical-non-destructive-evaluation-probability-detection-data-railroad-tank-0</a>                                   |
| Tank Car Environment Study                          | The main goal of this project is to have the instrumented tank car couple with the FRA's T16 high-speed research vehicle and record the track geometry and train handling along with the trainloads to have a complete picture of the environment. | FRA        | (Note: Results to be shared with TCC) | ENSCO         | Ongoing<br><br>Coordinating with Class 1 railroad   | <b>Ongoing</b><br><br><b>Phase II ongoing. Published report on yard switching</b><br><br><a href="https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard">https://railroads.dot.gov/elibrary/impact-test-data-analysis-load-environment-characterization-tank-car-stub-sill-during-yard</a> |
| Full scale Crash test of tank cars                  | Conduct four tank car crash tests in a period of two years. The specimens will be four different specification tank cars   | FRA        |                                       | TTC, VOLPE    | December 2023<br><br>Conducted a side impact test on a DOT113C120W9 filled with Liquid Nitrogen<br><br>May 14,2022<br><br>Published a summary report on tests and | test on a surrogate DOT-113 with 9/16" outer tank<br><br>full report:<br><br><a href="https://railroads.dot.gov/elibrary/side-impact-test-and-analyses-legacy-dot-113-tank-car">https://railroads.dot.gov/elibrary/side-impact-test-and-analyses-legacy-dot-113-tank-car</a>   |

|   |  |             |  |   |  |   |
|---|--|-------------|--|---|--|---|
|   |  |             |  |   | Analyses of 2007–2019.<br><br>Review of Tank Car Side Impact Test REsearch and Analyses of 2007-2019 |   |
| Full-scale fire test on a UN-T75 ISO tank (LNG service)   | Obtain experimental data in a full-scale fire test. Provide a realistic fire exposure to the tank and flatcar. | FRA         |  | SwRI, Sharma & Associates                           | <u>December 2023</u>   | <b>Test performed at SwRI in June 2022.</b><br><br><b>Analyzing the data</b>  |
| LNG Tender Railroad Crossing Accident Scenario Test.  | Perform a full-scale test on a LNG tender in accordance with AAR M1004   | FRA, PHMSA, |  | TWA, SWrI, S&A, TTC,                                | <u>Finished. Final report under review with FRA and Volpe</u>  | <b>Test conducted September 2021. Research Results and video published</b><br><br><b>Working on Final report</b><br><br><a href="https://railroads.dot.gov/elibrary/highway-rail-grade-crossing-collision-test-fuel-tender">https://railroads.dot.gov/elibrary/highway-rail-grade-crossing-collision-test-fuel-tender</a> |
| Risk Analysis and Mitigation for Hazardous Material Unit Trains.<br><br>2018 Broad Agency Announcement. | Risk analysis on unit trains carrying hazardous materials, and also on mix trains carrying HM.                 | FRA         |  | 1.-Rutgers University<br><br>2.- Thornton Tomasetti | <b>May 2022</b>  | <b>Currently underway. Reviewing Final report Phase I.</b>  |

|  |  |            |  |  |                             |  |
|--|--|------------|--|--|-----------------------------|--|
| <p>Improving Crash Energy Management (CEM) of Tank Cars</p>            | <p>The main objective of the proposed effort is to identify and investigate the most promising mitigation concepts for tank cars, aimed at improving their puncture resistance.</p>  | <p>FRA</p> |  | <p>Thornton Tomasetti, ArcelorMittal</p> | <p><u>December 2022</u></p> | <p><b>Currently underway. Reviewing Phase I.</b></p> |
| <p><b>NEW; Rail Tank Thermal Protection Analysis</b></p>               | <p>The objective of the proposed work is to evaluate the heat transfer from a fire to the rail car content to understand the effectiveness of the proposed fire response from the local fire department.</p> <p>The results of this study will allow first responders to understand cooling time, and better define strategies for defensive or offensive response</p> | <p>FRA</p> |  | <p>ESI</p>                               | <p><u>December 2022</u></p> | <p><b>Reviewing Phase I</b></p>                      |
| <p><b>Improved models for estimating tank car fire performance</b></p> | <p>This research effort proposes to develop a higher fidelity, multi-zone, approach for modeling the thermal performance of tank cars (pressure vessels) under fire conditions that incorporates several critical, physical, and safety relevant phenomena such</p>  | <p>FRA</p> |  | <p>Sharma and Associate</p>              | <p><u>December 2023</u></p> | <p><b>Working on Phase I</b></p>                     |

|   |  |           |  |                              |               |                               |
|---|--|-----------|--|------------------------------|---------------|-------------------------------|
|   | The methodology developed through this project will be validated against available test data (from the several fire tests conducted by FRA), as well as other available test and simulation data.              |           |  |                              |               |                               |
| Pendulum Based Puncture Testing of Tanks and Tank Welds   | Evaluating weld performance when the point of impact is on the weld seam<br><br>Evaluating puncture performance under cold weather conditions  | FRA Volpe |  | Sharma & Associates          | December 2023 | Building the Pendulum Concept |
| Improving Thermal Protection of Cryogenic Tank Cars through Testing, Analysis, and Evaluation of Pressure Relief Valve System Performance | This research will characterize the performance of PRV systems in crash and fire scenarios and support the development of testing and/or design requirements that will increase the safety of cryogenic tanks. | FRA TC    |  | Friedman Research, SwRI, CVA |               |                               |

Contact:  
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You can find all published report in this website:

<https://railroads.dot.gov/program-areas/hazmat-transportation/hazardous-materials-transportation>

There is a new section for Miscellaneous Hazmat papers, for reports not published by FRA, but sponsored by FRA. ASME papers, NGRTC and ATCCRP reports.

<https://railroads.dot.gov/program-areas/hazmat-transportation/miscellaneous-hazmat-papers>

R. Domaratzki provided an update from TC regarding docket T59.

- Completed work:
  - Performance of TC-117 Tank Cars under Derailment Conditions – final report is in hand, TC is sharing results to interested parties, publication to follow
- Recent publications:
  - Tank Car Weld Performance – [https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract2\\_07-14-2022](https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract2_07-14-2022)
  - Hard Coupling Modelling – [https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract1\\_07-14-2022](https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract1_07-14-2022)
- New projects initiated
  - Hydrogen transport by rail – assessment of Canadian standards, fire performance
  - Coupling of rail tank cars survey – looking for stakeholder input on speed limits and inspections required by TDGR Section 10.7 – <https://www.surveymonkey.ca/r/JWL5JWR>



## Transport Canada – Research update – October 2022

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Barbara Di Bacco : (613) 296-8731 [barbara.dibacco@tc.gc.ca](mailto:barbara.dibacco@tc.gc.ca)

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| Project Title  | Abstract  | Sponsor                  | Contractor                          | Target end date  | Status   |
|--|---|--------------------------|-------------------------------------|--|--|
| <b>Performance of TC-117 Tank Cars under Derailment Conditions</b>   | Develop and use train derailment simulation software to assess the differences in puncture resistance of TC-117J and TC-117R tank cars in derailment conditions.  | TC (in collab. with FRA) | Sharma & Associates                 | Final report received, publication Winter 2023<br>Annex report December 2022 | Modelling combined previous tank car shell and top fittings investigations in the same derailment simulations. Both 117J and 117R (from a variety of source tank cars) tank cars were assessed in term of puncture resistance and top fittings protection at a variety of speeds and ambient temperatures. Unit train scenarios of 100 cars in length have been completed, final report has been submitted to TC. Publication to follow in Winter 2023. Additional mixed consist of scenarios will be run and summarized in an annex to the main report in Winter 2023.          |
| <b>Tank Car Weld Performance Project</b>                             | Interested in understanding the high and low temperature performance of tank car steel (TC128B) weld performance.   | TC                       | Natural Resources Canada (NRCan)    | Completed April 2021<br>Published Summer 2022                                | High and low temperature ( 34°C/ 30°F) testing of one TC128B circumferential weld sample from non-pressure tank car was completed. Reports have been finalized, and abstract and technical summary have been published: <a href="https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract2_07-14-2022">https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract2_07-14-2022</a>  |
| <b>Modelling of a Cryogenic UN Portable Tank during Fire Testing</b> | Develop a model of an UN portable tank containing a cryogenic liquid, exposed to fire. The tank geometry will be incorporated into numerical simulation software capable of modelling chemical reactions, thermal loading and two-phase equation of state. Model will be validated using data from the FRA's full scale UN portable tank fires. | TC (in collab. with FRA) | Friedman Research Corporation (FRC) | Phase 1: Completed March 2018<br>Phase 2: January 2023                       | Phase 1 of the project included data analysis from the FRA's UN portable tank fire LN2 test, and proof of concept of a model to reproduce the tank, flat car and lading during the fire test conditions. Phase 2 is underway and includes model refinement to incorporate liquefied natural gas, simulating the effects of PRD exhaust and using the refined model to predict effects of various prolonged fire accident conditions and rollover conditions. Second fire test is complete and remaining validation tasks will be completed prior to final report in Winter 2023. |

| Project Title   | Abstract  | Sponsor | Contractor                                | Target end date                                      | Status   |
|---|---|---------|---|--|--|
| <b>Validation of Dangerous Goods Car Location in Train Literature Review</b>  | An assessment of the effectiveness of the dangerous goods cars placement rules outlined in section 10.6 of the TDG Regulations (TDGR).  | TC      | National Research Council of Canada (NRC) | Completed March 2021<br>Publication Fall 2022        | Report on Phase 2 tasks (analysis of literature on buffer cars and dangerous goods car placement, and detailed accident analysis comparing different buffer car rules) is complete. Final report will be published Fall 2022. Some findings were used to direct the modelling of in-train forces project (below).  |
| <b>Modelling of In-train Forces in DG Trains</b>                              | Computer simulations of DG-carrying train configurations (DG cars and buffer cars), track configurations, and operating scenarios to determine their effect on in-train forces and derailment risk of DG-carrying trains. | TC      | National Research Council of Canada (NRC) | Updated report March 2023<br>Publication Spring 2023 | Work included modelling planned scenarios, assessing effects of varying train configurations (including buffer car location), track configurations, and operating scenarios on in-train forces, and reporting on the results. Peer review of final report identified several areas for clarification. Limited additional modelling will be used to update the final report by Spring 2022, with publication to follow.   |
| <b>Hard Coupling Study</b>  | Investigation into whether current hard coupling regulations are effective at preventing damage from coupling events and identifying damage if it does occur.   | TC      | Natural Resources Canada (NRCan)          | Completed April 2021<br>Published Summer 2022        | FEA modelling was completed to simulate dynamic impact simulations of hard coupling, focusing on the stub sill-tank car junction at 25 and 40°C. Material properties of common stub sill materials (A572) were also reviewed. Final report is complete, and abstract and technical summary have been published:<br><a href="https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract1_07-14-2022">https://tc.canada.ca/en/dangerous-goods/publications/tank-car-research#abstract1_07-14-2022</a> |
| <b>Liquified Hydrogen Transport by Rail: Regulations and Standards Review</b> | A review of current regulations and standards that cover the transport of LH2 and NH3 by rail in Canada to identify any safety concerns or knowledge gaps about transporting large quantities of these products.          | TC      | National Research Council of Canada (NRC) | May 2023   | Work will summarize current Canadian regulations and standards, and review regulations in international jurisdictions, for transport of cryogenic liquid hydrogen by rail. As it is a potential hydrogen carrier, the current Canadian regulations and standards for rail transport of anhydrous ammonia will also be reviewed in the context of increased volumes being transported. Any gaps will be noted for further study.  |

| Project Title   | Abstract  | Sponsor | Contractor                          | Target end date | Status   |
|---|---|---------|-------------------------------------|-----------------|--|
| <b>Hard Coupling Survey</b>   | Transport Canada is looking for stakeholder input into how Section 10.7 of the Transportation of Dangerous Goods Regulations related to the coupling of tank cars carrying dangerous goods has been implemented.  | TC      | N/A                                 | December 2022   | Responses to TC’s anonymous survey will give us a better understanding of the challenges of complying with Section 10.7. Participation is welcome from anyone with a role in tank car coupling or post-coupling inspections. The survey will be open until November 30th, and can be accessed in English at:<br><a href="https://www.surveymonkey.ca/r/JWLSJWR">https://www.surveymonkey.ca/r/JWLSJWR</a><br><br>or in French at:<br><a href="https://www.surveymonkey.ca/r/JWLSJWR?lang=fr">https://www.surveymonkey.ca/r/JWLSJWR?lang=fr</a> |
| <b>Comprehensive Review of the Criteria and Thresholds for Emergency Response Assistance Plans (ERAPs) in the Transportation of Dangerous Goods (TDG) Regulations</b> | The objective of this project is to develop a hazard- and risk-based assessment tool/methodology for systematically establishing ERAP requirements for the various classes of dangerous goods. This tool will be used to conduct a review of criteria and thresholds for ERAPs currently in the TDG Regulations, to reflect better today’s TDG landscape. | TC      | Triox Environmental Emergencies Inc | Fall 2023       | This is a multi-phase project where each phase will address one or two classes of dangerous goods. Phase 1 kicked off in June 2021, addressing Class 8 dangerous goods (corrosives).   |

## Active Docket Updates

### DOCKET T1.1.4

#### PROCEDURES FOR SECURING APPROVAL

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**At the July 2023 meeting,** it was reported that AAR staff and TF chairman will be meeting before the October TCC meeting to discuss action needed on this docket.

**At the April 2023 meeting,** COD

**April 2023 update,**

- A meeting over the progress of chapter 1 took place with the Chairman. A path on how to move forward with the information that was developed last year was discussed.

**At the January 2023 meeting,**

- Action item: AAR staff to contact the chairman regarding an update.

**At the October 2022 meeting,** it was noted that TF is working on design approval processes for service equipment. COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**July 2022 update,**

- Ongoing work on strawman
- TF charge 1: pushed to October 2022

**At the April 2022 meeting,** it was reported that J. Zimmerman is the new chair. TF is currently working on consolidating the TF recommendations to present to the TCC. The goal is to provide a June draft to meet draft proposal date of July.

**February 2022 teleconference update,**

- It was reported that TF has completed their efforts on all essential variables for all the categories in a spreadsheet.
- Consider a change in the TF chair since scheduling consistent meetings are an issue. Docket has AAR budget associated to programming IIRX.

**At the January 2022 teleconference meeting,** it was reported that TF is trying to incorporate all essential variables for valves and also working on structuring appendix A. There will be a gap analysis to include all of the requirements that exist. Charge 1 is set to be completed by April 2022.

**At the October 2021 meeting,** M. Forister presented the developed path forward for 1.1.4. Task force has met and will has created a excel spread detailing specification concepts.

- Action item: AAR TCC approves the Service Equipment Specification concept as provided by the TF chair.

#### **October 2021 update,**

- Task Force to seek TCCs direction on Service Equipment specification concept.

**At the July 2021 teleconference meeting,** M. Forister reported that TF has met about 10 times to set a foundation and is currently working to develop a timeline for charge 1. Main focus of TF is essential variables for valve design.

#### **May 2021 teleconference update,**

- M. Forister reported that weekly meetings for this TF are held on Fridays. TF is working on charge 1 and might have a proposal for that charge by the August 2021 monthly call.

**At the April 2021 teleconference meeting,** it was reported that the TF chair has reached out to the TF members for availability for a kick-off meeting by the end of this month. Timeline on the TF charges will be provided to the TCC by the May 2021 TCC teleconference.

**At the February 2021 teleconference meeting,** it was reported that M. Forister communicated with D. Escobar regarding the timeline of this docket. It was also noted that doodle polls regarding meeting schedules will be sent to TF

#### **November 2020 teleconference update,**

- M. Forister reached out to the T100.22.2 TF members to find a TF chair for this docket. David Escobar from Neles USA Inc volunteered to be TF chair. The TCC desired continuity between T100.22.2 and this task force because the essential variables used related to one another.
- TCC Action Taken: Recommendation to approve D. Escobar- Neles USA as TF chair was passed. Motion made by Clay P and seconded by BNSF.
- Action item: M. Forister to reach out to D. Escobar to start TF efforts and set dates for proposals.

**At the October 2020 teleconference meeting,** M. Forister reported that charge was sent out and discussed. COD

- Action item: AAR staff to reach out and determine new TF chair. Update the minutes in the background to reflect the charges.
  - TF members to be replaced: Ashton- BOE with Jeremy Killian.

#### **September 2020 teleconference update,**

- 15 or more to add components to the objective statements.
- T1.1.4 and T100.22.2 TF charges were sent out and will be provided with the objective statements. M Forister to reach out to those TF chairs.

**August 2020 teleconference update**, a working draft that highlighted TF charges was presented by M. Forister.

- Action item: Motion was taken to approve the TF charges. Motion taken by BNSF, seconded by CSX, and passed. Task force to determine completion dates for charges.

**At the July 2020 teleconference meeting**, M. Forister discussed the update provided earlier this month.

- Action Item: J. Byrne, R. Kinsley, J. Birkmann, B. Siebold, K. Dorsey, and M. Forister as the leadership group to establish TF charges based on input already provided by TCC in previous meetings. T. Sisto has volunteered to be the TF chair. Leadership group will engage T. Sisto as necessary on TF charge development. Once TF charge(s) are developed by leadership group, the TF would start work. Charges to be developed by August for TCC approval and updates on 1.1.4 will be on agenda for all monthly calls until further notice.

**July 2020 update**, M. Forister provided an update regarding docket T1.1.4 via email.

- Progress is being made on specific TF chargers based on input from the TCC and TCC response to the DOT/TC audit findings.
- Prioritization needs be set by TCC once the TF charges are determined. Further details to be provided at the July 2020 teleconference meeting.
- Members removed from the TF:
  - Wali Sagaf – Transport Canada
  - Khiem Hoang – Midland Manufacturing
- Members added to the TF:
  - Jeff Butt- Apollo Valves/ Aalberts Ips
  - Hira Khalid – Association of American Railroads

**At the April 2020 teleconference meeting**, M. Forister reported that all previous development documents are being organized. TF charge is to develop approval criteria for all service equipment items. A proposal is set to be drafted by January 2021 TCC meeting that includes revisions to Appendix A, Appendix E and Chapter 1.

- Project priorities:
  1. Establish the essential variable required for tank car service equipment design approval by service equipment category (Closure, fittings, instruments, safety relief devices, and valves).
  2. Using the essential variables from effort 1, establish groupings under each service equipment category

**April 2020 update**, M. Forister provided an update regarding docket T1.1.4 via email.

- Progress is being made on the exact TF charges based on input from the TCC, questions from industry on the service equipment approval process, discussions with J. Byrne, and the TCC responses to the DOT/TC audit findings.

- M. Forister will begin to compile all previous strawman work and establish a framework based on TF charges and prioritization to get the TF members working on this effort.

**February 2020 teleconference update,** COD. M. Forister and J. Byrne are making progress on the list of charges; will have something for the committee before March.

**At the January 2020 meeting,** M. Forister reported that a gap study analysis was done with the assistance of the FRA. A list of requirements was developed that identified what the standards currently require verse the regulation requirements. A list of charges for chapter 1 will be made by M. Forister and J. Byrne by the February teleconference.

**At the October 2019 meeting,** COD. FRA/TC audit will result in some items being added to the TF charge. J. Schultz has been added as an UTC representative on the TF.

**At the July 2019 meeting,** M. Forister reported that a strawman is being completed to distribute to the TF. Charges from T55.5 have been folded into this group.

**At the April 2019 meeting,** this docket was COD

- ❖ **Staff note:** AAR and DOT to collaborate on a strawman to forward to the TF for review.

**At the January 2019 meeting,** W. Sagaf (TC) and RG Ashton (BOE) have been added to the TF. The TF list needs to be updated. COD

**At the October 2018 meeting,** M. Forister continues the development of the TF strawman and plans to get this effort introduced to the TF after the completion of Appendix B, the related online application/certification tool, M-1003 standard revision via the AAR QA TF, and AAR Auditor Handbooks.

- ❖ **AAR Staff note:** Neil Gambow retired from Kelso. Removed from TF. Kelso still has Mario on TF.

**At the July 2018 meeting,** M. Forister continues the development of the TF strawman and plans to get this effort introduced to the TF after the completion of Appendix B, the related online application/certification tool, M-1003 standard revision via the AAR QA TF, and AAR Auditor Handbooks.

**At the April 2018 meeting,** AAR M. Forister continues to work on the development of the TF strawman. COD

**At the January 2018 meeting,** AAR discussed the AAR strawman development with the input from the FRA. Next step is to hold a TF teleconference to go over the procedures for securing approval.

**At the January 2018 private docket meeting,** The TCC agreed that the M-1002 standard needs to be revised to take into account any change to the valve that involves how it performs requires a new approval. This goes directly into what the T1.1.4 TF is trying to resolve with acceptance criteria and what is exactly approved under service equipment.

**Task Force:**

| <b>Name</b>          | <b>Company</b>                       | <b>Name</b> | <b>Company</b>                     |
|----------------------|--------------------------------------|-------------|------------------------------------|
| Zimmerman<br>(Chair) | Midland Manufacturing                | Morgan      | GBW Railcar Services               |
| Becherer             | Transquip                            | Muellner    | Fort Vale Engineering              |
| Clugg                | Salco Products                       | Walker      | Federal Railroad<br>Administration |
| Foley                | Metso Automation USA                 | Nunez       | Kelso Technologies Inc             |
| Khalid               | Association of American<br>Railroads | Prince      | Flowserve Corporation              |
| Gentile              | Engineered Controls                  | Prunty      | McKenzie Valve & Machining         |
| Keltz                | Federal Railroad<br>Administration   | Sisto       | GATX Rail Corporation              |
| Loman                | AllTranstek                          | Byrne       | RSI                                |
| Killian              | BOE                                  | Culligan    | ARI                                |
| McAbery              | Metal Goods Manufacturing            |             |                                    |
|                      |                                      |             |                                    |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>   |
|---------------|--|
| 1             | Develop criteria for approval of all items of service equipment. |
| 2             | Approval process for RME   |



**DOCKET T1.5**

**AAR204, AAR206W, DOT113 and DOT115 DESIGN APPROVAL PROCESS**

**At the July 2023 meeting, COD**

**At the April 2023 meeting,** it was reported that the approval process of cryo cars has been changed.

**At the January 2023 meeting,**

- Pending Implemented CPC-1406, then the solicitation CPC will be issued.
- AAR staff have been receiving new requests under the new proposed process and the results have been positive.
- Action item: AAR staff to determine status on Chapter 1

**January 2023 update,**

- January 2023 update: Once CPC-1406 is issued with final implementation revisions, a CPC will be issue soliciting comments to industry on the approved proposal.
- At the December 2022 meeting, the TCC worked on and approved edits to Chapter 1 and Appendix C of M-1002 to provide requirements for an additional method of approving designs of AAR204, AAR206W, DOT113, and DOT115 new tank car based on specific conditions.
- Action taken motion made, seconded, and approved the TCC proposal and asked AAR to issue a CPC soliciting industry for comment.
- AAR Staff Action: AAR will issue a CPC once the chapter 1 revisions are finalized via CPC.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

## DOCKET T1.6

### CRYOGENIC SERVICE EQUIPMENT APPROVALS AND FACILITY CERTIFICATION

**At the July 2023 meeting,** COD

**At the April 2023 meeting,** it was reported that TCC has moved forward with notifying these facilities that design approval needs to be approved by January 2024 and facilities have to be certified by July 2024.

**April 2023 update,**

- AAR staff is in contact with both the suppliers and consumers.

**At the January 2023 meeting,**

- Pending Implemented CPC-1406, then the solicitation CPC will be issued.
- Action item: AAR staff to determine status and contact both the suppliers and consumers.

**January 2023 update,**

- Due to preparing critical for publication documents this effort will be done by February 2023 TCC monthly meeting.
- At the December 2022 meeting, the TCC discussed the current state of industry when it comes to cryogenic service equipment approvals and facilities that manufacture them.
- Action taken:
  - Motion made, seconded, and passed to issue CPC notification to industry on cryogenic service equipment manufacturers to come into compliance with both the approval process in Chapter 1 of M-1002 and facility certification in compliance with M-1002 Appendix B. The cryogenic service equipment manufacturers must have designs approved per Chapter 1 January 1, 2024, and must be certified per Appendix B by July 1, 2024.
  - Motion made, seconded, and passed to have a private session docket opened on the cryogenic service equipment manufacturers progress on the notification CPC to ensure compliance is achieved by the effective dates assigned.
- Action item:
  - AAR staff to issue CPC notice by the January 2023 TCC meeting.
  - AAR Staff to open new private session docket per action taken above.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

## DOCKET T1.7

### UNDERFRAME DESIGN TEMPLATE REVISION

**At the July 2023 meeting,**

- Action item: B. Miller to be the new docket chair.

**At the April 2023 meeting,** it was reported that EEC has the criteria set for stub sills that needs to be reviewed because of modification.

**At the January 2023 meeting,**

- Pending Implemented CPC-1406, then the solicitation CPC will be issued.
- Action item: AAR staff to check status on Chapter 1, docket to be progressed after implementation of CPC 1406

**January 2023 update,**

- Once CPC-1406 is published, then a solicitation CPC will be published on this matter.
- At the December 2022 meeting, the TCC worked on proposed language for Chapter 1 under existing section 1.4.1.1 Underframes. Proposed edits are below:
  - **1.4.1.1.5 Design Changes to Previously Approved Underframe**-Design changes to a previously approved underframe, other than those required to accommodate changes in tank geometry, must be approved by both the AAR Equipment Engineering Committee and the AAR *Tank Car* Committee. See *Office Manual*, Rule 88, C.1.d (2)(h).
  - **1.4.1.6-** After approval by both the AAR Equipment Engineering Committee and the AAR *Tank Car* Committee, the Executive Director *Tank Car* Safety will sign on behalf of the AAR *Tank Car* Committee the Application for Approval and Certificate of Construction.
  - **1.4.1.1.7- Change to Underframe Design Template**- Any change to the underframe design template must be submitted to the Executive Director of Tank Car Safety for review. If the template is changed and affects the underframe design, then paragraph 1.4.1.1.5 applies. If the template does not affect the underframe design, then the revised template will be uploaded into the TCID system with a revision date.
  - **1.4.1.1.7.1-** The AAR will notify industry, via CPC, on any underframe design template change.
- Action taken motion made, seconded, and passed to publish CPC solicitation for comment on the approved edits to Chapter 1 shown above.
- Action item: AAR Staff to issue CPC soliciting industry comment.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

## DOCKET T5.31

### REVIEW OF TANK CAR ELEMENTS IN UMLER

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**October 2023 update**, B. Siebold reported the following:

- The gap analysis requested under charge 3 was submitted at the July meeting and accepted by the TCC. The TF recommends that the TCC seek budgetary authority at Railinc and begin planning the necessary programming between the 4-2 system, Umler, and TCID. Further, two previously approved Umler Change Requests (UCR) for tank cars are progressing through Railinc the programming process (see also T15.11) – 1) Level E bottom service equipment protection, and 2) updates on tank stenciled specification versus design specification for alignment with M-1002 Chapter 1 (NOTE – due to system interdependencies of these elements and the need for several owner outreach notifications, the programming for this second UCR will occur in multiple phases as set forth by the Umler Committee). Additionally, Railinc staff is converting a working draft of the comprehensive TF recommendations to the Tank Equipment group into a standardized spreadsheet format. This will aid TCC and UC in their review and also the future programming at Railinc. New estimated delivery to TCC is December 2023. COD.

**At the July 2023 meeting**, B. Seibold elaborated on the provided July update.

- Action item: Docket to remain open until October TCC meeting to examine the implementation by Railinc of the T5.31 recommendations that affect the Tank equipment group in Umler.

**July 2023 update**,

- The Umler Change Request (UCR) for new Level E bottom safety system protection (element A153) is still ON HOLD pending AAR staff issuing final CPCs on Appendix E revisions. The goal was to have this programming in place 6 months before the Jan 1, 2024, compliance date for all cars ordered built. Staff to issue CPCs.
- TF met on June 23<sup>rd</sup> but was unable to finish the 4-2 / Umler gap analysis (charge 3) due to lack of quorum. Next TF call scheduled is for July 14 – if a proposal can be advanced following that meeting, BNSF (Ryan Haskins) can deliver JIT for discussion / consideration at July meeting. This outstanding charge does not affect the republication of M-1002.
- A second UCR is currently in process that will align previously approved M-1002 Chapter 1 work regarding permissible values for stenciled and design specifications.
- The Railinc staff is creating a spreadsheet to capture all other T5.31 recommendations that affect the TANK equipment group in Umler. Estimated delivery date to TCC – October 2023.
- As presented in April, the TF was seeking TCC input on the desired intent of element A131 – surge protection device equipped. Original data was to capture RDD equipped cars, however there are now currently over 20K cars registered with surge protection and a PRV. TCC to provide directions to T5.31.

**At the April 2023 meeting,** B. Seibold reported the following,

- Gap analysis (charge 3) is nearly complete. Finished with the “specification” presentation group for “TANK”.
- Unknown Value Report – slides presented.
- UCR status on Element A153 – accepted by UC. Progress / implementation is on hold pending issuance of CPC 14xx. UC recommends adding a business rule connected with the built date (cannot be A, B, or C if after 1/1/24).
- UCR on Design / Stenciled specification Elements – In process. Will align with updated Chapter 1 tables – see pending CPC 14xx.
- Request TCC guidance on Element A231 – Surge suppression device with RDDs only (as originally intended) or expand to any Safety Relief Devices with surge protection?
- Request TCC guidance on Elements B279 / B280 –Tracks PWHT of tank repairs on AAR class cars– only 36 active cars using B279 and under one owner mark. No cars registered and reporting B280. TF leaning toward a recommendation to remove both elements if not being used by owners or roads.

**March 2023 teleconference update,**

- Umler request approved by TCC in February is progressing as part of the Umler group activities. The TF is seeking clarification on committees’ intent on the Umler elements reporting safety vent equipped with surge suppression.
- Additionally, B280 and B279 were discussed. Umler TF to do outreach on B279 with the one user. Question was asked if the 2 elements are still required. Member to poll organization to see if operating rules would use WK and WJ elements.

|                               |      |
|-------------------------------|------|
| PWHT Not Reworked             | B280 |
| Special Train Service Code WK |      |
| Permissible Values for B280   |      |
| Y                             | Yes  |
| PWHT Re-stress Relieved       | B279 |
| Special Train Service Code WJ |      |
| Permissible Values for B279   |      |
| Y                             | Yes  |

- Action item: Railroads to review internally if these elements / special train codes (WK and WJ) are used.

**February 2023 teleconference update,**

- Action item: TF request to approve a new Value E for bottom protection field in Umler to denotate tanks equipped with the new standard for bottom fittings protection per CPC-14XX. M (UP) S (CP) P Committee agrees to the request.

**At the January 2023 meeting,**

- Pending tech writer on final pdf. Have 2 Umler change requests that are being worked on and no update on unknown values.

**At the October 2022 meeting,** B. Siebold elaborated on the September teleconference update also presented progress being made to Umler elements.

**September 2022 teleconference update,**

- B Siebold went through the proposal 1 and proposal 2.
  - **Proposal 1: Action item:** Motion to accept the proposal with the edits made at the meeting with the understanding that a circular will be published for comment. Text identifying the removal and footnotes will be noted in the edits of the proposal. Motion taken by WLERWY, seconded by Clay P, and passed.
  - **Proposal 2:** A committee member mentioned the following, From HM-201 Preamble (1996) Section 179.22. In paragraphs (b), (c), and (d), the phrase “is equipped with” is revised to read “requires”. This change will allow the optional marking of a tank car “S,” “J,” or “T”. Tank cars requiring such protection must be marked to show the appropriate tank specification. Action items: Tank Car Committee request that AAR staff reach out to DOT regarding table 1 to ask about 112H600H in authorized tank car specification column for Division 2.3 Zone D materials not specifically identified in this table. Also, for Hydrogen Chloride, refrigerated liquid showing 105 in Authorized tank car class but in Authorized tank car specification column it shows 112H600W. Motion to accept the second proposal with the edits discussed during the meeting. Taken motion, seconded, and passed.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** B. Siebold reported that there is a notable reduction in unknown values recorded in Umler, the TF has developed more information on missed opportunities to record data for tanks that had been shopped which will be reported at the October 2022 meeting.

**At the January 2022 teleconference meeting,** B. Siebold reported that TF is making progress. Have explored two elements with Umler, has narrowed down the difference between design and stencil specifications also making sure that 4-2 and Umler align.

**At the October 2021 meeting,** it was reported that there is no proposal at this time. A presentation was showed on the change in unique elements for active cars. 49% decrease in elements recorded as unknown over 2 years was reported.

**At the July 2021 teleconference meeting,** the update provided earlier during the month was discussed. It a noted that the table of unknown valves of Umler will be presented at the next monthly meeting. The number of unknown values is decreasing. All values in Appendix D will be updated.

**July 2021 update,** B. Siebold provided an update regarding docket T5.31 via email.

- TF meeting monthly and working through charges 1 & 2. No proposal for July.
- Attachment: Data and graphs on industry progress towards “unknown” permissible values in Umler.
- TF membership removed:
  - Barkan- university of Illinois, Boklewski- GATX, Ecker-Trinity Industries, Fredbeck-Well Fargo Rail, Paine-CIT Rail, Perez- Union Tank Car Company, Rawson-Railinc, Reece-Railinc, Sbragia-GATX, Student-Gunnison, LLC, Tuma-Union Pacific Railroad.
- TF membership information changed:
  - Chris Blanton- Chicago Freight Car
- TF membership added:
  - Louise Bell- GATX, Sarah Maples- Railinc, Ben Test- GBRX, Andri Desormeaux – CIT, Brian Johnson – Union Pacific, Chris Edmonds – ExxonMobil, Gary Leito – Trinity, Larry Strouse – FRA

#### **June 2021 teleconference update,**

- B. Siebold stated that TF met last week, and special permit equivalency certificate element is being added to Umler. Took TCC suggestions and advanced on the progress on the element, went through DQDF and passed and is currently being discussed by the UMLER committee. Might be adopted by 4<sup>th</sup> quarter.

**At the April 2021 teleconference update,** B. Siebold presented a document that highlighted change in unique elements in active cars. Progress on reducing the number of unknown values in Umler is 46% over the last 1.5 years.

- Action item: TF membership to be updated.

**March 2021 teleconference update,** the following was discussed.

- Request guidance from the committee
  - B. Siebold presented a questionnaire during the meeting. TCC suggested that the Umler committee should add field for listing the special permit and its number, value as increased visibility.
  - This is conditionally mandatory.

**At the February 2021 teleconference meeting,** update provided earlier this month was discussed.

It was also reported that there are no proposals at this time and tank car specifications are being reviewed. COD

**February 2021 update,** B. Siebold provided an update regarding docket T5.31 via email.

- TF continued work on charges 1 through 3 which requires a holistic review of “Tank” specification presentation group elements/ permissible values.
- Charge 4 was removed, and a new docket was created as discussed at the November

2020 teleconference update.

**December 2020 teleconference update,**

- Update RMD change request-
  - It was reported that RMD is a mandatory field in UMLER. Change requests were reviewed by the committee during the November TCC meeting.
- Umler change request special permit.
  - B. Siebold went through the element requirements and change requests for special permits.
  - Motion was taken by BNSF to move the change request for special permit permissible value forward for implementation with Umler, motion seconded and passed.
- Umler change request HM-246
  - Motion to move to change request for HM-246 required updates forward for implementation with UMLER made by CP, seconded by CN and passed.

**November 2020 teleconference update,**

- TF Chair B. Siebold requested a change to the existing TF charges to align with work directed by the TCC and docket definitions within the new Charter. September's Unknown Values tracking summary was presented. By April 2021, the TF will look to present data on missed Umler opportunities for those tank cars qualified in 2020 (element B240 is now mandatory). B. Siebold also reviewed an Umler Change Request to update permissible values for DOT special permits- programming may function similar to A&B elements today. Permissible value will be free form alpha numeric.
- TCC Action Taken: TF chair requested to remove TF charge 4 from T5.31 and create a new standing docket with a liaison (like EEC) to report out on Umler committee activities. Motion by CN, seconded by NS and passed to remove Charge 4 from this docket and assign it to a new standing docket for Umler activities, "Umler committee Update". Charges 1-3 will stay with docket T5.31 until complete. BNSF volunteered to be the liaison discussant for the new docket.
- TCC Action Taken: Umler Change request—motion to approve and move forward with the change request on DOT113 stenciled specifications taken by CN, seconded by RSI seconded and passed.
- Action item: Umler Change request for RME will be updated in December 2020.

**At the October 2020 teleconference meeting,**

This docket was not discussed at the October TCC meeting due to time constraints

**September 2020 teleconference update,**

- B. Seibold discussed the official change request that covered, LNG specification, tank major class, special permit stenciled on cars.
- Plans to have a place for special permit number and expiration date.



**At the July 2020 teleconference meeting,** B. Siebold presented a table showing the number of elements that have been added since 2019 to June 16<sup>th</sup>, 2020. TF working on elements of bottom outlet protection as well as a path forward for adding SP and EC for cars. Progression is being made on HM-246 matrix, which is scheduled to be released this October.

**June 2020 teleconference update,** B. Siebold reported that the committee reviewed the proposal a week before the June TCC meeting. A summary of TF recommendations and changes to Umler were discussed.

- A motion was made, seconded, and approved to accept this proposal.

**At the April 2020 teleconference meeting,**

- Motion was taken, seconded, and passed to make the field for remote monitoring equipment mandatory. Any blank field would automatically be populated “as not equipped”.
- Request was approved to update CPC-1232 validation logic to include 117’s.

**March 2020 teleconference update,**

- It was stated that Umler registration of any RMD is mandatory. A document will be sent to the TCC regarding permanent monitoring systems.
- Motion was taken, seconded, and passed to allow RME systems in Umler.
- A minor name changes in the TF:

**TF change:**

| Name               | Company            |
|--------------------|--------------------|
| Herbal to Hamilton | Trinity Industries |

**February 2020 teleconference update,** B. Siebold reported the following:

- Inclusion of Process Engineering
  - Motion was taken to add process engineering. Motion seconded and passed.
- Umler Report
  - It was reported that the Umler committee approved the two major car classes for HM-246 compliant cars. Process to incorporate these in Umler will begin soon.
- RME proposal
  - COD

**At the January 2020 meeting,** B. Siebold reported the following:

- Two TCC proposals advanced in October and November call are now at Railinc.
- Both are expected during normally scheduled Umler releases in the first half of 2020.
- Next actions include submitting a business case to RPSWC for an information pipeline from the 4-2 system to Umler (similar to TCID) and plan to report progress on unknown PV trends during April/October meetings.

**November 2019 teleconference update,**

- Motion was requested and passed to advance the matrix for programming with Umler committee as proposed.
- The AAR has petitioned PHMSA to use something other than W in the tank car classification. TF 5.31 is not awaiting the outcome of the rulemaking to proceed with programming since new Tank Major Classes (84/85) are being created. Element A237 (Stenciled Shipping Spec) can be editorially changed in Umler once PHMSA has determined the final marking.
- Approval paperwork and physical remarking of the tank car will need to be done by next qualification.
- TF met and revisited the October proposal to make B241 mandatory. Based on programming requirements, the TF amended the October proposal to make B240 (Year Tank Qualified) the trigger element instead.
- Motion was requested and passed to approve making B240 mandatory.
- Expected implementation by 2020.

**At the October 2019 meeting,** B. Siebold reported on this docket.

- TF presented two proposals.
  1. CPC- 1343 phases out permissible values of element B241 “unknown” for 14 elements. (Mandatory effective on Jan 1, 2020 or no later than next tank qualification).
    - Motion to make the existing element B241 tank qualification mandatory and confidential so that progress can be tracked. Motion was made, seconded, and passed.
  2. B203 and B-208 (non/normalized/normalized)- Validation matrix for HM-246 compliant cars.
    - Motion to advance matrix, was passed.

**At the July 2019 meeting,** the TF chair updated the committee of the current progress of the Umler TF.

Three pop up items were handled in April and those are in the programming pipeline at Railinc. The TF met face to face for 2- ½ days at The Andersons in May and is focused on three items currently.

- CPC- 1343 phases out of PV “unknown” and all variations (which is effective at next tank qualification after Jan 1, 2020 and no later than 2030).
- Validation matrix for HM-246 compliant car (considering a new tank major class but could really use the new suffix delimiter (I, W, or F) from DOT).
- General updates to the Tank equipment group in coordination with UC DQTF

Sara Maples is the assigned Railinc resource and can pull real time industry data to facilitate TF discussions. The group is mindful of long-term goals and future concepts such as EIN integration, “TankFAX”, and pre-population of Umler based on the approved CoC.

**At the April 2019 meeting,** the TF chair reported that the TF had met, and an update was

provided for the agenda. The TF chair presented three proposals related to the Umler Data Specification Manual. All three motions approved by TCC and these will now advance to the Umler DQTF for adoption and programming.

**At the January 2019 meeting**, B. Siebold reported that AAR issued final action on CPC-1331 comments (via CPC-1343) regarding phase out of “unknown” permissible values by January 1, 2030. Other items reported on:

The DOT117 phase III proposal as approved by TCC was implemented in 4Q18. TF chair noted some gaps / missing information in the DSM and will work with UC chair to resolve. Next priority is to develop a CPC-1187 I-car (HM-246) matrix similar to DOT117 matrix regarding the mandatory elements that allow the approved operating configuration.

Additional actions to be considered by the TF -AAR staff received an email on 1/27/2019 requesting that a value for stainless steel be added to the jacket material drop down in UMLER.

Email was received 1/27/2019 requesting that a value for stainless steel be added to the jacket material drop down in UMLER.

T5.31

Update – 4/2/19 TF Chair – B.W. Siebold

Note - In addition to the general status update, the TF will make three proposals to the executive committee (for approval same meeting) on the three pop-up issues (per our emails).

The Task Force has scheduled two face-to-face meetings for later this year (May at The Andersons and July at GATX) to address the following priorities:

- Develop a validation rule matrix for HM-246 compliant cars.
- Review all elements with permissible values of “Z”, “unknown”, “1997UNK” and identify gaps.
- Perform a gap analysis between the 4-2 and Umler (Charge #3).
- Complete previous work on general updates to the data specification manual for the Tank equipment group (which is a coordinated effort with the Umler DQTF).

With respect to Charge #4, the Task Force recently met via teleconference and achieved consensus on the following three proposals for consideration this meeting by the Executive Committee.

- Element A142 – add two new permissible values of “EM – Evacuated (Vacuum) with Multi-Layer” and “EP – Evacuated (Vacuum) with Perlite” to better describe the insulation systems used on DOT113 / AAR204 class, cryogenic tank cars.
- Element A142 – delete the current validation rule that places an unnecessary restriction on 112A or 112S class tank cars such that they may only be reported with a permissible value of UE – Unequipped.

- Element B204 – add permissible value of “S - Stainless Steel” as a new jacket material category.

**At the October 2018 meeting,** B. Siebold reported the following:

- The DOT117 phase III proposal as approved by TCC has been vetted through the DQTF and the main UC. Expected implementation in 4Q18.
- Request from DDCT request for a new permissible value of “unlined” for Umler element A315.
- Next priority is to develop a CPC-1187 I-car (HM-246) matrix similar to DOT117 matrix regarding the mandatory elements that allow the approved operating configuration.
- From Docket T92.18, also will review special permits / FRA AIP requirement. (Industry mentioned that the FRA AIP is related to the maintenance activity)
- Four comments were received on CPC-1331. AAR will develop language for Chapter 1, paragraph 1.3.5 regarding Umler registration requirements as well as text for maintenance of Umler for consideration in Appendix D.

**At the July 2018 meeting,** B. Siebold reported on this docket.

- The DOT117 phase III proposal as approved by TCC has been vetted through the DQTF and the main UC. Expected implementation in 3Q18.
- Next priority is to develop a CPC-1187 I-car matrix similar to DOT 117 matrix regarding mandatory elements that allow the approved operating configuration.
- TF will address the DDCT request for a new permissible value of “unlined” for Umler element A315.
- New request from T92.18 to consider AIP (Alternate Inspection Program) and / or Special Permit documentation or element in Umler.

On June 22, 2018 Sara Maples from Railinc staff for Umler Committee sent a request to make Umler element A315 Tank Lining Material a mandatory field with a new permissible value of “unlined”. See attached request.

**At the April 2018 meeting,** B. Siebold reported that on April 11, 2018 AAR published CPC-1331 with subject Umler System Notification to Tank Car Owners and Solicitation of Comments on the Permissible Value of “Unknown” related as agreed upon actions of the TCC. Comment period is 30 days. The TF plans to start back up shortly with the review of the tank car elements as defined by the TF charge.

**At the January 2018 meeting,** B. Siebold reported that the DOT117 phase III proposal as approved by TCC in July has been vetted through the DQTF and the main UC. Expected implementation in 2Q18. Next the TF will tackle Executive Docket T5.34 on Training Cars followed by Charge #1.

- ❖ AAR staff was reminded to issue a CPC as agreed by TF

**Action Item:** The TCC agreed to have AAR develop a notification circular letter to the tank car owners reminding them of the interchange requirement to update their Umler records in accordance with the Umler data specification manual. Consider language that encourages / requires updates at time of next qualification for any elements with an entry of “1997UNK” or “Z - Unknown, built prior to 7/1/1997”.

**At the October 2017 meeting,** B. Siebold reported that the Umler committee was asked to implement, at the next regularly scheduled update cycle for Umler, the T5.31 Phase 3 DOT117 Final Recommendation to UC 9-19-17. Final approved recommendation was provided with the agenda. Estimate timeframe for Umler to implement the Phase 3 DO117 final recommendation by the TCC is first quarter 2018.

Next Steps:

1. Now that the TF has completed the DOT117 edits the TF will resume the TF charges assigned.
2. TF needs AAR to complete the July 2017 action item. For reference here is the July 2017 TCC action item:

**Action Item:** The TCC agreed to have AAR develop a notification circular letter to the tank car owners reminding them of the interchange requirement to update their Umler records in accordance with the Umler data specification manual. Consider language that encourages / requires updates at time of next qualification for any elements with an entry of “1997UNK” or “Z - Unknown, built prior to 7/1/1997”.

On 10/4/017 TF chair Bruce Siebold on behalf of the T5.31 task force and the Tank Car Committee sent the Umler Committee the final recommendation on the DOT117 class tank car. The Umler committee was asked to implement at the next regularly scheduled update cycle for Umler. See attached TCC T5.31 Phase 3 DOT117 Final Recommendation to UC 9-19-17 document that was provided with the agenda.

**Task Force:**

| <b>Name</b>     | <b>Company</b>           | <b>Name</b> | <b>Company</b>           |
|-----------------|--------------------------|-------------|--------------------------|
| Siebold (Chair) | BNSF Railway Company     | Maples      | Railinc                  |
| Bell            | University of Illinois   | Rader       | GBRX                     |
| Blanton         | The Andersons Rail Group | Schultz     | Union Tank Car Company   |
| Desormeaux      | CIT                      | Strouse     | FRA                      |
| Edmonds         | ExxonMobil               | Test        | GBRX                     |
| Johnson         | Union Pacific            | Williams    | Norfolk Southern Railway |
| Hamilton        | Trinity Industries       |             |                          |
| Kerber          | BNSF Railway Company     |             |                          |
| Leito           | Trinity Industries       |             |                          |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>  |
|---------------|---|
| 1             | Review data elements in UMLER, determine which should be mandatory and which should remain optional.  |
| 2             | Determine which elements to remain proprietary field to the car owner.  |
| 3             | Perform gap analysis between what is on the 4-2 and what is in UMLER, and determine if certain information should be added, changed, or modified. |

## DOCKET T5.32

### REVIEW TANK CAR REQUIREMENTS IN THE AAR OFFICE AND FIELD MANUAL

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**October 2023 update,** B. Siebold reported the following:

- With TCC approving the charge 3 proposal in July, all of the active docket charges are either complete (1, 2, & 4) or have been submitted for implementation (3). TCC needs to prioritize and advance the charge 3 proposal to EEC / ARB (as necessary) so that it may be incorporated into AAR interchange rules. Note that the deadline for the January updates has now passed and as time goes on, the proposal language will begin to diverge from the version of Office / Field manuals used by the TF. The TF recommends that the docket remain open (for tracking purposes) until charge 3 work has been implemented. COD.

**At the July 2023 meeting,** B. Seibold elaborated on the provided July update. TCC reviewed the proposal that was submitted by the taskforce.

- Action item: Motion to accept the proposal presented. Motion taken by TSI, seconded by WLERWLY, and passed.

**July 2023 update,**

- At the April 2023 meeting, the TF advanced a complete 17 page proposal on charge 3 for TCC consideration.
- The TF requests TCC take action on the proposal and advance the work product to EEC / ARB (as necessary) prior to August 2023 deadline for these changes to be incorporated into the January 2024 interchange rules.
- Recommend that the docket remain open (for tracking) until charge 3 work has been implemented. There are no further open charges for this TF to complete.

**At the April 2023 meeting,**

- The proposal details conflicting requirements in the field and office manual. The TF is requesting that by the July or August TCC meeting there is a response from the TCC regarding the proposal. If approved by the TCC, the next step is to advance it to either EEC or ARB (or both), then out for circular comments on the FM / OM. Expected implementation to be January 2024 at the earliest.

**April 2023 update,**

- Attachment: TF charge 3 proposal

**At the January 2023 meeting,**

- Only TF charge 4 remaining.
- TF charge 3 was completed with implemented of CPC-1400.
- Targeting April 2023 for final proposal

**At the October 2022 meeting,** B. Siebold reported that TF completed the review of the field manual for requirements that apply to tank cars and will be working on the office manual. Goal is to have the TF recommendations to EEC and the committee.

**September 2022 teleconference update,**

- B. Siebold went through the proposal. It was noted that EEC needs to be informed that interchange rules must be docketed with the TCC including rule 81. No motion was made on the proposal.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**July 2022 teleconference update,**

- TCC to address the industry comments on 1387 at the July TCC 2022 meeting.

**At the April 2022 meeting,** B. Seibold reported that charge 1 is completed with CPC-1387 published on April 14, 2022, soliciting comments. Comments due May 15, 2022. Charge 2 is progressing and charge 4 information is under review by the field and office manual committee.

**March 2022 teleconference update,**

- B. Seibold presented a proposal and went over the definitions, EEC proposed language.
- Action item: Motion to accept the path forward presented on T5.32 during the conference call. Motion made by CSX, second by BNSF and passed.

**At the January 2022 teleconference meeting,** proposal was presented and discussed.

- Action item: Motion to approve proposal for industry comments made by CP and seconded by CL and passed. CPC will be going out in February.

**December 2021 teleconference update,**

- Action item: Motion to add a new charge, “At the request of ARB/CRB, provide quantifiable criteria for Field Manual Rule 95B damages on tank and tank jacket.” Motion made by Clay Inst, seconded by NS, and passed. Charge target completion date is end of March 2022.

**At the October 2021 meeting,** it was reported that there is no proposal at this time.

- Action item: A motion was made at the request of the CRB, that TF review and define rule 95 damage as it relates to gouges and dents to tank car tanks, and it was proposed to clarify that the wording would include jackets. Motion made by WLERWY, seconded by RSI, and passed.

**At the July 2021 teleconference meeting,** the update provided earlier during the month was discussed. The TF is aiming to provide the proposal to TCC in August 2021.



**July 2021 update**, B. Siebold provided an update regarding docket T5.32 via email.

- TF meeting weekly and still working on charge 1.
- Will miss the proposal target date of July meeting and will aim for August instead.
- TF membership added:
  - David Smook- Midwest Railcar, Tyler Chambers-GBRX, Larry Golden-GATX, Jonathan Schultz – Union Tank Car, Larry Culligan - AITX
- TF membership removed:
  - Alderson-AllTranstek, Leiby- Quality Transportation Service, Warmick-The Greenbrier Companies, Smith- The Andersons Rail Group, Perez- UTC
- TF membership information changed:
  - Adrian Morgan – GBRX, David Smook- Midwest Railcar

**At the April 2021 teleconference meeting**, B. Siebold reported that there is no new proposal from this TF at this time. TF plans to propose some changes to the definitions for chapter 1, also plan to incorporate Appendix Y, mileage, and dates for SS inspections into Appendix D in the future.

- Action item: TF membership to be updated.

**At the February 2021 teleconference meeting**, update provided earlier this month was discussed.

- Action item: AAR staff to update the proposal dashboard in the backgrounds and spreadsheet for charge 1 to April 1<sup>st</sup> instead of March as mentioned.

**February 2021 update**, B. Siebold provided an update regarding docket T5.32 via email.

- On target to provide a proposal on Phase 2 of Charge 1 by March 2021 TCC teleconference.
- Charge 3 will be progressed following an accepted proposal of Charge 1. Charge 3 is critical for publication only where technical alignment with office/ Field manual is required.
- Charge 4 was removed, and a new docket was created as discussed at the November 2020 teleconference update.

**November 2020 teleconference update**,

- B. Siebold reported that TF charge 2 was completed based on published AAR circular C-13559. Charge 1 is critical to republication of M-1002 and committed to App D proposal by March 2021. TF chair requested to revise charges 1 and 4 as follows:
  - TCC Action Taken: TF charge 1 proposed change: “Review Appendix D of M-1002 regarding Rule 88.b.2 and stub sill inspections/qualification requirements include Table D.3 and note 1”.
  - Motion to change charge 1 taken by CSX seconded by CN and passed.
  - TCC Action Taken: Motion to remove current charge 4, and create a new standing docket titled, “CRB/ARB Committee Update”. AAR staff to seek discussant on this new standing docket. Motion taken by TSI, seconded

by CSX seconded and passed. The purpose of this docket is to convey applicable CRB/ARB committee updates.

**At the October 2020 teleconference meeting,**

- This docket was not discussed at the October TCC meeting due to time constraints.

**At the July 2020 meeting,** B. Siebold reported that,

- Appendix D was reconstructed on heavy repairs and accident damage. This to reflect in the updated office and field manuals as well as phase 1 material.
- Progress is being made on phase 2. Questions were asked to TF regarding rule 95, which relates to tanker jackets. Committee exploring the matter to identify criteria, other than photos on the damage.

**May 2020 teleconference update,** it was reported that circular is out for comment and TF is preparing submission with 7 comments. B. Siebold presented changes made by circular 13559 phase 1 proposal on rule 88. Feedback will be provided to TF; comments for CPC are due at the end of May. Projects to look into integrating the TCID database with other platforms.

**At the April 2020 teleconference meeting,** B. Siebold reported that phase 1 proposal on rule 88 was approved by EEC. Circulars to be released by this week.

- ❖ **AAR Staff note:** Circular 13559 has been released.

**At the January 2020 meeting,** B. Siebold reported that work is progressing on the charges and phase 1 proposal on rule 88 to EEC is under consideration. TF does plan to incorporate the 1999 stub sill inspection program circulars into Appendix D. COD

**At the October 2019 meeting,** B. Siebold discussed modification made to the charges. The proposed changes were reviewed with group. J. Schultz has been added as an UTC representative on the TF.

**October 2019 update,** B. Siebold provided an update regarding docket T5.32 via email. Refer to the attached document.

- TCC Docket T5.32- 8-13-19 Proposal too TCC

**At the July 2019 meetings,** B. Siebold summarized the addition of two charges to the TF at the April meeting. He requested that docket T5.32 be moved to the interrelated committee section of the October TCC agenda. It was noted that the timing of the publication of the next Office and Filed manual will require that the TF forward proposals to EEC/ ARB prior to the October 2019 meeting. The committee agreed that the TF should proceed with the proposal development.

**At the April 2019 meeting,** it was reported that the TF has met, and the chair requested that

Office manual be included to charge 3. The chair also requested a 4<sup>th</sup> charge as an “interface / liaison on TCC matters that affect or involve CRB/ARB committee. TCC approved both requests and this Standards Docket will move in the TCC agenda to an inter-related committee docket. The TF is considering Charge 1 related to Rule 88b.2 inspections as priority. COD

ACTION: AAR to update TF charges

TF Charge:

| Number | TF Charge   |
|--------|---|
| 1.     | Review January 2014 decision to change Rule 88.                                   |
| 2.     | Review Rule 81.   |
| 3.     | Review any other section within AAR Field and Office Manual related to tank cars. |
| 4.     | Interface / liaison on TCC matters that affect or involve to CRB/ARB committee.   |

**At the January 2019 meeting,** this docket was COD.

**At the October 2018 meeting,** B. Siebold reported on the following:

- The group will reconvene in 4Q18 and I will ask my TF to consider making progress in a 2 phased approach.
  - Phase 1 will tackle charge #3 which is mostly what the TF developed under previous TF chair Mr. Rader, with exception of Rule 81. We will give this a double check against the current field manual / office manual to ensure the proposal is still viable.
  - Phase 2 will then handle our charges #1 & 2 that specifically relate to Rule 81 / 88.
- ❖ **AAR Staff Note:** Greenbrier requested to remove Tony Warwick and replace him with Tyler Chambers. TF chair also approves addition of Larry Golden (GATX) and Larry Culligan (ARI)

**At the July 2018 meeting,** COD

**At the April 2018 meeting,** COD

TF Addition: Jim Smith (Transco Railway Products).

**At the January 2018 meeting,** COD

**At the October 2017 meeting**, B. Siebold reported that the TF plans to continue their work on the TF charge with emphasis on Rule 80 and Rule 81. COD

**Task Force:**

| <b>Name</b>     | <b>Company</b>       | <b>Name</b> | <b>Company</b>           |
|-----------------|----------------------|-------------|--------------------------|
| Siebold (Chair) | BNSF Railway Company | Morgan      | GBRX                     |
| Loman           | AllTranstek          | Smith       | Transco Railway Products |
| Chambers        | GBRX                 | Smook       | Midwest Railcar          |
| Golden          | GATX                 | Schultz     | UTC                      |
| Culligan        | AITX                 |             |                          |
|                 |                      |             |                          |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>  |
|---------------|---|
| 1             | Review Appendix D of M-1002 regarding Rule 88.b.2 and stub sill inspections/qualification requirements include Table D.3 and note 1 |
| 2             | Review Rule 81  |
| 3             | Review any other section within AAR Field Manual and office manual related to tank cars.  |
| 4             | At the request of ARB/CRB, provide quantifiable criteria for Field Manual Rule 95B damages on tank and tank jacket                  |

## DOCKET T10.31

### PERFORMANCE OF BOTTOM FITTING PROTECTION SYSTEM

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#### September 2023 teleconference update,

- Next CPC changes were discussed. “ From January 2024 to July 2024” to be included.

#### At the July 2023 meeting,

- Action item: Motion taken to RFD taken by UP, seconded by BNSF and passed.
- Staff note: The supply of BOV handles suitable to meet the new requirements has been questioned. Industry would like to consider delaying the implementation date until equipment can be sourced.

#### At the April 2023 meeting,

- Pending tech writer
- Action item: Implement date will be 12 months from when the CPC is issued. Motion was taken by SMBC, seconded by Clay P and passed.

#### At the January 2023 meeting,

- Pending tech writer final pdf.
- Charge 1 and 2 are pending implemented CPC-1406

At the October 2022 meeting, it was noted that a CPC went out for comment. COD

#### September 2022 teleconference update,

- J. Birkmann discussed the following:
  - **Charge 1-** was proposed at the previous meeting. Changes made to 8.2.9.3. Action item: Motion made, seconded by RSI, and passed on the proposal to be accepted as edited during the meeting.
  - **Charge 2-** proposal was reviewed to the committee. Changes were made to 9.1.2.8.3.2 for clarification of intent. It was noted that under section 9.1.2.8, B. Miller would like to discuss the approval process for bottom fittings protection on docket 1.1.4. Action item: AAR staff to incorporate changes and address how to maintain the current standard as this proposal comes into effect January 1<sup>st</sup>, 2024. Motion was taken, seconded, and passed.

At the July 2022 meeting, this docket was not discussed at the July meeting.

#### July 2022 update,

- Proposal discussed but not approved at the June teleconference.
- Revisit with complete proposal with charge 2 in August 2022

**June 2022 teleconference update,**

- J. Birkmann provided a proposal for charge 1. A proposal on charge 2 will be presented in July
- Action item: J. Birkmann received comments from the committee. AAR staff to work with J. Birkmann to get a draft proposal that reflects today's comments to be sent to the committee.

**At the April 2022 meeting,** J. Birkmann elaborated on the update provided.

**April 2022 update,**

- Continuing to meet every 2 weeks. The TF is finishing up the final paragraph in Charge 2 and finalizing the illustrations that will be inserted into Charge 1.
- The last item is how to handle the Appendix Y table for levels of protection.
- The TF has had conversations with previous members to discuss the applicability of this table that was created in 1982. We will continue to work with AAR Staff for data on this matter.

**At the January 2022 teleconference meeting,** J. Birkmann reported the update provided, TF is currently addressing comments on charge 1. Schedule for April 2022 CPC release.

**January 2022 update,** J. Birkmann provided an update on T10.31 via email.

- TF members have reviewed and commented on Charge 1 work and are currently addressing a few minor concerns.
- Significant work has been completed on Charge 2. Action items have been sent out for the TF to be completed on paragraph 8.3.1.2, 9.1.2.8.2.1 and 9.1.2.8.2.1 for our next meeting in the beginning of January 2022.

**At the October 2021 meeting,** J. Birkmann elaborated on the update provided earlier during the month and asked for validity of charge 2. Task force was directed to look at paragraph 9.8.2 in the standards for clarification on ball and bottom outlet valves.

- Action item: AAR TCC to keep TF charge 2 as it is.

**October 2021 update,** J. Birkmann provided an update on T10.31 via email.

- Task force has met 3 times since July with a quorum among TF attendance. The committee is now on a 2-week cadence for meetings.
- Majority of the work is completed on Charge 1. The final document will be sent out to TF members for comments before it is sent to the committee.
- Clarification from the committee is needed to proceed on specific items on Charge 2.

**At the July 2021 teleconference meeting,** it was reported that progress is being made on the proposal and will be provided in August 2021.

**At the April 2021 teleconference meeting,** J. Birkmann reported the following,

- The Task force met on April 13, 2021, with a quorum among the task force members.
- The proposed completion date is July 1, 2021
  - Members have concerns that the deadline would not be feasible.
  - Due to the importance of this, it was decided that there will be 2 meetings a month to align with the deadline before asking the committee for an extension.
- TF reviewed previous work and made clarifications on appendix E 8.0 - 8.2.8.1
  - Majority of the discussion was around clarifying 8.2.4 on what discontinuities are acceptable in the sliding surface of the skid.

**At the February 2021 teleconference meeting,** J. Birkmann reported that TF has not met. An update will be provided by next monthly meeting.

**At the October 2020 teleconference meeting,** COD

**October 2020 update,**

- Member information corrected:
  - John Birkmann – Union Pacific Railroad
  - Roger Dalske – American Industrial Transport
- Members added to the TF:
  - Bruce Siebold- BNSF Railway Company
  - Joe Perez – Union Tank Car Company
  - A.D. McKisic- Trinity Industries
  - Anthony Ippolito- Canadian National Railway
  - Jim Kozey- Canadian Pacific Railway

**At the July 2020 teleconference meeting,** it was reported that TF worked on Appendix E 9.1 which is the bottom protection disengaging handles. COD

**July 2020 update,**

- TF to meet on June 25<sup>th</sup>. An update will be provided after the July call.

**At the April 2020 teleconference meeting,** COD

**April 2020 update,**

- ❖ **Staff note:** DOT is reporting a number of instances where disengaging BOV handles appear in the closed and secured position, but the valve is not fully closed. There have been releases from this condition.
- Discussant changed to J. Birkmann

**At the January 2020 meeting,** no updates were provided. COD.

- Motion was made, seconded and passed to change the TF chair.
- John Birkmann is the new TF chair

**At the October 2019 meeting,** no updates were provided. COD.

**At the July 2019 meeting,** the TF chair advised that our proposal is pending some outstanding actions from TF members (see April minutes). Furthermore, with guidance provided by the TCC in April, the TF has begun to explore valve locking mechanism concepts that are integral to valve (and hence protected by the skid). The concept would provide allowance for an alternative means to satisfy the federal requirement to keep the BOV closed during an accident.

**At the April 2019 meeting,** TF chair updated the committee per the background and also requested guidance from the Executive committee on charge #2 to explore alternate design approaches for bottom outlet valve “locking mechanisms” (such as integral to the valve design versus through a detachable handle). Committee agreed that this is within the purview of charge #2. The TCC has received the following TF update (4/4/2019). The T10.31 task force has met twice since the January meeting. Advancement of a strawman proposal to the TCC is pending the following open actions within the TF:

- Car builder input regarding the general effects that internal pressure has when analyzing bottom protection systems designs.
- AAR/RSI safety project input regarding TWP-17 and latest CPR as it relates bottom protection systems.
- Continued review of opening torque values as a design input to the valve locking mechanism (Charge #2).
- Update two figures to depict pressure loads on the bottom protective structure.

The TCC has received the following TF update (4/4/2019). The T10.31 task force has met twice since the January meeting. Advancement of a strawman proposal to the TCC is pending the following open actions within the TF:

- Car builder input regarding the general effects that internal pressure has when analyzing bottom protection systems designs.
- AAR/RSI safety project input regarding TWP-17 and latest CPR as it relates bottom protection systems.
- Continued review of opening torque values as a design input to the valve locking mechanism (Charge #2).
- Update two figures to depict pressure loads on the bottom protective structure.

**At the January 2019 meeting,** B. Siebold reported on the following:

The Task force has met 4 times via webcast since October with good engagement of participants. Proposal is still a work in progress, but some highlights include:

- combining current Appendix E paragraphs 8.0 (pressure cars) and 9.0 (non-pressure cars) which allows for a general restructuring of the information,





- retitling the new section to “Safety Systems for Bottom Service Equipment and Sumps” (by Chapter 1 definitions, using bottom “discontinuities” and / or “fittings” was in conflict).
- adding a Chapter 1 definition for sump,
- clarifying current load case to the skid and exploring benefits (vs. complexities) of longitudinal and transverse pressure loads (similar to top fittings protection),
- specifying the required results of the above load cases (adding clarity),
- relisting of exceptions to when bottom safety system is not required (exists today, but convoluted),
- still working through discussions on bottom outlet actuation (charge #2).

**At the October 2018 meeting,** B. Siebold reported on the following:

- TF met 10/9/18 last week via teleconference.
- TF Chair asked for revision to the current TF charge as follows: “Clarify current Appendix E (paragraphs 8.0 and 9.0) performance requirements for bottom fitting protection and investigate the possible effects and relative benefits of additional load case(s)”. Motion approved.
- The TF Chair then asked that a second charge be added that includes the sub-paragraph of Appendix E9.1.2.8 (bottom outlet actuation). Justification – in recent incidents, there is evidence from three member railroads that correlates detachable handles to overall “bottom outlet performance and protection”. The expectation is that if the detachable handle is compromised during an incident, the bottom outlet valve will still be retained in the closed position. After TCC discussion, the motion was approved to add a second charge to the existing task force as follows, “Review Appendix E, paragraph 9.1.2.8 – Bottom Outlet Actuation for effects on overall bottom fitting protection performance”.
- AAR staff note – TF membership changes approved by the TF chair (GATX – John Sbragia replaced by Tony Sisto / UTLX – Joe Perez replaced by Mustapha Ghazal- Tokko).

**At the July 2018 meeting,** B. Siebold stated he has been made aware of other data points from recent incidents. Plan is to review the new data points and determine next steps.

**Task Force:**

| <b>Name</b>      | <b>Company</b>                | <b>Name</b>           | <b>Company</b>           |
|------------------|-------------------------------|-----------------------|--------------------------|
| Birkmann (Chair) | Union Pacific Railroad        | Mustapha Ghazal-Tokko | Union Tank Car Company   |
| Barkan           | University of Illinois        | Sisto                 | GATX Rail Corporation    |
| Dalske           | American Industrial Transport | Treichel              | RSI-AAR                  |
| Machenburg       | CSX Transportation            | Birkmann              | Union Pacific Railroad   |
| McKisic          | Trinity Industries            | Siebold               | BNSF Railway Company     |
| Perez            | Union Tank Car Company        | McKisic               | Trinity Industries       |
| Ippolito         | Canadian National Railway     | Kozey                 | Canadian Pacific Railway |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>   |
|---------------|--|
| 1             | Clarify current Appendix E (paragraphs 8.0 and 9.0) performance requirements for bottom fitting protection and investigate the possible effects and relative benefits of additional load case(s) |
| 2             | Review Appendix E, paragraph 9.1.2.8- Bottom Outlet Actuation for effects on overall bottom fitting protection performance   |

## DOCKET T15.11.1

### REVIEW UMLER ELEMENTS TO SUPPORT RE-TANKING TANK CARS

#### October 2023 update,

- Under New Business at the September 2023 teleconference update, the following was discussed.
- Re-tanking issue
  - The committee discussed opening two dockets.
    - Docket #1
    - Action item: Charge- “Aline TP-14877, 49 CFR part 179 and MSRP to include guidance on retanked Tanked cars.
    - Tf chair- Ben miller, Ken Dorsey, Dan Welch
    - Motion was taken by ACC, seconded by Clay P, and passed.
    - Docket #2
    - Action item: Charge- “Address Umler A298 and A183 instructions to accommodate retanked cars. Contact UTC”.
    - TF members- Ken Dorsey, AD McKisic, Dan Welch, Ben Miller
    - Motion was taken by UP, seconded by RSI and passed.

#### Task Force:

| Name   | Company                          | Name    | Company            |
|--------|----------------------------------|---------|--------------------|
| Miller | The Greenbrier Company           | Welch   | SMBC Rail          |
| Dorsey | Association of American Railroad | McKisic | Trinity Industries |
|        |                                  |         |                    |

#### TF Charge:

| Number | TF Charge  |
|--------|--|
| 1      | Address Umler A298 and A183 instructions to accommodate retanked cars. Contact UTC |

## **DOCKET T31.2.2**

### **IMPROVE FIRE PERFORMANCE OF SERVICE EQUIPMENT AND ATTACHMENTS TO THE TANK CAR**

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**At the July 2023 meeting,** it was reported that taskforce met and discussed the following:

- Addressed gaskets being the weak link in DOT117s thermal protection system as they are impacted by the fire and heat causing secondary fires.
- Taskforce membership to gasket and valve manufacturers.
- Challenges, potential changes, and recommendations.

**At the April 2023 meeting,**

- K. Dorsey requested that the charge and title of this docket be changed.
- Action item: Motion made to change the title and charge to be “Improve fire performance of service equipment and attachments to the tank car.” Motion made by Clay P, seconded by RSI, and passed. TF members to be added: D. Welch- SMBC, R. Kinsley-CI, AD McKisic- Trinity.
- Chairman is waiting on the NTSB report to set up a meeting with the TF and discuss a path forward.

**April 2023 update,**

- There is a request to change the charge of the TF to, “Make recommendations to improve the fire performance of service equipment.”

**At the January 2023 meeting,**

- Work to begin after republication of M-1002. Waiting on recommendations from NTSB.

**January 2023 update,**

- TF members added: S. Murray and E. Apland

**At the October meeting,** K. Dorsey discussed the update.

- Action item: open a docket, following the directions from the January 2022 teleconference.

**October 2022 update,**

- At the January 2022 teleconference meeting, the following was discussed in the new business.
- Compatibility of gaskets on transporting flammable liquid
  - TCC committee docket only
  - Action item: Motion made by CP and WELWY seconded to open a TF on this docket. Title, “Investigate the use of heat resist, gasket, connection type & service equipment”. Charge, “Investigate the use of heat resist gaskets, connection type, and service equipment on tanks transporting flammable liquids. Determine achievable performance criteria for use in transportation. Lean on

DOT research.” TF Members: Kelly, Elliot, Brady (Chair), Dorsey, Birkmann, Vergis, Gonzales.

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>  |
|---------------|---|
| 1             | Improve fire performance of service equipment and attachments to the tank car |

**Task Force:**

| <b>Name</b>   | <b>Company</b>   | <b>Name</b> | <b>Company</b>  |
|---------------|------------------|-------------|-----------------|
| Brady (chair) | BNSF             | Birkmann    | Union Pacific   |
| Davis         | Ethanol RFA      | Vergis      | WLERWY          |
| Dorsey        | AAR              | Murray      | ExxonMobil/ ACC |
| Apland        | Marble Rock/ API | Miller      | GBRX            |
| Gonzales      | FRA              | Welch       | SMBC            |
| Kinsley       | CI               | McKisic     | Trinity         |

## DOCKET T50.57

### OPERATIONAL EFFECTS ON SAFETY RELIEF DEVICE PERFORMANCE

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**October 2023 update,**

- A presentation of the analysis of 165 psi PRD failures reported in the FRA OTMA database is drafted. This analysis, FRA testing, as well as changes implemented by other taskforces is being combined into a presentation for final recommendations by this taskforce.

**At the July 2023 meeting,** no update was provided. COD

**At the April meeting,** the update provided was discussed.

**April 2023 update,** J. Schultz reported.

- An updated analysis of all 165 psi PRD failures reported in the FRA OTMA database is being finalized. This analysis as well as the FRA research, and over the road testing performed is being compiled into a final presentation for review by the taskforce in order to determine final recommendations of the taskforce.
- A proposal will be submitted to the committee by the October tank car meeting.

**At the January 2023 meeting,**

- Action item: AAR staff to contact chairman regarding the presentation.

**At the October 2022 meeting,** M. Forister reported that TF chairman plans to present to the TCC. Will be seeking RFD soon after.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** M. Forister reported on behalf of TF chair J. Schultz. It was reported that the chairman plans to present to the TCC a final summary of this docket and seek RFD. Expected to have this complete by summer 2022.

**At the January 2022 teleconference meeting,** it was reported that final actions to be reported to the committee soon.

**At the October 2021 meeting,** the update provided earlier during the month was discussed. It was noted by the TF chair that task force hopes to submit final action to TCC before January 2022.

**October 2021 update,** J. Schultz provided an update regarding docket T50.57 via email.

- Summary of all taskforce work has been finalized and task force review and proposal will be completed during 2021.

**At the July 2021 teleconference meeting,** it was noted that TF will have something to present to the committee in August 2021 or September 2021.

**At the April 2021 teleconference meeting,** J. Schultz stated the TF has worked with FRA and Texas A&M university. The experiment did not show correlation with the data generated by TF. The experiment was stopped. A presentation will be made on this data along with a summary of the work done by TF. Presentation made to review for the TCC by the July or October teleconference meeting.

**At the February 2021 teleconference meeting,** M. Forister reported that J. Schultz is to provide a timeline update of this docket. COD

**February 2021 update,**

- No plan to submit a proposal at this time.

**At the October 2020 teleconference meeting,** no proposal was reported at this moment. COD

- Action item: TF members removed: TBD- FRA

**October 2020 update,** J. Schultz provided an update regarding docket T50.57 via email.

- FRA testing regarding this docket has setbacks.
- In light of the setback, taskforce will reconvene in order to develop a final proposal based on the data collected and reviewed by the taskforce.
- Members removed from the TF:
  - Cozzolino- Girard Equipment
  - Johnson- McKenzie Valve
  - Hoang- Midland Manufacturing

**At the July 2020 teleconference meeting,** COD

**At the April 2020 teleconference meeting,** COD

**April 2020 update,**

**TF change:**

| Name               | Company            |
|--------------------|--------------------|
| Herbal to Hamilton | Trinity Industries |

**At the January 2020 meeting,** COD

**At the October 2019 meeting,** the committee asked that the TF findings be forwarded to AAR staff so that they can be recorded. It was noted by the TF that the occurrence of failures being investigated have stopped.

**At the July 2019 meeting,** the committee agreed that flammable liquid tank cars would be equipped with 75 psi.

**At the April 2019 meeting,** it was reported that this docket is planned to be completed this out this year.

**At the January 2019 meeting,** COD

**At the October 2018 meeting,** J. Schultz reported that the FRA is currently performing the study on environmental effects. COD

**At the July 2018 meeting,** update provided in the background.

On June 20, 2018 Jon Schultz provided the following update to AAR via email:

- Analysis of data collected by the task force on in-service failures has been inconclusive. Task force is awaiting outcome of ongoing FRA project to study the environmental effects of ladings (crude oil and ethanol) upon these safety relief valves to take further action.

**At the April 2018 meeting,** there were no questions on the update provided by the TF.

On March 28, 2018 AAR received the following update from the TF chair:

- Analysis of data collected by the task force on in-service failures has been inconclusive. FRA has an ongoing project to study the environmental effects of ladings (crude oil and ethanol) upon these safety relief valves. Task force is awaiting outcome of this testing to take further action.

**At the January 2018 meeting,** COD.

**At the October 2017 meeting,** P. Raj from FRA gave a detailed presentation on the FRA testing of pressure relief valves. COD

**At the July 2017 meeting,** FRA reported that their environmental testing of pressure relief valves continues. COD

July 2017 Update:

AAR received the following update on 7/7/2017 from TF Chair:

- FRA conducted environmental testing of pressure relief valves that were provided by task force members is ongoing.



**At the April 2017 meeting,** J. Perez reported on the update provided to AAR on 4/4/2017  
AAR received the following update on 4/4/2017 from TF Chair:

- FRA project for environmental testing of pressure relief valves is ongoing.

**Task Force:**

| <b>Name</b>     | <b>Company</b>                  | <b>Name</b> | <b>Company</b>                     |
|-----------------|---------------------------------|-------------|------------------------------------|
| Schultz (Chair) | Union Tank Car Company          | Kazakewich  | RegO Products/ Engineered Controls |
| TBD             | Federal Railroad Administration | Lacroix     | Kelso Technologies Inc             |
| Harm            | Girard Equipment                | Loman       | AllTranstek                        |
| Hamilton        | Trinity Industries              | TBD         | Federal Railroad Administration    |
| Thompson        | Sims Professional Engineers     | Sisto       | GATX                               |
|                 |                                 |             |                                    |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>  |
|---------------|---|
| 1             | Collect, analyze, and review data of field failures and determine commonalities. Review AAR current design requirements of Appendix A. Review current AAR design and testing requirements of safety valves in relation to recent in-service failures, with a focus on vibration and harmonics effects from the operating service environment. |
| 2             | Investigate the distortion of 165 psi pressure relief valve to determine if the valves are defective. If they are found defective recommend the action needed to be taken.  |

## DOCKET T60.17

### REVIEW OF VOLUME DETERMINATION FOR TANK CARS

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**At the July 2023 meeting,** K. Dorsey reported that editorial changes are being made. COD

**At the April 2023 meeting,** COD

**At the January 2023 meeting,**

- Pending implemented CPC-1406, then the solicitation CPC appendix U annex for will be issued.

**At the October 2022 meeting,**

- Action item: Motion to accept the proposal as presented in the background, taken by UP, seconded by CP and passed. Second motion was taken to reformat appendix u-annex to recommended practices.

**October 2022 update,** proposal is provided for committee's review.

- Attachments: Proposal, Appendix V- Annex A, Appendix V

**September 2022 teleconference update,**

- M. Forister presented the TF work provided by TF chair. The committee had concerns over the direction of the proposal.
- Action items: K. Dorsey and M. Forister to get in communication with the TF and go through details of the proposal to get it ready for the October TCC meeting. Motion made by UP and seconded by CN and passed.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** M. Forister reported on the current status of TF efforts, which is to complete the TF proposal for Chapter 1, Appendix E, and a new Appendix with the focus on standard language. The proposal is expected to be officially submitted before or on May 24, 2022.

**April 2022 update,**

- The task force is working on final draft proposal for new standard Appendix V and related proposals for Chapter 1 and Appendix E. The goal is to have final proposal completed by May 24, 2022.

**At the January 2022 teleconference meeting,** it was reported that proposal is being formatted in technical standard format. M. Forister and TF chair are making progress on this matter. CPC scheduled for April 2022.

**At the October 2021 meeting,** it was reported that M. Forister and TF chair are working on changes to the track changes.

**At the July 2021 teleconference meeting,** it was noted that TF had prepared a proposal, but things were missing such as some definitions and clarifications. Capacity tables at the time of manufacturing and some imagines will be included. TF is aiming to have a final proposal ready for the August 2021 teleconference.

**July 2021 update,** M. Forister emailed TCC leadership on 6/22/2021 stating,

- TF has confirmed and edited the document as directed by the AAR TCC. It is ready for TCC email ballot.
- Attachment: 60.17 proposal, “Volume Determination of Tank Car Tanks”.

**June 2021 teleconference update,**

- S. Hopper and M. Agahi called in and went over document appendix (TBD)- volume determination of tank car tanks. Committee reviewed the documents and suggested editorially changes. On 5.5.2 the word barrel needs to be changed to tanks to match the rest of the document. The words car builder and tank manufacturer are being intertwined, TCC would like this to be changed to manufacture and not builder through the docket.
- Action item: Committee has a question on the difference between the definition meter and load controller. A proposal to be adopted for a CPC once the committee’s question is answered and editorially changes are made.

**May 2021 teleconference update,**

- It was reported that a proposal will be provided on the June monthly call.

**At the April 2021 teleconference meeting,** M. Forister elaborated on the update provided by S.Hopper earlier this month. COD

**April 2021 update,** S. Hopper provided an update regarding docket T60.17 via email.

- The TF is working on a proposal to describe methods for volume determination of tank car tanks (i.e., Liquid Meter, Mechanical Measurement, and requirements for other methods not covered).
- The methods will be contained in a new Appendix in C-III titled “Volume Determination of Tank Cars.”
- All references from. Chapter 1, Section 1.3.8 will be moved to new appendix.
- Replace “calibration” in this context to “volumetric” as volume is what is being determined to develop the gauge tables.
- The proposal will be submitted to TCC in May 2021.

**At the February 2021 teleconference meeting,** update was reviewed. Awaiting proposal for March 2021. No action needed at this time. COD

**February 2021 update,** S. Hopper provided an update regarding docket T60.17 via email.

- March 1<sup>st</sup> is listed as deadline for proposal. TF chair will have a better idea of a realistic timeline once the group has started formal meetings.
- Update to be provided the week of February 8<sup>th</sup> regarding the proposal deadline.
- TF members removed:
  - Jones- American Petroleum Institute
  - Sixkiller- The greenbrier Companies
  - Carlson- Measurement Strategies
  - Meyer- ExxonMobil
  - Philley- ExxonMobil
- TF members added:
  - Aldredge- Trinity Industries
  - McKisic- Trinity Industries

**December 2020 teleconference update,**

- M. Forister reported that TF chair is seeking TCC's consideration on the TF proposal to create a new C-III Appendix that would describe the methods for volume determination of tank car tanks. This would include replacing the reference to API standard 2554 in Chapter 1 (1.3.8.1) with the new C-III appendix. This would include the term "calibration" being replaced with "volume"
- Action Items: Motion to approve the TF proposal made by RSI, seconded by API and passed. M. Forister to coordinate with the TF chair regarding the approved proposal by the TCC and identify a timeline of when to expect a proposal.

**At the October 2020 teleconference meeting,** the updated provided earlier this month was discussed as well as the charge of the docket. Replacement for the standards and adaptation of language in M-1002 is in the works. TCC awaiting proposal.

- Action item: TCC suggests that TF proceed work with API standards and if viable suggests specific sections that might be adopted by the TCC for M-1002. If this is to prove impractical then to develop wording for M-1002 for determining the volume of tanks.
  - TF members to be changed: Warner- API to Elliot Apland.
  - AAR Staff to work with E. Apland on updating the TF membership.

**October 2020 update,** S. Hopper provided an update regarding docket T60.17 via email.

- TF members participating in bi-weekly conference calls organized by API to update Standard 2554, second edition
  - At such time that the revised standard is accepted, API Std. 2554, Second Edition will be retired. The revised standard will be titled API MPMS Chapter 2.4, First Edition.
- 7.28.2020
  - A conference call was held with AAR members to discuss concerns with the progress of the working document.

- The TF continues to work with API on a working document.
- As of October, don't have a proposal, as several discussions are still in-process.
- Group will meet at next week's 2020 API/COLM Fall Committee Meeting (online). This fall meeting was set as a deadline for the working document to be completed, but it does not appear that this goal will be met, as substantive changes continue.
- The TF needs to discuss and come to a consensus on what is the best direction to propose in terms of an updated reference for Chapter 1. Need to investigate other possible options while waiting for the API working document to be finalized, in order to make an informed decision.
- The TF seeks guidance from the TCC in terms of direction (i.e. Does the TCC committee have a preference, or any concerns, or alternate recommendations based on the discussions reported in the docket update?).
- TF discussion can be found in the document attached to this docket

**At the July 2020 teleconference meeting,** S. Hopper provided an update via email. It reported,

- Live meeting schedule in March was cancelled due to Covid.
- Bi-monthly teleconferences continue to be held and managed through COLM-API 2554; progress continues. API is still committed to release a proposal in October 2020.

**At the April 2020 teleconference meeting,** COD

**April 2020 update,** S. Hopper provided an update regarding docket T60.17 via email.

- A meeting was scheduled to meet during the COLM Spring meetings in Dallas the week of March 23<sup>rd</sup>, to finalize the proposal. It has been cancelled.
- The TF is in-process of re-scheduling the working group as WebEx.
- A completion date for the proposal will be determined once joint API and AAR members provide feedback and finalize comment.

**At the January 2020 meeting,** it was stated that API wants to finalize the proposed standard but would like laser scanning of the tank to be included. API standard will be available by April 2020.

**January 2020 update,** S. Hopper provided an update regarding docket T60.17 via email.

- Bi-Monthly teleconferences are being held and managed through API 2554 and work is slowly progressing. A live meeting in March 2020 will take place at API spring meeting and the goal to have a proposal completed then.

**At the October 2019 meeting,** D. Edgel elaborated on the updates that were provided via email earlier this month. API has questions on the proposed standards changes. COD

**October 2019 update,** S. Hopper provided an update regarding docket T60.17 via email:

- Task Force Charge: Determine if the current M-1002 requirements for determining the volume of a tank need to be modified or expanded.

August 21-22, 2019

The AAR task force members met at the AllTranstek offices in Downers Grove, IL from August 21-22, 2019, to work on an updated draft proposal. Weekly conference calls have been organized by the API 2554 Chair, Valerie Hobson. Weekly calls will continue until the 2019 Fall Committee on Petroleum Measurement Standards Meeting, to be held the week of October 14<sup>th</sup>, 2019.

| Name           | Company                        | Name               | Company                      |
|----------------|--------------------------------|--------------------|------------------------------|
| Hopper (Chair) | Greenbrier Management Services | McKisic            | Trinity Industries           |
| Alderson       | AllTranstek                    | Aldredge           | Trinity Industries           |
| Batchelor      | National Steel Car Limited     | Hobson (API Chair) | Plains All American Pipeline |
| Carlson        | Measurement Strategies         | Philly             | Exxon Mobil                  |
| Edgel          | Union Tank Car Company         | Northup            | American Petroleum Institute |
| Sixkiller      | Greenbrier Management Services |                    |                              |

**At the July 2019 meeting,** this docket was COD.

**At the April 2019 meeting,** it was reported that the API 2554 TF appointed a new chair that work had resumed. COD.

**At the January 2019 meeting,** COD.

**At the October 2018 meeting,** S. Hopper reported that unfortunately the API chair passed away and thus docket is on hold.

**At the July 2018 meeting,** K. Dorsey reported that there is additional work being done by the TF.

K. Warner reported that the API TF met in Houston on 5/24/2018 to outline the scope. COD

**At the April 2018 meeting,** S. Hopper discussed the next steps as stated in the background. COD On

March 20, 2018 AAR received the following update from the TF chair:

March 14, 2018

The working group met at the 2018 Spring Committee on Petroleum Measurement Standards meeting in Dallas, TX to discuss ballot results and review negative comments. A meeting will be held in the April/May timeframe to continue work on the current ballot draft.

November 1, 2017

Ballot Summary Released: 145 comments, 2 negative votes

API-COLM member Roy Meyer volunteered to lead the comment resolution for STD 2554.

October 13, 2017

Closing date for ballot of the proposal for API MPMS STD 2554, *Standard Method for Calibration of Tank Cars*.

**At the January 2018 meeting,** it was reported that API is moving forward with their proposal.

**Action Item:** Jim Rader agreed to contact Sara Hopper to see if the TCC comments were received in the API proposed standard.

| Name           | Company                    | Name     | Company                      |
|----------------|----------------------------|----------|------------------------------|
| Hopper (Chair) | The Greenbrier Companies   | Apland   | American Petroleum Institute |
| Alderson       | AllTranstek                | Aldredge | Trinity Industries           |
| Batchelor      | National Steel Car Limited | McKisic  | Trinity Industries           |
| Edgel          | Union Tank Car Company     |          |                              |
|                |                            |          |                              |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Determine if the current M-1002 requirements for determining the volume of a tank need to be modified or expanded. |

## DOCKET T79.41.1

### PETITION DOT ON ID ON ID PLATE FOR 49 CFR 179.24

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**At the July 2023 meeting,**

- Action item: AAR staff to get with TC, DOT and PHMSA to align requirements to discuss a path forward.

**At the April 2023 meeting,** COD

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** it was noted that work will continue on this docket after the republication.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,**

- New docket established by way of TCC approved direction under docket T79.41. Work not to begin on a request for rulemaking until after republishing of M-1002.

**April 2022 update,**

- This docket is opened for TCC action. Action not to be taken until the TCC has republished M-1002.

**March 2022 teleconference update,**

- T79.41- Clarification of 49 CFR 179.24(a)(3) the requirements for variable identification plates
  - M. Forister and J. Rader went through proposal changes.
  - Action item: motion made, seconded, and passed on the following:
    - Approved the TF proposal as written and approved AAR to publish a CPC soliciting comment.
    - Approved to open a docket (T79.41.1) to draft a petition to DOT on those items in the proposal in yellow.
    - Approved to open a docket to review the feasibility to add the EINN number to the Tank Identification plate.

**Purpose of docket:** TCC to draft a petition to DOT based on the T79.41 approved proposal using those sections highlighted in yellow.



## DOCKET T79.42

### AAR FRA/ TC AUDITS FOR TANK CAR COMMITTEE

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**At the July 2023 meeting,** COD

**At the April 2023 meeting,** it was reported that most of the findings will be resolved by the republication. COD

**At the January 2023 meeting,**

- Action item: AAR staff to provide the original audit findings to the committee. Determine completion of the items mentioned in the audit.

**At the October 2022 meeting,** K. Dorsey reported that the new republication will resolve a large number of the opportunities for improvement documented by the audit.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,**

- Working through the opportunity for improvements on the findings. COD

**At the January 2022 teleconference meeting,** S. Singh clarified that there are 3 open items for the Facility QAP audit. For the tank car and component design approval audit, there are several more. Some of which are linked to the ongoing TCC-TFs. Few others can be answered with some updated documentations.

**At the October 2021 meeting,** it was reported work is progressing, currently there are 3 open items for Transport Canada.

**At the July 2021 teleconference meeting,** it was reported that responses need to be summarized to TC/FRA. The republication of the manual will address approval issue findings and other findings related to audits will be addressed through other activities. About 40 issues identified will be address through T1.1.4

**At the April 2021 teleconference meeting,** K. Dorsey reported that progress is being tracked and made on these audits. M. Forister reported that a spreadsheet has been started to keep track of audit findings for both 2019 FRA and TC audits (facility certification program and approvals of tank car and service equipment design). The intent of the spreadsheet is to target completing dates and status of each finding.

- Action item: TCC to discuss if FRA/TC audits should be made available to the industry.

**At the February 2021 teleconference meeting,** M. Forister presented a spreadsheet that was developed to keep track of audit findings for both FRA and TC. The spreadsheet displayed target completing dates and status of each finding.

**At the October 2020 teleconference meeting,** the updated ITP check sheet and the new charter was discussed.

- Action item: TCC to review the tracker sheet, accept changes and get ITP check sheet back to the government before November teleconference meeting.

**At the July 2020 teleconference meeting,** COD

**At the April 2020 teleconference meeting,** it was reported that the final draft of the audit reports will be sent out to the committee by the end of April by K. Dorsey.

**March 2020 teleconference update,**

- Word document was discussed by K. Dorsey. It will be out for review & feedback from the TCC members. Tone and level of detail of the responses will be changed.

**February 2020 teleconference update,**

- A presentation will be drafted to be sent to DOT and TCC before March, highlighting the finding from the two audits.

Background: An FRA/TC audit was done at the AAR office in August 2019. An inspection report was sent to AAR at the end of that month containing certain finding that AAR/TCC must address.

**Task Force:**

| Name           | Company                           | Name | Company |
|----------------|-----------------------------------|------|---------|
| Dorsey (Chair) | Association of American Railroads |      |         |

**Purpose of docket:** document the development of the AAR/TCC audit plans for FRA/TC

## DOCKET T79.43

### IDENTIFICATION PLATES OF TANK CAR

**October 2023 update,**

- Under New Business at the September 2023 teleconference update, the following was discussed.
- Re-tanking issue
  - The committee discussed opening two dockets.
    - Docket #1
    - Action item: Charge- “Aline TP-14877, 49 CFR part 179 and MSRP to include guidance on retanked Tanked cars.
    - Tf chair- Ben miller, Ken Dorsey, Dan Welch
    - Motion was taken by ACC, seconded by Clay P, and passed.
    - Docket #2
    - Action item: Charge- “Address Umler A298 and A183 instructions to accommodate retanked cars. Contact UTC”.
    - TF members- Ken Dorsey, AD McKisic, Dan Welch, Ben Miller
    - Motion was taken by UP, seconded by RSI and passed.

**Task Force:**

| Name           | Company                             | Name  | Company   |
|----------------|-------------------------------------|-------|-----------|
| Miller (Chair) | The Greenbrier Company              | Welch | SMBC Rail |
| Dorsey         | Association of American<br>Railroad |       |           |
|                |                                     |       |           |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Aline TP-14877, 49 CFR part 179 and MSRP to include guidance on retanked Tanked Cars. |

## **DOCKET T80.2.4**

### **WELDING TASK FORCE PROPOSALS**

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**At the July 2023 meeting,** it was reported that appendix W will be reissued with the comments then a final appendix W will be developed.

**At the April 2023 meeting,** it was reported that comments are being incorporated into the CPC that will be published for comments. COD

**March 2023 teleconference update,**

- CPC-1403 and CPC-1404 to be finalized and then the Appendix W will be issued for comment.

**February 2023 teleconference update,**

- Review previous work discussed in December.
- MSP Publish CPC reflecting the changes made to CPC-1401 for comment.

**At the January 2023 meeting,**

- Pending Implemented CPC-1406, then the solicitation CPC will be issued.
- Action item: AAR staff to provide previous work discussed at the December teleconference for the next monthly meeting. This work included verbiage stating “documented work experience” for an employee’s creating weld procedures. This path forward was deemed acceptable by TCC members on the call.

**At the October 2022 meeting,** comments to be addressed at the closed meeting that will take place in the evening of October 20<sup>th</sup>, 2022.

**September 2022 teleconference update,**

- It was noted that a CPC was approved in July 2022 and went for industry comments. Comments are due on October 6<sup>th</sup>, 2022.

**At the July 2022 meeting,**

- Action item: Motion to accept as edited and go for comments. Motion taken by BNSF, seconded by Clay P and passed.

**At the April 2022 meeting,** M. Forister reported that work will progress in May 2022 for the preparation of a CPC solicitation for comment.

**At the January 2022 teleconference meeting,** it was noted that track changes are being made, scheduled for April 2022 timeframe to get to the committee with May CPC release.

**At the October 2021 meeting,** it was reported that progress is being made on the CPC to be sent out before the end of the year.

**At the July 2021 teleconference meeting,** M. Forister reported that work is being progressed with the TF chair to get referenced figures added to the chapter and are hoping to have a proposal ready by September or August 2021.

**May 2021 teleconference update,**

- It was reported that the proposed language is being reviewed with the TF chair and M. Forister.

**At the April 2021 teleconference meeting,** C. Gamblin discussed the update provided earlier this month. It was also noted that the AAR staff continues to work on the Appendix W proposal based on action taken by the AAR TCC during the March 2021 meeting. CPC solicitation for comment forthcoming once AAR staff completes the administrative process efforts. COD

**April 2021 update,** C. Gamblin provided an update regarding docket T80.2.4 via email.

- Docket T80.2.4 has suspended all work at this time due to the last few years being problematic with proposals being submitted to AAR TCC and conflicting understanding of those proposals by the AAR TCC members and the Docket T80.2.4 membership. Due to the time gap of proposal submission and conflicting proposal schedule has all led to the current status we are at with Docket T80.2.4. As remedy the TF Chair and Matt Forister have determined that current questions as to the intent and meaning for the various items contained in the proposals will be best served after a public comment period so that the TF Chair can work at the direction of the AAR TCC to itemize and organize the TF efforts to target areas need to be focused on so that Appendix W can meet the desired publication date.
- The TF Chair will return TF operations back to the understanding that any and all future work by the TF will be done by an AAR TCC assigned priority agenda, so that time and energy spent by the TF members is fully understood and approved by the AAR TCC.
- TF members removed:
  - Joseph Russell- Trinity: Separation from Trinity Rail
  - Nick Mitchell- Trinity
- Request to add TF members added:
  - Peter Wenninger- Trinity: New addition to Trinity Staff. Welding Responsibilities.
  - Antonio Losoya- Trinity: Have asked to replace Nick Mitchell

**March 2021 teleconference update,** the following was discussed.

- Removed Language if not indicated as change prior to committee vote. Need to add diagrams before publishing in standards.
  - It was reported that M. Forister reviewed the language that was sent back from the technical writer. Missing track changes were identified on the proposed text along with missing figures. In coordination with the TF chair the decision was made to move forward with those paragraphs that showed track changes and work with the TF chair to get the figures related to those track changes put into a CPC for comment. Additionally, the AAR staff coordinated with the TF chair on

the subject of facility responsibility requirements in Appendix W and stated those will not be modified at this time since that was not included in the charge of the Appendix W TF.

- C. Gamblin is aware of changes being made, breakage of references or rules will be noted during the comment process.
- Action item: AAR staff to work with the TF chair on getting the figures prepared to include the release of the CPC for solicitation of comments to industry.

**At the February 2021 teleconference meeting,** the committee discussed the TF proposal. Members to provide feedback through the Exhibit PC-1 form when the CPC is published soliciting industry for comments.

- Action item: Motion taken to approve Appendix W TF proposal to be released under CPC soliciting industry comment. Motion made by BNSF, seconded by RSI, and passed.

**February 2021 update,**

- Attachment: 80.2.4 TF proposal

**December 2020 teleconference update,**

- C. Gamblin provided a detail presentation on the TF proposal as requested by the TCC. The proposal is to address changes within the scope of Appendix W and to complete all activity assigned by the TCC under the TF change.
- Action Item- K. Dorsey to redistribute the draft Appendix W track changes along with the presentation given on today's call to the committee. AAR-TCC to vote on this proposal at the January 2021 TCC meeting for issuance of a CPC for comment.

**November 2020 teleconference update,**

- Presentation will be rescheduled for the December call because C. Gamblin was out of the country due to work. COD

**At the October 2020 teleconference meeting,** C. Gamblin discussed that appendix W and appendix R task force need to be separated. J. Schultz and K. Dorsey to accept questions on appendix R, while C. Gamblin and T80.2.4 task force to focus on appendix W. TF chair has a presentation for TCC regarding appendix W and its changes over the last 7 years, and would like to set up a time to review the presentation with the committee. TF on pause because of backlog and need a priority system for the docket after the republication.

- Action item: AAR staff to assist C. Gamblin set up a time to present information on appendix W during or before the November monthly call.

**At the July 2020 teleconference meeting,** C. Gamblin reported that TF has paused progress on charge and proposals until after TCC guidance during this call.

- Action item: Task force chair will develop presentation for the current proposals to be presented to the TCC for action.
- Members to be added to TF: Jim Kladifko- UP

**At the April 2020 teleconference meeting,** K. Dorsey requested a new chair for the TF from one of the stakeholders. TF needs to submit a wish list with a proper statement and proposal benefits to TCC for approval before moving forward with any new proposal.

- Members to add to the TF:
  - Chris Gamblin (Chair)- Greenbrier

**April 2020 update,** M. Untermeyer provided an update regarding docket T80.2.4 via email.

- Proposed changes for Appendix R and W have not changed.
- TF requests TCC approval and subsequent CPC issue for both comprehensive proposals.
- Additional proposals under consideration by the TF are attached to this docket, which include groove weld backing requirements and repair of AAR specification tank car tanks by patch plates.

**At the January 2020 meeting,** it was stated that multiple proposals with modifications were provided by TF. K. Dorsey has asked the TF to stop making any proposals until a circular letter is issued reflecting the current recommended changes of Appendix W and R. The changes will give shops direction on weld processes.

**January 2020 update,** M. Untermeyer provided an update regarding docket T80.2.4 via email.

- Proposed changes for Appendices R and W have not changed. Attached is the current Appendix R and Appendix W proposals.
- TF requests TCC approval and subsequent CPC issue for both proposals.

**At the October 2019 meeting,** TF elaborated on the updates that were provided via email earlier this month.

**October 2019 update,** M. Untermeyer provided an update regarding docket T80.2.4 via email.

- Task force is considering the removal of the provision for patch plate repair from Appendix R. In view of the current requalification requirements for AAR tank cars, the task force is questioning whether patch plates should be allowed going forward. They are still in the process of gathering information from various car owners, so no proposal is ready for TCC consideration at this time. Refer to the attached documents.
- Comprehensive proposed changes to Appendix R and W (Same proposals that were submitted to the TCC for consideration during the July 2019 executive session)
- Current task force membership list
- Task force comment form with proposals for fused and unfused backing to be added to Appendix W

**At the July 2019 meeting,** it was reported that the Appendix R proposals of this task force were being amended by the T59.2.1 TF and the combined proposal should be complete by October. The TF is considering adding flash welding criteria to appendix W.

**At the April 2019 meeting,** it was reported that the TF met the day prior. The TF is discussing the requirements for welding TC-128 after post weld heat treatment. COD

**At the January 2019 meeting,** K. Dorsey reported that he will seek all final TF proposal from the Appendix W TF chair so that action can be taken by the TCC on the most current TF proposals. Goal is to try and have this reviewed and approved during the monthly TCC calls prior to the April 2019 TCC face-to-face meeting.

**At the October 2018 meeting,** M. Untermeyer reported that the TF met 10/16/2018 and the local post weld heat procedure requirements are being addressed. A replacement R.4 figure (placement of heating pads) is completed and will soon be proposed. The TF identified a hard stop maximum temperature of 1250F, but if LPWHT exceeds this temperature the affected area will need to be replaced by a tank insert. The TF is still working on how to determine the extent or magnitude of the affected area. The TF is also recommending AWS 3.0 Standard for terms and definitions be incorporated as a mandatory reference in Appendix W of M-1002. Regarding those materials listed in Appendix M, the TF has added verbiage to Table W.8 for procedure qualification. Not all the materials are listed in M-1002 and therefore a recommended proposal is forthcoming.

**At the July 2018 meeting,** K. Dorsey is working with BNSF's Bruce Siebold on improving the organizations of Appendix W welding requirements. Discussions on the proposals remains in the executive committee.

On June 20, 2018, Mike Untermeyer provided AAR an update via attachment in an email. See attachment for update.

**At the April 2018 meeting,** M. Untermeyer discussed the updates provided with the docket.

During the April 2018 executive TCC session meeting, the TCC discussed the revised proposal as provided in the main session docket. It was considered under executive session by the TCC, and the following action was taken:

**Action Taken:** A motion was made, seconded, and passed to hold off on approving the Appendix W proposal for a comment CPC until the T95.7.4 TF addresses the TCC concern regarding the requirements for remote monitoring of Local Post Weld Heat Treatment (LPWHT) and the specific language for thermal damage on tank cars.

**Action Item:** T80.2.4 TF needs to work with the T95.7.4 TF to address the TCC concern regarding the requirements for remote monitoring of Local Post Weld Heat Treatment (LPWHT) and the specific language for thermal damage on tank cars.

On March 21, 2018 AAR receive the following update from the TF chair:

A comprehensive review of changes to Appendices R and W was presented to TCC members on February 22, 2018. Subsequent to that review, Appendices R and W were revised to address.



TCC comments and concerns. Those changes were incorporated and submitted to Ken Dorsey for review and distribution to TCC members.

**At the January 2018 meeting,** K. Dorsey discussed that the AAR would like to setup a teleconference between the TF chair and the executive committee with the goal of going over, in detail, the current TF proposals.

**Action Taken:** TCC agreed to have AAR set up a teleconference between the TF chair and TCC executive members.

**Action Item:** AAR will set up a teleconference and discuss with the TF chair previous approved action items.

**Task Force:**

| Name            | Company                        | Name      | Company                         |
|-----------------|--------------------------------|-----------|---------------------------------|
| Gamblin (Chair) | Greenbrier Management Services | Pasqua    | Salco Products                  |
| Allbritten      | Salco Products                 | Morgan    | Greenbrier Management Services  |
| Costanzo        | GATX Rail Corporation          | Smook     | Midwest Railcar                 |
| Gallant         | American Railcar Industries    | Strouse   | Federal Railroad Administration |
| Hale            | Greenbrier-GMO                 | Strong    | Federal Railroad Administration |
| Weninger        | Trinity Rail                   | Walker    | Federal Railroad Administration |
| Hopper          | Greenbrier                     | Willaredt | Midwest Railcar                 |
| McCullough      | AllTranstek                    | Tait      | AllTranstek                     |
| Gronberg        | Watco Companies                | McFarlane | Midwest Railcar                 |
| Edgel           | Union Tank Car Company         | Meeker    | Union Tank Car Company          |
| Delgatty        | Union Tank Car Company         | Lehmann   | Quality Testing                 |
| Welander        | Trinity Rail                   | Mitchel   | Trinity Rail                    |
| Killion         | Union Tank Car Company         | Kladifko  | Union Pacific Railroad          |
| Forsstrom       | CIT                            | Losoya    | Trinity Rail                    |
| Untermeyer      | Alltranstek                    |           |                                 |

**TF Charge:**

| Number | TF Charge                                   |
|--------|---|
| 1      | Consider changes in Appendix W requirements |

## DOCKET T80.22

### INCORPORATION BY REFERENCE

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**At the April 2023 meeting,**

- Handing by AAR

**At the January 2023 meeting,**

- Action item: AAR staff to provide progress on this docket.

**At the October 2022 meeting,** it was noted that work will continue on this docket after the republication.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** M. Forister reported this activity is on schedule to begin in August after the changes for the new publication of M-1002 are close to finalized.

**At the January 2022 teleconference meeting,**

- scheduled for April 2022 CPC release.

**At the October 2021 meeting,** M. Forister reported that progress on this docket will be made once changes for the proposed republication of standard are complete to avoid multiple reworks of the IBR effort.

**At the July 2021 teleconference meeting,** it was noted that M. Forister is going through an extensive review of M-1002. Multiple changes are being made to chapter 1 and will be held off until changes are made by the other TF's complete their work. The difference between an IBR and a listed requirement was discussed. COD

**At the April 2021 teleconference meeting,** the AAR staff continues to work on the IBR effort. COD.

**At the February 2021 teleconference meeting,** M. Forister displayed the ongoing efforts on the documents referenced in various chapters to the committee through a spreadsheet. As stated in the February update, chapter 1 has been completed. Work continues on the remaining chapters.

**February 2021 update,**

- M. Forister reported that chapter 1 was reviewed and completed. Progression on more chapters will be made accordingly.

**At the October 2020 teleconference meeting,** it was discussed that M. Forister will work with different task forces on this docket to constrain industry standards.

- Action item:
  - Charge: AAR staff to create a table in Chapter 1 to list all IBR's in M-1002
  - Motion to accept the charge taken by GBRX and seconded by RSI and passed.
  - POC: Matt Forister- AAR/TTCI

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | AAR staff to create a table in Chapter 1 to list all IBR's in M-1002 |

**Point of Contact:**

| Name           | Company |
|----------------|---------|
| Dorsey/ Khalid | AAR     |

## DOCKET T85.11

### TCC APPROVAL PROCESS FOR RME

**At the July 2023 meeting,**

- Action item: Move this docket for discussion under T1.1.4 as a charge, “Approval process for RME”. Motion to RFD, taken by UP, seconded by RSI and passed.

**At the April 2023 meeting,**

- There are specifications of the RME standards in the S2045. Review is in process by the TCC to update the committee recommendation process.

**April 2023 update,**

- Attachment: copy of S2045

**At the January 2023 meeting,**

- Action item: AAR staff to provide S2045 to the Tank Car Committee. Discussant to be K. Dorsey.
- Charge: “TCC to review the Tank Car approval sections”.

**December 2022 teleconference update,**

- New Business:
  - Action item: Open a docket to review TCC’s approval process for RME and discuss TCC’s roll in the approval process and review S2045.

**Task Force:**

| Name   | Company | Name | Company |
|--------|---------|------|---------|
| Dorsey | AAR     |      |         |

**TF Charge:**

| Number | TF Charge                                    |
|--------|--|
| 1      | TCC to review the Tank Car approval sections |

## DOCKET T88.12

### VISUAL INSPECTION

---

**At the July 2023 meeting,** it was reported that work on this docket will start after the republication.

**At the April 2023 meeting,**

- Action item: Chairman to be changed to C. Gamblin

**At the January 2023 meeting,**

- Work to begin after republication.

**At the October 2022 meeting,** it was noted that work will continue on this docket after the republication.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** it was reported that TCC committee work is to be completed prior to republication of M-1002. This is TCC committee work, no TF work required. Lead by BNSF rep on TCC.

**At the January 2022 teleconference meeting,** it was reported that M. Forister is currently identifying bunch of terms on visual and visual inspections in the M-1002. Aiming to present something to the committee in May or April 2022.

**At the October 2021 meeting,** M. Forister reported that specific findings need to be address during the audit with the auditor. Only general questions on standards or requests for changes to the standards should be forwarded to the committee for interpretation. During discussion members of the industry requested that guidance be given to auditors to get consistency in audit findings.

**At the July 2021 teleconference meeting,** it was noted that M. Forister will be reviewing paragraphs on Visual inspections from the standards.

- Action item: M. Forister to have a draft of all paragraphs as specified in CPC-1376 for TCC review by the September Monthly call.
- Action due date: September 2021

**July 2021 update,**

- This docket was created at the May 2021 teleconference meeting.
  - Opened after the CPC 1376. Critical to publication
  - Charge of docket- Review current chapter 1 terms of “visual” and “visual inspection” within M-1002 and determine when visual inspection must be conducted in accordance with appendix T.

- Action item: AAR staff to open this docket and note B. Seibold as TF chair.

**Task Force:**

| Name    | Company | Name | Company |
|---------|---------|------|---------|
| Gamblin | GBRX    |      |         |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Review current chapter 1 terms of “visual” and “visual inspection” within M-1002 and determine when visual inspection must be conducted in accordance with appendix T. |

## DOCKET T90.39

### RUPTURE DISC TOLERANCE REQUIREMENTS

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**At the July 2023 meeting,** COD

**At the April 2023 meeting,** a request for rulemaking is being developed by the TF. COD

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** it was noted that work will continue on this docket after the republication. Develop a rule making for US regulations. The Canadian regulations addresses the changes.

**October 2022 update,** TCC needs to petition DOT for rule change.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,**

- Developing language for the government. COD

**At the January 2022 teleconference meeting,** K. Dorsey reported that TF is aligning rupture disk requirements with ASME requirements. There requires a request for rulemaking be developed.

**At the October 2021 meeting,** it was noted that AD and K. Dorsey will develop a request for rulemaking to be forwarded to DOT and TC.

**At the July 2021 teleconference meeting,** it was reported that on June 29<sup>th</sup> M. Forister sent email to members on service equipment dockets to help make effort on this docket.

- Action item: provide AD with Fort Vale contacts. AAR staff to provide TF chair Dave Bailey's contact information as a member of the TF.
- Action due date: July 23, 2021.

**July 2021 update,** A.D McKisic provided an update on docket 90.39 via email.

- Waiting for TF members from combination device suppliers

**At the April 2021 teleconference meeting,** it was noted that progress needs to be made on a petition for rulemaking but need a proposal before that can happen. AD McKisic would like more manufacturing representation on the TF membership.

- Action item: AAR staff to recruit TF members for this docket along with K. Dorsey to recruit a combination device manufacturer and draft some language that can help request rule making. A presentation over combination devices to be added to the backgrounds.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**February 2021 update,** A.D McKisic provided an update on docket 90.39 via email.

- TF has not met. TF membership was reviewed and changed.
  - Kaleb Hoyt- Midland Manufacturing
  - TBD- Salco Products
  - TBD- Crosby
  - TBD- Descote
- AAR TCC regulatory petitions (PHMSA/TC)

**At the October 2020 teleconference meeting, COD**

**At the July 2020 teleconference meeting,**

- US and Canada regulations will need to be modified to move this docket forwards. COD
- Members to add to the TF: Kaleb Hoyt – Midland Manufacturing

**July 2020 update,**

- Members removed from TF:
  - Khiem Hoang- Midland Manufacturing

**At the April 2020 teleconference meeting, COD**

**At the January 2020 meeting, COD.** An update will be provided by July 2020

**At the October 2019 meeting, COD.** Reviewing AAR and ASME standards on rupture discs. A proposal for DOT and TC will need to be finalized and presented to the regulators.

**At the July 2019 meeting,** it was stated that AD. McKisic and K. Dorsey are working with TC to allow ASME tolerance bands. The remaining task is to develop petitions for DOT and TC proposing changes to regulatory requirements for rupture disks.

**At the April 2019 meeting,** the TF chair reported that he would be seeking a petition for rulemaking to allow different tolerances for rupture disks than allowed in the regulations. There remain 3 tasks to adopt the ASME tolerance standard as the AAR rupture disk standard.

**At the January 2019 meeting,** AD McKisic discussed the four recommendations via the PowerPoint presentation discussed during the October 2018 TCC meeting. Recommendation 4 was removed for consideration by the TCC per request from TF chair because data is needed back from the valve manufacturers.

**Recommendation 1**

- The Tank Car Committee should adopt rupture disc tolerances of  $\pm 5\%$  as specified in



ASME Section VIII, Division 1 (UG 127(a)(1)).

- M-1002 Appendix A should be modified to the following:
  - 4.2.2 The permissible tolerance for the burst pressure of a rupture disc must be ±5%.
  - Update Table A.3 to reflect new values.

#### Recommendation 2

- The Tank Car Committee should petition the Department of Transportation to adopt the ASME tolerances and modify 49 CFR Part §179.15(f)(4) to the following:
  - The non-reclosing pressure relief device must be closed with a rupture disc that is compatible with the lading and manufactured in accordance with Appendix A of the AAR Specifications for Tank Cars. The tolerance for a rupture disc is ±5 percent of the burst pressure marked on the disc

#### Recommendation 3

Petition TC to incorporate CGSB standard 43.147

- The Tank Car Committee should petition the Transport Canada to adopt the ASME tolerances and modify TP14877E-2018 paragraph 8.2.6.7 to the following:
  - A rupture disc must:
    - d. have an actual burst pressure within ±5% of the burst pressure marked on the disc

**Action Taken:** a motion made, seconded, and passed to have K Dorsey, AD McKisic, and A. Koethe to develop petitions to DOT and TC on recommendation 2 and 3. Then the changes will be made to M-1002 Appendix A 4.2.2 if adopted by both TC and DOT and published via CPC.

**At the October 2018 meeting,** AD McKisic provided a PowerPoint presentation on current TF efforts which included four TF recommendations to be considered by the TCC executive committee. TF proposal was provided only a few days before the TCC meeting.

**Action Taken:** A motion made, seconded, and passed to move the four TF recommendations to the TCC executive committee for consideration.

AAR staffed asked if the TF considered the railroad transportation environment in the proposal since ASME criteria is typically standards for stationary tanks. TF chair stated it was reviewed. FRA asked if the data represented by the charts in the presentation had any failure data to prove the charts were accurate, the response was no by the TF chair, the charts are just there for visual purposes.

**At the July 2018 meeting,** AD McKisic reported that the TF has not met yet, however will soon with the focus on drafting language prior to the October 2018 TCC meeting.

**At the April 2018 meeting,** AAR discussed the action from the January 2018 meeting. Rupture disc combo valves will be included in the second TF charge. **TF member additions:** Brian Ricketts (Alltranstek), Tom Richardson (Marsh Rail Car Services, Inc.), Kaleb Hoyt (Salco Products), Khiem Hoang (Midland). On March 28, 2018 AAR received the following update from the TF chair.

**At the January 2018 meeting,** the TCC agreed to add a new TF charge to draft new language for rupture disc tolerance requirements considering the existing federal regulations, AAR standards, and ASME standards. TF participation will be solicited during the April TCC meetings.

**Task Force:**

| Name            | Company               | Name       | Company                 |
|-----------------|-----------------------|------------|-------------------------|
| McKisic (Chair) | Trinity Industries    | Richardson | Marsh Rail Car Services |
| Ricketts        | AllTranstek           |            |                         |
| Hoyt            | Midland Manufacturing |            |                         |
|                 |                       |            |                         |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Perform a gap analysis on the tolerance of rupture disc requirement of AAR M-1002 and ASME |

## DOCKET T91.52

### APPENDIX B TO REFLECT M-1003 CHANGES

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**At the July 2023 meeting,** it was reported that CPC was published, comments were resolved.

- Topic to go under new business- Open a docket discussing conditions of RJL and B89 and mobile shops working on jackets.
- Action item: Motion to open the docket, taken by RSI and seconded by SI and passed.

**At the April 2023 meeting,** COD

**At the January 2023 meeting,**

- Action item: AAR staff to check status of appendix B.

**At the October 2022 meeting,**

- Action item: Motion to accept the CPC with the changes made during the meeting. Motion taken by Up and seconded by CP and passed. Will go out for comment.

**At the July 2022 meeting,**

- Action item: Motion to accept the language that was drafted to the CPC during the meeting. Motion taken by CN, seconded by BNSF, and passed.

**At the April 2022 meeting ,** M. Forster reported that the changes to Appendix B of M-1002 published in notification CPC-1389 will be published in a CPC along with the efforts approved at this meeting under docket T91.2.7 for solicitation of comments.

**April 2022 update,**

- AAR published CPC-1389 on April 4, 2022, notifying tank car facilities regarding forthcoming edits to M-1002 Appendix B section 2.0. At this time, each M-1003 facility with tank car related activity codes must include the 2019 requirements of M-1003 in their quality assurance program, which remains in effect until June 30, 2022. Not later than this date, it is intended that Appendix B of M-1002 will be revised by the TCC to implement the information indicated in CPC-1389 page 2.

**March 2022 teleconference update,**

- Draft to circulate to the committee. COD

**February 2022 teleconference update,** M. Forster noted that M-1003 will come into effect in July 2022 and some changes will affect the evaluation of activities that could cause compliance issues. Additionally, some administrative processes were change that M-1002 currently references. Staff will generate a spreadsheet of changes to M-1003 that will affect technical evaluations based on the TCC's comments to the QAC circular. TCC will review those items for possible inclusion into M-1002. Target review by April meeting.

**Purpose of docket:** AAR TCC to update M-1002 Appendix B section 2.0 based on M-1003 revisions made January 2022

**Task Force:**

| Name   | Company | Name | Company |
|--------|---------|------|---------|
| Dorsey | AAR     |      |         |

## DOCKET T91.62

### ACTIVITY CODE TECHNICAL APPROVAL PROCESS/AQTF

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#### September 2023 teleconference update,

- Action item: Charge- “ Standing docket to review their activity codes, to align activities with the technical MSRP’s, and to review the committee’s level of oversight for the auditing and approval processes”.
- AQTF identified a path forward to considering the QA audits and technical approvals as distinct responsibilities as stated in the recommendations.

#### August 2023 teleconference update,

- Work to begin after the republication.
- Action item: AAR staff to get the guidance from AQTF to be used as the charge of this docket.

#### At the July 2023 meeting,

- Action item: Charge to be developed. TF chair to be R. Dalske.

**At the April 2023 meeting,** it was reported that all of the technical committees have been requested to review their activity codes to be aligned to TCCs oversight of codes. The locomotive committee recently developed a standards. COD

- Action item: Assign a chairman to this docket.

#### At the January 2023 meeting,

- Action item: TCC to assign a new chair to this docket.

#### At the October 2022 meeting, COD

#### October 2022 update,

- As reported in April, the task force work to advance this docket is on pause pending the republication of the M-1002 specification. COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** the update provided earlier during the month was discussed. It was also reported that each technical committee has created a docket to work on this issue to provide the same solutions. There is no deadline on this docket.

#### April 2022 update,

- The following Executive Summary was excerpted from the AQTF Activity Code Review and Alignment Instructions, Issued 2/14/22:
- In the Spring of 2020, the Mechanical Committee (formerly TSWC) became aware of differences in AAR audit philosophies among the various technical committees and the

Quality Assurance committee. The Mechanical Committee then created the Auditing Quality Task Force (AQTF) to review these differences and charged them with providing a recommendation. The Mechanical Committee’s primary goal is to encourage consistency among the technical standards / specifications.

- The AQTF consisted of 24 professionals from railroads, AAR technical committees, manufacturing and repair facilities, private car owners, auditors, and quality assurance specialists. A Definitions sub-taskforce examined commonly used terms in connection with facility audits. A Root Cause Analysis sub-taskforce reviewed the different types of audits (system, process, product). The AQTF reviewed the recommendations from these two sub-taskforce groups and developed a path forward.
- In May of 2021, the MC approved the AQTF recommendation\*:
  - “For all Activity Codes, the AAR considers M-1003 Quality Assurance Program Audits and Technical Approvals as distinct committee responsibilities (QA Committee and appropriate technical committee respectively).”
  - “Further, the AQTF identified the path forward to considering the QA audits and technical approvals as distinct responsibilities as stated in the recommendation.”
- The “Path Forward” outlines the Objectives that each technical committee can use to review their level of oversight. The AQTF determined that for each technical committee the audit review and approval process should be more transparent and, if needed, improved. Each technical committee will create a standing docket to review their activity codes, to align activities with the technical MSRP’s, and to review the committee’s level of oversight for the auditing and approval processes.

**March 2022 teleconference update,**

- Reported under new business:
  - AQTF
    - Action item: AAR to open a docket to track progress, title of the docket to be as mentioned in step 1a of the background document, b. Seibold to be the discussant.

**Task Force:**

| Name    | Company              | Name | Company |
|---------|----------------------|------|---------|
| Seibold | BNSF Railway Company |      |         |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Standing docket to review their activity codes, to align activities with the technical MSRP’s, and to review the committee’s level of oversight for the auditing and approval processes |

## DOCKET T91.86

### APPENDIX B DOT113/AAR204 RUPTURE DISC REPLACEMENT

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#### At the July 2023 meeting,

- After 3.1.6.7 is developed, it will be forwarded to DOT and TC for review.
- TF members to be added- J. McCann- CSX, AD McKisic- Trinity, TF chair – S. Mason-Chart Inc.

#### At the April 2023 meeting, COD

#### At the January 2023 meeting,

- Pending implemented CPC-1405, then will release solicitation CPC.
- Action item: AAR staff to check with tech writer regarding paragraph 3.1.6.7

#### January 2023 update,

- Once CPC-1405 is used Appendix B will go out for industry comment via CPC on this matter. At the December 2022 meeting, the following was discussed, and action was taken by the TCC.
- The latest M-1002 Appendix C revised and implemented in September 2022 ensures alignment with 49 CFR and TP14877E on DOT 113 tank cars. Specifically, these revisions ensure both 49 CFR 173.319(e)(4) and TP14877 Appendix E Schedule 1 special provision 69(i) are met.
- 49 CFR 173.319(e)(4) Each rupture disc must be replaced every 12 months, and the replacement date must be marked on the car near the pressure relief valve information.
- TP14877 Appendix E Schedule 1 Special Provision reference 69(i) A rupture disc of a Class 113 tank car must be replaced every twelve months, and the replacement date stenciled on the car adjacent to marking for the pressure-relief device. (New CGSB has same language different reference #)
- M-1002 Appendix C
  - For AAR 204 and DOT113 class tank cars the year in which a reclosing pressure relief device is tested, and the test due date must be applied and/or maintained in the location specified on the qualification stencil (Fig. C.13). Station stencil of facility applying the device is required. The test due date cannot exceed five years.
  - For AAR 204 and DOT113 class tank cars the month and year in which a rupture disc is replaced, and the replacement due date must be applied and/or maintained in the location specified on the qualification stencil (Fig. C.13). The initials of the person replacing the disc is required. The replacement due date cannot exceed 12 months.
- M-1002 Appendix B
  - Only *tank car facilities* certified to A19, B24, B78, B81, B82, B90, C6i, C6r, C7, C8, C9, or C10 can replace and/or *repair* the *qualification* markings per 49 CFR 180.515, the *tank car* stenciled specification, and variable identification plate per

49 CFR 179.24 on a *tank car*.

- Tank car certification to C6r service equipment category S is required for the replacement of the rupture disc on AAR 204 and DOT113 specification tank cars.
- Exceptions:
  - *Tank car facility certification* is not required for the following:
  - 3.1.6.1 Examinations prior to shipping per 49 CFR 173.31(d).
  - 3.1.6.7 Except as specified in paragraph 3.1.5.26, replacement of the rupture disc, including the rupture disc gasket with the correct dimensional size and pressure rating as specified by the *equipment owner* and compatible with the lading.
- Action taken motion, second, and passed to issue a CPC solicitation for industry comment the proposed language as approved.

**Task Force:**

| Name          | Company            | Name  | Company |
|---------------|--------------------|-------|---------|
| Mason (chair) | Chart Industries   | McCan | CSX     |
| McKisic       | Trinity industries |       |         |

**TF Charge:**

| Number | TF Charge |
|--------|-----------|
| 1      |           |



## DOCKET T91.89

### DEFINITIONS AND REQUIREMENTS OF FACILITIES

**At the July 2023 meeting,** 1407 comments were discussed.

- The distance between facilities was increased to 15 miles. Motion was made to approve, taken by NS and BNSF and passed the radius as advised.
- Action item: A conversation with D. Gillian to be held. Staff to ask QAC staff to recall conversation with TCC member concerning the administrative handling of activity codes that are accomplished at multiple facilities.

**May 2023 teleconference update,**

- Facility discussion
  - Action item: open a docket that clarifies the definition of facilities and requirements of what makes a facility. Coordinate with QAC to make sure M-1002 and M-1003 standards are complimentary.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Clarify the definition of facilities and requirements of what makes a facility. |

## DOCKET T91.90

### CLARIFICATION ON SUBCONTRACTING

**October 2023 update,**

- At the July 2023 meeting, the following topic were discussed under new business:
- Greenbrier- clarification of the use of subcontracting
  - Action item: open a docket on the clarification on the term “subcontracting” as used in the current version of Appendix B. There is a question concerning the need to use a B-1 form as a subcontractor for certified facilities. TF chair- B. Miller.

**Task Force:**

| Name           | Company                | Name | Company |
|----------------|------------------------|------|---------|
| Miller (chair) | The Greenbrier Company |      |         |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Clarification on the term “ Subcontracting” as used in the current version of Appendix B |

## DOCKET T91.91

### CONDITIONS OF RJL, B89 AND MOBILE SHOPS WORKING ON JACKETS

**October 2023 update,**

- At the July 2023 meeting, it was reported under docket 91.52 ( Appendix B to reflect m-1003 changes) that CPC was published, comments were resolved.
- Topic to go under new business- Open a docket discussing conditions of RJL and B89 and mobile shops working on jackets.
- Action item: Motion to open the docket, taken by RSI and seconded by SI and passed.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

**TF Charge:**

| Number | TF Charge |
|--------|-----------|
| 1      |           |

**DOCKET T92.21**  
**REVIEW FEASIBILITY TO ADD THE EINN NUMBER TO THE TANK**  
**IDENTIFICATION PLATE**

**At the July 2023 meeting,** K. Dorsey reported that some separate cars have been identified to have the same EINN number. Railinc developed a proposal to be presented at the October meeting regarding the registration process of EINN numbers.

- Action item: discussant- K. Dorsey

**At the April 2023 meeting,** it was noted that a EINN number is the birth to death number of a car in Umler, that would follow a car through a change of ownership. Work to start on this docket after the republication.

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** COD

**April 2022 update,**

- This docket is opened for TCC action. Action not to be taken until the TCC has republished M-1002.

**Task Force:**

| Name | Company | Name | Company |
|------|---------|------|---------|
|      |         |      |         |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Review the feasibility to add the EIN number to the Tank Identification Plate and propose edits to Appendix C |

## DOCKET T92.22

### OPTIONAL REPORTING MARK

---

**October 2023 update,** C. Edmonds provided the following update.

- There has been a proposal developed. The proposal focuses on performing maintenance or removal of the top reporting marks at a time and place when adequate safety equipment is available.
- However, TF will be submitting a request to Transport Canada related to their position on the maintenance of this decal. Request this item to be COD until alignment with Transport Canada prior to submittal to the TCC.

**At the July 2023 meeting,** it was reported that a proposal will be drafted to possibly present at the October TCC meeting.

**July 2023 update,**

- TF to meet on the 13<sup>th</sup> of July to discuss charges, S-910 and potential path forwards and hurdles. Also, any feedback from CPC-1402.

**The following was reported under new business:**

- At the April 2023 meeting, ExxonMobil- Top reporting marks and reporting marks qualification and Nozzle issue
  - Action item: Motion was made to open a docket. Charge to be, “Determine if there should be exceptions to maintaining optional reporting marks on tank cars.” Title to be, “Optional reporting marks.” Proposal due in October 2023. Motion made by API, seconded by CI, and passed. TF chair- C. Edmonds. TF members- R. Kinsley-CI, K. Dorsey, E. Apland- API and B. Miller- GBRX
- April 2023 update-ExxonMobil discussion on Top Reporting Marks and Reporting Marks Qualification Decal- Discuss the top reporting mark maintenance and car marks on or near the qualification stencil.
- March 2023 teleconference-ExxonMobil discussion on Top Reporting Marks and Reporting Marks Qualification Decal
  - Committee discussed top reporting mark maintenance.
    - Action item: AAR Staff to discussed DOT and TC the agencies perspective on allowing the cars to run to next shop faded or illegible top marks.
  - A request to position car marks in or near the qualification stencil.
    - Action item: Reporting mark is required on or near stencil to be held over as new business for April 2023.
  - Also requested that the 2” Composition Shoe marking requirement be removed or made optional.
    - Action item: Members to poll their groups to determine the extent (number of findings) of the issue. S-910 alignment work needs to be accomplished after M-1002 is published.

**Task Force:**

| <b>Name</b> | <b>Company</b> | <b>Name</b> | <b>Company</b> |
|-------------|----------------|-------------|----------------|
| Edmonds     | ExxonMobil     | Miller      | GBRX           |
| Kinsley     | CI             | Apland      | API            |
| Dorsey      | AAR            | Khalid      | AAR            |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>   |
|---------------|--|
| 1             | Determine if there should be exceptions to maintaining optional reporting marks on tank cars |

## DOCKET T93.25

### DEVELOP PROCESS FOR GRANTING VARIANCE FROM M-1002 APPENDIX D REQUIREMENTS

**At the July 2023 meeting,** it was reported that no work has begun on this docket.

**At the April 2023 meeting,** COD

**At the January 2023 meeting,**

- Charge- “Determine the procedures to grant variance from M-1002 and Rule 88 requirements”.
- Chair- K. Dorsey, Add to TF- S. Murray

**January 2023 update,**

- Docket requested to be opened at the December TCC meeting 2022.

**Task Force:**

| Name   | Company | Name   | Company     |
|--------|---------|--------|-------------|
| Dorsey | AAR     | Murray | Exxon Mobil |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Determine the procedures to grant variance from M-1002 and Rule 88 requirements |

## **DOCKET T94.31**

### **REVIEW M-1002 APPENDIX E PARAGRAPH 3.3 DESIGN- COVERS FOR NON-PRESSURE CARS**

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#### **October 2023 update,**

- Taskforce will work to have a proposal that addresses Charges 1 and 2 finalized. The proposal will address design of covers using ASME Pressure Vessel Code Section VIII, testing requirements for newly designed covers and additional items that were raised as unclear in paragraph 3.3.

**At the July 2023 meeting,** it was reported that proposal is being drafted.

**At the April 2023 meeting,** the update provided was discussed.

#### **April 2023 update,**

- Taskforce will work to have a proposal that addresses Charges 1 and 2 submitted for the July meeting.
- The proposal will address design of covers using ASME Pressure Vessel Code Section VIII, testing requirements for newly designed covers and additional items that were raised as unclear in paragraph 3.3.

#### **At the January 2023 meeting,**

- Action item: TF has not met since the last meeting, AAR staff to contact chairman regarding an update.

**At the October 2022 meeting,** it was stated that TF has not met.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

#### **At the April 2022 meeting,**

- Working towards a proposal to be submitted within the next two months.

**At the January 2022 teleconference meeting,** K. Dorsey reported TF is currently reviewing ASME requirement for pressure vessels. The current proposed path is to include the design requirements without referencing ASME. Scheduled for an April 2022 CPC release.

**At the October 2021 meeting,** J. Schultz indicated that 2 new charges were added but the charges in the docket have not been update. Chairman requests that the charges are updated in the docket, so the TF has the official language to work with. Additionally, the taskforce and its 2 subgroups continue to meet regularly to develop recommendations for eyebolt assemblies, manway covers, and the additional items in section 3.3.

- Action item: AAR staff to add the 2 new charges in the docket.



**At the July 2021 teleconference meeting,** TCC would like to change the charge to include the manway cover assembly not just the manway cover. The following was changed on the charge, purpose, and scope of the docket.

- TF charge 1: Review M-1002 Appendix E paragraph 3.3 Design-Covers for Non-pressure Car requirements
- Purpose – This docket is to address the design and performance specifications of hinged and bolted manway cover **assemblies** on non-pressure tank cars to reduce NARs and absent the Appendix B requirement for **manway covers** manufacture by a certified tank car facility.
- Scope –
  - Define the operating environment for a manway cover assembly and fill hole cover assembly on non-pressure tank cars.
  - Determine if pressure plates (per Ch 1 definition) should be subject to same operating environment and design / performance requirements.
  - Determine applicability of existing ASME code references to meet the operating environment. Supplement with additional calculations / design considerations if appropriate.
  - **Review suitability of current paragraph E3.3.4 physical test requirements as the means to qualify a design, versus (or combined with) use of analytical tools or modeling.**
  - Consider essential variables that would trigger new approval of an H&B cover assembly, or that supports use of a precedent.
  - Clarify that AAR-1 style describes only the gasket groove details.
  - Propose handling / disposition of legacy manway cover designs (App D, Table D.5) if they cannot meet the defined operating environment.
    - **Taskforce question: Is this item critical to publication or would this be a phase II item for further work? TF would recommend developing requirements for new manway assemblies going forward and then take on this charge. TCC response: NEW TF Charge 3 added.**
  - Suggest an alternate location for paragraph E3.3.8 (which is unrelated to E.3.3 content).
  - Recommend changes as appropriate to Chapter 1, Table 1.17 and definitions of fill hole cover, manway cover, and pressure plate.
- Motion:
  1. To add a TF charge two to develop design for performance-based requirements for new hinged and bolted manway assemblies on non-pressure tank cars.
  2. To add a TF charge three to determine handling/disposition of legacy manway cover designs (App D, Table D.5) upon completion of Charge 1 and Charge 2.
  3. To provide TF chair the updated purpose and scope stated above.
  4. Motion was made by ACC, seconded by WLERWY, and passed.
- Action item: AAR staff to provide the two new TF charges to this docket and provide to the TF chair new charge two and three, the updated purpose statement, and the updated scope statement.

- Action due date: AAR staff to add charge 2 and 3 to docket by the August 2021 TCC monthly call and to provide TF chair said material by July 23, 2021.

**July 2021 update,** J. Schultz provided an update regarding docket T94.31 via email.

- The taskforce reviewed the information provided by the TCC and made the recommendations below. The TF agrees on the below amended text and agrees that the TCC can update our charges reflecting this information.
- Purpose –This docket is to address the design and performance specifications of hinged and bolted manway cover assemblies on non-pressure tank cars to reduce NARs and absent the Appendix B requirement for their manufacture by a certified tank car facility.
- Scope:
  - Define the operating environment for a manway cover assembly and fill hole cover assembly on non-pressure tank cars.
  - Determine if pressure plates (per Ch 1 definition) should be subject to same operating environment and design / performance requirements.
  - Determine applicability of existing ASME code references to meet the operating environment. Supplement with additional calculations / design considerations if appropriate.
  - Review suitability of current paragraph E3.3.4 physical test requirements as the means to qualify a design, versus (or combined with) use of analytical tools or modeling.
  - Consider essential variables that would trigger new approval of an H&B cover assembly, or that supports use of a precedent.
  - Clarify that AAR-1 style describes only the gasket groove details.
  - Propose handling / disposition of legacy manway cover designs (App D, Table D.5) if they cannot meet the defined operating environment.
  - Taskforce question: Is this item critical to publication or would this be a phase II item for further work? TF would recommend developing requirements for new manway assemblies going forward and then take on this charge.
  - Suggest an alternate location for paragraph E3.3.8 (which is unrelated to E.3.3 content).
  - Recommend changes as appropriate to Chapter 1, Table 1.17 and definitions of fill hole cover, manway cover, and pressure plate.
- TF membership was updated:
  - TF members added: L. Melvin- Gasket Resources, J. Becherer- Transquip
  - TF members info changed: C. Blanton- Chicago Freight Car

**At the April 2021 teleconference meeting,** J. Schultz discussed the work that TCC requested TF to review in October 2020. TF to meet and develop charges along with a path forward for the committee to review.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**November 2020 teleconference update,**

- It was reported that TF chair has been in communication with K. Dorsey.
- Action item: TF charges to be provided by the TF chair by January 2021 to be reviewed by TCC.

**At the October 2020 teleconference meeting,** update provided earlier during the month was discussed.

- Action item: AAR staff to communicate with TF chair regarding this docket.

**October 2020 update,** J. Schultz provided an update regarding docket T94.31 via email.

- Chairman to reach out to the task force to review the chargers and setup recurring meetings.
- TF to review the design requirements of Appendix E 3.3.1 and 3.3.2 to determine if these design criteria have been used for development and determine if they should be maintained.
- TF to review the requirements of paragraph 3.3.4 and provide a proposal that aligns the test requirements with the operating environment. Provide response to the chairman that this work will satisfy all docket charges or provide additional items that are required.

**September 2020 teleconference update,**

- Consider Chapter 1, para 1.4.5.1.4 and Appendix E, para 3.3
- Gotten back confirmations, TF meeting has not met but to have something by the October meeting.

**At the July 2020 teleconference meeting,** it was reported that progress needs to be made in October of this year towards developing a proposal by January 2021.

- Action item: K. Dorsey to work with J. Schultz on proposal by January 2021.
- Members to add to the TF: AD McKisic- Trinity Industries

**July 2020 update,**

- New TF members mentioned in the April, January and October meetings were added to the docket.

**At the April 2020 teleconference meeting,** TCC necessitates an action plan from TF by January 2021.

- Motion was taken, seconded, and passed for TF to determine if manway covers are compatible with the current operating environment and develop design requirements.
- New TF members:
  - John Schultz (New Chair) - UTC
  - AJ Conrad- FRA
  - Craig Jorgensen- TSI

- Stoy Taylor – Clay Producers
- The list from January 2020 meeting

**At the January 2020 meeting,** TCC determined that condition changes made to Appendix B allowed hinged and bolted manways to be manufactured without M-1003 certification, the design environment and performance requirements of Appendix E will be reviewed. K. Dorsey will overlook the process and get it accomplished in 12 months.

- TF members that need to be added to docket:
  - New chair?
  - Roger Dalske -ARI
  - Elliot Apland - API
  - Chris Reckker - Greebrier
  - Kelly Davis- RFA
  - Robyn Kinsley- Chlorine Institute

**At the October 2019 meeting,** the following were added to the TF:

**Task Force:**

| Name       | Company    | Name       | Company                |
|------------|------------|------------|------------------------|
| C. Edmonds | ExxonMobil | J. Schultz | Union Tank Car Company |

**At the July 2019 meeting,** DOT discussed testing on different types of manway covers. The preliminary results of the testing should be available for the October 2019 TCC meeting.

**At the April 2019 meeting,** the need to determine the relative performance of manway types. It is noted that there may be a significant reliability difference between cast and fabricated manway covers.

At the January 2019 meeting, K. Dorsey stated that a modification is need to the charge. (SEE DOCKET T95.28)

**Action Taken:** Motion made, seconded, and passed to change the docket charge and title of the docket. Combine with T95.28.

Docket Title Change:

Old: Consider Removal of the 6-bolt and 8-bolt Hinged and Bolted Manway Assembly New: Review M-1002 Appendix E paragraph 3.3 Design – Covers for Nonpressure Cars

TF Charge:

1. Review M-1002 Appendix E paragraph 3.3 Design—Covers for Nonpressure Cars requirements.

TF Members: Joe Caccamo, Joe McCann, Elliot Apland, Exxon Mobil, Tony Sisto, Anthony Ippolito, ARI TBD, UTC TBD, Ken Dorsey

**At the October 2018 meeting,** K. Dorsey reported on this new docket. TCC will be reviewing the TF charges at the executive session.

**At the July 2018 meeting** under main session docket T95.28 the TCC took the following action: Discussions were held again on the possibility of removing the allowance of the 6-bolt and 8-bolt hinged manway cover.

**Action Taken:** A motion was made, seconded, and passed to open a new docket under main session on the possibility to remove the allowance of the 6-bolt and 8-bolt hinged and bolted manway assembly.

**Docket Open Date:** October 17, 2018 (TCC Main Session)

K. Dorsey will lead the discussions on this docket.

This docket was opened at the October 2018 TCC meeting.

At the July 2018 meeting under main session docket T95.28 the TCC took the following action: Discussions were held again on the possibility of removing the allowance of the 6-bolt and 8-bolt hinged manway cover.

**Action Taken:** A motion was made, seconded, and passed to open a new docket under main session on the possibility to remove the allowance of the 6-bolt and 8-bolt hinged and bolted manway assembly.

**Task Force:**

| Name            | Company                           | Name        | Company                       |
|-----------------|-----------------------------------|-------------|-------------------------------|
| Schultz (Chair) | Union Tank Car Company            | Apland      | API                           |
| Caccamo         | ConRail                           | Edmonds     | Exxon Mobil                   |
| Sisto           | GATX Rail Corporation             | Ippolito    | Canadian National Railway     |
| Dalske          | American Railcar Industries       | Taylor      | Clay Producers                |
| McCann          | CSX Transportation                | Elhart      | Garlock Seal                  |
| Blanton         | Chicago Freight Car               | Hall Chu    | Dow Chemical Company          |
| Nunez           | Kelso Technologies Inc            | Reckker     | Greenbrier Management Service |
| Schneider       | Gaskoa                            | Edmonds     | ExxonMobil                    |
| Dorsey          | Association of American Railroads | Kinsley     | Chlorine Institute            |
| Davis           | RFA                               | Jorgensen   | The Sulphur Institute         |
| AJ Conrad       | Federal Railroad Administration   | McKisic     | Trinity Industries            |
| L. Melvin       | Gasket Resources                  | J. Becherer | Transquip                     |

**TF Charge:**

| Number | TF Charge   |
|--------|---|
| 1      | Review M-1002 Appendix E paragraph 3.3 Design- Covers for Non-pressure Car requirements |

|   |   |
|---|---|
| 2 | Develop design for performance-based requirements for new hinged and bolted manway assemblies on non-pressure tank cars.  |
| 3 | Determine handling/disposition of legacy manway cover designs (App D, Table D.5) upon completion of Charge 1 and Charge 2 |

## DOCKET T95.26.2

### REVIEW APPENDIX M MATERIALS SERVICE EQUIPMENT

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**At the July 2023 meeting,** work to begin after the republication.

**At the April 2023 meeting,** COD

**April 2023 update,**

- AAR staff to work with chair and TF to develop progress on the charges.

**At the January 2023 meeting,**

- Work to start after the republication.
- Action item: AAR staff to add K. Dorsey to the TF

**January 2023 update,**

- Task force had been meeting regularly to work on the charge as stated above up until last October 2022
- The committee deemed this task force not critical to the republishing of the M1002.
- Just before the October 2022, it was relayed by Committee that only task forces deemed critical to the republishing of the M1002 were going to be reviewed and worked on as some work/material from those critical task forces was needed for us to move along with work of this task force.
- Just last week, we received feedback to start moving forward with this task force.
- Regular meetings will resume with task force members as of February 2023.

**At the October 2022 meeting,** the update provided was discussed.

**October 2022 update,**

- Charge: Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M. Included in this evaluation of materials approved for service equipment is the review of Appendix A all paragraphs related to materials for service equipment.
- Task force has been meeting regularly to work on the charge as stated above.
- Met and continued work for the "Draft Tables for Appendix M" to consolidate material reviewed and researched during our gap analysis exercise – completed the CFR regs, Chapter 1-5 of M1002 to see what is listed and lacking before work is shared with committee. We will continue drafting the tables for Appendix M for the remainder appendices of M1002 --- this process has been a bit slow due to making sure we cover all the bases.
- It was also shared that our work here will not be part of the republishing of the M1002 as there is still work to be completed in other task forces that will trickle into this work, but we'll still continue to move as quickly as possible.
- As a group also discussed a few things that may be needed/lacking or need clarification

on from the AAR/Committee – we'll have a list as we get closer to finishing up and sharing the Draft Tables for Appendix M along with the completed gap analyses.

- Task force will start to tabulate/document and format how the material and information needed for this task force will need to be published and shared with the committee.

**At the July 2022 meeting,** this docket was not discussed at the July meeting

**At the April 2022 meeting,** M. Forister reported on behalf of M. Nunez. The TF continues to meet and are on schedule for July 2022 proposal.

**April 2022 update,** M. Nunez provided an update on T95.26.2 via email.

- Task force has been meeting regularly on a weekly basis to work on meeting deadline of June 2022 for submittal to the committee.
- Task force has been working on a gap analysis of the M1002 manual and federal regs to make sure everything is covered, and nothing is left to interpretation.
- Gap analysis of the M1002 and federal regs has been completed. Some contradictions and questions have been raised during the review of the gap analysis. These concerns/questions will be brought up to the committee for direction in the very short future.
- Task force will start to tabulate/document and format how the material and information needed for this task force will need to be published and shared with the committee.
- On track to have work completed by the established deadline of 6/1/2022.

**At the January 2022 teleconference meeting,** it was reported that M. Forister and TF chair are preparing a gap analysis of M-1002, and will be restructuring appendix M

**January 2022 update,** M. Nunez provided an update on T95.26.2 via email.

- A calendar of weekly meetings has been established and the task force will meet on a weekly basis for the next 3 months in order to get this charge for the task force completed.

**At the October 2021 meeting,** M. Forister elaborated on the update provided by task force chair earlier during the month. Task force chair has requested to amend a task force charge.

- Action item: Motion made to change the TF charge as reflected in the October 2021 update: "Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M. Included in this evaluation of materials approved for service equipment is the review of Appendix A all paragraphs related to materials for service equipment". Motion made by BNSF, seconded by WLERWY, and passed.

**October 2021 update,** M. Nunez provided an update on T95.26.2 via email.

- The task force has met with M. Forister to receive direction and discuss the current charges. TF have come up with a meeting schedule on a weekly basis for the next 10 weeks. Have estimated a completion date of 01/2022.



- TF have also been trained by M. Forister on the process to follow using the new pilot program operation document for the duration of this task force.
- TF would like the TCC to consider revision to the current TF charge as shown below. The reasoning for this request is that TF recognized that specifications for materials of service equipment is not only in Appendix M as assigned by the current TF charge but also listed in Appendix A paragraph 2.0 of M-1002. This needs to be included in our current TF charge.
  - **Current TF Charge:** Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M
  - **Revision to TF Charge:** Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M. Included in this evaluation of materials approved for service equipment is the review of Appendix A all paragraphs related to materials for service equipment.
- TF members added: J. Becherer- Transquip
- TF members remove: Hurley- Occidental Chemical, Loman- AllTranstek

**At the July 2021 teleconference meeting,**

- Action item: AAR staff to provide TF Chair the one new member asked to be added and to also provide current approved TF charge.
- Action due date: October 2021 TCC meeting

**At the April 2021 teleconference meeting,**

- Action item: M. Nunez to provide an update by July 2021 teleconference meeting. TF charge to be changed to, "Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M".

**March 2021 teleconference update,**

- Need a TF Chair
  - Action item: Mario Nunez from Kelso Technology Inc, was elected as TF chair of this docket.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints

**At the October 2020 teleconference meeting, COD.**

- Action item: Task force chair to be determined.

**At the July 2020 teleconference meeting,** update provided earlier during the month was discussed. COD

- Action item: K. Dorsey added to the TF. New chair to be determined

**July 2020 update,**

- TF developing contacts with valve manufactures within the industry. COD

**At the April 2020 teleconference meeting, COD**

**April 2020 update,**

- TF change:

| Added     |                     |
|-----------|---------------------|
| Name      | Company             |
| M. Nunez  | Kelso               |
| R. Hurley | Occidental Chemical |

**At the January 2020 meeting, COD**

**At the October 2019 meeting,** it was reported that the TF will review the included materials for completeness.

**At the July 2019 meeting,** the committee was updated on the separation of the tasks for the two TF's. COD

- ❖ **Staff note:** The requirements for washers in M4.2.3 and M4.3.5 need to be consolidated and reviewed for possible inclusion of differing specifications as allowable for use.

**At the April 2019 meeting,** it was noted that this docket was opened to review the materials allowed in appendix M for service equipment. New docket opened for the April 2019 meeting to review materials included for service equipment.

**Action Taken:** TCC agreed under docket T 95.26 to open a new docket for Appendix M to review tank car plate material this will include this TF charges 1, 2, and 4. A new docket will be opened on Appendix M for TF charge 3.

**Task Force:**

| Name          | Company                | Name     | Company   |
|---------------|------------------------|----------|-----------|
| Nunez (chair) | Kelso Technologies Inc | Becherer | Transquip |
| Khalid        | AAR                    | Dorsey   | AAR       |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Evaluate the materials approved for service equipment and to review paragraph 4.0 and the relationship of paragraphs 4.1 and 4.5 and 4.7 of Appendix M. <u>Included in this evaluation of materials approved for service equipment is the review of Appendix A all paragraphs related to materials for service equipment</u> |

## DOCKET 100.26

### STANDARDIZED FORMAT FOR REQUESTING TANK CAR INFORMATION

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**At the July 2023 meeting,** the proposal submitted by the taskforce was discussed. It will be reviewed by AAR staff to determine its placement in the republication due to compliance concerns.

#### **July 2023 update,**

- The proposal is submitted for review. It represents unanimous agreement for the TF members.
- Attachment: Proposal

**At the April 2023 meeting,** it was reported that some difficulties have been encountered getting certain car owners to provide drawings. The proposal provided in the update needs more work. TF requests to change the charge.

- Action item: TF requests to change the charge to “determine a formal process for attaining information for tank car requiring non-conforming temporary repair”. Motion made, seconded, and passed. Add R. Morgan- Greenbrier to the TF.

#### **April 2023 update,**

- Attachment: Proposal for owner’s documentation supplied for repair

#### **February 2023 teleconference update,**

- Discuss issue 1 from January 2023 conference call- process on how to request for car information. New docket, “ Standardized format for requesting Tank car information” (100.26 ). Proposal by April 2023.
  - Rodger Dalske reported that a strawman has been developed to socialize with stakeholders.

**At the January 2023 meeting,** under the new business docket it was discussed:

- Item 1: J. Caccamo discussed the process to request car information. RSI mentioned that there is currently a system in which you have to contact the car owner and attempt through Umler and Ask Rail. Suggestions were made on how to make the process easier such as industry wide awareness or RSI reminding their members to provide information when needed and also mentioning approval conditions under chapter 1.
  - Action item- Motion to open a docket, taken by UP, seconded by RSI and passed. Docket to be placed under active dockets. A rough proposal to be provided by April 2023 meeting.
  - Charge- “determine a formal process for attaining approvals and applicable drawings for Tank cars requiring maintenance”.
  - TF members to be added- S. Murray, J. Caccamo, Chair- R. Dalske

**Task Force:**

| <b>Name</b> | <b>Company</b>                | <b>Name</b> | <b>Company</b> |
|-------------|-------------------------------|-------------|----------------|
| Dalske      | American Industrial Transport | Murray      | Exxon Mobil    |
| Caccamo     | Conrail                       | Morgan      | Greenbrier     |
|             |                               |             |                |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b>  |
|---------------|---|
| 1             | Determine a formal process for attaining information for tank car requiring non-conforming temporary repair |

## **DOCKET T147**

### **TANK CAR COMMITTEE STRUCTURE AND PROCEDURES**

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**At the July 2023 meeting,** Staff monitored.

**At the April 2023 meeting,** COD

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** it was reported that TF is working on a more formal ways to request exemption M-1002 interchange and a well improved/clear process for interpretations.

**At the January 2022 teleconference meeting,** it was reported that work on appendix p is progressing.

**At the October 2021 meeting,** it was noted that the charter is in place, work on appendix p is progressing to compliment the charter. Several task force chair members are working on organizing and structuring work around the charter so a recommended practice can be written.

**At the July 2021 teleconference meeting,** K. Dorsey reported that a TF operation document was created and M. Forister presented the document during the meeting. The document provides a track the TF work and progress being made on every active docket.

**At the April 2021 teleconference meeting,** B. Siebold reported the efforts of the TCC regarding tank car committee structure changes in the opening remarks of the April 2021 TCC open session meeting. TCC chair mentioned continuing efforts on this docket along with the new operating conditions as specified by the recently approved TCC charter. No more subcommittees, and TF's may be utilized on committee business if determined necessary. The TCC continues its work on Appendix P with the following under development by the AAR staff:

- A TF operational document which is a tool for tracking all TF efforts in accordance with AAR Safety & Operations Committee Handbook and the AAR TCC Charter
- Docket Request Form – this form will also have an associated TCC process for how to handle request by industry on changes to the M-1002 standard. This will be structured such that the TCC can prioritize the efforts of the TCC.
- A TF member selection and operation policy – this is to ensure that when the TCC assigns TF chairs they are adhering to the TF operational document and staying within the direction of the TCC. This also ensures a limited number of TF members are selected from each applicable stakeholder group with the technical expertise to address the TF

charges assigned and that there is balance in the TF effort on the TF proposal to be submitted to the TCC for consideration of final action.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**At the October 2020 teleconference meeting,** update provided earlier during the month was discussed. TCC charter was accepted as mentioned in the October update. K. Dorsey discussed some concerns and suggestions that were addressed on the charter.

- Action item: AAR staff to review suggestions.

**October 2020 update,** a ballot to adopt the proposed TCC charter was distributed on 9-24-2020. The charter passed by a 20 to 3 margin. Several members noted that the TCC should continue to discuss the method of considering cost in changes to the standards. There was also a suggestion for the TCC to engage in discussions with DOT on an MOU.

**At the July 2020 teleconference meeting,** it was reported that progress is being made on task force expectations and procedures as well as Appendix P.

**May 2020 teleconference update,** a proposed CPC regarding auditors and audit procedures will be discussed on Tuesday, May 26<sup>th</sup>. QAC to discuss extensions and items of concern. If CPC wording is not accepted, modification need to be made with the assistance of TCC. Executive leaders met regarding the charter and discussed concerns laid out in the January 2020 TCC meeting. A 2<sup>nd</sup> ballot was sent to the committee but was disapproved. Future options to be discussed.

**At the April 2020 teleconference meeting,** it was reported that a proposal regarding Appendix P is being developed.

**At the January 2020 meeting,** it was reported that the shippers developed a counter proposal after disapproval of the last proposed charter proposed by AAR. Due to the counter proposal a new charter draft was developed and sent before January 2020 TCC meeting. Shipper still have concerns about a certain bullet in the charter relating to cost and benefit and would like to propose additional modifications.

**At the October 2019 meeting,** the ballot vote taken during the August 2019 conference call was discussed. The votes disapproved the proposed charter. Discussions will be ongoing on reaching an agreement to progress an updated charter.

**At the July 2019 meeting,** it was noted that the proposed charter had been distributed and a ballot vote would be held in August 2019.

**At the April 2019 meeting,** it was reported that work was progressing on an updated TCC

charter.

At the January 2019 meeting,

The TCC approved the following members during the November 2018 monthly TCC call:

- Joe Caccamo – Conrail replacing Allen Richter
- Elliot Apland – API replacing Kirk Warner

**Action Taken:** Motion made, seconded, and passed to approve the following TCC members:

Robert “Stoy” Taylor – Clay Producers replacing Mike Richardson

John Byrne – RSI staff member replacing AD McKisic Ryan Clark – KCS Replacing Ryan Miller

- ❖ **Staff note:** Joseph Caccamo of Consolidated Rail Corporation and D. Elliot Apland for the American Petroleum Institute have been added to the committee. John Byrne, Steve McNealy and Stoy Taylor are under consideration for committee seats.

**At the October 2018 meeting,** during the meeting Kirk Warner of API and Allen Richter of Conrail was recognized at this meeting for their efforts on the Tank Car Committee. They announced this was their last TCC meeting. Industry thanked them for their service.

API and Conrail TCC members replacing Kirk and Allen will be voted on by the TCC soon.

**At the July 2018 meeting,** B. Fronczak reported that 23 of 24 members signed the AAR Safety and Operations (S&O) Committee Handbook agreement to acknowledge full understanding and compliance within.

Andy Ash and Jim Kozey were recognized for their two-year term as the TCC chair and vice-chair. At the end of the July 2018 TCC meeting, the AAR announced the incoming leadership for the TCC will be Chris Machenberg (CSX) as Chairman and Bruce Siebold (BNSF) as Vice- Chair based on seniority.

Here are the current 23 TCC Members:

**Railroads:**

Chris Machenberg (Chair)

Bruce Siebold (Vice-Chair)

Andy Ash

Jim Kozey

Ryan Miller

John Birkmann

Anthony Ippolito

Alvaro Almaguer

David Schoendorfer

Paul Williams

Allen Richter

JR Gelnar

**Affiliation:**

CSX Transportation

BNSF Railway Company

Railway Association of Canada

Canadian Pacific Railway

Kansas City Southern Railroad

Union Pacific Railroad

Canadian National Railway

Kansas City Southern de México, S.A. de C.V.

Hazmat Committee Liaison (NSR)

Norfolk Southern Railway

Consolidated Rail Corporation

ASLRRRA

**Non-Railroad Shippers:**

|                 |  |
|-----------------|--|
| Kevin Flahive   | The Fertilizer Institute (Koch Fertilizer) |
| N. Scott Murray | ACC (ExxonMobil Chemical Company)          |
| Robyn Kinsley   | The Chlorine Institute                     |
| Mike Richardson | U.S. Clay Producers Traffic Association    |
| Kirk Warner     | American Petroleum Institute               |
| Craig Jorgenson | The Sulphur Institute                      |
| Kelly Davis     | Renewable Fuels Association                |

**Non-Railroad Tank Car Builders:**

|            |                       |
|------------|-----------------------|
| Joe Perez  | UTLX                  |
| Tony Sisto | GATX Rail Corporation |
| John Byrne | RSI                   |

**AAR**

|            |                                   |
|------------|-----------------------------------|
| Ken Dorsey | Association of American Railroads |
|------------|-----------------------------------|

**At the April 2018 meeting,** no change in membership. COD

**At the January 2018 meeting,** COD

**Point of Contact:**

| Name   | Company                           |
|--------|-----------------------------------|
| Dorsey | Association of American Railroads |

**Purpose of Docket:** To discuss any changes in membership or procedures of the committee and subcommittee.



## Standing Docket Updates

### DOCKET T15.1

#### AAR CIRCULAR LETTERS/MA AND EW

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**October 2023 update,**

- Attachment: list of CPCS

**At the July 2023 meeting,** COD

**July 2023 update,**

- Attachment: list of CPCs

**At the April 2023 meeting,** COD

**At the January 2023 meeting,**

- Action item: AAR staff to work on this docket and gather the list of CPCS.

**At the October 2022 meeting,** K. Dorsey noted that moving forward these will not be needed since there is now an EA system.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** the list of circulars from October 2021 were presented.

It was reported that there are no more EW/MA's but instead EAs. Also working on a defective car tracking system, which will allow damaged cars to be tracked and handled correctly.

**February 2022 teleconference update,**

- M. Forister reported that no comments have been submitted. COD.

**At the January 2022 teleconference meeting,** K. Dorsey reported that many circulars will be issued next month and will restructure how to present information on this docket.

**At the October 2021 meeting,** it was noted that a list was presented in July and new list will be added before the end of the year.

**At the July 2021 teleconference meeting,** the update from earlier during the month was shown. COD

**July 2021 update,** the following CPCs have been published since the April 2021 teleconference.

- Attachment: list of CPCs

**At the April 2021 teleconference meeting,** K. Dorsey presented a document displaying all of CPC's that have been published.

- Action item: AAR staff to provide that list in the backgrounds.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**At the October 2020 teleconference meeting,**

- This docket was not discussed at the October TCC meeting due to time constraints

**August 2020 teleconference update,**

- Service equipment CPC-1371
  - It was mentioned that there are 5 facilities that have expired certifications/registrations. K. Dorsey to have a proposal for the committee that will provide insight into service equipment manufactured after the expiration date along with next steps.

**At the July 2020 teleconference meeting,** it was reported that since the April teleconference meeting the following CPCs have been published.

- CPC- 1366: Tank car facility certification audits, released on April 24<sup>th</sup>
- CPC-1367: Impacts related to AAR M-1003 QAP requirements for M-1002/M-1003 Certified Tank Car Facility Certification due to COVID-19 released on May 27<sup>th</sup>
- CPC-1368: Notification to Tank Car Facilities on Submittal of AAR M-1002 Exhibit T-1 by July 31<sup>st</sup>, 2020 released on June 2<sup>nd</sup>.
- CPC-1369: Midland Vacuum Relief Valve Markings released on June 10<sup>th</sup>
- CPC-1370: Stub Still Reinforcing Pad Inspection of Certain ARI- Built Tank Cars- released on June 23<sup>rd</sup>

**At the April 2020 teleconference meeting,** K. Dorsey reported that around 4 CPC's will be published in the near future.

**At the January 2020 meeting,** K. Dorsey reported that 2 MA's will be released before April. COD

**At the October 2019 meeting,** it was stated that a time limit has been established for the unknown values in UMLER. Car owners should be aware of those unknown values that should be eliminated no later than the next qualification for their cars. An EW has been released on cars that need to be stopped and inspected for transporting hazardous materials and using 3" McKenzie valves. It was indicated that there are over 100 cars that would need inspection.

**At the July 2019 meeting,** K. Dorsey updated the committee of CPC's that had been issued since the last meeting.

- CPC-1348 recommended Railroad Operating Practices for Transportation of Hazardous Materials.

**At the April 2019 meeting,** K. Dorsey reported on the CPC's that had been issued in the previous quarter.

- CPC1334 TC facility certification status.
- CPC-1337 for facility location change.

Since the **January 2019 Meeting,**

- CPC-1343 Final Action, Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Chapter 1, Appendix D and Appendix J
- CPC-1344 AAR M-1002 Tank Car Facility Certification Status CPC-1345 UTC Inspections Required
- CPC-1346 Solicitation of Comments on Proposed Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Chapter 1
- CPC-1347 Replacement for CPC-1339 – AAR Change in Location Requirements for AAR M- 1002 Tank Car Certified Facilities

**At the January 2019 meeting,** K. Dorsey reported the following:

- CPC-1342 published 12/12/2018 issued final action on the following:
  - T50.34.2 Consider Requirements for Installation of Surge Suppression Devices
  - T95.7.4 Consider new steels and modifications to current steel specifications for tank car tanks Appendix A paragraph 3.7.5
- CPC-1326 Solicitation of Comments on Proposed Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Appendix A and Appendix M
- CPC-1341 Final Action, Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Chapter 2

CPC-1343 published 1/24/2019 issued final action on the following:

- T5.31 Review Tank Car Elements in Umler
- CPC-1331 Umler System Notification to Tank Car Owners and Solicitation of Comments on the Permissible Value of "Unknown"
- T31.2.1 Defining Requirements for Heat Resistant Gaskets
- CPC-1340 Solicitation of Comments on Proposed Revision to MSRP Section C Part III, M-1002, Specifications for Tank Cars, Appendix J

There are a few more MA/EW pending action.

**At the October 2018 meeting,** K. Dorsey reported on the recent CPC's. At the July 2018 meeting, AAR staff reported on the following:

**At the July 2018 meeting,** AAR staff reported on the following:

|           |   |           |
|-----------|---|-----------|
| CPC- 1335 | Midland Manufacturing 720 Series Valve Modification and Replacement   | 7/11/2018 |
| CPC-1334  | ARI Sump and Bottom Outlet Valve Skid Weld Inspection   | 5/11/2018 |
| CPC-1333  | AAR Exhibit PC-1 Comment Form Update Related to CPC-1332 (T91.2.4)  | 5/7/2018  |
| CPC-1332  | Solicitation of Comments for Appendix B and Associated Chapter 1 Definitions of AAR Manual of Standards and Recommended Practices (MSRP), Section C Part III, Specifications for Tank Cars (M-1002) | 5/1/2018  |

**At the April 2018 meeting,** AAR discussed the latest AAR circular letters and the need to issue those agreed upon by the TCC within the TCC dockets.

**At the January 2018 meeting,** AAR discussed the latest AAR circular letters and the need to issue those agreed upon by the TCC.

**Task Force:** N/A

**Purpose of Docket:** Update the Committee on recent AAR circular letters related to tank cars.

**Responsibility for Report:** AAR

## **DOCKET T15.9**

### **EQUIPMENT ENGINEERING COMMITTEE UPDATE**

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**At the July 2023 meeting,** no update was provided.

**At the April 2023 meeting,**

- Remote Monitoring Equipment
  - New requirements in place for S-2045, compliance being enforced.
    - Approval is only given to car owners.
    - Quantity of cars must be given for each request.
    - 1/1/20204 intrinsically safe requirement
  - Exception is decal sheeting. If supplier can't comply, owner can submit a plan to bring cars into compliance.
- Safety Appliance Task Force
  - Working on rule 53 cause for attention for cracks in running boards
- Ongoing maintenance advisories
  - 586 tank cars not equipped with LTCCSB's need to be addressed, some have moved in the last 2 years.
- Rule88 Office Manual modifications
  - Modifications will require braking ratio to be restored to new car S-401 requirement.
- Activity Code Technical Audit Process
  - Proposing adjustment in M-1003 activity codes to delineate freight car assembly and tank car construction.
  - A19 will be limited to construction of tank cars (M-1002), and A20 will be limited to manufacturing of freight cars, other than tank cars (S-2034)

**At the January 2023 meeting,**

- B. Miller to be the replacement chair.

**January 2023 update,**

- These three attachments represent important changes for tank cars to the Field Manual that will be in effect in 2023. They went out for comment on Nov. 7 on C-14054.
- As previously mentioned in these updates, the basic design draft load has been increased from 350 K to 390 K. This requirement will be in effect January 1, 2023, for all cars built on or after that date.
- Attachments: Circular Attachment proposed rule 81, 88 and 95B4.

**At the October 2022 meeting,** the update provided was discussed. COD

**October 2022 update,** G. Saxton provided an update regarding docket T15.9 via email.

- Field Manual Rules 81 (TANK AND TANK CAR REPAIRS) and 95 (HANDLING AND/OR DELIVERING LINE RESPONSIBILITY) revisions are expected to be out for comment in

October. These changes will be of interest to the Tank Car Committee.

- Car design draft loads are increasing from 350K to 390K. Cars delivered after December 31<sup>st</sup> must meet this new requirement.

**At the July 2022 meeting,** this docket was not discussed at the July meeting

**July 2022 update,** G. Saxton provided an update regarding docket T15.9 via email.

- Reminder to car builders and designers: Effective January 1, 2023, the design draft load increases from 1.8 x 350K to 1.8 x 390K on new cars delivered.
- There are ongoing discussions to modify the requirements for Remote Monitoring Equipment Standard S-2045. Reference C-13961.
- EEC is engaged in modernizing Field Manual Rule 81 – TANK AND TANK CAR REPAIRS. TCC membership is represented in this effort.

**At the April 2022 meeting,** it was reported that

- EEC has been working to update Field Manual Rule 81 Tank and Tank Car Repairs. There is a draft that includes Causes for Attention. The Arbitration Committee (they have Field Manual custody) has come back with some questions.
- Circular C-13937 increasing the base draft load from 350K to 390K has been issued. There have also been changes to the attachment requirements for the front draft stop. This change applies to all cars including tank cars built new after December 31, 2022.
- Revisions to S-2045 Remote Monitoring Equipment (C-13913) are still being considered.

**At the January 2021 teleconference meeting,** the update provided was reviewed. K. Dorsey also mentioned that there is an active request from EEC to comment/fix on rule 88 for ILS.

- Action item: create a TF under this docket to address the active request from EEC. Charge for TF, “ At the request of EEC review the applicability ILS for tank cars”. TF members: Dorsey, Siebold, Kozey, Keltz.

**January 2022 update,**

- The following two Circular Letters originating with EEC are of interest to the Tank Car Committee:
  - C-13920-Subject: Solicitation of Comments for Revisions to MSRP Section C, Car Construction Fundamentals and details, standard S-2045 Remote Monitoring Equipment, Installation. Revision of requirements.
  - To: Members and Private Car Owners- File Number: 170.10.82
  - These changes include requiring “intrinsically safe” device remote monitoring equipment.
  - C-13907- Subject: Solicitation of Comments for Revisions to MSRP Section C Part II, M-1001 Design, Fabrication and Construction of Freight Cars, Office Manual Rule 88, and Section C Standard S-286. Revisions to car and draft pocket design requirements.

- To: Members and Private Car Owners-File Number- 170.10.76
- These changes include increased designed draft load requirements for tank cars in M-1001 Chapter 6.
- EEC has been working on updating Field Manual Rule 81 Tank and Tank Car Repairs. Working with Bruce Siebold and will share the proposed changes with TTC before releasing for general comment.
- EEC wishes to encourage TCC to update its lettering/stencil/decal requirements.

**At the October 2021 meeting,** G. Saxton presented the update provided earlier during the month.

**October 2021 update,** G. Saxton provided an update regarding docket T15.9 via email.

- EEC has been working on updating Field Manual 81 Tank and Tank Car Repairs. Somehow, work got stopped. However, work will resume. EEC's proposal will be shared with TCC before it is released for general comment. B. Siebold is part of this group working on revisions.
- EEC wishes to encourage TCC to update its lettering/stencil/decal requirements.
- Expect that the new draft load requirements will be released for comment soon. Two major changes expected. 390K through the entire car draft load up from 350K. 500K load for front draft lug and attachment.
- Release has been delayed, expect effective date to be January 1, 2023.

**At the July 2021 teleconference meeting,** the update provided was discussed. B. Siebold also reported on cars approaching end of life. Cars will be flagged that cannot be loaded. Owner will have the option to flag cars for more than 30 days to keep them from being caught in the system. It was noted that the new freight car equipment stencil adopted by EEC is also being addressed in the proposal.

**July 2021 update,** G. Saxton provided an update regarding docket T15.9 via email.

- EEC is working on an update Field Manual Rule 81 TANK AND TANK CAR REPAIRS. The intent is to carefully define what is cause for attention and can be performed in a non-M-1003 facility.
- EEC recommends that the stenciling requirements for tank cars be updated to reflect S-910 to make it consistent with other freight cars. The improvements are worthwhile. If TCC wants to go forward, EEC can suggest someone that should be able to quickly develop a proposal that would meet the needs.
- There was some thought of using UMLER to aid in scheduling re-qualifications and routing cars. However, it seems qualification fields are not being maintained by car owners, so the idea is being dropped.

**At the April 2021 teleconference meeting,** G. Saxton discussed the update that was provided and also discussed the end of life on cars in Umler, a system set to send an advisory to owners to let individuals know the life of car is coming to an end. This can be useful prevent cars from

being in transportation beyond their allowed age. COD

**April 2021 update,** G. Saxton provided an update regarding docket T15.9 via email.

- On March 3, Circular Letter C-13752 was issued. This letter changes the rules defining what a modified car is. It allows nearly all specialty items from an existing car to be transferred to a new car body. This new car body retains the original (or donor) car-built date, so the end of life date is the same as the original car. Refer to Circular Letters C-13752 and C-13717 for details.
- In view of longer and heavier trains with more powerful locomotives, EEC is discussing increasing the required design coupler draft loads. Depending on the amount of increase and the amount of margin a current tank car stub sill design has, there could be an impact.

**March 2021 teleconference update,**

- Rule 81 update
  - B. Siebold reported that EEC is expanding on rule 81 for the January 1st publication. Mechanical committee and EEC to make sure field manual is clear on A1 defects.
  - B. Siebold participated on the TAG and will get feedback to J. Hannafious.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**November 2020 teleconference update,**

- COD. No update was provided.

**At the October 2020 teleconference meeting,**

- This docket was not discussed at the October TCC meeting due to time constraints.

**August 2020 teleconference update,** EEC draft regarding rule 81 was presented. Committee members to accept comments.

**At the July 2020 teleconference meeting,** G. Saxton discussed the update provided earlier this month. COD

**July 2020 update,** G. Saxton provided an update regarding docket T15.9 via email.

- EEC to continue review of Field Manual Rule 81 clarifying what repairs can be made to stub sills by just M-1002 facilities and what repairs also need M-1003 certification. Documenting welded repairs to “pipe” type railings and grabs as is allowed by FRA letter and performed in the field is being discussed for inclusion in the Field Manual. This would involve the expansion of Rule 81 D, Figures A & B.
- EEC is working with UMLER to designate an end-of-life field that would prohibit loading after a certain date and trigger a home shopping. This field could also be used to direct cars to their requalification shop after a certain date.



- On the previous call, questions were asked about cold weather control valve performance with respect to age of the rubber. G. Saxton suggests that someone from AAR would be better suited to provide up to date information regarding this issue.

**May 2020 teleconference update,**

- Circular 13559 is out for comment under T5.32 on stub still essential variable.

**At the April 2020 teleconference meeting,** it was reported that EEC is making changes to the field and office manuals. S-2044 is to be revised to bring it into compliance with the 179.102.

**April 2020 update,** G. Saxton provided an update regarding docket T15.9 via email.

- There are no reported head or weld failures associated with this group of cars

**At the January 2020 meeting,** it was reported that EEC discussed and has drafted a proposal for acceptable repairs and substitutions to stub sill. The proposal is under review and should be ready by the March EEC meeting.

**January 2020 update,** G. Saxton provided an update regarding docket T15.9 via email.

- EEC has drafted a revised proposal regarding allowable repairs and substitutions to stub sills. The proposal is currently under review by tank car builders and RSI affiliated tank car owners. The goal is to have a final proposal by the end of January TCC meeting.

**At the October 2019 meeting,** EEC updates regarding rule 88 stub sill were made. K. Dorsey will review the updates and get back to TF regarding changes that need to be made.

**At the July 2019 meeting,** EEC is in the process of making modification to Rule 88 concerning what changes to the stub sill initiate an EEC review.

**At the April 2019 meeting,** G. Saxton reported that the EEC has confirmed that a tank car stub sill cannot be repaired with a stub sill of a deferent design than it was manufactured without approval. If repairing one end of the car the sill must be replace in kind or the EEC must be contacted.

At the January 2019 meeting, D. Cackovic provided an update on this docket for G. Saxton. Here are the highlights:

1. Retroreflective Tape. The handheld comparator card Standard S-916 is in place. The card is used to evaluate the condition of tape on rolling stock.
2. AAR Freight Car Fatigue Task Force -- Freight Car Fatigue Environment Testing, Coupon Testing.
  - a. The EEC FCFTF in conjunction with RSI/ARCI, are jointly conducting over the road service testing of tank car in crude-by-rail unit train service. Longitudinal and vertical coupler forces, and vertical bolster forces, are being recorded and reported remotely. Data collected will be used to update MSRP C-II Chapter 7

This will provide environment load data for fatigue resistance analysis as required in M-1001. The current FCFTF CBR Fatigue test has obtained about 50% of the desired mileage of 10,000 – 12,000 miles. The test car will be leaving TTCI in one to two months, assuming BNSF has a waiver extension for test car placement in the CBR train in place.

- b. FCFTF fatigue joint coupon testing is underway at the University of Illinois. This will provide design joint details for fatigue resistance analysis, as required in M-1001.
3. AAR Safety Appliance Task Force (SATF). Approval from the EEC was granted, to add to S-2044 new Appendices E3 and E4 for tank cars with low, side-mounted hand brakes. The revised S-2044 will be submitted for approval in an AAR petition to the FRA. Note that the SATF is in the process of being sunset. EEC will absorb the responsibility, including future S-2044 revisions and handling safety appliance questions that frequently come up, especially from the FRA.
4. The AAR Equipment Engineering Committee began reviewing the Field Manual of AAR Interchange Rules in its entirety to evaluate causes for attention that will require a freight car to be removed from service for repair. There are three goals of this effort:
  - a. To stop cars for repair only when there is risk of derailment, line of road failure, or safety appliance causes. A car should not be stopped for regular preventative maintenance.
  - b. To provide a list of regulatory related items that are no longer safety related, or applicable, and for which regulatory relief should be sought.
  - c. To provide guidance on the use of wayside detectors to identify repairs for which cars should be removed from service.

**At the October 2018 meeting,** G. Saxton reported the following:

- The EEC submitted a request to FRA to allow for a performance standard on the replacement of reflectorization. FRA has accepted the request, however the only item not clearly stated in the acceptance letter is the timeframe. EEC believes industry can be ready in 6 months.
- Tank cars not equipped with long travel CCSB are no longer accepted in interchange after June 1, 2018. As of this report, roughly 2,000 cars still report conflict in Umler.
- The Safety Appliance TF has come to the EEC asking for a new Umler element identifying safety appliance type. Additionally, a side-mounted handbrake application / figure for Tank Cars is currently out for circular letter comment.

**At the July 2018 meeting,** G. Saxton reported:

- Waivers are in place for FRA-224 reflectorization – expect to implement comparator method by January 1<sup>st</sup>.
- Tank cars not equipped with long travel CCSB are no longer accepted in interchange after June 1, 2018.
- 4 port receivers for single car air brake testing are now mandatory on new cars

**At the April 2018 meeting,** G. Saxton reported the following:

On March 21, 2018, AAR received the following update from TF chair:

1. Reminder that per Rule 90 of the Field Manual; effective June 1, 2018, tank cars not equipped with long travel constant contact side bearing are prohibited.
2. On February 27, AAR submitted a waiver extension request to the FRA. That submission includes a schedule stating that the industry will implement the comparator panel reflectorization process within 6 months of FRA acceptance. We have not been able to move forward yet, as we do not have formal acceptance.
3. AAR has not heard back since the submission. However, AAR has an understanding with the FRA that the regulation will not be enforced, and we will be given an extension that allows us to begin implementing the new process.
4. EEC will be submitting its most recent edits to Rule 66, to ARB, in anticipation that we will be up and running on July 1.

**At the January 2018 meeting,** G. Saxton reported the following:

1. On March 31, 2018, the FRA waiver expires on reflective material application on tank cars.
2. 4-port receiver for automated single car testing devices were required Jan. 1, 2018, on new builds, however EEC is considering extending to May 1, 2018.

**Action Taken:** TCC agreed to have EEC issue an MA stating the compliance requirements of long travel constant contact side bearing by June 1, 2018.

**Task Force:**

| Name   | Company |
|--------|---------|
| Miller | GBRX    |

**TF Charge:**

| Name | Company                              |
|------|--------------------------------------|
| 1    | TCC to receive updates on EEC issues |

## DOCKET T15.11

### UMLER COMMITTEE UPDATE

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**October 2023 update,** B. Siebold reported the following:

- Dorsey is a new discussant. The latest Umler release schedule and new “unknown values” report will be provided as attachments prior to the October meeting.

**At the July 2023 meeting,** COD

**July 2023 update,**

- Since the April update, there have been no changes in the 2023 Umler release plan that would affect tank cars. COD.

**At the April 2023 meeting,**

- B. Siebold presented a quarterly report.
- Action item: K. Dorsey to be the discussant moving forward. Information will be provided by S. Maples at Railinc.

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** B. Siebold presented a quarterly report on the Railinc release.

**October 2022 update,**

- Latest Umler release plan is attached. Two tank car related projects are in the Railinc cue – 1) new element fields for Special Permit / Equivalency Certificates is expected in Q4, and 2) a refresh of permissible values on underframe types (A251) is anticipated by Q2 2023 or sooner (to align with the CPC on Chapter 1 revisions currently out for comment). Additionally, T5.31 proposals on tank design / stenciled specifications will be presented to the Umler committee (through a UCR) for consideration and updates to those permissible values.
- Attachment: Umler Release Plan

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** B. Siebold presented a quarterly report on the Railinc release.

**February 2022 teleconference update,**

- B. Siebold reported that there is no release plan for 2022 at this time account of cloud migration of the Umler platform. Previously approved tank car edits for “special permit” field are in cue. COD

**At the January 2022 teleconference meeting,** it was reported that there is no update on the release plan. Update to be provided in February.

**At the October 2021 meeting,** B. Siebold presented a summary of the Umler release plan. It was also mentioned during discussion that programming is capable of recording multiple special permits on a single car.

**At the July 2021 teleconference meeting,** B. Siebold presented a summary of the Umler release plan. COD

**July 2021 update,** B. Siebold reported on T15.11 via email.

- Checking with Railinc for an update release plan. Update to be provided at the meeting.

**At the April 2021 teleconference meeting,** B. Siebold presented a summary of the Umler release plan. COD

**April 2021 update,** B. Siebold reported on T15.11 via email.

- Plan to present a one-page slide by the Umler committee manger (Sara Maples) during the April 2021 teleconference meeting that shows the 2021 release plan.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**February 2021 update,**

- This docket was approved by TCC to be created on the request of T5.31 TF chair at the November 2020 meeting to address charge 4 of the docket.
- Charge 4, “Redirect any existing efforts when any emergency changes need to be addressed”.
- The purpose of this docket is to report on Umler committee updates.

**Point of contact:**

| Name   | Company |
|--------|---------|
| Dorsey | AAR     |

## DOCKET T15.12

### CRB/ARB COMMITTEE UPDATE

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#### At the July 2023 meeting,

- Action item: remove L. Golden as point of contact. AAR staff to get update from N. Fimple.

#### At the April 2023 meeting,

- Circular for airbrakes is in development. Compliance with the four port testing requirement has been pushed back.

**At the January 2023 meeting,** it was reported that committee only meets twice a year. COD

#### At the October 2022 meeting,

 the following was reported:

- The Arbitration and Rules Committee Rule 95B TAG continues to work with the TCC Task Force T5.32 to develop better criteria when identifying tank car damage. In additionally, T5.32 has submitted additional pictures depicting tank car damage.
- Proposes to Rule 81 and 95 have been approved. Circular to be released.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

#### At the April 2022 meeting,

 L. Golden reported the following:

- The Arbitration Committee has received a proposal from the Tank Car Committee (T.5.32) to help identify tank car damage. ARB is reviewing the proposal.
- Appendix D update – The projects has been managed by RSI and ELC
  - Appendix D job codes in the Field Manual are used by private and contract shops to document repairs not covered by the field manual.
  - Job codes were last updated in 1993 – Going forward RSI/ELC will maintain and update job codes.
  - These job codes will be a downloadable PDF or CSV file in Railinc.
  - Estimated implementation July 1, 2022 – There will be a webinar to show the changes.
- As a reminder, After July 1, 2023 – 4-pressure testing must be used is the car is equipped with 4-pressure testing capabilities.
- After June 30, 2025, all cars must be equipped with 4-pressure testing capabilities.

**At the January 2022 teleconference meeting,** the update provided was reviewed.

#### January 2022 update,

- As information, the Arbitration and Rules Committee meets twice a year (April and October).
- Rule 88.B.1.e.(2) was updated to align with AAR M-1002 Appendix C. “EXTERIOR HEATER COILS – NO INLET OR OUTLET PIPE CAPS REQUIRE” in **at least 1 inch** characters

per MSRP M-1002. – As information

- There are still approximately 100 tank cars on the Slack Adjust EI. Requesting that car owners review the car list and either resolve the EI on the car or contact the AAR with a plan on how the cars will be addressed. – As information
- Cars that are on EI-0027 (cars requiring an updated single car air brake test) will be escalated to XX status – As information
- In Q2, EI-01 will be split into 3 EI's, EI-01 (active), EI-02 (pre-register), and EI-03 (FRA Overage) and XX status will be applied to appropriate cars. EI-is 01, no movement in over 2 years or 2 years with an overdue SCABT will be assigned XX status. EI-02 (pre-register) will be in XX status until the first SCABT is reported, and EI-03 (FRA Overage) will be in XX status.

**At the October 2021 meeting,** L. Golden presented the update provided earlier during the month.

**October 2021 update,** L. Golden reported on T15.12 via email.

- TF met and discussed the following:
  - Brief explanation of the roles of ARB and CRB, Ongoing discussion to require reflectors on the ends of cars
  - Tank car related edits in Field Manual Rule 81, Rule 95 damage Image Repository (TF will look for further guidance on tank car damage from the committee).
  - OTMA HMG-127 to DDCT was declined, however OTMA MP&E is moving forward and will be tied to DDCT
  - Future Component Tracking
  - Overage status
- Larry Golden changed to be the TF chair of this docket

**At the July 2021 teleconference meeting,** J. Rader presented the in-progress TF work. It was noted that Appendix D is removed from the Field Manual, an update will be made on Appendix D with new job codes vendors and their associate products. Appendix D will be aligned closer to subpart F and standardizing billing with improve billing efficiency and granularity of reporting will also be worked on. TF is aiming to get the final written draft to CRB for consideration and publication of circular by the end of this month.

**At the April 2021 teleconference meeting,**

- Action item: P. Ameen volunteered to be the TF chair of this docket.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**February 2021 update,**

- This docket was approved by TCC to be opened on the request of docket T5.32 TF chair at the November 2020 meeting.
- The purpose of this docket is to convey applicable CRB/ARB committee updates.

**Point of contact:**

| Name   | Company |
|--------|---------|
| Golden | GATX    |



## DOCKET T55

### SERVICE TRIALS

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#### At the July 2023 meeting,

- Action item: H. Khalid to schedule a separate meeting with TCC to discuss extension requests.

#### At the April 2023 meeting, COD

#### April 2023 update,

- A meeting was held on March 29<sup>th</sup> to discuss current service trials. H. Khalid presented detailed updates on each of the open service trials. It was reported that some service trials will need extensions in the upcoming months, and some require sample plans that will need to be reviewed by the committee.
- Attachment: list of current service trials

#### At the January 2023 meeting,

- Action item: AAR staff to set up a doodle poll for a meeting with the TCC for March to update on all of the current service trials.

#### At the October 2022 meeting, COD

At the July 2022 meeting, this docket was not discussed at the July meeting.

At the April 2022 meeting, H. Khalid presented an update on service trials.

- Action items: provide an active docket list only for the next conference meeting.

At the January 2022 teleconference meeting, it was reported that a new ST-484 was added after the October meeting.

At the October 2021 meeting, H. Khalid presented a document with current service trials. COD

#### October 2021 update,

- Kelso ST 467- requested 2-year extension. Motion was made to approve a 2-year extension for ST 467, motion made by ACC, seconded by CSX, and passed.
- Kelso ST 468- Teardown completed. Awaiting documents to be balloted to the committee for review.
- Attachment: Service trials updates

At the July 2021 teleconference meeting, H. Khalid reported that there are two teardown requests and two service trial extensions needed from the committee. A meeting will be set with the committee to review these requests and get approval. It was also brought to the committee's attention that Herose might not be able to provide updates on their service trials,

the last communication with the company happened back in March 2021.

**May 2021 teleconference update,**

- H. Khalid discussed 3 service trials with the committee.
- Kelso ST 468- requested a teardown. Documentations were reviewed by the committee.
- Action item: Motion was made by BNSF to schedule a tear down on ST 468, seconded by WRWLEY and passed.
- Kelso ST 463- requested a 2-year extension. Documentations were reviewed by the committee.
- Action item: Motion to grant a 2-year extension was made by UP and seconded by ACC and passed.
- TransRail ST 466- requested a 1-year extension.
- Action item: Motion to grant a 1-year extension was made by WRWLEY and seconded by BNSF and passed.

**At the April 2021 teleconference meeting,**

- H. Khalid presented a spreadsheet that displayed in process service trials.
- Action item: H. Khalid to set up a meeting with TCC to review extensions and teardown requests.

**April 2021 update,**

- Attachment: Service trials updates

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**February 2020 update,**

- Need to set up a meeting with the leadership members to review extension requests on service trials.

**November 2020 teleconference update,**

- H. Khalid reported that Midland 2- & 3-inch Ball Valve application was approved with service trial (ST-479) on the 13<sup>th</sup> of November.
- UTC inquired about the outstanding ST-443 still pending approval and about the request for a new service trial.

**At the October 2020 teleconference meeting,**

This docket was not discussed at the October TCC meeting due to time constraints.

**At the July 2020 teleconference meeting,**

- Action item: AAR Staff to do a final call of service trials that showed no activity in the last 2 years. Reach out to proponents to ensure they comply with chapter 1 reporting requirements. Update to be provided on the next monthly call.

**July 2020 update,**

- Service trials opened since April 2020; These service trials have not yet started:
  - Kelso Technologies Inc – Standard Profile Bottom Outlet Valve 4”/ Ceramic Ball **(ST-474)** - (5/1/20)-
  - Fort Valve Engineering Limited- 4” Washout Saddle Assembly **(ST-475)** - (5/18/20)
  - Fort Valve Engineering Limited- 2” Lined Ball Valve **(ST-476)** - (5/28/20)
  - Fort Valve Engineering Limited- 3” Line Ball Valve **(ST-477)** - (5/28/20)
  - Kelso Technologies Inc – 3” Top Ball Valve **(ST-478)** - (7/7/20)
- Service Trial completed since April 2020:
  - TransQuip USA Inc - RegO Valve **(ST-421)**- (6/9/20)
  - TransQuip USA Inc – 6 Bolt Manway Cover/ Fabricated/ NP **(ST-470)**- (6/16/20)
- UTC service trial was missing from the excel worksheet in April and was later added.
- AAR Staff to continue updating contact information of proponents.

**May 2020 teleconference update,** K. Dorsey presented a document highlighting open service trial since 2014. AAR staff raised concerns regarding contact with some proponents. Service trials prior to 2014 will be terminated. Equipment to be removed from cars with cancelled service trials. UTC service trial is missing from the list, will be added before June teleconference. A document detailing the status of current open ballots was also presented. TCC requested to make this a standing docket for all future calls.

**At the April 2020 teleconference meeting,** it was reported that service trials are being handled through the ballot process. The process of conducting service trials for valves needs to be reviewed because manufacturers are charged with service trial but are having difficulty getting equipment from their partners.

**At the January 2020 meeting,** K Dorsey stated that a Rego service trial teardown will be scheduled soon. Also, updates will be provided by next quarter concerning the X – load radar liquid level detectors service trial which is slated to start in the near future. It was reported that UTC met tear down requirements, waiting on AAR approval.

**At the October 2019 meeting,** K. Dorsey stated that if there are active trials that need extensions, those suppliers need to contact and update K. Dorsey within 2 years of the date on the 4-5 or they will be terminated.

**At the July 2019 meeting,** TCC agreed that docket T55 will be removed from the main session and placed into the executive session agenda moving forward. It was also reported that two tear down inspection had been scheduled.

**At the April 2019 meeting,** K. Dorsey reported stated that reports on service trials are required to be submit quarterly. If reports are not provided the TCC will consider terminating the trial. BNSF motioned and TCC approved for a “last call” that any ST on record at AAR that does not have activity or an update by October 2019 will become null and void.

**At the January 2019 meeting,** K. Dorsey reminded the industry that the service trial reports must be submitted per chapter 1 of M-1002.

- ❖ AAR staff also reminded industry that an effort planned after the first of the year 2019 is to reach out to each proponent and seek the history of the reports to determine if the AAR has any gaps in updated reports.

**At the October 2018 meeting,** K. Dorsey reminded the industry that the service trial reports must be submitted per chapter 1 of M-1002.

- ❖ AAR staff also reminded industry that an effort planned after the first of the year 2019 is to reach out to each proponent and seek the history of the reports to determine if the AAR has any gaps in updated reports.

**At the July 2018 meeting,** AD McKisic reported that a proponent has complained to Trinity about the requirements under service trial but have not provided an alternative solution to the AAR for consideration by the TCC. AAR staff has received similar communications from industry, but no proposal has yet to be provided to AAR for consideration by the TCC.

**Action Taken:** Under TCC executive session docket. This effort is to be associated with the T1.1.4 TF charge under Chapter 1 of M-1002.

**At the April 2018 meeting,** AAR continues to work on ST reports with proponents.

**At the January 2018 meeting,** AAR continues to work on ST reports with proponents.

**Point of contact:**

| Name   | Company                           |
|--------|-----------------------------------|
| Khalid | Association of American Railroads |

## **DOCKET T79.36**

### **LOCOMOTIVE FUEL TENDER INITIATIVE**

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**At the July 2023 meeting,** no update provided.

**At the April 2023 meeting,**

- It was reported that the communication standard was developed and sections for electric battery tender and compressed natural gas fuel tender will be added to the M-1004.

**At the January 2023 meeting,**

- Discussant changed to K. Dorsey

**At the October 2022 meeting,** COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** update provide earlier during the month was discussed.

**April 2022 update,**

- LC task force continues work on back office reporting and messaging requirements.
- Following implementation of that, LC will turn focus toward hydrogen fuel tender development.
- Contact Mike Fore at AAR with additional questions or comments.

**At the January 2022 teleconference meeting,** F. Gonzalez provided the link of the test showing the truck impacting a fuel tender, a fire test on a portable tank filled with LNG will also be occurring soon. Work is progressing.

**At the October 2021 meeting,** work is progressing, cod.

**At the July 2021 teleconference meeting,** B. Seibold reported that a pilot program on hydrogen fuel cells is being developed and progressing. COD

**At the April 2021 teleconference meeting,**

- This docket was COD

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints

**November 2020 teleconference update,**

- It was reported that there was a request from Locomotive committee to develop minimum demonstration requirements for facilities requesting activity codes B87 and C12. The T79.36 standing docket will remain open but a new active docket to be

opened.

- **TCC Action Taken:** Motion to open a new active docket with the charge, “Develop minimum demonstration requirements for activity codes B87 and C12”. B. Siebold to be Chair. Motion made by BNSF, CN seconded and passed.

**At the October 2020 teleconference meeting,**

- This docket was not discussed at the October TCC meeting due to time constraints.

**October 2020 update,**

- New discussant to be determined.

**September 2020 teleconference update,**

- Requests from proponent to develop activity code for fuel tenders.
- Locomotive committee was offered to draft a language for the TF for Appendix B.

**At the July 2020 teleconference meeting,** D. Cackovic reported that progress is being made with the safety appliance task force for M-1004. Standards to be finalized by next year.

**July 2020 update,**

- Discussant changed to David Cackovic

**At the April 2020 teleconference meeting,** D. Cackovic reported that the safety appliance standard is being finalized to include fuel tenders. Review of the new appendix and drawings need to be completed for the standards to be finalized.

**At the January 2020 meeting,** K. Dorsey reported that revisions made to M-1004 were published. Committee was informed that no one is running CNG style tenders at this time however, a test is planned in the future.

**At the October 2019 meeting,** it was reported that revisions to the M-1004 were made during the month of September to include chapters and appendices to cover CNG style tenders.

**At the July 2019 meeting,** it was stated that revisions to the M-1004 standards were made to include CNG fuel tenders. It was noted that the standard would be modified, if necessary, as experience was gained with tenders.

**At the April 2019 meeting,** it was reported that the additions to M-1004 will be complete for publication in the near future.

**At the January 2019 meeting,** D. Cackovic reported that on January 31, 2019, AAR issued Circular Letter C-13272 solicitation for Comments to Revised MSRP Section T, M-1004 Specification for Fuel Tenders, to include aspects for CNG style tenders, and for new standards S-5031 and S-5032 for Tender Fill Electric Cables.

**At the October 2018 meeting,** K. Dorsey reported that the NGFT TAG has scheduled a town hall meeting for November 28, 2018, in Dallas, TX. Agenda to include finalizing M-1004 chapters and appendices for CNG fuel type.

**At the July 2018 meeting,** F. Gonzales reported that FRA is in the planning stages for conducting a full-size side impact test on an LNG fuel tender. The NGFT TAG efforts continue with developing M-1004 requirements for a Compressed Natural Gas (CNG) fuel tender.

**At the April 2018 meeting,** B. Siebold reported that Compress Natural Gas (CNG) is the next fuel type being considered under this initiative. COD

**At the January 2018 meeting,** B. Siebold reminded AAR staff to change docket title to locomotive fuel tender initiative from LNG tender initiative. Compress natural gas (CNG) is the next fuel type being considered under this initiative. COD

**Action Item:** AAR staff to change docket title to locomotive fuel tender initiative.

**At the October 2017 meeting,** B. Siebold asked AAR staff to change docket title to locomotive fuel tender initiative from LNG tender initiative.

Next steps:

- CNG fuel tanks (document is structured to easily accept)
- Appendix G – Wiring and Electrical Hardware
- Appendix J – Inspection and Maintenance worked with FRA develop
- Appendix M – tender health status protocols
- Safety appliances and Tender Fill Cable – still pending additional work

FRA R&D plans to perform physical test at TTCL on an M-1004 designed fuel tender third quarter 2018. See T59

**At the July 2017 meeting,** B. Siebold provided the following high-level summary of events:

- Second circular (C-12904) was issued on the main specification M-1004 on June 10<sup>th</sup>.
- NGFT TAG conducted a town hall meeting in DFW area the last week of June to review comments / resolutions with all interested parties / proponents.
- Significant updates include:
  - Fueling is to Locomotive / Filling is to a tender
  - For LNG, a cryogenic pump is no longer specified as the primary fuel delivery mode.
  - The tender must be designed to operate in a fuel delivery mode that supports the lowest possible tank pressure given the state of the fuel.
  - Less prescriptive on location of a bottom penetration to the inner tank.

- Implementation circular for M-1004 and 3 standards (2 hoses / TC-21 cable) is expected out next week. This is a living document just like any other AAR specification or standard.
- All of this work will be housed in a new MSRP volume – Section T – Interoperable Fuel Tenders
- Next steps:
  - Lots of interest in CNG fuel tanks (document is structured to easily accept)
  - Appendix G – Wiring and Electrical Hardware
  - Appendix J – Inspection and Maintenance worked with FRA develop
  - Appendix M – tender health status protocols
  - Safety appliances and Tender Fill Cable – still pending additional work

**Task Force:**

| <b>Name</b> | <b>Company</b>                    | <b>Name</b> | <b>Company</b>       |
|-------------|-----------------------------------|-------------|----------------------|
| Dorsey      | Association of American Railroads | Siebold     | BNSF Railway Company |

**TF Charge:**

| <b>Number</b> | <b>TF Charge</b> |
|---------------|------------------|
| N/A           | Information Only |



## DOCKET T80.4

### AAR HAZARDOUS MATERIALS COMMITTEE LIAISON

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**At the July 2023 meeting,** no update provided.

**At the April 2023 meeting,**

- Ask Rail- doing advertising in the USA and Canada to get centers to use the desktop version of Ask Rail. This will help increase the number of users.

**At the January 2023 meeting,** it was reported that pamphlet went for comment, final draft is with the hazmat committee for voting.

**November 2022 teleconference update,**

- CPC-1404 was published 11/2/2022. Hazmat committee is to receive comments.

**At the October 2022 meeting,**

- Action item: Pamphlet 34 to go out as a CPC through the AAR system for a 30 day comment period.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** P. Brady reported that pamphlet 34 is closed to be completed. A video will be produced soon.

**At the January 2022 teleconference meeting,** P. Brady reported the following.

- Hazmat is working on Field Guide to Tank Cars, the final draft is finalized and in about 30-60 days the 4<sup>th</sup> edition to the guide will be completed and published.
- The pamphlet 34 is still underway and will be updated and completed in the first half of 2022. There will be a video production and it will be provided in French, Spanish, and English.
- R. Fronczak will be sending out flammable liquid and fleet reports in a couple of weeks.

**At the October 2021 meeting,** C. Barkan presented a power point detailing the relations between CPR/EQR and modeling and test results. B. Fronczak provided the following update:

- TWP-11 Development of the Relationships between Conditional Probability of Release (CPR) and Expected Quantity of Release (EQR) to Modeling and Test Results.
- Status: R. Fronczak reported that AAR's Hazmat Committee has taken over oversight of the Advanced Tank Car Collaborative Research Program TWP-11 project. The final report of TWP- 11 Phase 2.1 has been finalized. Phase 2.2 consists of the following tasks:
  - ARA Tasks: (Derailment Model Development - Work Ongoing)
  - UIUC Tasks: (Enhanced Train Accident Data Analysis - Work Initiating)
- The enhancements to the model continue to be made, and work is ongoing to validate the model against real accidents. The list of 13 accident validation candidates has been sent to the railroads to validate the damage predicted by the model. The railroads have

sent much of the requested data for validation. COD

**At the July 2021 teleconference meeting,** R. Fronczak reported on OTMA contacts, the status of styrene monomer cars on empty return trips and TWP-11

**At the April 2021 teleconference meeting,** two PowerPoints were presented by R. Fronczak discussing the TIH and flammable liquid fleets. COD

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints

**November 2020 teleconference update,**

- P. Brady reported that the update of USHMI was completed it will be sent to committee for review and approval. DOT is progressing on changes to DOT-5800 forms. Andy Elkins is working with DOT and Census Bureau.
- Updates are being made in the Field Guide to Tank Cars booklet and also to Pamphlet 34. Committee is looking for car builders, owners, and shipper to volunteer with these developments.

**At the October 2020 teleconference meeting,**

This docket was not discussed at the October TCC meeting due to time constraints.

**At the July 2020 teleconference meeting,** it was reported that the pamphlet 34 will be updated along with the video with the help of volunteers from the industry. Video to be made in French and Spanish. Field guide to Tank Cars to also be updated to include TIH and LNG cars along with updated definitions and drawing/pictures. Progress continues to be made on updating the hazmat instructions for rail.

**At the April 2020 teleconference update,** committee was notified that flammable liquid and TIH fleet reports will be sent out by the end of April.

**February 2020 teleconference update,**

- A presentation will be shown at the April meeting.

**At the January 2020 meeting,** this docket is COD.

**At the October 2019 meeting,** P. Brady reported that improvements are continuing to be made to Ask Rail. He also reported the changes will be made to NAR awards 2020. The performance across the entire rail system will be used to select recipients. B. Fronczak presented 3<sup>rd</sup> quarter flammable liquid and TIH tank car statistics.

**At the July 2019 meeting,** B. Fronczak presented the 1st quarter flammable liquid and TIH tank car statistics.

**At the April 2019 meeting,** B. Fronczak resented the 4<sup>th</sup> quarter flammable liquid and TIH tank car statistics. P. Brady of the BNSF has taken over as the Hazmat Committee liaison.

**At the January 2019 meeting,** D. Schoendorfer reported on the following:

1. Update was received by PHMSA during the meeting on AAR's May 11, 2018 PHMSA petition for rulemaking to remove the authorization for tank cars, including without limitation cars meeting the requirements of DOT specifications 105J600W, 105J600I, or 112S600I, to be used for the transportation by rail of hydrogen chloride, refrigerated liquid ("HCl-RL"). PHMSA stated that the petition has not been accepted yet. The shippers have provided comments to the petition which are being evaluated.

During the meeting, AAR B. Fronczak made the following update via two presentations:

1. Status of North American TIH Fleet
2. Status of North American Flammable Liquid Fleet

**At the October 2018 meeting,** D. Schoendorfer reported on the following:

1. Update on the latest OT-55 to incorporate the Ask Rail information.
2. Update was received by PHMSA during the meeting on AAR's May 11, 2018 PHMSA petition for rulemaking to remove the authorization for tank cars, including without limitation cars meeting the requirements of DOT specifications 105J600W, 105J600I, or 112S600I, to be used for the transportation by rail of hydrogen chloride, refrigerated liquid ("HCl-RL"). PHMSA stated that the petition has not been accepted yet. The shippers have provided comments to the petition which are being evaluated.

During the meeting, AAR B. Fronczak made the following update via two presentations:

1. Status of North American TIH Fleet as June 30, 2018
2. Status of North American Flammable Liquid Fleet as June 30, 2018

**At the July 2018 meeting,** D. Schoendorfer reported on the following:

1. The "Railroad HazMat Resource Toolkit" which can be accessed at <https://www.aar.org/boe/>
2. AAR on May 11, 2018 sent PHMSA a petition for rulemaking to remove the authorization for tank cars, including without limitation cars meeting the requirements of DOT specifications 105J600W, 105J600I, or 112S600I, to be used for the transportation by rail of hydrogen chloride, refrigerated liquid ("HCl-RL").
3. Flammable Liquid presentation provided to the TCC prior to the July 2018 meeting and was discussed high level during this meeting.

**At the April 2018 meeting,** B. Fronczak reported on the Status of North American Flammable Liquid Fleet as December 31, 2017. D. Schoendorfer stated the AAR Hazmat Committee support of the NAR reduction task force efforts.

**At the January 2018 meeting,** no new update. COD.

**Point of Contact:** HazMat Committee Current Chair

| Name  | Company              |
|-------|----------------------|
| Brady | BNSF Railway Company |

**Purpose of Docket:** For the AAR Hazardous Materials Committee to report to the AAR Tank Car Committee related interest of the transportation of hazardous materials by tank cars.

## **DOCKET T80.12**

### **NORTH AMERICAN N.A.R. PROGRAM**

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**At the April 2023 meeting,** no update was provided.

**At the January 2023 meeting,** COD

**At the October 2022 meeting,** The NAR awards were presented. COD

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**July 2022 update,** J. Caccamo provided an update regarding docket T80.12 via email.

- Currently all railroads are working to formulate the list of 2021 Chemical Award Shipper nominations. The awards will be given out at The October meeting in Addison.

**At the April 2022 meeting,** update provide earlier during the month was discussed.

**April 2022 update,**

- Awaiting all Class 1 Railroad Chemical Shipper Award Nominees for 2021. Once received will go through individual knock outs for any NAR on any railroad.
- The awards to be given out at the October Tank Car Committee Meeting.
- Still awaiting on FRA root cause finding for all provided NAR information through their HMI process. This will be used by each railroad to close any files and develop any action plans if any component defects are encountered.
- Will follow up with FRA to obtain this information and the best method to receive it so it can be documented.

**At the January 2022 teleconference meeting,**

- Trying to get the root cause of the non-accidental releases documented. Working with DOT to ensure information is received by PHMSA, FRA and AAR in a timely and accurate manner.

**At the October 2021 meeting,** no update for this meeting. **COD**

**At the July 2021 teleconference meeting,** J. Caccamo reported that a list of NAR Grand Slam awards was finalized, and 17 companies will be receiving awards at the October 2021 TCC meeting. FRA developed an HMII program. An email system was developed to send NAR reports to FRA sooner than current practice which will help FRA know when there is an incident so they can take action.

**At the April 2021 teleconference meeting,** J. Caccamo reported that work is being made on the NAR-RCA report. Hazmat committee to meet with FRA and report back to TCC. Shipper awards will take place this year and nominations will happen next month. It was noted that progress is being made on the Tank Car Field Guide booklet as well as Pamphlet 34 and the loading and unloading video on YouTube.

- Action item: TF chair as requested members of committee such as shippers, component builders and valve manufacture to assist with the redevelopment of Pamphlet 34 and the YouTube video. D. Stein has volunteered to assist.

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints

**February 2021 update,** J. Caccamo provided an update regarding docket T80.12 via email.

- Review from Rail Carrier determined that numerous shippers were left out of the Grand Slam Awards. After review and knockout three additional shippers were added and awarded the 2019 honor.
  - Alta Gas
  - Moose Jaw Refinery Partnership
  - PBF Energy
- NAR Root Cause forms have been submitted to the AAR Hazardous Material Committee for review.

**November 2020 teleconference update,**

- J. Caccamo reported that RCA report was presented to HMC. Currently under review.
- Holden- Proefrock award was presented to Ron Gould

**At the October 2020 teleconference meeting,**

This docket was not discussed at the October TCC meeting due to time constraints.

**October 2020 update,** J. Caccamo provided an update regarding docket T80.12 via email.

- Chemical Shipper Grand Slam Awards will be delivered locally to each winner by Members of the AAR Hazardous Material Committee or if Covid Restricts they are being sent directly to the winner.
- Fourteen companies were awarded this distinguished achievement. The following Companies received the Grand Slam Award Methanex Methanol Company LLC, ERCO Worldwide, Kemira, NGL Supply Co Ltd, Cenovus Energy Marketing Services Ltd., Elbow River Marketing Ltd., Husky Energy Inc, ADM, Cornerstone Chemical Co., The Chemours Company, ExxonMobil, HJ Baker Sulphur LLC, Keyera Energy Inc. and The Andersons.
- Holden-Proefrock award was presented to Ron Gould for his prestigious career in Hazardous Material Response on October 15 at Marion Environmental Inc. Philadelphia office.
- The NAR Root Cause Task Force is very close to completion of its work product to document Root Cause Findings after a 5800.1 report is filed and will be presenting its

final work product to the AAR Hazardous Material Committee in the near future. There will be additional information presented to reflect NAR codes that seem outdated and may need to be changed and considered by the Committee.

**At the July 2020 teleconference meeting,** J. Caccamo discussed the update provided earlier this month, it was also reported that the NAR Awards will take place virtual on October 13<sup>th</sup>, 2020.

**July 2020 update,** J. Caccamo provided an update regarding docket T80.12 via email.

- NAR Awards have been finalized and currently being checked by each Railroad to ensure they have not had any NARs to remove them from the list of nominations.
- Seeking alternative to the in person meeting in Addison, Texas for October depending on AARs decision.
- Root Cause Analysis forms continue to advance and significant progress has been made this quarter.
- Draft will be provided to the Hazmat committee later this year, funding from DOT is in process
- Factor provided DOT with a proposal and TF is awaiting suggestions/decision
- New TF member added:
  - John Vergis - Wheeling and Lake Erie Railway

**At the April 2020 teleconference meeting,** it was reported that progress continues to be made on RCA forms and NAR awards.

**At the January 2020 meeting,** J. Caccamo reported that data is being compiled from 2019. Data for the NAR awards will be based on data across all railroads. TF has decided to revise the loading and unloading video on YouTube along with the definitions in the Tank Car field guide handbook.

**At the October meeting,** J. Caccamo reported that TAG is progressing with the root cause analysis documentation that should be done and out by 2020. T. Treichel discussed a presentation over NARs, that will be available to the public on the NAR website.

**At the July 2019 meeting,** J. Caccamo discussed a car carrying residue alcohol that caught fire causing a PRV actuation. The TAG will report on the investigation into this issue. AAR asked that any similar issues be brought to the committee attention.

**At the April 2019 meeting,** C. Machenberg reported that he is stepping off the NARR-TF. Joe Caccamo has agreed to take over as chair. Todd Treichel gave an NAR update. It was reported that manways continue to lead causes of NAR's. Manway bolt loose is number one at 55, followed by manway gasket misalignment and manway gasket missing.

**At the January 2019 meeting,** C. Machenberg reported on the current NAR TF efforts. Goal is to have a 2018 full year-end report by the April 2019 meeting. NAR TF is working on a root cause

analysis requirement for NAR's.

**At the October 2018 meeting,** C. Machenberg reported on the current NAR TF efforts. Anyone has any success stories to share please notify the NAR TF chair. Any information that can reduce NAR's please provide to C. Machenberg. NAR website can be updated with best practices once vetted by the NAR TF. NAR awards were awarded to recipients during the TCC October meeting on 10/17/2018.

AAR awarded David Schoendorfer with the Holden-Proefrock Award.

Per Chris Machenberg the NAR Reduction Task Force members are as listed below:

**NAR Reduction Task Force:**

| <b>Name</b>           | <b>Company</b>                | <b>Name</b>                | <b>Company</b>                  |
|-----------------------|-------------------------------|----------------------------|---------------------------------|
| Caccamo (Chair)       | CSX Transportation            | TBD (Communications Chair) | TBD                             |
| Treichel (Data chair) | RSI- AAR                      | TBD (Process Chair)        | TBD                             |
| TBD (Hardware Chair)  | TBD                           | Wyler                      | Eastman Chemical Company        |
| Elkins                | AAR                           | Smith                      | UMC                             |
| Barken                | University of Illinois        | Call                       | UMC                             |
| Mccaslim              | Eastman                       | Blumrick                   | Eagle Gasket and Packing        |
| Aliota                | Trelleborg                    | Verhey                     | Trinity Corporate Services, LLC |
| Byrd                  | Alabama Railcar Services, Inc | Sarrazin                   | Chemtrade                       |
| Freeman               | GBW Railcar                   | Buckley                    | STARS consulting                |
| Grandy                | BG Global Castings            | Allen                      | Eastman                         |
| Wall                  | GATX Rail Corporation         | Barrios                    | Caltrax, Inc                    |
| H. Schneider          | Gaskoa                        |                            |                                 |

**At the July 2018 meeting,** C. Machenberg reported on the following:

The NAR Committee met on July 12, 2018 via conference call. 15 members attended the call to discuss the 2017 data set as provided by the University of Illinois and Todd Treichel. Discussions of root cause analysis to be created as a universal data gathering form for shippers to file to the NAR committee. A request was made to the members for volunteers to work on the strawman form and a request for a chairman to lead this group. A monthly meeting schedule was announced for the 2<sup>nd</sup> Thursday of every month to work on issues and have discussion between the members of the task force. The root cause form strawman is scheduled to be presented by the August meeting. Chris Machenberg and Andy Elkins will be presenting an NAR presentation at the FRA conference in August 2018. Root Cause Analysis Form and Recommended practice that all AAR programs can operate under. AAR staff M. Forister expressed the need for the NAR TF to work with AAR under the QAC T 6.4 QA TF efforts regarding Root Cause Analysis. AAR stressed there should be one process for root cause analysis on nonconformance items. AAR expressed there is already a nonconformance reporting tool through AAR MSRP Section J (M-1003) under chapter 7.



**At the April 2018 meeting,** C. Machenberg reported on the current data efforts. Todd Treichel gave the preliminary numbers during the meeting. TRANSCAER awards were awarded during the meeting. The NAR Reduction task force plans to engage with FRA Hazmat Seminar in August 2018. On March 23, 2018 AAR received the following update from the TF chair: Task Force chairman Chris Machenberg worked with Todd Treichel, RSI-AAR Railroad Tank Car Safety Research and Test Project, to develop a Strawman schedule for providing NAR presentation information for the 2018 April and October HMC and TCC meetings using the PHMSA data and the independently supplied data from the Canadian railroads. Strawman schedule that is being utilized for April 2018 meeting preparation:

- “W” is TCC meeting
- “W” minus one week - slides ready for showing to TCC
- “W” minus three weeks – slides distributed to smaller group for review
- “W” minus four weeks – database ready for analysis and slide creation
- “W” minus six weeks – PHMSA data gathered from FACTOR database
- “W” minus seven weeks – request for Canadian incidents

Working with FACTOR since the October 2017 TCC meeting, the 2017 data has been verified. In January, FACTOR did a presentation of their data system and display for Todd Treichel and the team at the University of Illinois. There are still issues of missing data such as missing NAR cause codes in the PHMSA data set. University of Illinois, Todd Treichel and FACTOR worked to correct as many as possible. In January, Andy Elkins sent the excel spreadsheet for the NAR Award submissions. These awards will be presented at the October 2018 TCC Meeting. We will be taking names and contact information at the April meeting to begin the main work of the task force now that the data set is clean and current.

**At the January 2018 meeting,** C. Machenberg reported on the current data efforts between Factor and PHMSA. The NAR visualization tool has been built and continues to be updated. The NAR awards ceremony will continue to be done in the fall of each year; the 2018 venue is TBD. The NAR Reduction task force plans to engage with FRA Hazmat Seminar in August 2018.

**NAR Reduction Task Force:**

| <b>Name</b>           | <b>Company</b>                    | <b>Name</b>                | <b>Company</b>                  |
|-----------------------|-----------------------------------|----------------------------|---------------------------------|
| Caccamo (Chair)       | CSX                               | TBD (Communications Chair) | TBD                             |
| Treichel (Data chair) | RSI- AAR                          | TBD (Process Chair)        | TBD                             |
| TBD (Hardware Chair)  | TBD                               | Wylar                      | Eastman Chemical Company        |
| Elkins                | Association of American Railroads | Smith                      | UMC                             |
| Barken                | University of Illinois            | Call                       | UMC                             |
| Mccaslim              | Eastman                           | Blumrick                   | Eagle Gasket and Packing        |
| Aliota                | Trelleborg                        | Verhey                     | Trinity Corporate Services, LLC |
| Byrd                  | Alabama Railcar Services, Inc     | Sarrazin                   | Chemtrade                       |
| Freeman               | GBW Railcar                       | Buckley                    | STARS consulting                |
| Grandy                | BG Global Castings                | Allen                      | Eastman                         |
| Wall                  | GATX Rail Corporation             | Barrios                    | Caltrax, Inc                    |
| Schneider             | Gaskoa                            | Vergis                     | Wheeling and Lake Erie Railway  |

**TF Charge:**

| <b>Name</b> | <b>Company</b>  |
|-------------|---|
| 1           | Identify the causes and propose solutions to reduce NAR's |

## **DOCKET T100.24**

### **AAR ONLINE SYSTEM UPDATE**

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**At the July 2023 meeting, COD**

**At the April 2023 meeting,**

- K. Dorsey and H. Khalid will be the discussants of this docket.
- Work with other technical committee members to get ideas on a general online system setup.

**At the January 2023 meeting,**

- Action item: AAR staff to find reports on phase 2.

**At the October 2022 meeting,** M. Forister reported that the online system for the facilities is working well and being maintained. Have plans to finish the second phases of the online system that will have the approval process of the service equipment applications along with collecting data on the open service trails.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** M. Forister reported on the current functionality updates to the AAR online system.

**April 2022 update,**

- The AAR online system was recently updated to include the online AAFR online tool. AAR issued CPC-1388 notifying tank car facilities of the deployment of this tool which included two dates for AAR to demonstrate the navigation of the tool. On Thursday March 24, 2022, and Monday March 28, 2022, M. Forister put on a webcast demonstration for industry. M. Forister also put on a demonstration for the BOE auditors Friday March 25, 2022. The use of this online tool becomes effective and mandatory for tank car facility audits performed after April 4, 2022.

**February 2022 teleconference update,**

- M. Forister presented a proposed CPC. This allows for auditor and facility to communicate on their findings. It also gives the facility and the auditor on active status. M. Forister will demonstrate the system in the third week of March.
- Action item: M. Forister to add a date to the CPC for the demonstration webinar. AAR to issues a CPC the week of 21<sup>st</sup> February.

**Purpose of docket:** M. Forster will update the TCC on functionality updates to the AAR online system.

**Point of contact:**

| Name             | Company  | Name | Company |
|------------------|----------|------|---------|
| Carriere/ Khalid | MXV/ AAR |      |         |

## Executive Committee Dockets

### DOCKET T91.85

#### APPENDIX B ADMIN, B89 and RLJ

**At the July 2023 meeting,** wording for CPC aiding in the transition to B89 with RLJ dependency listed in the current C-III Appendix B was developed.

- “Facilities currently having the activity code B89 and/or RLJ may continue to perform work to safety systems and/or jacket repair under their current certification, until the 2024 facility audit is completed. Facilities wishing to add B89/RLJ per CPC-1405 shall complete and return the T-3 form, see attached”.
- Action item: Motion to accept CPC wording as written during the meeting was taken by R. Dalske, seconded by WLERWLY, and passed.

**At the April 2023 meeting,**

- Action item: Change the docket table of content to “Appendix B admin, B89 and RLJ”. TF discussant- K. Dorsey. TF members- T. Smith, J. Killian, T. Perez, and K. Kjelstrom- MxV.

**At the January 2023 meeting,**

- Pending tech writer, will go out for CPC. Final edits for implementation.

**January 2023 update,**

- At the October 2022 meeting, the TCC received a request from Rescar asking the TCC to considering permitting the use of a test plate fixture for demonstrating activity code B89. The AAR TCC worked on final edits to this matter and agreed to publish a CPC soliciting industry comment.
- On 11/1/2022 the AAR published CPC-1403 which included additional committee work on administrative matters involving the removal of M-1003 chapter 3 references and inserting directly into Appendix B the administrative provisions including updates to the denied and withdrawal requirements of certification. Also included incorporation of updates on the online AAFR online process.
- At the December 2022 meeting, the TCC processed industry comments and agreed to have an implemented CPC issued on Appendix B.
- AAR has since submitted final revisions to the technical writer and is awaiting final Implementation version PDF to issue CPC-1405.

**Task Force:**

| Name      | Company | Name  | Company |
|-----------|---------|-------|---------|
| Dorsey    | AAR     | Smith | MXV     |
| Killian   | MXV     | Perez | MXV     |
| Kjelstrom | MXV     |       |         |

## DOCKET T91.87

### B2 UPDATES TO REFLECT CHANGES MADE ON M-1002 APPENDIX B

**September 2023 teleconference update,**

- Committee to review the draft B-2's to further discuss at the October 2023 meeting.

**August 2023 teleconference update,**

- It was noted that BOE auditors provided drafts of the new versions of the B-2 forms, A19, A19c, B24, B78, B81, B85, B89, B90, C4a, C4m, C5, C6i, C7, C8, C9, C10, RLJ.
- Action item: AAR Staff to send out the copies via SharePoint. TCC to provide feedback to BOE auditors before the October meeting.

**At the July 2023 meeting,** T. Smith and J. Killian presented the drafts of the new B2 and T-3 forms.

- Action item: AAR staff to share the copies of the drafts with the committee. TCC to review and provide feedback to the BOE auditors.

**At the April 2023 meeting,**

- TF discussant- K. Dorsey. TF members- T. Smith, J. Killian, T. Perez, and K. Kjelstrom-MxV. K. Dorsey to work with the TF.

**At the January 2023 meeting,**

- Action item: AAR staff to create two B-2 and modify two existing B-2 (B89,R0J). Chair- K. Dorsey

**Task Force:**

| Name      | Company | Name  | Company |
|-----------|---------|-------|---------|
| Dorsey    | AAR     | Smith | MXV     |
| Killian   | MXV     | Perez | MXV     |
| Kjelstrom | MXV     |       |         |

**TF Charge:**

| Number | TF Charge |
|--------|-----------|
|        |           |

**DOCKET 100.22.2**  
**SERVICE EQUIPMENT COMPONENT TRACKING**  
**ALL SERVICE EQUIPMENT CATEGORIES**

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**At the July 2023 meeting,** COD

**At the April 2023 meeting,**

- TF work was completed. After the publication of the CPC, the TF will work with Railinc.

**At the January 2023 meeting,**

- Pending tech writer

**At the October 2022 meeting,** the PRV DQ project from the September teleconference was discussed. Timeline for the rest of the docket is pending as of right now.

**September 2022 teleconference update,**

- PRV DQ Project
  - M. Forister and B. Seibold reported that technical and programing issues of this project were discussed with a Railinc representation. Due to timing issues, the representative could not be present at the meeting. It was noted that the project will be divided into three categories of data quality issues and priority should be given to matters of registration first and then association.
  - Action item: Motion was made by ACC, seconded by BNSF, and passed to accept the priorities as stated and determine if it applies to other components.

**At the July 2022 meeting,**

- Action item: Motion to issue the previously approved M-1002 markup for industry comments. Motion taken by BNSF and seconded by ACC and passed.

**At the April 2022 meeting,** J. Zimmerman reported that charge 1 is completed. Work is progressing on other charges.

- Action item: TF member to be added- Adrian Morgan- Greenbrier companies.

**March 2022 teleconference update,**

- M. Forister went through the proposal.
- Action item: motion made by BNSF, seconded by CSX, and passed to publish a CPC soliciting comment on the T100.22.2 TF proposal and a circular letter soliciting comments on S-920 of this proposal. In the CPC it will specifically state that the final action of this revised language will not be implemented until the following four items are addressed by the AAR Tank Car Committee: Areas the AAR Tank Car Committee will address prior to the implementation timeline of the T100.22.2 proposal.
  - Bench Test and Leak Test Definitions in Chapter 1 paragraph 1.2 need to have the requirements relocated into the appropriate Chapter/Appendix in M-1002.

- The terms Bench Test and Leak Test definitions need to be revised without including requirements.
- Once these two terms are defined then paragraph 3.2.1.3 can be revised accordingly.
- Establish an administrative process for reconfiguring approved safety relief devices such that if the approval permits different configurations that the M-1002 addresses the required markings, component tracking, and the certified tank car facility authorized to perform this work.
- Based on this outcome of items 1-4 revisiting Appendix A paragraph 6.1.1 accordingly.

**February 2022 teleconference update,**

- M. Forister reported that work is being made on service equipment category safety relief devices. TF is close to getting edits done to chapter one, appendices a and d, and S-920.
- M. Forister requested industry's help to get compliance of component tracking. Work with car owners and shops to ensure that these PRVs are being associated. M. Forister noted that about 32,000 PRVs registered in Umler and only about 12,500 PRVs associated to a car.
- J. Rader commented that the industry is stock piling components in anticipation of material shortages with respect to the projected increase in the volume of tank car qualifications scheduled for 2022 and 2023. This may account for the difference in registered PRVs and those associated to a car.

**At the January 2022 teleconference meeting,** it was reported that TF is working on paginations with S920, appendix D and with chapter 1 to align work. Aiming to have something completed by March or February 2022 to get approved by TF and committee.

**January 2022 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- Edits to M-1002 are in progress. Target for completion is the end of January 2022. Next meeting on January 5, 2022.

**At the October 2021 meeting,** M. Forister elaborated on the update provided. A meeting will be taking place to review the draft language to reflect the standards. Working on charge 2 to be completed by December.

**October 2021 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- The TF work is complete for Service Equipment category Safety Relief Devices.
- Submission of final recommendations to the TCC is pending revision draft of S-920 and M-1002 Appendices.
- M. Forister is scheduling next draft review for the week of 10/4.
- The elements for Service Equipment category valves have been identified by the Task Force. A draft of S-920 will be completed by the end of the year.



- Additional Service Equipment categories are on hold pending completion of T1.1.4

**At the July 2021 teleconference meeting,** the update provided earlier during the month was reviewed. M. Forister noted that TF is on track. A meeting with B. Siebold and TF chair and M. Forister will take place regarding S-920 to work on track changes.

**July 2021 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- TF is on schedule to complete Charge 1 – Safety Relief Devices by 9/1/2021.
- Work on Charge 2 – Valves is scheduled to begin next meeting 7/19 and on target for completion by 12/1.
- Charges 3 – 5 are on hold pending completion of T1.1.4.

**At the April 2021 teleconference meeting,** J. Zimmerman went over the update that was provided earlier this month.

- Action item: AAR staff to place the TF charges in the bottom of the docket.

**April 2021 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- Charge 1 (SRDs: Combination Devices, Vents, VRVs, Pressure Regulators) is on schedule for 9/1/2021 completion. CID elements for each sub-type have been identified. Definitions are in progress. Once reviewed by the TF, a formal proposal for revisions to S-920 will be submitted to Matt Forister, et al.
- Charge 2, Valves, will begin once SRDs are completed. On schedule for end of 2021 completion.
- Charges 3-5 will begin upon the completion of T1.1.4 and the required elements are defined.
- TF chair would like to know if the attachment summary of revised charges meets the expectation.
- TF members removed
  - Josh Adams - UTLX
- TF members added
  - Pasquale Zozzaro- UTLX
- Attachment: Approved AAR-TCC charges

**At the February 2021 teleconference meeting,**

- This docket was not discussed at the February TCC meeting due to time constraints.

**February 2021 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- The task force has completed its definition of scope. The TF will prioritize Charges 1 and 2 (1: Safety Relief Devices and 2: Valves). The Objectives for Charges 1 and 2 are clear. Charge 1 is targeted for completion by 9/1/2021. The completion date for Charge 2 is tentatively scheduled for December 2021. The remaining three Charges (3: Instruments,

4: Fittings, and 5: Closures) will proceed once critical attributes are defined by Task Force T1.1.4

**At the October 2020 teleconference meeting,** update provided earlier during the month was discussed.

- Action item: AAR staff to update the docket task force membership with M. Forister and TF chair. Task force to provide a target completion date.

**October 2020 update,** J. Zimmerman provided an update regarding docket T100.22.2 via email.

- TF to review charges, defining the voting structure and outlining the project plan and timelines
- J. Zimmerman appointed as the new discussant
- Members added to the TF:
  - Jeremiah Zimmerman- Midland Manufacturing
  - Matt Johnson- Alltranstek
  - Larry Loman- Alltranstek
  - Rory O'Brien- Railinc
  - Terry Caulfield- Railinc
  - Clay Miller -Railinc
  - Greg Deibler- Association of American Railroads
  - Jesse Gordon- McKenzie Valve
  - Glen Harm- Girard
  - David Bailey- Fort Vale
  - Tyler McMullin- AIT
  - Larry Culligan- AIT
  - Stephen Collins- CRDX
- Members removed from TF:
  - Madden- Railinc
  - Fleming- Olin
  - McCreery- CIT
  - Mack- DOW Chemical Company
  - Woloszyk- Salco
  - Jachim- Rescar Companies
  - Derekk- Caltrax
  - Nunez- Kelso
  - Ash- RAC
  - McMillan- Railinc
  - Childs- Railinc
  - Leary- Railinc
  - Cook- OPW

**September 2020 teleconference update,** COD. AAR staff to work with TF.

**At the July 2020 teleconference meeting,** J. Zimmerman is elected as new chair.

- Action item: TF membership and task of docket to be updated.

**July 2020 update,**

- Jeremiah Zimmerman from OPW, Midland Manufacturing is nominated to be TF chair for this docket.

**At the April 2020 teleconference meeting,** it was decided that a new chair will be elected before next meeting for this task force.

- Members to add to TF:
  - Shane Mack- Dow

**April 2020 Update:** This docket was opened to expand component tracing to all types of service equipment.

**Information from T100.22.2**

**At the January 2020 meeting,** C. Edmonds presented the PRV component ID-CEPM PowerPoint to request TCC's guidance to review and make recommendations on charges. The TCC agreed that AAR will approve each manufactured barcode (per S-920) to verify that it works in the Railinc system. AAR is to issue a CPC by the end of April 2020 stating that CID registration and association for PRV's is optional beginning July 1<sup>st</sup>, 2020 and becomes mandatory on PRV's manufactured/ reconditioned after January 1, 2021.

- Motion was made, seconded, and passed to accept TF added charges needed to complete component tracking on PRV's.
- Motion was made, seconded, and passed for TF to complete remainder of service equipment category- safety relief devices, followed by all components in service equipment category valves.
- Motion was made, seconded, and passed for pressure relief valve implementation time frame.

**Task Force:**

| Name                 | Company                              | Name       | Company                 |
|----------------------|--------------------------------------|------------|-------------------------|
| Zimmerman<br>(Chair) | Midland Manufacturing                | Machenberg | CSX Transportation      |
| Siebold              | BNSF Railway Company                 | Culligan   | AIT                     |
| Clayton              | GATX Rail Corporation                | Kerber     | BNSF Railway Company    |
| Boklewski            | GATX Rail Corporation                | Epperson   | AIC Rail                |
| Edgel                | UTLX                                 | Edmonds    | ExxonMobil              |
| Dorsey               | Association of American<br>Railroads | Loman      | Alltranstek             |
| Scarrow              | OPW                                  | Caulfield  | Railinc                 |
| Johnson              | Alltranstek                          | Deibler    | Association of American |

|         |                |          |           |
|---------|----------------|----------|-----------|
|         |                |          | Railroads |
| O'Brien | Railinc        | Harm     | Girard    |
| Miller  | Railinc        | Collins  | CRDX      |
| Gordon  | McKenzie Valve | McMullin | AIT       |
| Bailey  | Fort Vale      | Zozzaro  | UTLX      |

**TF Charge:**

| Number | TF Charge  |
|--------|--|
| 1      | Complete component tracking effort on service equipment category - safety relief devices. TF to use the methodology developed with Pressure Relief Valves (PRV's) from T100.22.1. – Safety Relief Devices from Chapter 1             |
| 2      | Develop and complete component tracking effort on service equipment category – Valves. TF to determine the bounds of valves based on the definitions of primary valves and secondary valves definitions in Chapter 1 of M-1002       |
| 3      | Develop and complete component tracking effort on service equipment category - Instruments   |
| 4      | Develop and complete component tracking effort on service equipment category – Fittings. TF to determine the bounds of fittings based on the definitions of primary fitting and secondary fitting definitions in Chapter 1 of M-1002 |
| 5      | Develop and complete component tracking effort on service equipment category – Closure. TF to determine the bounds of closures based on the definitions of primary closure and secondary closure definitions in Chapter 1 of M-1002  |

## DOCKET T100.23

### AUDITOR HANDBOOK

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#### September 2023 teleconference update,

- It was reported that a meeting will take place on October 22<sup>nd</sup>.

#### August 2023 teleconference update,

- Haven't met. No update on the proposal.

#### At the July 2023 meeting, COD

#### At the April 2023 meeting,

- It was reported that a draft proposal is being developed.

#### At the January 2023 meeting,

- The documents provided were reviewed. committee discussed the new requirements to maintain M-1002 accredited auditor certification. The tiered certification document that was provided from the TF was reviewed during the meeting.
- Action item: TF to add a section in the document regarding the authority of agency, essentially stating that the committee (by vote) can certify an auditor based off objective evidence. AAR staff to communicate with AAR legal to provide clarification to Tank Car Committee on their position of suspending or revoking of auditor reports. Motion to accept the 19 existing auditors to extensions to level three certification to December 31st, 2023, or until a new exam is created, administered, and successfully completed. (Whichever occurs first). Management observation requirements to be met with the individuals 3 year certification cycle. Motion taken by UP, seconded by ACC and passed.
- BNSF, Hazmat and CN abstain motion taken at the meeting.
- Action item: AAR staff to move this docket to the closed backgrounds.

#### January 2023 update,

- Draft of the task force recommendations:
  - The Task Force has reviewed the current QA Auditor Handbook and revised the requirements for becoming a M-1002 Certified Auditor. The new requirements take a tiered approach to qualification and are written in a manner to allow outside agencies to become certified and to perform M-1002 audits. These requirements have passed the first AAR Legal review but there is still an issue for which the Task Force has been unable to come to consensus. In Section 1.6.1.3, the Task Force has stalled on the draft requirements of a minimum of 2 or 3 audits as lead auditor in the highest level of certification.
  - 1.6.1.3 *Within the 3-year certification cycle, perform at least two (2) audits as Lead Auditor in the highest Level of certification. At least one of these audits must be accompanied by the audit agency management and*

- may also include a member of the TCC. for observation purposes only.*
- The Task Force requires the committee to take a position on this requirement.
  - The Task Force also has the following recommendations:
    1. The M-1002 Auditor's Handbook be assigned to a Task Force or permanent Committee position (such as Vice Chair) that will review the handbook annually, to ensure that it is kept up to date in the future.
    2. A Task Force be established to develop, review, and maintain the three levels of tests to be used to determine certification at each level. This should be a permanent Task Force which will review the tests (at least) annually or any anytime the requirements for certification are changed by the committee.
  - For reference, the explanation of the tiered certification system and Training Matrix are in the background.

#### **December 2022 teleconference update,**

- It was noted that November action items regarding Handbook and test questions are due on 12/31/2022 with replies due by end Jan 2023.
- P. Williams stated that they were sent it to AAR legal for feedback and comments were provided. Taskforce is currently working on some parts of the handbook.
- There are 3 different levels, with the current work force being conditionally approved, urgent is probably on level 3 then down to level 1.
- Auditor Certification expires Jan 31, 2023 (due to extensions), with new certification program still under review
- Auditor Training matrix is completed and can be sent out. AQTF with dependency chart by TCFAPR tag.
- Action item: Open a new docket to develop test questions. All voting members to send in questions needed for the auditor. AAR to distribute a copy of previous tests.
- Motion taken by UP, seconded by BNSF and passed. AAR to set up a call to give input for the auditor handbook test. K . Carrier to set up a meeting before the Jan TCC meeting, regarding the process on the handbook. Auditor training matrix to be sent out to the TCC member, provide an update on handbook from Aar legal.

#### **November 2022 teleconference update,**

- Staff reported that the handbook is close to being completed based on comments received. The handbook will be distributed for review when work is completed. Staff to distribute the auditor training level (training matrix) information and request that committee respond with questions or suggestions for information that should be included in the auditor certifications tests. Staff to update docket to track the tasks put forward by the AQTF with the dependency chart created by TCFAPR Tag (list of tasks).
- Proposed that handbook and request for test questions be distribute by the end of December with replies due by the end of January.

- Committee agreed to extend the auditor certification out from the end of December to the end of January to allow for the certification program proposal to be developed.

**At the October 2022 meeting,** P. Williams reported that TF will meet next week, and comments/questions submitted by B. Siebold will be reviewed.

**September 2022 teleconference update,**

- **Training Program Proposal:**
  - P. Williams discussed the proposal that details the requirements for a candidate to obtain and maintain M-1002 auditor certification. Concerns were raised on the role of MXV and the handbook. TF to rework the handbook to accommodate outside contractors.
  - Action items: B. Siebold to provide his comments and questions on level 2 and level 3 of the proposal. TF to respond and formulate an outline by next meeting.

**At the July 2022 meeting,**

- Action item: AAR to schedule a separate teleconference call to answer questions and go through the handbook.

**July 2022 update,** P. Williams provided an update regarding docket 100.23 via email.

- The Task Force is in the process of updating the handbook and putting processes in place with the AAR and Tank Car Committee (TCC) to ensure the handbook is reviewed by the TCC at least annually. Any changes will be incorporated as part of this annual review.
- The auditor certification process is also in the process of being upgraded by the Task Force. We are going to a three tiered approach, to allow auditors, both MxV and 3<sup>rd</sup> party, to begin conducting the less complex audits quicker, once qualified and approved by the Tank Car Committee. As part of the new certification process, TCC members will be required to provide oversight and test questions to ensure candidates meet the new qualification standards. This will assist in ensuring all Tank Car Facility auditors, MxV, MID, and/or 3<sup>rd</sup> party, are qualified to the same standards.
- Currently certified auditors are being re-certified under the existing requirements. Once the certification process is revamped and approved by the TCC, all certified MxV auditors will be re-certified to the new process.

**June 2022 teleconference update,**

- The direction of the auditor handbook was discussed. It was noted that the current draft is written for the utilization of the current BOE auditor force. The document is constructed to allow for its expansion when an outside auditing agency comes online.

**At the April 2022 meeting,** P. Williams presented an update. Following was reported:

- Work on M-1002 Auditor handbook continues. Current focus on framing up Graduated Certification program (3 tiers). 6-8 months to achieve each, and levels are designed as

prerequisites to advance from 1 to 2, and 2 to 3. Tiers are for onboarding only and it is not intended that auditors are to stay at level 1 or 2 beyond a specified timeframe.

**February 2022 teleconference update,**

- P. Williams reported that TF meet on the 16<sup>th</sup> of February . It was noted that TTCI wants to peruse tiered qualifications on their inspector’s auditor because of scarcity of A19 shops which can make it hard to get qualification at the same level.
- TF will proceed with the tiered approach moving forward and rewrite the handbook as to what qualifies as a level.

**At the January 2022 teleconference meeting,** it was noted that a TF was formed to review and re-write the Auditor handbook. P. Williams is the chair.

**Point of contact:**

| Name     | Company          |
|----------|------------------|
| Williams | Norfolk Southern |



## DOCKET T100.23.1

### AUDITOR TEST QUESTIONS

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#### **At the July 2023 meeting,**

- Action item: Motion to accept the level 1 and level 2 questions developed by BOE auditors. Motion taken by NS, seconded by ASLRRRA, and passed.

#### **July 2023 update,**

- J. Killian has developed a draft document.
- Level 1 and 2 have 40 questions.
- Work is still being done on Level 3 questions. There are currently 12 level 3 questions, but there are more to come.
- Attachment: Excel- BOE Auditor test

#### **At the April 2023 meeting,**

- No questions were submitted by the committee. Level 1,2 and 3 test will be formatted based on revisions from appendices and old tests. Test to be developed by the BOE manager and AAR staff.
- It was stated that members could send in areas of M-1002 for the TF to construct questions. This could be based on previous audit ballots and/or industry. The auditor test needs to be completed by the TF and not the BOE. TCC may need to make time on the monthly calls to discuss this topic.
- Action item: TCC to send in auditor test question or areas of knowledge to be tested.

#### **At the January 2023 meeting,**

- Action item: AAR staff to move this docket to the closed backgrounds. Voting members to send in topics for questions.

#### **December 2022 teleconference update,**

- Action item: Open a new docket to develop test questions. All voting members to send in questions needed for the auditor. AAR to distribute a copy of previous tests.
- Motion taken by UP, seconded by BNSF and passed. AAR to set up a call to give input for the auditor handbook test. K. Carrier to set up a meeting before the Jan TCC meeting, regarding the process on the handbook. Auditor training matrix to be sent out to the TCC member, provide an update on handbook from Aar legal.

#### **November 2022 teleconference update,**

- Proposed that handbook and request for test questions be distribute by the end of December with replies due by the end of January.

#### **July 2022 update,** P. Williams provided an update regarding docket 100.23 via email.

- The auditor certification process is also in the process of being upgraded by the Task Force. We are going to a three tiered approach, to allow auditors, both MxV and 3<sup>rd</sup>

party, to begin conducting the less complex audits quicker, once qualified and approved by the Tank Car Committee. As part of the new certification process, TCC members will be required to provide oversight and test questions to ensure candidates meet the new qualification standards. This will assist in ensuring all Tank Car Facility auditors, MxV, MID, and/or 3<sup>rd</sup> party, are qualified to the same standards.

**Point of contact:**

| Name | Company |
|------|---------|
|      |         |

**DOCKET T100.25**

**STATUS OF COMPLIANCE WITH AAR COMPONENT TRACKING OF TANK  
CAR SERVICE EQUIPMENT**

**October 2023 update,**

- Attachment: Component Tracking Performance Chart

**At the July 2023 update, COD**

**At the April 2023 meeting,**

- It was reported that a lot of PRVs were not registered in the past 6 months.
- Action item: P. Ameen to provide the number of valves and AAR to develop a tracking document.

**At the January 2023 meeting,**

- Action item: AAR staff to provide an update on this docket.

**At the October 2022 meeting,** M. Forister reported that work continues on the tracking system.

**At the July 2022 meeting,** this docket was not discussed at the July meeting.

**At the April 2022 meeting,** M. Forister reported to industry that based on the component tracking data there are numerous PRV's registered without association. AAR TCC requested industry to ensure PRV's are being associated and recorded properly in the AAR component tracking system. AAR TCC continues to monitor this activity for compliance with M-1002 and S-920.

**April 2022 update**

- This docket was opened due to a private docket which was RFD in March 2022 teleconference. This docket will report on the status of compliance component tracking.

**Point of contact:**

| Name   | Company | Name | Company |
|--------|---------|------|---------|
| Dorsey | AAR     |      |         |