

DRAFT
RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)

Minutes of Meeting
December 2, 2003

The twenty-second meeting of the RSAC was convened at 9:43 a.m., in the National Hall of the Washington Plaza Hotel, 10 Thomas Circle, N.W., Washington, D.C. 20005, by the RSAC Chairperson, the Federal Railroad Administration's (FRA) Associate Administrator for Safety, George Gavalla.

As RSAC members, or their alternates, assembled, attendance was recorded by sign-in log. Sign-in logs for each daily meeting are part of the permanent RSAC Docket. Ten of the forty-eight voting RSAC members were absent: The Association of Railway Museums (ARM) (1 seat), The Brotherhood of Maintenance of Way Employees (BMWE) (2 seats), The Hotel Employees & Restaurant Employees International Union (1 seat), The International Association of Machinists and Aerospace Workers (1 seat), The International Brotherhood of Boilermakers and Blacksmiths (1 seat), The National Association of Railroad Passengers (NARP) (1 seat), Safe Travel America (1 seat) and The Transport Workers Union of America (TWU) (2 seats). Six of seven non-voting/advisory RSAC members were absent: The Federal Transit Administration (FTA), The Labor Council for Latin American Advancement, The League of Railway Industry Women, The National Association of Railway Business Women, Secretaria de Comunicaciones y Transporte (Mexico) and Transport Canada. Total meeting attendance, including presenters and support staff, was approximately 80.

Chairperson Gavalla welcomes RSAC Members and attendees. He asks Alan Misiaszek (Senior Industrial Hygienist, FRA Office of Safety) to give a Hotel meeting room safety briefing.

Mr. Misiaszek identifies the fire and emergency exits. He asks for volunteers with cardiopulmonary resuscitation (CPR) qualification to identify themselves. A large number of RSAC attendees acknowledge having completed this training. Mr. Misiaszek advises that a large number of RSAC attendees have cellular telephones, including himself. Should an emergency occur, he volunteers to call the emergency telephone number, 911.

Chairperson Gavalla recognizes FRA Administrator Allan Rutter to make opening remarks.

FRA Administrator Rutter greets RSAC attendees and thanks members for their ongoing commitment to improving railroad safety. While he is giving his brief remarks, he requests that RSAC members jot down a point or two on note pads on how FRA can best advance the safety and efficiency of rail transportation. He will solicit these

comments at the conclusion of his presentation.

Administrator Rutter shares in the desire for RSAC's continued success. In prior talks, he has described the importance of choosing issues carefully, proceeding toward objectives at a brisk pace, and not getting hung up on minute details. At the May 2003 meeting, he explained that FRA was under special instruction to move each of its regulatory projects forward to the next step by springtime, and that the agency needed to set out to do so in a way that doesn't leave everything until the end. That has put the agency at crunch points on several projects. FRA is concerned that this may unnecessarily result in miscommunication, or worse, a loss of trust or confidence in one another.

In the PTC Work Group, for instance, FRA pushed to the last possible moment, a productive discussion of the storied "base case issue," which in the end, the agency was not able to settle through consensus. That didn't alarm us because we know we can't always agree on everything. But we were bewildered last August when the full Committee rejected consensus recommendations on lesser issues.

In the Event Recorder Working Group, we had another photo finish on the NPRM, progressing the conversation at the very last minute. Mind you, we'll happily take a consensus on a difficult issue any time, but we came very close to giving up and going our own way. That would have deprived us of very useful insights, and the document would have been less for it. Let's vow not to cut it that close next time.

Here's my point: RSAC does not have to succeed all the time to be effective and useful as a forum for railroad safety. We do learn a great deal even when we fail to achieve consensus. However, RSAC does need to succeed often enough, over a broad range of issues, to sustain confidence and trust among all of us, that our ongoing conversations are aimed toward and do in fact enable us to find solutions. For now, let's chock-up our current woes to the peculiarities of the individual proceedings; the disruptions associated with bad weather; and the unforgiving workload carried by those who have to organize the industry's response to "FRA's last draft."

It's likely that some of you have forgotten or think I didn't really mean to keep my promise that FRA will actually move forward on these matters. So let's take heart at the progress we can show and consider for a moment the successes we have achieved:

A final rule on Performance Standards for Processor-Based Signal and Train Control Systems is proceeding through review and clearance in the Executive Branch. Thank you for creating such a bold and innovative piece of work. I think you will see that, even where we have disagreed, we have listened and taken your perspectives into consideration. FRA staff have started work on an implementation plan.

As I said we would in May, FRA has published a final rule on Roadway Maintenance Machines.

Staff members are putting the final touches on supporting regulatory documents to accompany the notice of proposed rulemaking on Occupational Noise Exposure for Railroad Operating Employees, which the committee has approved. You will see this published soon, and the Cab Working Group will be asked to review any comments and help us resolve them early in the coming year.

The Passenger Safety Working Group is off to a good start, having already established initial priorities and an organizational structure.

There are times, of course, when it's necessary to fold up the tent and go home. It's surprising that the Blue Signal issue presents such an occasion. I'm told that the Blue Signal Working Group was comprised of extremely able railroaders who labored very hard to produce long-needed revisions. But after careful consideration of the options, we are withdrawing this task. There are four reasons for this. First, as we looked at the statutory framework, we found that we had less flexibility than was initially assumed as the working group searched for new approaches. Second, it had become clear that the group was not trending toward an overall consensus on the issues. Fissures were appearing even in places one would not have expected them. Third, we were unable to discern an approach to the issues that we felt could be embraced by the group as a consensus product. Finally, the regulations as we know them today are working well, as measured by bottom-line safety results. This is not to say we won't return to this topic at some future date. But for now, we will set it aside; we will consult with you informally before offering any future task addressing the same issues. We want to thank members of the Blue Signal Working Group for their hard work.

At our meeting last May, FRA's Brian Gilleran briefed you on the new Secretarial Action Plan that has been requested by the appropriations committees for submittal with our 2005 budget this coming February. FRA's Ron Ries will provide an update today. We welcome the chance to take stock of accomplishments and point the way to achieve further reductions in the number and severity of crashed and casualties at grade crossings. In addition, we want to identify effective strategies to combat railroad trespassing. I am stirring the pot within DOT to get more intermodal participation in these efforts. Some of you have already contributed ideas. I strongly encourage all of you to participate as we conclude this effort. The 1994 Action Plan provided a coherent policy framework that made possible a lot of progress at the Federal, State, and local levels. Secretary Mineta looks forward to becoming the champion of a new charter for highway-rail crossing safety. Help us make it the best it can be.

On behalf of the Senate Commerce Committee, Chairman McCain and Senator Hollings have asked FRA to perform an audit of remote control locomotive operations, providing initial findings in 6 months and a final report in 18 months. FRA has been closely monitoring implementation of this technology. The scale and variety of these operations has grown to the point that a more formal review and report should be especially helpful to us in assessing the need for additional enforcement or regulatory

actions. Revised accident/incident reporting requirements are helping us collect better information on incidents involving remote control technology. I trust railroads are taking care to ensure the quality of this data, and we look forward to reviewing it with you. Last year, I requested that railroads currently using remote control technology formally designate individuals to serve as points of contact on remote control issues. The AAR (Association of American Railroads) and ASLRRA (American Short Line and Regional Railroad Association) have helped organize these individuals into an informal task force intended to help coordinate identification and resolution of safety issues that are related to such operations. FRA has had several very productive meetings with this group. In our ongoing examination of remote control operations, we have found much to praise and several areas of concern that we have brought forward for action. As we go forward with the audit, I want to encourage those railroads that have deployed remote control operations on their systems to take a good look at their programs and consistency of implementation. We have also worked hard to gain the input of rail labor on remote control issues. After all, it is their members who are most affected by the safety of remote control operations. Recently, we circulated to the United Transportation Union (UTU) and Brotherhood of Locomotive Engineers (BLE) a simple, user-friendly form for railroad employees to notify us about accidents and incidents related to remote control operations. Furthermore, we have provided the names, addresses and phone numbers of all of our regional Operating Practices Specialists to expedite our investigation of alleged remote control incidents. Let's keep the channels of communication open among labor, management and our agency to ensure technology is used wisely and well.

I want to close by briefly discussing what has become perhaps the most pervasive and important challenge facing our Nation today—Security. As you may have heard, President Bush has extended the National State of Emergency that was declared after 9/11. Security has become a top priority for virtually every Department in the Federal government and Secretary Mineta has been particularly forceful in directing DOT's effort to protect the security interests of our transportation network. The railroad industry has won high praise in the security community for proactively conducting risk assessments to identify potential vulnerabilities and for developing security contingencies to mitigate those vulnerabilities. The Department of Homeland Security (DHS) has been tasked with developing a National Security Plan. We anticipate that the Transportation Security Administration (TSA), which is now a part of DHS, will be responsible for developing the transportation components of the National Security Plan. We have pledged to support TSA in these efforts by providing technical guidance and expertise regarding railroad issues. We hope that a National Security Plan can incorporate and build upon the enhancements already completed by the industry. We really do not have any details to share with you at this time about this endeavor. However, once we have received more guidance from TSA, we will be contacting you. To successfully protect the security interests of the railroad industry, we must have the active involvement of all stakeholders. In the spirit of inclusiveness, I am pleased to announce that a rail labor representative has been designated to join us in our Railroad Security Working Group. Mr. Ray Cobb, the Railroad Director of the International

Brotherhood of Electrical Workers will represent rail labor on the group. Ray will facilitate communications between the Working Group and rail labor. He will also be privy to both classified and non-classified information involving railroad security. By working together, I am convinced that we can successfully meet the security challenges that lie ahead of us. As you have heard many times before, when it comes to security, failure is not an option.

FRA Administrator Rutter concludes his remarks by reminding members that he asked them to jot down a point or two on how FRA can best advance the safety and efficiency of rail transportation. He asks for members' suggestions and will entertain any other questions from members.

With no questions or comments, Mr. Rutter turns the meeting over to Chairperson Gavalla.

Chairperson Gavalla recognizes several meeting attendees. The first is Mr. Bob VanderClute, Association of American Railroads (AAR). He is the replacement for Mr. Chuck Dettmann. From the American Train Dispatchers Department (ATDD) is Mr. Greg Pardlo. From the Brotherhood of Locomotive Engineers (BLE) is Mr. George Newman. From the National Railroad Construction and Maintenance Association is Mr. Eruesto Scarpitti. Finally, from the National Transportation Safety Board (NTSB) is Mr. Robert Chipkevich.

Chairperson Gavalla asks Charles Bielitz (FRA Office of Safety, Motive Power and Equipment Division) for an update on the Locomotive Crashworthiness Task. Work on Locomotive Crashworthiness, RSAC Task No. 97-1, began in June 1997. Task Statements, Working Group membership composition, and prior synopses of Working Group activities are part of the materials inserted at TAB 10 of Notebooks given to each RSAC member. These materials are part of the permanent RSAC Docket and are not excerpted in detail in the RSAC Minutes.

Using a Microsoft Powerpoint projector slide show, Mr. Bielitz outlines the Notice of Proposed Rulemaking (NPRM) for RSAC members. Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Under "Background," Mr. Bielitz explains that the crashworthiness of multiple-unit (MU) locomotives was first addressed by 49 Code of Federal Regulations (CFR) Part 229.141, on effective date April 1, 1956. The AAR locomotive crashworthiness specification, S-580, was adopted by the industry in 1989. The Rail Safety Enforcement and Review Act, Public Law 102-365, enacted September 3, 1992, directed FRA to investigate locomotive crashworthiness. In response to its investigation, FRA issued the *Locomotive Crashworthiness and Cab Working Conditions Report to Congress* on September 18, 1996. Then, on June 24, 1997, the full RSAC established the Locomotive Crashworthiness Working Group. Passenger

equipment crashworthiness was addressed in 49 CFR Part 238 on May 12, 1999.

Under "Tasks," Mr. Bielitz explains that the RSAC Working Group reviewed accident data and the industry S-580 standard in relation to full height corner posts, glazing and fuel containment. There was an investigation of improved anti-climbers and/or shelf couplers. Finally, there was an examination of methods of cab egress and effectiveness of emergency lighting.

As a result of the Working Group's investigation, "Five Collision Scenarios" were identified. They are: coupled locomotive override, colliding locomotive override, locomotive impact on standing freight car, raking collision between locomotive and freight car or shifted load, and offset collision between locomotive and freight car.

Mr. Bielitz continues that the Working Group and Task Force processes identified twenty-three representative collisions, which were studied. Additional analysis was performed by the contractor, Arthur D. Little, Inc. Finally, FRA's Office of Safety's Mr. Jeffrey Horn assisted the group in analyzing the benefits and costs of the proposed changes to S-580. Task Force conclusions include the following: braced collision posts, corner posts and crash energy management were endorsed; uniform sill heights, rollover protection, and crash refuges were found not to be an effective use of resources; and the strength of collision posts, cab corners and the locomotive front end were identified as areas for further development.

In describing the Locomotive Crashworthiness NPRM, Mr. Bielitz says that the NPRM for Locomotive Crashworthiness has been drafted by FRA based on the findings of the Working Group. The draft NPRM will first be circulated to Working Group members for comments. The final draft NPRM will become the recommendation of the Working Group to the full RSAC.

The goal of the Locomotive Crashworthiness NPRM is to improve locomotive crashworthiness in areas which will effect the greatest reduction in cab crew injuries and fatalities. Performance standards have been used where possible. The AAR Standard S-580 is to be referenced as an alternate model design standard. The NPRM contains provisions for future approval of other alternate design standards. The effective date will be 3 years from the adoption of the Final Rule for new locomotives and remanufactured locomotives with less than 25 percent reused parts. Because the NPRM has not yet been issued, the 3-year clock has not started. During the phase-in period, FRA will encourage, but not require, the use of locomotives built to these standards in the lead position.

Mr. Bielitz gives some details of the draft NPRM on Locomotive Crashworthiness. Under "Static End Strength," locomotives must be capable of withstanding 1,000,000 pounds longitudinal load at inner draft stops without permanent deformation. For monocoque or semi-monocoque structure, the locomotive must withstand an 800,000 pound load at inner draft stops plus 80,000 pounds at each roof rail.

Under "Anti-Climbers and Collision Posts," anti-climbers must be capable of withstanding a 100,000 pound vertical force over a one-foot area. Two collision posts are required to be attached at the front locomotive skin and roof of the short hood forward of the crew seats. Collision posts are to be a minimum of 24 inches above the cab floor. Collision Post loads are: 750,000 pounds in bottom 10 percent of height; 500,000 pounds 30 inches above the underframe. For monocoque and semi-monocoque locomotives, corresponding collision post loads are 500,000 pounds and 200,000 pounds, respectively.

Under "Short Hood and Corner Posts," the short hood skin is specified as one-half inch thick, or as determined by a formula given in the regulation. Corner posts at all corners of the cab are sized for loads of 300,000 pounds at underframe; 100,000 pounds 30 inches above the cab floor, and 45,000 pounds above 30 inches. Monocoque and semi-monocoque designs must have two forward corner posts.

Mr. Bielitz describes additional requirements under the draft NPRM on Locomotive Crashworthiness. One opening suitable for emergency exit shall be available in any locomotive orientation. Brightness and duration of emergency lighting are specified to facilitate safe exit by the crew. Rounding and padding of interior edges shall be used to reduce impact injuries. Seats and other cab appurtenances shall withstand up to three times the force of gravity (G) longitudinally, 1.5 Gs laterally, and 2 Gs vertically. External fuel tanks are to meet AAR Standard S-5506. And finally, internal fuel tanks are to meet same requirements as in 49 CFR 238.223.

Mr. Bielitz asks if there are any questions?

With no questions, Chairperson Gavalla asks for a motion for a mail ballot to present the draft NPRM to the full RSAC for approval.

ROBERT A. HARVEY (BROTHERHOOD OF LOCOMOTIVE ENGINEERS (BLE)) MOVES THAT WHEN THE WORKING GROUP HAS APPROVED THE DRAFT NPRM ON LOCOMOTIVE CRASHWORTHINESS, THAT IT BE CIRCULATED TO THE FULL RSAC FOR APPROVAL BY MAIL BALLOT.

PATRICK T. AMEEN (AAR) SECONDS THE MOTION.

BY UNANIMOUS VOICE VOTE, RSAC MEMBERS APPROVE THE MOTION TO CIRCULATE THE DRAFT NPRM ON LOCOMOTIVE CRASHWORTHINESS TO THE FULL RSAC BY MAIL BALLOT.

Chairperson Gavalla asks Grady Cothen (FRA Deputy Associate Administrator for Safety Standards and Program Development) for a progress report on RSAC Task No. 2003-1, Amendments to the Passenger Equipment Safety Standards and the Passenger Train Emergency Preparedness. Using a Microsoft Powerpoint projector slide show, Mr. Cothen outlines the progress of this new task. Copies of the slide show

and other materials related to RSAC Task No. 2003-1 are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Mr. Cothen explains that Task No. 2003-1 was accepted by the Full RSAC on May 20, 2003, "To review existing passenger safety needs and programs and to recommend consideration of specific actions useful to advance the safety of rail passenger service."

Under "Progress to Date," the Working Group membership includes representatives from The American Association of Private Railroad Car Owners (AAPRCO), AAR, The American Association of State Highway and Transportation Officials (AASHTO), The National Railroad Passenger Corporation (Amtrak), The American Public Transportation Association (APTA), BLE, The Brotherhood of Railway Carmen (BRC), The Brotherhood of Railroad Signalmen (BRS), The High Speed Ground Transportation Association (HSGTA), The National Association of Railroad Passengers (NARP), The Railway Supply Institute (RSI), The Sheet Metal Workers International Association, Safe Travel America (STA), The Transport Workers Union of America (TWU), and The United Transportation Union (UTU). Associate membership on the Working Group includes NTSB and FTA.

Mr. Cothen adds that BMW E will also be recruited to join the Working Group.

Mr. Cothen tells RSAC that the Passenger Safety Working Group met September 9-10, 2003, for briefings and initial scoping. Then on November 6-7, 2003, the Working Group reviewed potential issues, prioritized these issues, and established a task force working structure. The "general scope" of the Working Group is to tie up loose ends from the earlier passenger safety rulemaking, to assess new ideas from APTA's PRESS (Passenger Rail Equipment Safety Standards) effort, to assess new information from intervening research on passenger safety, to review lessons from experience with, and fine tune the existing rules, to review FRA's Emergency Order 20 and either repeal, or codify these rules, and to help FRA deal with NTSB recommendations. The next planned Working Group meeting will be May 11-12, 2004. However, in the interim, there will be several Task Force meetings before the meeting of the full Working Group.

Mr. Cothen describes the four Task Force structure of the Working Group. The Task Forces are: Mechanical Task Force, Crashworthiness Task Force, Emergency Preparedness Task Force, and the Track/Vehicle Interaction Task Force.

The Mechanical Task Force will consider safety appliance issues (i.e., welding), and general mechanical issues (i.e., 49 CFR Part 238, etc.). Some of the first priority general mechanical issues that the task force will tackle include Class 1A brake tests for 24 hour/day operations, redundant cab signal inspections (i.e., 49 CFR Part 236, 238), whether to combine blue card/calendar day inspection records, and the inspectability of brake application. Some of the second priority general mechanical

issues the task force will tackle include cab ergonomics (a long time issue), and baggage car standards.

The Crashworthiness Task Force will consider the crashworthiness of passenger-occupied vehicles and glazing issues. Some of the first priority crashworthiness issues that the task force will tackle include cab car/MU front end optimization, locomotive engineer seating for cab cars/MUs, horizontal rotating seats, collision post issues, glazing test criteria revisions, tier II glazing, and cab side window glazing. Some of the second priority crashworthiness issues that the task force will tackle include cab car/MU occupant survival issues, rebuilt/remanufactured equipment, DMU fuel tanks, auxiliary tanks, side strength, and push/pull configuration at speeds greater than 79 mph.

Some of the first priority emergency preparedness issues that the Emergency Preparedness Task Force will tackle include illumination, signage, and exit path marking. The task force will look at photoluminescent signage durability since these safety devices were installed in 1996. And, the task force will look into marking windows for rescue access. Some of the 13 second priority emergency preparedness issues that the task force will tackle include emergency communications, emergency lighting (i.e., back-up power), egress capacity (exit types and numbers), rescue access, medical emergencies, and passenger manifest accountability.

The Track/Vehicle Interaction Task Force will tackle a lot of high-speed rail issues. These include vehicle centered issues (e.g., truck stabilization, flange angle), whether instrumented wheelset tests are needed for 90-125 mph service, whether to consolidate 49 CFR Part 213, 238 requirements, high-speed track standards revisions (geometry), and cant deficiency implementation.

Mr. Cothen next describes the options available for each of the four task forces. There may be no action on a particular issue; there may be a recommendation to initiate a rulemaking; there may be a recommendation for the voluntary implementation, or incorporation by reference of an industry standard; there may be a recommendation for further research; there may be recommendations to third parties.

Mr. Cothen concludes by saying that additional issues may be actively considered when research is complete and the Working Group is ready to take on additional work. For example, possible future task forces may involve issues of general passenger safety on rail station platforms or walk ways and fire safety.

Mr. Cothen asks if there are any questions?

Peter Cannito (APTA, Metro North) asks if there will be an economic analysis prepared for each issue? Who prioritizes each issue? In reference to the use of safety statistics, what will be used to determine whether an issue will go forward, i.e., crashworthiness of passenger-occupied vehicles in push/pull configuration at speeds greater than 79 mph? He believes there should be sufficient data that the Working Group needs to apply

resources to address these issues.

Chairperson Gavalla assures Mr. Cannito and RSAC members in describing the process of rule review that in addition to the agency's own cost-benefit analysis, that the Office of the Secretary and the Office of Management and Budget also look closely at cost benefit analysis before allowing any agency rules to go forward.

With no further questions of Mr. Cothen, Chairperson Gavalla recognizes former FRA Deputy Administrator Donald M. Itzkoff, who is attending today's meeting.

Chairperson Gavalla announces the first morning break.

F I R S T B R E A K 10:50 AM – 11:10 AM

Chairperson Gavalla reconvenes the meeting. He announces the appointment of two new senior FRA employees, who have been hired to help with new emerging technologies such as Positive Train Control Systems. They are Olga Cataldi, an electrical engineer, and Mark Hartong, also an electrical engineer.

Chairperson Gavalla asks Dr. John M. Samuels (AAR) to discuss the Illinois Positive Train Control (PTC) project.

Using a Microsoft Powerpoint projector slide show, Dr. Samuels presents a status report on the North American Joint Positive Train Control Project (NAJPTC). Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

The NAJPTC Project began 6 years ago. Three cooperating entities, FRA, AAR, and the Illinois Department of Transportation (IDOT) each contributed \$20 million (\$60 million total) to start a PTC demonstration project on a rail line between Chicago, Illinois, and St. Louis, Missouri. The objective of the project was to demonstrate cost effective PTC safety functionality, prevent train-to-train collisions, enforce speed restrictions, protect roadway workers operating under specific authorities, develop interoperability standards, and to operate passenger trains at 110 mph intermixed with slower moving freight trains. The NAJPTC Project drew on data collected from two predecessor projects: Advanced Railway Electronic System (ARES), (Burlington Northern Railroad) and Advanced Train Control Systems (ATCS).

Dr. Samuels describes the management structure of the NAJPTC Project. The stake holders are FRA, AAR, and IDOT. The Management Committee consists of members from the stake holders. The Project Manager is Transportation Technology Center, Incorporated (TTCI), a subsidiary of the AAR. System engineering is contracted to ARINC in Annapolis, Maryland, and Lockheed Martin.

A force behind the development of this system is that railroads can migrate to this system as they can afford to do so. This means that PTC-equipped and non-PTC equipped locomotives will be able to operate on the demonstration line.

Dr. Samuels describes the operation of the system. The flow chart of the PTC system is one of a “virtual” signal system. Many wayside sensors and equipment are used. There is an onboard locomotive computer with software that uses Global Positioning System (GPS) signals plus dead reckoning (in case GPS signal is lost) to precisely locate the locomotive.

There are 3 IDOT Builds. Build 1, which is complete, involves infrastructure (communications, system server, and onboard locomotive hardware). Build 2 adds basic PTC functionality with emphasis on high speed passenger service, including revenue service, per the NPRM. This involves the management and enforcement of authorities; management and enforcement of speed restrictions (civil and temporary); advance activation of highway crossings; route integrity monitoring; and roadway worker protection. Build 2 was successfully tested in the laboratory on November 18, 2003. Revenue service could begin by the end of 2004. Finally, if fully funded, Build 3 will add: confirmed consist; predictors; high speed defect detectors; online database changes; roadway worker terminal; train pacing; cab signal interoperability demonstration, and functional negotiation.

Dr. Samuels asks if there are any questions?

Tim DePaepe (BRS) inquires about the Roadway Worker Terminal. Is it part of the design?

Dr. Samuels responds that the exact terminal that will be used has not been determined.

Mr. DePaepe understands that Lockheed Martin is not putting the Roadway Worker Terminal into the system.

Dr. Samuels responds no, that is not correct. In revenue service, there will be a system that takes roadway worker safety into consideration. What we do not have is the final computer link between the engineer and the system for roadway worker protection. This addition is in Build 3, for which we need additional funding.

Daniel Smith (FRA Office of Chief Counsel) asks if a train that is exceeding an approaching 40 mph speed restriction will be stopped short of the beginning of the restricted speed zone?

Dr. Samuels responds that the PTC system will not allow the train to enter the 40 mph speed zone at a speed above 40 mph. Therefore, a full application of the train’s brake will be made.

Greg Pardlo (ATDD) asks if the wayside detectors will be in communication with the systems on the locomotive?

Dr. Samuels responds yes.

Dennis Mogan (AAR) asks what happens during the migration period. What restrictions are placed on the equipped train?

Dr. Samuels responds that the NAJPTC Project has taken into consideration the presence of unequipped trains.

Peter Cannito (APTA) asks if the system can detect on which track the train is located in a multi-track section?

Dr. Samuels responds yes.

With no further questions of Dr. Samuels, Chairperson Gavalla asks Ron Ries (FRA Office of Safety Highway-Rail Crossing and Trespasser Division Staff Director) for a Highway-Rail Crossing Action Plan update. During calendar year 2002, rail carriers reported the lowest number of fatalities (355) at highway-rail grade crossings, since FRA began record keeping. In 2003, FRA is continuing to see a positive trend in reducing the number of highway-rail grade crossing accidents and injuries. However, FRA and other DOT modal agencies are being asked to update the 1994 Highway-Rail Grade Crossing Action Plan so that these types of accidents can be reduced further.

Using a Microsoft Powerpoint projector slide show, Mr. Ries begins his presentation on Updating the Action Plan. Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Mr. Ries explains that the Highway-Rail Grade Crossing Action Plan (Action Plan) was first issued in June 1994. FRA, the Federal Highway Administration (FHWA), the National Highway Safety Traffic Administration (NHSTA) and the FTA were all stake holders in the success of the program. The 1994 Action Plan contained 55 specific items including making crossing violations serious commercial drivers licenses offenses and providing incentives for closing highway-rail grade crossings. The 1994 Action Plan had as its goal a reduction in collisions and fatalities by 50 percent in 10 years. The approach taken attacked this problem in 6 categories: law enforcement, corridor reviews and improvements, education and Operation Lifesaver, private crossings, data collection and research, and trespass prevention. As a result of the 1994 Action Plan, fatalities at highway-rail grade crossings declined from 579 in 1994 to 355 in 2002, a drop of 39 percent. In addition, highway-rail grade crossing incidents declined from 4,633 in 1994 to 3,066 in 2002, a drop of 34 percent.

Now that the Action Plan is approaching the 10-year mark, the Conference Report to the FY 2003 Appropriations for the Department of Transportation (DOT) specified the

following: “. . .the Secretary of Transportation shall submit with the fiscal year 2005 budget request an action plan outlining specific efforts to be pursued by FRA, FHWA, The Federal Motor Carrier Safety Administration (FMCSA), NHTSA, and the Intelligent Transportation System Joint Program Office to improve safety at both public and private grade crossings.”

Mr. Ries explains the approach to Updating the Action Plan. DOT will continue existing themes and add new ideas. Success stories will be stressed and there will be more outreach to safety partners. The format of the revised 2005 Action Plan will be more general in nature. Rather than the original 55 action items, there may be only 10-12 in the 2005 Action Plan. The 2005 Action Plan will use illustrative examples and may have target dates. However, many of the objectives will be on-going. Progress is being made. A contractor has been hired for writing assistance. An Internet Web Site has been established ([www.fra.dot.gov/safety/action plan](http://www.fra.dot.gov/safety/action_plan)). There has been a conference call of all members and a preliminary draft is ready for review.

But there is still time to contribute ideas to this process. Mr. Ries solicits input from RSAC members. Examples of ideas under consideration are: increased use of photo enforcement, crossing closure procedures, pre-signal guidelines, addressing private crossing safety, use of low cost warning devices, and education via the Internet. A Working Group is formulating objectives and examples. A document will be ready to move forward in the clearing process by the end of December 2003. For further information, please contact FRA's Brian Gilleran, (202) 493-6276, Brian.Gilleran@fra.dot.gov.

Mr. Ries asks if there are any questions?

Tim DePaepe (BRS) asks for clarification on the link to the Internet web site.

With no further questions of Mr. Ries, Chairperson Gavalla proposes to continue to work through the scheduled lunch break so that the meeting might adjourn early. After receiving approval from RSAC members to eliminate the scheduled lunch break, a second morning break is declared.

S E C O N D B R E A K 12:05 pm – 12:25 pm

Chairperson Gavalla reconvenes the meeting. He asks Joe Gallant (FRA Office of Safety, Accident Analysis Branch Team Leader) for an update on the Switching Operations Fatality Analysis (SOFA) Group and the Collision Analysis Working Group (CAWG).

Mr. Gallant explains that the SOFA Group included members from BLE, UTU, the American Short Line and Regional Railroad Association (ASLRRA), AAR, and FRA. Following an analysis of accidents in rail yard switching operations, the SOFA Group issued a report in 1999, which requested that 5 recommendations be voluntarily incorporated in training programs at railroads. The five SOFA recommendations are: (1) Secure equipment before action is taken; (2) Protect employees against moving equipment; (3) Discuss safety at the beginning of a job or when a project changes; (4) Communicate before action is taken; and (5) Mentor less experienced employees to perform service safely. Subsequent to this effort, there have been 47 new accidents, which are being analyzed. In the Spring of 2004, a SOFA Report update and findings will be issued. Mr. Gallant sadly reports that passing trains are still hitting ground people.

In a second topic, Mr. Gallant describes the activities of the Collision Analysis Working Group (CAWG). The first meeting was held in July 2002 at which the BLE asked for clarification of the types of collisions to be considered. Between 1997 to 2001, there were 65 collision cases involving 137 trains, 305 employees, 365 locomotives and resulting in 34,000 cells of data that are being analyzed. Some preliminary analysis suggests that fatigue may be a part of the equation for some of the 65 collisions.

Mr. Gallant asks if there are any questions?

With no questions, Chairperson Gavalla asks William Schoonover (FRA Office of Safety, Hazardous Materials Division Staff Director) for a presentation on Hazardous Materials Regulations.

Using a Microsoft Powerpoint projector slide show, Mr. Schoonover presents a status report on new Hazardous Material Regulations (HMR) and their applicability to the railroad industry. Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

The final rule in RSPA Docket No. HM-223 was published on October 30, 2003, with an effective date of

October 1, 2004. The new rules: detail the applicability of HMR to specific functions related to handling, movement, and storage of hazardous material (hazmat); promote consistent application of safety requirements (i.e., HMR, U.S. Environmental Protection Agency (EPA), U.S. Occupational Safety and Health Administration (OSHA), U.S. Bureau of Alcohol Tobacco and Firearms (ATF), and state/local); and reduces confusion to enhance compliance.

In explaining the effects of the final rule, Mr. Schoonover says that there are added definitions, specific functions/activities not subject to HMR have been listed, language has been added to clarify applicability, and the potential applicability of other Federal, State, or local regulations has been noted.

Under “New Definitions,” the following terms have been clarified: pre-transportation function, transportation, movement, loading incidental to movement, unloading incidental to movement, storage incidental to movement, and private track.

Under “Functions Subject to HMR,” the five preempted subjects (the “Golden Five”) are noted. They are: classification, package selection and marking, documentation, reporting releases, and packaging design/manufacture/qualification. But the rule also discusses HMR that apply to pre-transportation functions (i.e., functions that are essential to prepare a shipment for safe movement) to the exclusion of other Federal or state/local agency’s rules, and transportation functions.

Mr. Schoonover lists the functions not subject to HMR. They include: storage at offeror facility, unloading performed by consignee, storage after delivery to consignee, rail and motor vehicle movements within contiguous facility boundary, transportation by government personnel for noncommercial government purposes, transportation for noncommercial purpose by private individual in private motor vehicle, and the transportation/delivery of U.S. mail.

Returning to “Pre-Transportation Functions,” Mr. Schoonover notes the following examples: determining hazard class, selecting packaging, marking/labeling/fixing placards, shipping documentation, and loading functions performed by the shipper that directly affect hazmat transportation (i.e., blocking and bracing).

The final rule defines “transportation” as the movement of property and loading, unloading, or storage incidental to movement. The final rule defines “movement” as the physical transfer of hazardous materials from one geographic location to another by rail, car, aircraft, motor vehicle, or vessel. The final rule defines “loading incidental to movement” for two types of shipments: for packaged or containerized hazmat, it is loading, by or in the presence of carrier personnel, into a transport vehicle for the purpose of movement; for bulk packaging, it is filling the packaging for the purpose of movement. Trans loading (from one transportation mode to another) is also covered by the HMR. The final rule defines “unloading incidental to movement” as those functions performed by the carrier or before the carrier leaves the facility. There is a significant change to the HMR as it related to “storage incidental to movement.” Defined as storage of transport vehicle, freight container, or package between pickup and delivery to destination indicated on the shipping document, the HMR now apply to storage of rail cars on private track. The rules also apply to storage at intermodal transfer facilities and through shipments stored at marine terminals and carrier facilities.

Mr. Schoonover explains how the new HMR will impact the rail industry. The application of the rules to private track has significantly changed. These rules are now in line with those found at 49 CFR Part 209. The key element is now control over movement and infrastructure, rather than the presence of a commercial relationship (i.e., a lease agreement).

In describing the relationship of HMR to OSHA regulations, Mr. Schoonover characterizes HMR as function-based and OSHA regulations as facility (and people)-based. There is continued shared jurisdiction between HMR and OSHA. HMR apply to pre-transportation and transportation functions; OSHA regulations apply to persons and facilities and continue after transportation ends (e.g., consignee unloading).

In describing the relationship of HMR to EPA regulations, Mr. Schoonover says there is continued shared jurisdiction. EPA requirements may apply at facilities where pre-transportation or transportation functions are performed.

In describing the relationship of HMR to ATF regulations, Mr. Schoonover says the ATF statute includes an exception for aspects of explosives transportation regulated by DOT. However, ATF requirements may apply to facilities at which pre-transportation functions are performed.

Mr. Schoonover concludes by encouraging anyone with questions to contact any member in FRA's Hazmat Division or to send questions to the following Internet mail address: HMASSIST@FRA.DOT.GOV. In addition, information can be obtained from FRA's Internet Web Site: <http://www.fra.dot.gov>. Click on "Hazardous Materials Guidance."

Mr. Schoonover asks if there are any questions?

Lawrence M. Mann (UTU) asks if there may be cases in which a State's regulations would be preempted?

Daniel Smith (FRA Office of Chief Counsel) responds yes. FRA's rule did not intend to exclude any other agency's rule. However, we may preempt non-federal requirements even when we have not exercised authority.

Mike Pollick (Amtrak) states that the AAR has petitioned to reopen the proceeding regarding the HMR storage rules.

With no additional questions or comments, Chairperson Gavalla asks Grady Cothen to report on other RSAC Working Group activities.

Mr. Cothen explains that under RSAC Task No. 97-2, Locomotive Cab Working Conditions, noise issues remain. Under RSAC Task No. 97-3, Revision of Event Recorder Requirements, the full RSAC voted to approve the NPRM. However, OMB now wants to review this rule as a "significant rule." This review process will take more time. As soon as we have clearance on the document, the agency will publish it. Under RSAC Task No. 97-4, 97-5, 97-6, Positive Train Control Systems, the full Committee failed to reach a consensus in an August 2003 mail ballot. FRA has proceeded to advance the final rule, which is in the DOT Office of the Secretary for Clearance. Then it will go to OMB. Under RSAC Task No. 2000-1, Railroad Operating

Practices—Blue Signal Protection of Workmen, the FRA Administrator announced today that after careful consideration of the options FRA is withdrawing this task. He also indicated that FRA may return to this issue at some future date. But for now it is being set aside; with FRA consulting the full RSAC group informally before offering any future task addressing the same issues. In other issues, there will be a discussion on the Reflectorization NPRM at the Washington Plaza Hotel (Washington, D.C.) in January 2004. There is a petition for reconsideration for the rules on locomotive headlights. And finally, an interim final rule on Train Horn Use will be issued shortly.

A question is asked about the definition of an “interim final rule.”

Mark Tessler (FRA Office of Chief Counsel) responds that a comment period will be allowed before the Final Rule is issued.

With no additional questions or comments of Mr. Cothen, Chairperson Gavalla asks Patricia V. Sun (Trial Attorney, FRA Office of The Chief Counsel) for a presentation on the application of FRA alcohol and drug rules to foreign railroad foreign-based (FRFB) employees who perform train or dispatching service in the United States.

Ms. Sun describes the proposed rule (see *Federal Register* (FR) (68 FR 44276, dated July 28, 2003). Currently, employees of a foreign railroad (a railroad incorporated outside the United States) whose primary reporting point is outside the United States who enter into the United States to perform train or dispatching service are subject only to the general conditions, prohibitions, post-accident testing and reasonable suspicion testing requirements in FRA’s alcohol and drug regulations (49 CFR Part 219). Following consultations with the Canadian and Mexican Governments, FRA proposed to make FRFB employees who are presently excepted from the requirements concerning employee assistance programs, random alcohol and drug testing, and pre-employment drug testing, fully subject to 49 CFR Part 219 requirements. In the final rule, however, FRA will allow foreign-based employees of foreign railroads to enter into the United States to perform train or dispatching service for a distance of up to 10 route miles under the present exceptions, to facilitate interchange with U.S. railroads at a majority of gateways. The final rule will also allow, at the railroad’s election, obligations of foreign railroads with respect to testing to be conducted entirely on U.S. soil. Any employee testing positive or refusing a test will be subject to removal from service only with respect to service in the United States; Canadian and Mexican railroads will otherwise be free to handle such employees under the applicable law in their home countries.

Ms. Sun asks if there are any questions.

Faye Ackermans (CP), Lawrence Mann (UTU), and Robert A. Harvey (BLE) asked, respectively, about interchange points, waiver requests, and the status of forthcoming Mexican regulations on alcohol and drugs. Ms. Sun briefly responded to these inquiries and stated that more detailed answers will be provided in the final rule.

With no further questions of Ms. Sun, Chairperson Gavalla announces a 10-minute break.

THIRD MEETING BREAK 1:25 pm – 1:40 pm

Chairperson Gavalla reconvenes the meeting. He asks Alan Misiaszek (FRA Office of Safety) for a presentation on the Evaluation of Medical Standards for Safety-Critical Employees.

Using a Microsoft Powerpoint projector slide show, Mr. Misiaszek makes his presentation. Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

There are many jobs in the railroad industry where workers perform tasks which require certain physical and mental capabilities. The most sensitive of these positions involve tasks which can lead to immediate harm to other employees or the public. Employees assigned to these tasks are classified as “hours-of-service” employees under current law and regulations since they perform tasks that are deemed “safety critical.”

Mr. Misiaszek explains the evaluation approach. Is there a need for publicly led or administered medical standards for the railroad industry? How compelling is the need? How narrow/broad should the standards be? Who decides fitness for duty? Should employment protections be part of the system?

Mr. Misiaszek notes that a failure to diagnose and treat certain medical conditions—those that could lead to sudden incapacitation—could have safety consequences. Because the aviation, maritime, and motor carrier transportation modes have mandated medical standards processes to identify employees at risk of medical incapacitation on the job, does the railroad industry need something similar? FRA has contracted with the consultant, Foster-Miller, Incorporated to help answer some of these questions.

FRA’s current regulations regarding the fitness of employees are limited to: hearing and vision requirements for locomotive engineers (49 CFR Part 240) and control of alcohol and drug use among all hours-of-service employees (49 CFR Part 219). By identifying and implementing medical standards for safety-critical employees, there can be benefits to rail carriers, rail labor, and to the public. Rail carriers can protect assets and training investments, see a reduction in the potential for losses from accidents due to health-related performance decrements, and have consistent objective criteria for fitness for duty decisions. The benefits to rail labor are: prevention/early detection of illness; privacy and employment protections; and consistent objective criteria for fitness for duty decisions. Finally, the benefits to the public are safer railroad operations, i.e., reduced risk of accidents due to unrecognized medical conditions.

Mr. Misiaszek outlines FRA's approach to evaluating medical standards for safety critical employees. A preliminary survey has been completed. Foster-Miller, Incorporated has an ongoing study to ascertain issues and options. The contractor is reviewing regulations, industry practices, dispute resolution procedures, medical literature, and accident data. The contractor will identify possible gaps in regulations and industry practices, identify standards relevant to the railroad industry, and determine resource requirements. When this process is complete, a report will be made to the FRA Administrator and to RSAC, which outlines regulatory and other options.

With no questions of Mr. Misiaszek, Chairperson Gavalla asks Ullah Kifayat (FRA Office of Safety) for a presentation on Section 610 Reviews.

Using a Microsoft Powerpoint projector slide show, Mr. Kifayat makes his presentation. Copies of the slide show are part of the permanent RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Section 610 of the Regulatory Flexibility Act (RFA) requires Federal agencies to review all rules that have a significant economic impact on a substantial number of small entities within 10 years of their adoption as final rules. Mr. Kifayat explains that pursuant to Section 610 of RFA, FRA has reviewed the following regulations: 49 CFR Part 207, Railroad Police Officers, 49 CFR Part 209, Railroad Safety Enforcement Procedures, 49 CFR Part 211, Rules of Practice, 49 CFR Part 214, Railroad Workplace Safety, 49 CFR Part 215, Railroad Freight Car Safety Standards, 49 CFR Part 256, Financial Assistance for Railroad Passenger Terminals, 49 CFR Part 218, Railroad Operating Practices, 49 CFR Part 219, Control of Alcohol and Drug Use, and 49 CFR Part 221, Rear End Marking Device—Passenger, Commuter, and Freight trains.

After the initial review of these rules, FRA determined that 49 CFR Part 214 and Part 215 have a significant economic impact on a substantial number of small entities. Both of these rules were reviewed in greater detail to determine whether these rules should be continued without change, or should be amended or rescinded to minimize their significant impact on small entities.

49 CFR Part 214, Subpart B prescribes minimum railroad safety rules for railroad employees performing work on bridges, while Subpart C prescribes minimum safety standards for roadway workers. There are no specific provisions in the regulation that limit its impact on small entities. However, various provisions of the regulation apply in different circumstances. For example, roadway worker protection rules for locations with frequent high speed train operation are more complex than those which normally apply to the slower, less frequent operation typical of smaller railroads. To this extent the impact of the regulation on small entities is inherently limited.

49 CFR Part 215 prescribes minimum federal safety standards for the inspection, testing, and maintenance of railroad freight cars. FRA has attempted to minimize the

impact of this rule on small entities by allowing abbreviated inspections of freight cars by train crews, and by allowing considerable flexibility in the movement of defective cars for purposes of repair. In addition, FRA has provided small entities the authority to petition for continued in-service use of equipment that is more than 50 years old. Therefore, FRA has determined that 49 CFR Part 215 should continue without change, as the rule already contains provisions that minimize adverse effects on the safe transportation of railroad freight cars.

With no questions of Mr. Kifayat, Chairperson Gavalla asks for a motion to accept the Minutes for the 21st RSAC Meeting.

TIM DEPAEPE (BRS) MOVES THAT THE MINUTES FOR THE 21ST RSAC MEETING BE APPROVED.

DENNIS MOGAN (AAR) SECONDS THE MOTION.

BY UNANIMOUS VOICE VOTE, THE MINUTES OF THE 21ST RSAC MEETING WERE APPROVED.

Chairperson Gavalla asks for a tentative date for the next meeting of the full RSAC. After a brief discussion, he informs RSAC that FRA will look for a meeting facility in Washington, D.C. for the week beginning Monday, April 26, 2004.

With no further business, Chairperson Gavalla adjourns the 22nd RSAC Meeting at 2:05 p.m.

M E E T I N G A D J O U R N E D 2:05 P.M.

These minutes are not a verbatim transcript of the proceedings. Also, 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 detail in the minutes.

Respectively submitted by John F. Sneed, Contractor.

