

**FINAL
RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)**

**Minutes of Meeting
September 10, 2009
Washington, D.C.**

The fortieth meeting of the RSAC was convened at 9:30 a.m., in the West End Ballroom, Salons A, B, and C of the Washington Marriott Hotel, 1221 22nd Street, N.W., Washington, D.C. 20037, by the RSAC Chairperson, the Federal Railroad Administration's (FRA) Deputy Associate Administrator for Safety Standards and Program Development, Grady C. Cothen, Jr.

As RSAC members, or their alternates, assembled, attendance was recorded by sign-in log. Sign-in logs for each Committee meeting are part of the permanent RSAC Docket. The records, reports, transcripts, minutes, and other documents that are made available to, or prepared for or by, the Committee are available for public inspection at the U. S. Department of Transportation docket management system Internet Web Site under FRA Docket #2000-7257 (<http://www.regulations.gov>). Meeting documents are also available on FRA's RSAC Internet Web Site (<http://rsac.fra.dot.gov>).

For the September 10, 2009, meeting, fifteen of the fifty-four voting RSAC members were absent: The American Association of Private Railroad Car Owners (1 seat), The American Petroleum Institute (1 seat), The Association of Railway Museums (1 seat), The Association of State Rail Safety Managers (1 seat), The Brotherhood of Locomotive Engineers and Trainmen (2 of 3 seats), The Brotherhood of Maintenance of Way Employes Division (1 of 2 seats), The High-Speed Ground Transportation Association (1 seat), The International Association of Machinists and Aerospace Workers (1 seat), The International Brotherhood of Electrical Workers (1 seat), The National Conference of Firemen & Oilers (1 seat), Safe Travel America (1 seat), The Sheet Metal Workers International Association (1 seat), and The Transport Workers Union of America (TWU) (2 seats). Two members, The Chlorine Institute (1 seat), and The Institute of Makers of Explosives (1 seat), were present by Proxy to the American Chemistry Council. Three of seven non-voting/advisory RSAC members were absent: The Labor Council for Latin American Advancement, The League of Railway Industry Women, and Secretaria de Comunicaciones y Transporte (Mexico). Total meeting attendance, including presenters and support staff, was approximately 80.

Chairperson Cothen welcomes RSAC (the Committee) Members and attendees. He asks Larry Woolverton (FRA–Office of Safety) for a meeting room safety briefing.

Larry Woolverton (FRA) identifies the meeting room's fire and emergency exits. He asks for volunteers with cardiopulmonary resuscitation (CPR) qualification to identify themselves. A large number of attendees acknowledge having completed this training. No volunteers are designated to perform CPR. The Washington Marriott Hotel does not have an automated external defibrillator (AED).

Chairperson Cothen asks FRA Administrator Joseph Szabo (FRA Administrator) for opening remarks.

Joseph Szabo (FRA Administrator) greets RSAC members and attendees. He says this is the 40th meeting of the full Railroad Safety Advisory Committee. He says it is an anniversary, of sorts. He notes that he has been on both sides of the table. But, he observes, with the slowing of the economy there are large challenges facing the railroad industry. He adds, this has been an incredibly busy and challenging time for everyone, with more and greater expectations imposed by legislation, and with reduced resources as the economy slowed and sputtered.

Administrator Szabo says FRA has watched with admiration and gratitude as RSAC working groups and task forces have worked through the summer and delivered important products. He says the railroad industry has felt the bumps as new statutory hours of service requirements have gone into effect, and FRA is reeling from the load of waiver and pilot project requests. Those requests, he says, may offer the chance to apply sleep science and fatigue management techniques to moderate the impacts of the new law, and with luck, he adds, we will build confidence that these needs can be met with flexibility.

Administrator Szabo says every generation has its challenges, and it is plain that the renewed emphasis on high-speed rail and the deployment of Positive Train Control (PTC) will be among our defining challenges. He says RSAC has responded rapidly to a positive train control regulatory proposal, and at today's meeting, we will hear from the PTC working group concerning their take on the comments received to the PTC Notice of Proposed Rulemaking (NPRM).

He says FRA is working hard to give the railroad industry a final rule on PTC next month, but regulations will not give birth to suitable technology.

He salutes the National Railroad Passenger Corporation (Amtrak) for serving as the technology leader in the Northeast, moving ahead with the Advanced Civil Speed Enforcement System (ACSES) and helping its passenger railroad neighbors with this technology.

He offers Kudos to the railroad Interoperable Train Control group, which is drafting interoperability standards for the general freight network. He says much excellent work has been done, but he has concern regarding the timeliness of this effort.

He says FRA is already in the position of having to simplify its requirements for PTC Implementation Plans because interoperability standards will not be completed and validated until the end of 2010—over 2 years after enactment of the Rail Safety Improvement Act and over a decade after the RSAC said interoperability standards should be developed by the Association of American Railroads (AAR).

Administrator Szabo says that will leave 6 years for railroads to procure services, complete safety plans, and roll out PTC on their networks by the December 31, 2015 deadline. He encourages the Class I railroads to take a fresh look at this schedule and determine how to accelerate completion of interoperability standards. He says what matters very critically here is whether FRA and the other stakeholders can have confidence that the standards will be delivered in a timely way.

Administrator Szabo says the ITC group needs room to work, and FRA is pleased to support that. However, he adds, the freight industry has already lost the option to implement PTC on its own terms and its own schedule, and it would be a shame indeed if it also lost the ability to specify its own technical standards.

Administrator Szabo says FRA wants the railroad industry to be successful.

In the meantime, Administrator Szabo says, the PTC Implementation Plans will be due by April 16, 2010. He asks that the Class I railroads settle down and think through what the heart of their rail networks will be and then describe them in their plans. He says this is not about how to do the absolute least in response to the Pipeline and Hazardous Materials Safety Administration (PHMSA), FRA and Transportation Security Agency (TSA) requirements. He says it is all about what will work for safety, and for your companies and the Nation as traffic returns and new business opportunities emerge.

Administrator Szabo says FRA really does not want to micro-manage these decisions. He says if FRA can see that railroads are reaching for the right answers, the agency wants to defer to your decisions. However, he adds, FRA is willing to do its job, or it would not be here.

Administrator Szabo says FRA is very excited about the prospect for high-speed rail as an essential component of our long-term National transportation policy. He says there are opportunities here, if we can see far enough down the railroad and form partnerships to get there. He says inevitably, there will be more dreams than dollars, at least initially. But, he adds, successful high-speed corridors will tell a story that others will want to build on.

Administrator Szabo says safety must be the cornerstone of this effort. He says, “World class” means very, very safe. He says that means that engineering and investment must be joined with operational discipline and system safety planning.

Administrator Szabo says while FRA has sought to regenerate the discussion about high-speed passenger service and safety over the past few weeks, this is not something the agency can check off and leave behind us. He says FRA needs to sustain the conversation and improve its understanding of what works and how and where it works.

Administrator Szabo says FRA appreciates the comments it has received on the safety strategy and grade crossing guidelines, and appreciates the willingness of so many to join an Engineering Task Force that will help FRA evaluate the full range of equipment available to meet the needs of Emerging High-Speed Rail.

In closing, Administrator Szabo says being FRA Administrator provides a great perch from which to see the industry work and get to know its people better. He says great people show their mettle when they are tested. Cowards become loud, then shrill, and fade into oblivion. He says most of us don't know which we are until the test comes.

He says, "From what I have seen, I like our chances." But, he adds, it will take courage.

Chairperson Cothen thanks Administrator Szabo for the opening remarks.

Chairperson Cothen says the first agenda topic for today's meeting is a report on comments that FRA has received on 74 *Federal Register* (FR) 35950, Positive Train Control Systems, Notice of Proposed Rulemaking (NPRM), dated July 21, 2009. Mr. Cothen offers the following major themes that pose difficult solutions in the PTC rule: (1) Where to start to describe the PTC network; (2) What base year to use for traffic levels; (3) A de minimus exception for lines having a small amount of toxic inhalation hazard (TIH)/poison inhalation hazard (PIH) freight traffic and no passenger traffic; (4) PTC Development Plans; (5) The roll-out of interoperability; (6) Joint filings for the PTC Implementation Plans, due April 16, 2010; (7) Requirements for on-board video display screens; (8) Non-PTC equipped Class II and Class III railroad operations on Class I PTC-equipped track; and (9) Historic, i.e., steam, locomotives in the lead.

Chairperson Cothen asks Thomas McFarlin (FRA–Office of Safety) for a status report on "49 *Code of Federal Regulation* (CFR) Part 236 Subpart I."

Thomas McFarlin (FRA) uses a series of Microsoft PowerPoint Presentation slides, projected onto a screen. Photocopies of the Microsoft PowerPoint Presentation were distributed to meeting attendees. In addition, all meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Thomas McFarlin (FRA) outlines the ongoing PTC rulemaking process as follows: (1) Comments to the PTC NPRM have been received; (2) Public Hearing has been held; and (3) The PTC Working Group (WG) has been reconvened to help resolve comments to the PTC NPRM.

Under the slide, “NPRM Commenters (32),” Mr. McFarlin says FRA Docket No.: FRA-2008-0132 has received thirty-two comments to the PTC NPRM. He says FRA will continue to accept comments as long as possible, while preparing the final rule. Under the slides, “Areas of Agreements,” Mr. McFarlin lists the following PTC NPRM issues where there is agreement: (1) Event Recorders (§ 229.135); (2) Changes not requiring filing of application (§ 235.7); (3) Purpose and scope (§ 236.1001); (4) Requirements for PTC System roadway worker zones (§ 236.1005(a)(1)(ii)); (5) Movement and after arrival mandatory directives (§ 236.1005(a)(4)(iii)); (6) Moveable bridges (§ 236.1005(a)(4)(iv)); (7) Hazard detectors (§ 236.1005(a)(4)(v) and (c)); (8) Broken rails (§ 236.1005(a)(5)); (9) Terminal operations—not main line (§ 236.1005(v)); (10) Determining 5 million gross tons (MGT) (§ 236.1005(b)); (11) Independent verify and verification (§ 236.1017); (12) Communications and security requirements (§ 236.1033); (13) Field testing requirements (§ 236.1035); (14) Operations and Maintenance Manual (§ 236.1039); (15) Training and qualification program, general (§ 236.1041); (16) Task analysis and basic requirements (§ 236.1043); (17) Training specific to office control personnel (§ 236.1045); (18) Training specific to locomotive engineers and other operating personnel (§ 236.1047); (19) Training specific to roadway workers (§ 236.1049); and (20) Human Machine Interface design (§ 236 Appendix E).

Thomas McFarlin (FRA) asks for a round of applause to show the full RSAC’s appreciation of the work efforts of the PTC WG.

Under the slides, “Areas of Disagreement–Resolved,” Mr. McFarlin lists the following PTC NPRM issue areas where there was disagreement, which have now been resolved: (1) Procedural requirements (simultaneous submission of the PTC Implementation Plan (PTCIP) and PTC Development Plan (PTCDP) (§ 236.1009) are as follows: PTCIP may be submitted with a previous Type Approval; a PTCDP; or PTC Safety Plan (PTCSP); or a Notice of Product Intent (NPI), i.e., a compromise where the PTCDP and PTCSP are not available; (2) The contents of a NPI are: (a) description of railroad operations; (b) concept of operations for proposed product; (c) description of target safety levels; (d) description of how proposed system will enforce authorities and signal indications; and (e) description of how proposed system will enforce integrated hazard detectors; and (3) Clarification text developed for minimum performance standards (§ 236.909) and § 236 Appendix B, Risk assessment criteria, § 236 Appendix C, Safety assurance criteria and processes; and § 236 Appendix F, Requirements of independent third-party safety verification and validation.

Under the slides, “Areas of Disagreement–Unresolved,” Mr. McFarlin lists the following PTC NPRM issue areas where there was disagreement and which remain unresolved: (1) Applicability, minimum requirements, and penalties (§ 236.0); (2) Definitions (§ 236.1003); (3) Requirements for PTC Systems—overspeed derailments (§ 236.1005(a)(1)(ii)); (4) Requirements for PTC Systems—main line switches

(§ 236.1005(a)(1)(iv), (a)(2)); (5) Other PTC functions (§ 236.1005(a)(3)); (6) Integration of PTC System with derails and switches (§ 236.1005(a)(4)(i)); (7) Operating restrictions at highway-rail grade crossings (§ 236.1005(a)(4)(ii)); (8) Baseline traffic year and future level changes (§ 236.1005(b)); (9) Class I railroad PIH lines (§ 236.1005(b)); (10) Request for amendment after traffic pattern change (§ 236.1005(b)); (11) Hazard detectors, amplified (§ 236.1005(c)); (12) Event recorders (§ 236.1005(d)); (13) Train to train collisions—amplified (§ 236.1005(f)(1)); (14) Requirements for PTC Systems—main line switches (§ 236.1005(a)(1)(iv), (a)(2)); (15) Temporary rerouting, general, other PTC functions (§ 236.1005(g-k)); (16) Temporary rerouting—notifying FRA (§ 236.1005(g-k)); (17) Equipping locomotives—placement (§ 236.1006); (18) Equipping locomotives—movement by Class II and III on Class I track (§ 236.1006); (19) Certification process, PTCIP (joint filings) (§ 236.1009); (20) PTCIP contents (§ 236.1011); (21) PTCIP contents and type approval (§ 236.1013); (22) Main line track exceptions (§ 236.1019); (23) Errors and malfunctions (§ 236.1023); (24) Exclusions (§ 236.1027); (25) PTC system use and en route failures (§ 236.1029); (26) Human Machine Interface view/access by crew (§ 236.1029); and (27) Previously approved PTC systems (§ 236.1031).

Thomas McFarlin (FRA) asks for questions.

With no questions, Chairperson Cothen asks the full RSAC to look at the Meeting Document with the caption, “Revised DP Text - 9/1/2009.” He says this document contains PTC WG Development Plan (DP) Task Force revised rule text for 49 CFR §§ 236.1003, 236.1009, 236.1011, 236.1013, and 236.1015, the PTC WG Safety Case Task Force Preamble discussion for 49 CFR § 236.909 Minimum performance standard, the PTC WG Passenger Main Track Task Force revised language for 49 CFR § 236.1019(c)(4), and the PTC WG Safety Case Task Force combined Preamble discussion, proposed rule text for 49 CFR Part 236.909 Minimum performance standard, Appendix B, Risk Assessment Criteria, and Appendix C, Safety Assurance Criteria and Processes. He recognizes that many members have not had a chance to review the PTC WG—approved draft rule text for the PTC NPRM in this document. Therefore, he requests unanimous consent that RSAC members respond by Thursday, September 24, 2009, with a vote on these topics by mail ballot.

BY VOICE VOTE, THE FULL RSAC APPROVES CHAIRPERSON COTHEN'S REQUEST TO VOTE ON THE TOPICS IN THE MEETING DOCUMENT WITH THE CAPTION, “REVISED DP TEXT—9/1/2009,” BY MAIL BALLOT BY THURSDAY, SEPTEMBER 24, 2009.

Chairperson Cothen thanks the full RSAC for its attention to this request.

Chairperson Cothen asks Robert Lauby (FRA) for a report on “High-Speed Passenger Rail Safety Strategy.”

Robert Lauby (FRA) uses a series of Microsoft PowerPoint Presentation slides, projected onto a screen. Photocopies of the Microsoft PowerPoint Presentation were distributed to meeting attendees. In addition, all meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Under the slide, "June 17, 2009—Administrator Szabo Issued a Notice of Fund Availability," Mr. Lauby says the Notice of Fund Availability stated that transportation safety and safety planning would be used as evaluation criteria for merit consideration of proposed high-speed rail (HSR) projects and programs.

Under the slide, "In Response to the Notice, FRA Developed the High-Speed Passenger Rail Safety Strategy," Mr. Lauby says the High-Speed Passenger Rail Safety Strategy describes how FRA will provide specificity and additional safety guidance for the development of the HSR systems.

Under the slide, "High-Speed Passenger Rail Safety Strategy Document," Mr. Lauby says FRA developed the High-Speed Rail Safety Strategy document on July 24, 2009, as a discussion draft for public outreach. He says FRA requested comments by August 28, 2009.

Under the slide, "Today's Presentation will provide," Mr. Lauby outlines the following: (1) An overview of the safety strategy; (2) An overview of the issues the safety strategy addresses; (3) A description of FRA's proposed strategies; and (4) A high level review of the types of comments the FRA has received.

Under the slide, "In General, the High-Speed Passenger Rail Safety Strategy," Mr. Lauby says the following about the high-speed passenger rail safety strategy: (1) Establishes safety standards and program guidance for HSR; (2) Applies a system safety approach to address safety concerns on specific rail lines; and (3) Ensures that railroads involved in passenger train operations can effectively and efficiently manage train emergencies.

Under the slide, "Current FRA Safety Regulations Include," Mr. Lauby lists the following: (1) Tier I equipment safety standards for trains operating up to 125 miles per hour (mph); (2) Tier II equipment safety standards for high-speed trains operating up to 150 mph, i.e., Amtrak's Acela; and (3) Track Safety Standards that specify track geometry, cant deficiency, and car body acceleration limits for speeds up to 200 mph, i.e., FRA Track Classes 6 - 9.

Under the slide, "FRA Also Administers Additional Safety Standards That, in Most Cases, Are Speed Independent," Mr. Lauby says FRA has requirements for (1) Track; (2) Equipment; (3) Operating rules and practices; (4) Signals and train control;

(5) Communications; (6) Emergency preparedness; (7) Certification of locomotive engineers; (8) Control of alcohol and drug use; and (9) Other. He says portions of these standards require updating and augmenting for high-speed rail.

Under the slide, "...There is More Work to be Done. Going Forward, FRA is," Mr. Lauby lists the following: (1) Reviewing worldwide equipment standards to develop guidance for trains operating up to 220 mph; (2) Advancing rules that amend the Passenger Equipment Safety Standards and Track Safety Standards for high-speed train operations; and (3) Completing its High-Speed Passenger Rail Safety Strategy.

Under the slide, "The High-Speed Rail Strategic Plan Divides Potential Operations into Four General Categories," Mr. Lauby outlines the following characteristics: (1) HSR–Express, speeds greater than 150 mph: (a) population centers 200 to 600 miles apart; (b) grade separated; (c) dedicated right-of-way; and (d) intended to relieve air and highway capacity constraints; (2) HSR–Regional, speeds between 110 - 150 mph: (a) population centers 100 to 150 miles apart; (b) grade separated; (c) some dedicated and some shared track using PTC; and (d) intended to relieve highway and to some extent, air capacity constraints; (3) Emerging HSR–Express, speeds between 80 to 110 mph: (a) corridors of 100 to 500 miles apart with strong potential for future Regional or Express service; (b) separation or advanced grade crossing protection; (c) Primarily shared track; (d) intended to develop the passenger rail market and provide some relief to other modes; and (4) Conventional Rail, top speed is 79 mph: (a) intercity passenger service of more than 100 miles; (b) frequency of 1 to 12 trains per day; (c) generally on shared track; and (d) intended to provide travel options and to develop the passenger rail market.

Under the slide, "FRA Intends to Use the Four Categories as the Starting Point ... and Then Consider Additional Factors," Mr. Lauby lists the following as examples of additional factors: (1) The presence or absence of freight traffic; (2) The degree to which passenger equipment used on the corridor is of similar construction; (3) The degree of isolation of the passenger system from other hazards (right-of-way incursions and security or the presence of natural hazards such as seismic events or high water); and (4) Other environmental and operational factors.

Robert Lauby (FRA) says through this strategy, FRA intends to expand the number of Tiers of Rail Passenger Service in 49 CFR Part 238 Appendix B.

Under the slide, "FRA's Proposed Strategy is Organized into Four Categories," Mr. Lauby lists the following: (1) Prevention: (a) Vehicle Track Interaction; (b) Positive Train Control; (c) Grade Crossing Safety; (d) Maintenance of Way Safety Management; (e) Right-of-Way Safety; and (f) Real Time System Monitoring; (2) Mitigation: (a) Structural Standards; (b) Cab Car Forward; and (c) Fuel Tank Integrity; (3) Emergency Management; and (4) System Safety Programs.

Under the slides, “1. Prevention: a. Vehicle Track Interaction,” Mr. Lauby says FRA’s strategy is to (1) finalize rules requiring updated Vehicle Track Interaction Standards, and (2) resolve and reconcile inconsistencies between Track and Passenger Equipment Safety Standards at various speeds. He says FRA will issue proposed and final rules on vehicle track interaction and other key safety issues related to track and structures as soon as possible.

Under the slides, “1.Prevention: b. Positive Train Control,” Mr. Lauby says (1) the Rail Safety Improvement Act of 2008 (Public Law No.: 110-432, dated October 16, 2008), requires implementation of PTC systems on every passenger rail main line, and (2) In anticipation of high-speed service, FRA is considering tiered requirements for PTC systems. He says FRA will finalize standards for PTC systems by the end of October 2009.

Under the slides, “1. Prevention: c. Grade Crossing Safety,” Mr. Lauby lists four proposed safety principles: (1) Eliminate redundant and unnecessary crossings and those that cannot be made safe; (2) Install the most sophisticated traffic control/warning devices compatible with the location for train speeds between 80 and 110 mph; (3) Protect rail movements with full width highway barriers where train speeds are between 111 and 125 mph; and (4) Eliminate or grade separate all crossings where train speeds are greater than 125 mph. He says FRA will provide draft guidance to supplement existing regulations with respect to highway-rail grade crossings on HSR lines, elicit stakeholder comment and provide final guidance for use in funding HSR projects. He says FRA will also review the success of safety enhancements on designated HSR corridors in Illinois, Michigan, and Pennsylvania, in connection with the Sealed Corridor Study and provide a report of the findings for use by those planning the details of HSR systems.

Under the slides, “1. Prevention: d. MOW [Maintenance of Way] Safety Management,” Mr. Lauby says FRA’s strategy is to” (1) Emphasize the importance of providing on track safety for those inspecting and maintaining track and structures, i.e., roadway worker protection; (2) Ensure that track is not disturbed ahead of trains; (3) Ensure that maintenance equipment is kept clear of live tracks except when authorized to be there; and (4) Ensure that equipment is kept clear of passing trains. He says FRA will develop guidelines for MOW safety management, which will be considered in reviewing system safety programs.

Under the slides, “1. Prevention: e. Right-of-Way Safety,” Mr. Lauby says FRA’s strategy is to require a track owner for train speeds greater than 125 mph to submit a Right-of-Way Plan to FRA for approval for the prevention of: (1) Vandalism; (2) Launching of objects from overhead bridges or structures into the path of trains; and (3) Intrusion of vehicles from adjacent right-of-ways. He says the challenges include: (a) common corridors with freight or conventional passenger operations; (b) shared rights-of-way with interstate highways; (c) little information on how to safely integrate a

highway system with a railroad system; and (d) risk of a car or truck falling from an overpass and fouling the track. Mr. Lauby says FRA will develop vehicle intrusion standards and standards for sharing rail/rail and highway/rail corridors for incorporation into regulations and/or funding guidance. He adds, FRA will detail additional hazards that must be evaluated and mitigated based on corridor-specific risks.

Under the slides, “1. Prevention: f. Real Time System Monitoring,” Mr. Lauby says FRA’s strategy involves a variety of technologies that are now available to monitor the health and performance of the railroad operating system in real time, i.e., on-board locomotive sensors, wayside detection devices, and autonomous track geometry systems. He says these technologies should be evaluated for suitability in light of total residual risk as determined in system safety program planning. Mr. Lauby says FRA will develop an evaluation method to prompt a thorough hazard analysis and mitigation planning for HSR systems.

Under the slides, “2. Mitigation: a. Structural Standards,” Mr. Lauby says FRA proposes to explore the possibility of describing a new tiered series of standards for the entire operating system, including equipment, in lieu of the current two-tiered structure that focuses on equipment only. He says new tiered standards would describe a range of operating environments and, for each such environments, would specify: (1) Basic end strength and crash energy management performance; (2) side strength and roof strength as a function of weight; (3) Fixture securement; and (4) Acceptable occupant accelerations and restraint strategies. He says FRA will finalize the pending cab end strength rule and then will define additional options for compliance with tiered passenger car safety standards.

Under the slides, “2. Mitigation: b. Cab Car Forward,” Mr. Lauby says new standards would address circumstances under which the use of passenger-occupied lead units may or may not be acceptable (FRA’s regulations for Tier II operations, which covers passenger trains that operate up to 150 mph, requires that the power cars at the ends of the train exclude passengers.). He says FRA will conduct further research into the relationship between occupied power cars and the number of injuries and fatalities that might occur in a collision or derailment as part of this review.

Under the slides, “2. Mitigation: c. Fuel Tank Integrity,” Mr. Lauby says FRA’s current fuel tank standards are derived from freight locomotive standards. He says arguments have been advanced that a more flexible approach should be taken for tanks positioned in such a way as to be better protected. Mr. Lauby says FRA will complete research into adaptation of fuel tank safety standards for self-powered diesel DMU [diesel multiple unit] and proposed tailored standards, if warranted.

Under the slides, “3. Emergency Management,” Mr. Lauby says FRA’s current strategy is to reduce the magnitude and severity of casualties in railroad operations by ensuring that railroads involved in passenger train operations can effectively manage passenger

train emergencies. He says FRA will publish a second NPRM based on RSAC's Passenger Safety Working Group's recommendations concerning refinement of requirements for onboard emergency systems and will finalize the rulemaking as soon as possible.

Under the slides, "4. System Safety Programs," Mr. Lauby says FRA is drafting a proposed rule that will require each HSR, intercity, and commuter passenger railroad, together with any other railroads engaged in joint operations, to develop and implement a documented System Safety Plan (SSP). He says system safety programs integrate the process of identifying safety needs and managing them over time. He says the proposal would require the SSP to: (1) Be defined and documented through a written System Safety Program Plan; (2) Include hazard management processes designed to proactively identify, assess and mitigate hazards; (3) Be fully implemented by the passenger railroad; and (4) Be audited for compliance by the FRA. Mr. Lauby says FRA will propose to require that scheduled passenger operations establish and maintain SSPs, and will include FRA review and approval of management decisions for HSR systems where it is necessary to determine an appropriate level of safety.

Under the slide, "Summary of FRA Actions," Mr. Lauby says FRA will: (1) Address: (a) prevention; (b) mitigation; (c) emergency management; and (d) system safety integration; (2) Structure a new tiered approach to passenger operations, taking into account: (a) maximum operating speeds; (b) right-of-way characteristics; (c) safety technology; (d) planning requirements; and (e) the presence or absence of less-compatible rail traffic; and (3) Continue to evaluate and act on petitions for rules of particular applicability, and waivers.

Under the slide, "Public Comments," Mr. Lauby says FRA received comments from 19 organizations covering: (1) High-Speed Passenger Rail Safety Strategy; and (2) Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail.

Under the slides, "Comments on the Safety Strategy: General," Mr. Lauby says (1) Most submissions congratulated FRA for creating the Safety Strategy document and recognized the need for a comprehensive approach; (2) Some commenters provided information about HSR worldwide best practices that could be applied to handle issues mentioned in the strategy including: (a) vertical track interaction; (b) positive train control; (c) grade crossing safety; (d) maintenance of way; (e) right-of-way securement; (f) structural standards; and (g) system safety; and (3) FRA also received comments from a number of organizations that not all pertinent safety issues were included in the safety strategy. He says suggested additions include: (a) fire safety issues; (b) pedestrian crossing issues; (c) bike and pedestrian pathways adjacent to the right-of-way (ROW); (d) station design standards to handle conventional and HSR trains, including high-speed pass-through's; (e) guidelines for shared utilities along the ROW; and (f) guidelines to define or prescribe barrier treatments.

Under the slides, “Comments on the Safety Strategy: VTI–Track Safety Standards,” Mr. Lauby says (1) Several commenters felt that it was inappropriate to retain Track Class 9 in FRA’s Track Safety Standards because: (a) validated vehicle models do not exist; and (b) RSAC’s Passenger Safety Working Group’s VTI Task Force recommended that it be deleted; (2) Some commenters felt that a Rule of Particular Applicability was a better way to handle Track Class 9 issues because it allows flexibility. He says the HSR system would be viewed as a system and specific requirements could be applied based on the type of operation and the operating environment.

Under the slide, “Comments on the Safety Strategy: Grade Crossing Safety,” Mr. Lauby says one commenter recommended changes to the four proposed safety principles for grade crossings including: (1) More specific requirements for protecting train operations between 80 and 110 mph; and (2) Eliminate or Grade-separate all grade crossings where train speeds would exceed 110 mph, rather than the stated 125 mph.

Under the slide, “Comments on the Safety Strategy: HSR Categories/Tiers,” Mr. Lauby says some commenters pointed out inconsistencies in the speed ranges used in the: (1) Four HSR categories; (2) Tier structure proposed in Appendix B; (3) Current requirements for advanced signal systems; and (4) Requirements for PTC in the Rail Safety Improvement Act of 2008.

Under the slide, “Comments on the Safety Strategy: HSR Categories/Tiers,” Mr. Lauby says one commenter recommended that different requirements be applied when HSR equipment operates at lower than maximum speed. The commenter suggested that Tier IV and Tier V trains should be able to operate at lower speeds over existing non-dedicated lines and through grade crossings. For example, he asks, should a 150 mph train set be allowed to operate at 100 mph on a line segment with grade crossings?

Under the slide, “Comments on the Safety Strategy: Right-of-Way Safety,” Mr. Lauby says one commenter concurred that intrusion standards for sharing rail/rail and highway/rail corridors were important items. He says the commenter went on to recommend that FRA fully assess the cost/safety benefit of intrusion detection and mitigation prior to finalizing any requirements to assure adequate safety is achievable at a cost that is not prohibitive.

Under the slides, “Comments on the Safety Strategy: Cab Car Forward,” Mr. Lauby says several commenters asked for the rationale of allowing passengers in lead cars for Tier IV systems and forbidding passengers in the lead cars of Tier V systems. He adds that one commenter pointed out that European HSR operations were moving away from power cars on later generations of HSR and using EMU’s [electric multiple unit] with passengers in the lead cars. Mr. Lauby says another commenter questioned the existence of supporting data that indicated that operation of the passenger occupied lead cars was an unsafe practice.

Under the slide, “Comments on the Safety Strategy: Structural Standards,” Mr. Lauby says carbuilders warned against changing rolling stock structural standards to the point where axle loads would substantially increase or HSR train sets would lose their energy efficiency advantage due to increased weight.

Under the slide, “Comments on the Safety Strategy: System Safety,” Mr. Lauby says one commenter stated that FRA may have difficulty establishing universal codes and standards for all types of operations. The commenter recommended that each project be required to establish sufficient safety by scientific method, such as quantitative risk assessment (hazard analysis), to review worst case scenarios.

Under the slide, “Comments on the Safety Strategy: Funding,” Mr. Lauby says one commenter was concerned with the source of funding for enhanced grade crossing protection and intrusion prevention. For example, he says, who pays for these requirements—States, Federal government, or railroads?

Under the slides, “Comments on the Safety Strategy: Freight Railroad Concerns,” Mr. Lauby says Freight railroads commented about a variety of topics that may impact sharing their corridors with passenger rail including: (1) The implied scope of intrusion detection and perimeter protection; (2) How will FRA interconnect maintenance of way equipment and personnel into PTC to provide a safe environment; (3) Impact on a freight railroad’s ability to serve future customers on shared corridor or shared track operations; (4) Increased liability, inspection, and maintenance requirements to allow passenger rail to share freight track; (5) The ability of freight railroads to maintain track when in close proximity to HSR passenger trains; (6) Adequate distance between HSR lines and freight lines to allow for maintenance or overall safety; (7) The freight railroad’s role versus the passenger railroad’s role in developing and maintaining a “right-of-way plan;” (7) The application of sealed corridor requirements regardless of speed; (8) Using shared track; (9) The freight industry expects passenger railroads to operate on separate tracks at speeds above 90 mph; and (10) The implications to freight railroads for Real Time System Monitoring systems—what requirements will apply to freight equipment and infrastructure?

Robert Lauby (FRA) asks for questions.

With no questions, Chairperson Cothen announces the morning break.

LUNCH BREAK 11:10 A.M. - 11:25 A.M.

Chairperson Cothen reconvenes the meeting.

Rick Inclima (Brotherhood of Maintenance of Way Employees Division (BMWED)) says the BMWED did not comment on the Track Class 9 Standard because of the requirement for a Rule of Particular Applicability. He asks, “Is FRA going to keep Track

Class 9 Standards? He says there will be a lot of work necessary for VTI Track Class 9 Standards.

Chairperson Cothen says FRA is looking into Track Class 9 Standards, back at the “shop.” He says it is not a true systems approach for high-speed rail. He says FRA is looking to see if something can be put out as a proposal for Track Class 9 Standards.

Rick Inclima (BMWED) cites “slide 24,” from Robert Lauby’s presentation, “High-Speed Passenger Rail Safety Strategy,” i.e., “FRA will develop guidelines for MOW safety management, which will be considered in reviewing system safety programs.” He asks, “How will comments be sought in this area?”

Chairperson Cothen says FRA wants to know what the level of interest is on this topic. He says if folks are interested, FRA wants to know.

Rick Inclima (BMWED) says the BMWED has an interest in participating in this area.

Robert Lauby (FRA) says when the right-of-way is being shared, there are many issues that need to be examined.

Chairperson Cothen says he has had questions about where to find this topic, i.e., HSR Safety Strategy. He asks Patricia Sun (FRA–Office of Chief Counsel) to create an FRA Docket for these comments and Larry Woolverton (FRA–Office of Safety) to inform RSAC Members where to find information on this topic.

Chairperson Cothen uses a series of Microsoft PowerPoint Presentation slides, projected onto a screen for “Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail.” Photocopies of the Microsoft PowerPoint Presentation were distributed to meeting attendees. In addition, all meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Chairperson Cothen says his presentation is based on comments received to FRA’s draft Guidelines for Highway-Rail Grade Crossings for High-Speed Passenger Rail, dated July 28, 2009. Comments were requested by August 28, 2009. He says FRA hopes to base Guidelines for emerging HSR on existing Federal Highway Administration (FHWA)/Manual on Uniform Traffic Control Devices guidance and on FRA’s Track Safety Standards, e.g., (1) Barrier systems above 110 mph; and (2) No at-grade crossings above 125 mph. He says there is a gap in policy between conventional speeds of approximately 79 mph and a 110 mph target for many projects.

Under the slide, “Best practice shows the way,” Chairperson Cothen outlines the following topic areas under Guidelines for HSR: (1) Consolidation and grade separation; (2) Safety improvements at private crossings; (3) Sealed corridors; (4) Warning system interconnection; (5) Train control integration; (6) Barrier systems; (7) Pedestrian and trespass emphasis; and (8) Systems approach.

Under the slide, “1. Consolidation and grade separation,” Chairperson Cothen says (1) There is strong agreement; (2) One freight railroad suggest highway-rail grade crossings should not exceed two crossing per mile on emerging HSR corridors; and (3) Closures/separations are more cost effective over the long term than technology.

Under the slide, “2. Safety improvements at private crossings,” Chairperson Cothen lists the following (1) There is a need for tools to elicit crossing holder participation on reasonable terms; (2) There is a proposal that if there are more than 5 residences, it will equal a public access crossing; (3) Industrial crossings will require individual assessment; (4) There is concern that a locked gate requirement could pose a workload issue for train dispatchers, unneeded slow orders, an inappropriate role for the host railroad, and unworkable; (5) Should demonstrate application for closure to state regulatory commission where available; and (6) Gate locks should be integrated into signal and train control system with time release.

Under the slide, “3. Sealed corridors,” Chairperson Cothen says there is (1) strong support for this strategy from passenger and freight interests; (2) recognition of multiple main tracks as an issue regardless of speed; (3) a desire expressed for highway side to share in the investments required; and (4) concern with existing operations.

Under the slide, “4. Warning systems and other traffic control,” Chairperson Cothen lists the following: (1) Advance signal preemption should be required; (2) Proposed FHWA warrant for traffic control at intersections near highway-rail grade crossings; and (3) Remote health monitoring is supported.

Under the slide, “5. Train control integration,” Chairperson Cothen says the following: (1) Support expressed for “presence detection,” “health monitoring,” closed loop to train; (2) Health monitoring should poll/report periodically; (3) Recognition that this strategy is not applicable to freight trains on the route; (4) Opportunity for pre-starts and acceleration on approach; and (5) less than 90 mph threshold for train control.

Under the slide, “6. [Barrier systems],” Chairperson Cothen says there is no quarrel with the FRA conclusion that prior demonstrations were not successful. He says there is one request to allow a “performance standard” in lieu of full-width barrier.

Under the slide, “7. Pedestrian and trespass emphasis,” Chairperson Cothen says (1) The comments asked for specific standards or guidelines, including use of fencing to channelize; (2) Pedestrian gates and channelization at all locations; and (3) Flangeway gap a maximum of 3-inches for new installation.

Under the slide, “8. Systems approach,” Chairperson Cothen says the comments requested that trains be slowed as a last resort.

Under the slide, "General comments," Chairperson Cothen lists the following additional comments: (1) Others should participate in defraying costs; (2) More funding is required; (3) There should be a dedicated revenue source targeted at the safety needs; (4) Liability is an issue; and (5) Quiet zone regulation should be reviewed for applicability and adjustment in HSR context.

Chairperson Cothen says this concludes the highlights of the review of comments to FRA's draft Guidelines for Highway-Rail Grade Crossings for High-Speed Passenger Rail.

Chairperson Cothen announces the lunch break.

L U N C H B R E A K 12:00 P.M. - 1:05 P.M.

Chairperson Cothen reconvenes the meeting. He asks the full RSAC to look at proposed new Task No.: 09-02, Critical Incident Programs. He says the purpose of this task will be to provide advice regarding development of implementing regulations for Critical Incident Stress Plans, as required by the Rail Safety Improvement Act (RSIA) of 2008. He explains that this topic was initially presented to the full RSAC on June 25, 2009, without a request to accept this task. If accepted, Chairperson Cothen says this task will be assigned to the Medical Standards Working Group. He says the RSIA requires a Notice of Proposed Rulemaking on Critical Incident Reporting by not later than December 2010.

Chairperson asks for questions on proposed new Task No.: 09-02, Critical Incident Programs.

Rick Inclima (BMWED) says there are clearly non-hours of service workers who are exposed to critical-incident stress, where these employees also need help.

Chairperson Cothen says FRA is looking at any railroad employee, including managers and supervisors, who may be affected by a critical incident. He says FRA envisions using a Task Force under the Medical Standards (MS) Working Group (WG) to develop the issue and then to augment the MS WG with additional specialized personnel to help resolve this issue.

Chairperson Cothen asks for a motion to accept RSAC Task No.: 09-02, Critical Incident Programs, as presented.

Rick Inclima (BMWED) motions to accept RSAC Task No.: 09-02, Critical Incident Programs, as presented.

James Grady (AAR) seconds the motion.

BY VOICE VOTE, THE FULL RSAC ACCEPTS TASK NO.: 09-02, CRITICAL INCIDENT PROGRAMS, AS PRESENTED.

Chairperson Cothen asks Charles Bielitz (FRA–Office of Safety) for a report on Locomotive Safety Standards (LSS) Working Group (WG) activities.

Charles Bielitz (FRA) uses a series of Microsoft PowerPoint Presentation slides, projected onto a screen for “Locomotive Safety Standards.” Photocopies of the Microsoft PowerPoint Presentation were distributed to meeting attendees. In addition, all meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Mr. Bielitz says he is substituting for the LSS WG Team Leader, George Scerbo (FRA–Office of Safety), who was unable to attend today’s meeting.

Charles Bielitz (FRA) says the LSS WG approved draft language to clarify 49 CFR Part 229.85, Doors and cover plates marked “Danger,” as follows: “All doors, cover plates, or barriers providing direct access to high voltage equipment shall be marked “Danger–High Voltage” or with the word, “Danger,” and the normal voltage carried by the parts so protected.”

Charles Bielitz (FRA) says the LSS WG reached consensus for draft language on steam generators. He says the changes will clean-up the steam generator requirements and move them to a separate section of the rule.

Charles Bielitz (FRA) says the LSS WG agreed on language for electronic collection and storage of all required locomotive records. He says the language is similar to waivers for electronic record keeping previously granted by FRA.

Charles Bielitz (FRA) says the LSS WG approved draft language to clarify 49 CFR Part 229.46 Brakes general. He says language was added to allow locomotives with defective automatic and independent brake valves to be utilized in the trailing position as follows: (1) Must be safe to operate; (2) Must be tagged; and (3) Must be repaired by the next periodic inspection. He adds that the LSS WG reached consensus to update the annual/biannual test intervals for COTS of 26L and electronic brakes to reflect industry waivers to a maximum of five years for the electronic brakes. He says any time period beyond the five year period would remain under waivers.

Charles Bielitz (FRA) says the LSS WG approved draft language to clarify 49 CFR Part 229.27 Annual tests for load meters. He says the rules are clarified so that load meters that indicate current or amperage being applied to traction motors must be tested. He says most load meters were replaced with thermal protection devices in the traction motor circuit and tractive effort devices measured in kilo-pounds of force.

Charles Bielitz (FRA) says the LSS WG reached consensus for draft language to allow locomotive pilot height, e.g., “cow catchers,” to be raised to a maximum of 9 inches while locomotives are operated within a hump yard.

Charles Bielitz (FRA) says the LSS WG approved draft language to incorporate approval of halogen lamps for use as headlights and auxiliary lights and to more clearly define equivalency of alternate lamps. He says the LSS WG also reached consensus on changes to the interim conspicuity regulations to eliminate provision which expired after the adoption of the auxiliary light regulations in 1996 (the “grandfather” provision was retained).

Charles Bielitz (FRA) says the LSS WG reached consensus on language to promote the safe design, operation, and maintenance of safety-critical electronic locomotive control system, subsystems, and components.

Charles Bielitz (FRA) says the draft language document circulated to the full RSAC at today’s meeting contained a misstatement of the LSS WG consensus. He cites Part 229.125(d)(1). He says the phrase, “equilateral triangle,” should be deleted and replaced with the phrase, “a triangle.”

Charles Bielitz (FRA) asks for questions.

With no questions, Charles Bielitz (FRA) says there will be no update of Passenger Safety Working Group activities at today’s meeting.

Chairperson Cothen asks the full RSAC to look at the Meeting Document, “Consensus Rule Text: § 229.23 Periodic inspection: General...” He says this document is the output of the LSS WG and reflects recommended changes to Part 229 rules. He asks for a motion to accept rule text changes to Part 229, as presented, recommended by the LSS WG.

James Grady (AAR) motions to accept rule text changes to Part 229, as presented, recommended by the LSS WG.

Richard Johnson (Transportation Communications International Union/Brotherhood of Railway Carmen) seconds the motion.

BY VOICE VOTE, THE FULL RSAC ACCEPTS THE RECOMMENDATIONS OF THE LSS WG FOR RULE TEXT CHANGES TO PART 229, AS PRESENTED.

Chairperson Cothen asks Mark McKeon (FRA–Office of Safety) for a report on Conductor Certification (CC) Working Group (WG) activities.

Mark McKeon (FRA) uses a series of Microsoft PowerPoint Presentation slides, projected onto a screen for "Conductor Certification Regulation 49 CFR 242." Photocopies of the Microsoft PowerPoint Presentation were distributed to meeting attendees. In addition, all meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Under the slide, "Meeting," Mr. McKeon says the CC WG has completed two meetings, i.e., July 21-23, 2009, in Washington, DC and August 25-27, 2009, in Overland Park, Kansas. He says additional meetings are scheduled for September 15-17, 2009, in Colorado Springs, Colorado, October 20-23, 2009, in Washington, DC, and tentatively for November 17-19, 2009, at a place to be determined.

Under the slide, "Accomplishments," Mr. McKeon says FRA has introduced a "strawman" Part 242 proposed based on the existing Part 240 Locomotive Engineer Certification rules. He says there has been informal consensus on a number of issues.

Under the slide, "Major Open Items," Mr. McKeon lists the following: (1) Dual Certification, e.g., locomotive engineer and conductor; (2) Appeals process following decertification; (3) Use of National Driver Registry for drug and alcohol records; and (4) Revocation periods.

Mark McKeon (FRA) asks for questions.

Chairperson Cothen announces that Tom Schick (American Chemistry Council) is representing by proxy at today's meeting: (1) The Chlorine Institute; and (2) The Institute of Makers of Explosives.

Chairperson Cothen asks about a December 2009 meeting date for the next meeting of the full RSAC. He says he is looking at reports from the Passenger Safety Working Group and from the Conductor Certification Working Group. He asks if Tuesday, December 15, 2009, in Washington, DC, is possible?

There is a brief discussion by RSAC members on December 2009 meeting dates.

BY VOICE VOTE, THE FULL RSAC REQUESTS THAT ITS NEXT MEETING DATE BE DECEMBER 15, 2009, IN WASHINGTON, DC, AT A PLACE TO BE DETERMINED.

In other regulatory activity, Chairperson Cothen says (1) the Medical Standards Working Group will meet shortly and be presented with Preamble and draft rule text; (2) the Passenger Hours of Service Working Group met once in June 2009. He says a Task Force of the Passenger Hours of Service Working Group is working on a railroad employee survey, which will assist in the Working Group's efforts to develop passenger railroad hours of service rules; (3) by October 1, 2009, comments are due on the Bridge

Safety Working Group's Notice of Proposed Rulemaking (NPRM). He says if the comments to the NPRM are significant, FRA will reconvene the Railroad Bridge Working Group to help deal with the comments; (4) Adjacent Track Protection rules will be issues shortly, after the review by the U.S. Office of Management and Budget is complete. He asks Patricia Sun (FRA–Office of Chief Counsel) about Maintenance-of-Way issues.

Patricia Sun (FRA) says there is a meeting on September 11, 2009, about adding short line railroad maintenance-of-way employees to the regulations on Control of Alcohol and Drug Use in Railroad Operations (49 CFR Part 219).

David Ducharme (AAR) asks when the NPRM on Part 229 issues, just approved by the full RSAC, will be issued?

Chairperson Cothen responds, he is not certain. He hopes the Part 229 rules will be issued by the end of 2009.

William Browder (AAR) says the Association of American Railroads has moved to a new headquarters building. The new address is: Suite 1000, 425 Third Street, S.W., Washington, DC 20024. He says the electronic mail addresses and telephone numbers will remain the same. He says the main telephone number for the AAR is (202) 639-2100.

Chairperson Cothen asks the Railroad Safety Advisory Committee to look at the draft Minutes for the June 25, 2009, meeting, held in Washington, D.C. He asks for additions and corrections to the draft Minutes.

Kelly Haley (Brotherhood of Railroad Signalmen) and Rick Inclima (BMWED) offer additions and corrections to the draft Minutes for the June 25, 2009, meeting, held in Washington, D.C.

Chairperson Cothen asks the Railroad Safety Advisory Committee to accept the Minutes for the June 25, 2009, meeting, held in Washington, D.C., as corrected.

Chairperson Cothen asks for additional business.

Keith Borman (American Short Line and Regional Railroad Association) asks when the next meeting of Medical Standards Working Group might be scheduled?

Chairperson Cothen responds, no earlier than November 2009. He says he cannot say specifically. He asks if Dr. Bernard Arseneau (FRA–Office of Safety) can comment?

Bernard Arseneau (FRA) believes that reconvening the full Medical Standards Working Group is very close.

Chairperson Cothen thanks RSAC members and visitors for attending today's meeting. He adjourns the meeting at 1:55 pm.

MEETING ADJOURNED 1:55 P.M.

These minutes are not a verbatim transcript of the proceedings. Also, Microsoft PowerPoint overhead view graphs and handout materials distributed during presentations by RSAC Working Group Members, FRA employees, and consultants, generally become part of the official record of these proceedings and are not excerpted in their entirety in the minutes.

Respectively submitted by John F. Sneed, Event Recorder.