RAILROAD SAFETY ADVISORY COMMITTEE (RSAC)

Minutes of Meeting
September 21, 2006

The thirtieth meeting of the RSAC was convened at 9:33 a.m., in the National Hall (Franklin/Monroe Rooms) of the Washington Plaza Hotel, 10 Thomas Circle, N.W., Washington, D.C. 20005, 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 daily 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 (http://dms.dot.gov).

For the September 21, 2006, meeting, fourteen of the fifty-four voting RSAC members were absent: The American Association of Private Railroad Car Owners (1 seat), The American Association of State Highway & Transportation Officials (1 seat), The American Petroleum Institute (1 seat), The Association of Railway Museums (1 seat), The Brotherhood of Locomotive Engineers and Trainmen (BLET) (1 of 3 seats), The Fertilizer Institute (1 seat), The International Association of Machinists and Aerospace Workers (1 seat), Safe Travel America (1 seat), The National Railroad Construction and Maintenance Association (1 seat), The Railway Supply Institute (1 seat), The Transport Workers Union of America (TWU) (1 of 2 seats), The Transportation Communications International Union/Brotherhood of Railway Carmen (TCIU/BRC) (1 of 3 seats), The Transportation Security Administration (1 seat), and The United Transportation Union (1 of 3 seats). Five of seven non-voting/advisory RSAC members were absent: The Labor Council for Latin American Advancement, The League of Railway Industry Women, The National Association of Railway Business Women, Secretaria de Communicationes y Transporte (Mexico), and Transport Canada. Total meeting attendance, including presenters and support staff, was approximately 80.

Chairperson Cothen welcomes RSAC members and attendees. He introduces FRA Deputy Administrator, Clifford C. Eby, who makes opening remarks.

Clifford Eby (FRA) welcomes RSAC members and attendees. He says FRA Administrator Joseph H. Boardman has asked him to become more involved with RSAC activities. He notes that there are a lot of issues on RSAC's agenda. These include

revisions to rules, or new rules, affecting locomotive safety standards, roadway worker protection, continuously welded rail, and passenger safety. And although the Railroad Operating Rules Working Group was unable to reach consensus, FRA greatly benefitted from the dialog that occurred within that RSAC Working Group, as the Agency moves forward with a Notice of Proposed Rulemaking (NPRM) on railroad operating rules. As the RSAC Working Groups and the full RSAC work through these agenda items, Mr. Eby says there are a lot of different priorities that must be considered including safety versus profitability, and safety versus an efficient transportation system. He cites the following FRA preliminary accident/incident statistics for the eight months ending June 30, 2006, compared to the comparable 2005 period: (1) the train accident rate fell 16 percent and, in the absence of events such as the Graniteville, South Carolina train accident, train accident casualties are down over 80 percent;
(2) employee on-duty accidents were down 5 percent and the employee on-duty accident rate was down 7 percent; and (3) total fatalities associated with railroad operations were down 6 percent.

[Note: On January 6, 2005, northbound Norfolk Southern Railway Company (NS) freight train 192, while traveling about 47 mph through Graniteville, South Carolina, encountered an improperly lined switch that diverted the train from the main line onto an industry track, where it struck an unoccupied, parked train (NS train P22). The collision derailed both locomotives and 16 of the 42 freight cars of train 192, as well as the locomotive and 1 of the 2 cars of train P22. Among the derailed cars from train 192 were three tank cars containing chlorine, one of which was breached, releasing chlorine gas. The train engineer and eight other people died as a result of chlorine gas inhalation. About 554 people complaining of respiratory difficulties were taken to local hospitals. Of these, 75 were admitted for treatment. Because of the chlorine release, about 5,400 people within a 1-mile radius of the derailment site were evacuated for several days. Total damages exceeded $6.9 million.]

But, Mr. Eby adds, there have been other areas of concern during the eight months ending June 30, 2006, compared to the same 2005 period. He says the number of rail joint bar failure incidents is increasing. He notes that RSAC's Continuous Welded Rail Working Group and the full RSAC have proposed rules that will require more frequent joint bar inspections and the generation of Joint Bar Fracture Reports that will be used by the Volpe National Transportation Systems Center to model joint bar failures.

In another area of concern, (1) highway-rail incidents are up 3.6 percent; and
(2) fatalities in highway-rail incidents rose 8.6 percent. He says the persistence of highway-rail grade crossing collisions, including those involving pedestrians, must be disappointing to everyone. Mr. Eby notes that railroads already shoulder substantial burdens for attending to safety at highway-rail grade crossings. Under FRA regulations, railroads: (1) installed alerting lights to the entire locomotive fleet;

(2) inspect, test, and maintain active warning systems at highway-rail grade crossings; and (3) are applying reflective tape to 1.6 million North American rail cars. But, he adds, FRA needs help regarding safety at private crossings. Both the National Transportation Safety Board (NTSB) and the Department of Transportation's (DOT) Safety Action Plan have asked FRA to develop more effective strategies for dealing with private crossings, where about one out of ten fatal events occurs. To this end, FRA has started an information collection effort in partnership with selected states across the Nation. FRA's first conference was held at Fort Snelling, Minnesota, on August 30, 2006. Additional sessions are scheduled for Raleigh, North Carolina; San Francisco, California; New Orleans, Louisiana; and a final session in the FRA Administrator's home State of New York, which Administrator Boardman will attend to hear a report from this extended road trip. Mr. Eby says Miriam Kloeppel (FRA–Office of Safety) will make a presentation on the private crossing issue at today's meeting.

Clifford Eby (FRA) says railroads are also working with communities around the Nation to turn whistle bans into quiet zones, so that silencing the locomotive horn will not increase risks to motor vehicle occupants. In addition, railroads and their employees are working through Operation Lifesaver to deliver the safety message in schools and through the media. Finally, he says, several railroads are gathering valuable data through locomotive-mounted cameras that may give new clues regarding motorist behavior at highway-rail grade crossings.

On a new topic, Mr. Eby hopes that the railroad industry will embrace electronically controlled pneumatic (ECP) braking systems. He gives historical references to pioneers who developed railroad braking systems by Westinghouse Air Brake Company in the 1880's and to requirements for these systems under the Rail Appliance Safety Act of 1893. He says ECP-braked trains have a number of advantages over conventionally-braked trains including: (1) preservation of train line air; (2) immediate application of brakes on all cars in the train, shortening stopping distances by 40-60 percent; (3) self-diagnostics that permit the locomotive engineer to determine the status of brakes on every car in real time; and (4) graduated release, which opens up new opportunities to use the automatic brakes in the aid of train handling, without excessive thermal inputs to wheels. However, he notes that the challenge for ECP braking systems is in their implementation. To this end, FRA will consider waiver requests from individual carriers to permit ECP braking systems. But, he adds, that FRA is also working on a proposal that could result in a Notice of Proposed Rulemaking (NPRM) so that rules will be in place for the application of this technology to take off. Existing power brake regulations simply do not fit this kind of technology. And, as written, they constitute a barrier to the implementation of ECP braking systems. He says, ECP brakes are being embraced internationally. For the first time, he is seeing a United States (U.S.) ground transportation technology being exploited overseas before it takes root in the U.S. Mr. Eby says that FRA's Office of Safety commissioned a study on ECP brake use, conducted by Booz Allen Hamilton,

Consultants, which was released on August 17, 2006. A synopsis of this report's findings will be presented by Timothy Murphy (Booz Allen Hamilton) at today's meeting.

Finally, Mr. Eby says the full RSAC will be asked today to accept a new Task to establish standards and procedures for determining the medical fitness for duty of personnel engaged in safety-critical functions. He says FRA stands alone as the only regulatory agency for a major mode of transportation that does not comprehensively address medical fitness for duty. FRA also stands alone in this respect among rail regulators on the North American continent. He explains that FRA knows there are many medical conditions that, particularly if untreated, can cause incapacitation or impairment. FRA also knows that the proper control of therapeutic drug use, regardless of whether the drug is prescription, or non-prescription, is important for safety. Mr. Eby thanks the Committee in advance for its receptiveness to moving forward on the proposed task on medical fitness for duty standards for safety-critical employees.

Chairperson Cothen thanks Deputy Administrator Eby for his opening remarks. He apologizes for having skipped-over the initial meeting room safety briefing, always given at the start of each meeting. He asks Patricia Butera (FRA–Office of Safety) to give a meeting room safety briefing.

Patricia Butera (FRA) identifies the meeting room's fire and emergency exits. She asks for volunteers with cardiopulmonary resuscitation (CPR) qualification to identify themselves. A large number of RSAC attendees acknowledge having completed this training. Andrew Corcoran (Association of American Railroads (AAR)) and Gerhard Thelen (AAR) volunteer to perform CPR. Patricia Butera advises that a large number of RSAC attendees have cellular telephones, but volunteers John Tolman (BLET) to call the emergency telephone number, 911, should an emergency occur. Patricia Butera advises that the hotel does not have an automated external defibrillator (AED).

Chairperson Cothen asks Miriam Kloeppel (FRA–Office of Safety) for a briefing on "Safety at Private Highway-Railroad Grade Crossing" activities.

Miriam Kloeppel (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "Background," Ms. Kloeppel says FRA initiated discussions on private highway-rail grade crossing issues in 1993. In 1994, there were references to private highway grade crossing issues in the Department of Transportation's (DOT) Safety Action Plan. In 1997, the National Transportation Safety Board (NTSB) issued a Passive Crossing Study. In 1999, the NTSB issued an accident report for private crossings. And, in 2004, DOT updated its Safety Action Plan with requirements to address private crossing issues. She says Nationwide, there are about 94,000 private crossings and about 147,000 public crossings.

Under the viewgraph, “Accidents at Public and Private Grade Crossings 1985-2005,” a line chart shows a substantial downward trend of accidents at public crossings, but only a 10 percent decline in the frequency of accidents at private crossings. Ms. Kloeppel shows a series of photographs taken at private crossing accident sites in Jackson, Michigan; Castle Rock, Washington; and Lemont, Illinois. These demonstrate common issues at private crossings, i.e., poor warning signage and poor sight distances. On June 21, 2006, a Metra train struck a trailer at a private crossing at Lemont, Illinois. In December 2005, there was another accident at this same crossing in which there was a fatality.

Under the viewgraph, “National Inventory,” Ms. Kloeppel says: (1) 32 percent of the private crossing records have been updated since 2001; and (2) 21 percent of the private crossing records have never been updated.

Miriam Kloeppel (FRA) displays a copy of the U.S. DOT Crossing Inventory Form (Office of Management and Budget (OMB) Control NO. 2130-0017). Under the viewgraph, “Data Collection Comparison,” Ms. Kloeppel says train counts, active warning devices, number of highway lanes, and Annual Average Daily Traffic (AADT) flow is being collected for public crossings. However, for private crossings there is only partial collection of data for the presence of active warning devices.

Under the viewgraph, “State Responsibilities,” are the following: (1) Virginia forbids creating new private at grade crossings; (2) New Jersey and Oklahoma specify that a railroad must provide and maintain private crossings, when required; (3) Rhode Island may close private crossings; (4) Florida requires crossbucks at all crossings–signs must comply with the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices (MUTCD); (5) South Carolina requires private crossings to be equipped in the same way as public crossings; (6) 28 States, more than half, have no laws regarding private crossings; and (7) The American Association of State Highway and Transportation Officials (AASHTO) has a Standing Committee on Rail Transportation which makes recommendations for private crossing issues.

Under the viewgraph, “Federal Responsibilities,” Ms. Kloeppel says no Federal regulation addresses private crossings’ special issues. She adds, the following Federal regulations can affect private crossings: (1) 49 Code of Federal Regulations (CFR) § 234, covers signal system inspection, testing and maintenance, i.e., about 1 percent of all private crossings are equipped with these devices; (2) 49 CFR § 224, covers freight car reflectorization, but under 25 percent of all crossing accidents occur where reflectorization may be an issue; and (3) the FHWA maintains the MUTCD, which applies to public crossings. Consequently, Ms. Kloeppel says, the warning devices at private crossing can be highly variable.

Under the viewgraph, “Legal Status,” are the following ways in which private crossings can exist: (1) ownership of private crossing in fee simple; (2) documented easements; (3)

prescriptive easements, i.e., squatters rights; (4) documented licenses; (5) verbal licenses; (6) requirement, or not, of insurance policies; and (7) existence of contracts, i.e., agreements to maintain the private crossing surface.

Under the viewgraph, "Request for Comments," Ms. Kloeppel says FRA is trying to address the following: (1) criteria for the creation or continuation of private crossings; (2) a definition for the "public use" of a private crossing; (3) allocation of private crossing responsibilities; (4) whether there is a need for dispute resolution; (5) whether some private crossings should be categorized as a "commercial" versus "private" crossings and thereby become subject to rules for public crossings; (6) whether there should be nationwide standards for private crossings; (7) whether is there a need for innovative warning devices at private crossings; (8) the assignment of safety responsibility for private crossings; (9) whether there should be increased State and Federal involvement at private crossings; and (10) what legislation might be required to address these issues.

Under the viewgraph, "Public Meetings," Ms. Kloeppel explains that FRA has scheduled a series of public meetings on private crossing issues. The first was held August 30, 2006, in Fort Snelling, Minnesota. Subsequent meetings are scheduled for Raleigh, North Carolina (September 27, 2006); San Francisco, California (October 26, 2006); New Orleans, Louisiana (December 6, 2006); and a final meeting in New York, which will be attended by FRA Administrator Boardman.

Under the viewgraph, "Discussion Update," Ms. Kloeppel explains that the Association of American Railroads (AAR), the Brotherhood of Railroad Signalmen (BRS), Citizens for Rail Safety, and the States of Minnesota, Wisconsin, and Iowa provided input to the private crossing inquiry during the Fort Snelling, Minnesota, public meeting. That forum showed that: (1) there are no private crossing processes related to creating, evaluating, upgrading, or closing private crossings; (2) there is no clear definition for "private crossing;" and (3) there are many types/uses of private crossings, i.e., residential versus industrial versus commercial versus temporary. Ms. Kloeppel encourages RSAC Members and attendees who wish to weigh-in on the private crossing topic to submit statements electronically to the U.S. DOT Docket Management System (http://dms.dot.gov) under Docket Number: FRA-2005-23281.

Miriam Kloeppel (FRA) asks for questions.

Chairperson Cothen adds that as FRA moves the next public meeting to Raleigh, North Carolina, he hopes there will also be a discussion on engineering issues, i.e., signage and warning devices. Then, the following meeting will move to San Francisco, California. During the New Orleans, Louisiana, meeting on December 6, 2006, he hopes there will be a discussion on private crossing inventory data collection issues. Finally, he says, there will be a meeting in the FRA Administrator's home state of New York to report on the findings of the public hearings on private crossing issues.

Dennis Mogan (AAR) asks if there should be a discussion of the farm (agriculture) crossing issue, whereby farm equipment needs to cross train tracks in order to access different fields planted in crops? He says in some instances, there may be farm crossings every mile in rural agricultural areas.

Chairperson Cothen says agricultural crossings have not been specifically mentioned, but adds, "They are on the table."

John Tolman (BLET) says there have been presentations on the Post Traumatic Stress Syndrome of train engineers involved in highway-rail grade crossing accidents. He asks that programs used to alleviate train engineer stress following these accidents be discussed.

Chairperson Cothen says to the best of his knowledge, this issue is still on the table. FRA's Railroad Development Office is conducting research in this area. He takes the BLET request to be an "action item" and FRA will brief the full RSAC on this topic at a future meeting. He knows there is a human cost to collisions at highway-rail grade crossings, even to those who do not end up as a casualty statistic.

Chairperson Cothen announces the morning break.

M O R N I N G B R E A K 10:15 A.M. - 10:35 A.M.

Chairperson Cothen reconvenes the meeting. He asks David Johnson (National Association of Railroad Passengers (NARP)) for an announcement on the Annual Dr. Gary Burch Memorial Safety Award.

David Johnson (NARP) announces that NARP is accepting nominations for the annual Dr. Gary Burch Memorial Award, which will be announced on May 2, 2007. Additional information on this topic can be found at NARP's Internet Web Site, i.e., www.narprail.org.

[Note: The Dr. Gary Burch Memorial Safety Award is an annual award granting $1,000 to the railroad worker who has done the most to improve the safety of railroad passengers. Dr. Burch was chief, of the Ear, Nose, and Throat Clinic at the Eisenhower Hospital at Fort Gordon, Georgia. He was one of eight passengers who died July 31, 1991, at Lugoff, South Carolina, while traveling on Amtrak's Silver Star. It derailed at a switch that the National Transportation Safety Board (NTSB) later said was "poorly maintained." Dr. Burch's wife, Bette, was traveling with him and was injured. Later, she and her children (Michael Burch and Kathryn Pettyjohn) decided to do what they could to improve passenger rail safety. Their effort resulted in the award. A selection committee solicits nominations from railroad companies and operating agencies and selects someone to receive the award at NARP's annual Washington, D.C., reception generally, in April of

every year. Selection criteria include correcting or initiating a solution to a passenger-related safety problem.]

Chairperson Cothen acknowledges the following new RSAC Members or alternates: Glen Wilson (AAR–Canadian Pacific Railway Company) and John Tolman (BLET).

Chairperson Cothen says a couple of years ago, FRA commissioned a report on Electronically Controlled Pneumatic (ECP) Brakes. The engineering/consulting company, Booz Allen Hamilton was awarded the contract and has produced an impressive report. The full report and FRA Administrator's comments on ECP Braking systems can be found on FRA's Internet Web Site at www.fra.dot.gov/us/content/1713. He asks Booz Allen Hamilton's Tim Murphy for and overview of the Booz Allen Hamilton Report in a presentation entitled, "Rail Freight Operations: A Brighter Future with ECP Brakes."

Tim Murphy (Booz Allen Hamilton) introduces Erin Hackmann who also worked on the report. He uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "Agenda" Mr. Murphy describes the areas he will cover as follows: (1) ECP Study Background; (2) role of the expert panel; (3) study findings; (4) use of ECP braking systems internationally; and (5) the path to move this topic forward.

[Note: from the August 2006 PowerPoint presentation accompanying the release of the Booz Allen Hamilton Report: "Electronically Controlled Pneumatic (ECP) brakes are a tested technology that offers major benefits in freight training handling, car maintenance, fuel savings, and network capacity. Their use could significantly enhance rail safety and efficiency. With the present system (developed in the 1870's), freight train cars brake individually, at the speed of the air pressure moving from car to car, along trains that are often well over a mile in length. This conventional braking contributes to excessive in-train forces, challenges in train handling, longer stopping distances, and safety risks of prematurely depleting air brake reservoirs. These problems are greatly reduced in the ECP brake mode of operation, during which all cars brake simultaneously, driven by an electronic signal.

ECP systems simultaneously apply and release freight car air brakes through a hard-wired electronic pathway down the length of the train. There is no delay, and no run-in of slack from the rear of the train as with conventional air brake systems. Brake releases cannot be operated in a graduated manner with current brakes. ECP brakes allow the engineer to "back off" braking effort to match track grade and curvature, without completely releasing the brakes resulting in the following: (1) saves fuel and reduces emissions; (2) reduces wear/stress on wheels and brake shoes; and

(3) reduces the chance of a run-away train due to the overheating of the brake shoe/wheel interface.

Current train handling procedures require the anticipation of draft (pulling) and buff (compressive) forces within the train, particularly in hilly terrain. Any misstep can result in derailment. ECP brakes provide a tool to management in-train forces and reduce train handling derailments.

Current brakes are operated through the use of brake pipe pressure reductions, which signal valves to release air from individual reservoirs into the brake cylinders on each car. Repeated brake pipe reductions can deplete the brake pipe and cause a run-away train.

ECP-braked trains are controlled by electronic messages, so that the brake pipe is not depleted of air and is constantly being charged during the brake application.

Current brakes are very complex and subject to failure, which is a maintenance challenge and a safety concern. Current brakes are prone to causing undesired emergency applications (UDEs), which can result in delay and even derailment. In addition, current brakes can stop working on individual cars en route without the locomotive engineer being aware.

ECP brakes are not susceptible to UDEs, and the health of the braking system on all cars is reported to the locomotive engineer in real time.

ECP brakes can result in shorter stopping distances, in the range of 40-60 percent. This could reduce the number and severity of collisions with obstacles on the railroad, including vehicles stuck on grade crossings and could reduce, or make less severe, train-to-train collisions. ECP brakes can reduce the chances of runaway trains and train handling derailments.

ECP brakes are a major capital investment (on the order of $6 billion for all locomotives and cars). The majority of these costs will fall on car owners (most cars are privately owned by shippers or leasing companies). However, the majority of benefits will flow to the railroads. Moving from conventional to ECP brakes will be logistically difficult. Small railroads will face significant costs. In addition, all North American freight railroads will eventually need to convert."]

Tim Murphy (Booz Allen Hamilton) explains that ECP tests and conversions began in 1995 on the BNSF Railroad, Consolidated Rail Corporation, Canadian Pacific Railroad, and in 2000, on Norfolk Southern/CSX Transportation. But by 2005, years of ECP experimentation in North America had gone nowhere in terms of widespread adoption of the technology. To assist the effort, the AAR approved a wire-based standard for ECP in December 2004, effectively ending the "wireless" versus "wireline" debate. Also in late

2004, FRA commissioned a benefit-cost analysis of ECP braking systems in a effort to break the decade-plus conversion stalemate.

Mr. Murphy says the Booz Allen Hamilton study found that over 90 percent of the total non-capacity related savings from ECP are in three areas: (1) fuel; (2) wheel replacements; and (3) intermediate brake testing. The study also identified unit train equipment, particularly unit coal trains, which generate a disproportionate share of revenue ton-mile traffic, as the principal rail traffic to benefit from installing ECP brake systems. In a preliminary analysis for the conversion of Wyoming's Powder River Basin coal traffic to ECP brake-equipped trains, Booz Allen Hamilton estimates initial train set conversions to total $432 million ($40,000 per locomotive; $4,000 per coal car). The estimated annual benefits for the conversion is expected to be $170 million as follows: (1) fuel savings ($78 million); (2) reduced wheel defects ($45 million); (3) brake inspection savings ($45 million); and (4) brake shoe savings ($2 million). The payback in savings to the investment could occur after 2.5 to 3 years.

Mr. Murphy says other countries are adopting ECP to improve capacity. These include Québec Cartier Mining Company (QCM) in Canada, Queensland Rail (QR) in Australia, and Spoornet in South Africa. He says Spoornet has operationally and financially justified ECP conversion for its export coal fleet of 6,600 cars. Spoornet made the business case to convert to ECP based on major savings in train costs and gains in capacity. Spoornet is reporting savings in train energy consumption of 23 percent and ECP-equipped cars and locomotives have increased capacity, reducing turn times from coal mine to port by 9 percent. In addition, Spoornet's preliminary analysis indicates the following: (1) stopping distance reduction of 60-70 percent; (2) maximum tractive in-train force reduction of 37 percent; and (3) maximum braking in-train force reduction of 23 percent.

Beyond Wyoming's Powder River Basin unit coal trains, Mr. Murphy says other United States' unit trains generally lend themselves to ECP conversion, but the costs and benefits will vary by commodity type. These include unit trains hauling: (1) grain;
(2) non-Powder River Basin coal; (3) non-metallic minerals; (4) ores; (5) intermodal containers and trailers; and (6) set-up automobiles.

Tim Murphy (Booz Allen Hamilton) estimates that a complete National benefit-cost total for ECP can be produced by completing benefit-cost analyses for ten rail traffic segments. In addition to (1) Powder River Basin coal traffic, the remaining traffic segments are: (2) non-Powder River Basin coal; (3) set-up automobile; (4) metallic ores; (5) non-fuel minerals (e.g., soda ash); (6) grain; (7) intermodal; (8) Class I carload freight; (9) Class II carload freight; and (10) Class III carload freight.

Mr. Murphy says a sustainable implementation for ECP over a 15 year period will require careful phasing of unit train and carload conversions. He describes the seven principles

for successful conversion. They are: (1) maximize the benefit-cost ratio for the first conversions; (2) require conversion "kits" for all new cars and locomotives; (3) provide incentives through regulatory relief and other programs; (4) resolve equitably the stakeholder financial imbalance; (5) collect and publish results of the initial conversions; (6) capitalize on the experience of the initial conversations; and (7) set a detailed timetable to make full conversion transparent.

Mr. Murphy repeats the location of the August 2006 Booz Allen Hamilton Report on ECP Braking Systems, the FRA Administrator's comments on ECP Braking systems, and the August 2006 Booz Allen Hamilton PowerPoint presentation accompanying the release of the Report, i.e., FRA's Internet Web Site at www.fra.dot.gov/us/content/1713. He asks for questions and comments.

Patrick Ameen (AAR) says in November 2004, the AAR conditionally-approved one supplier of ECP components for 1,000 car sets. To date, there remains one conditionally-approved supplier of ECP components.

Mr. Murphy asks Patrick Ameen to explain "wireless" versus "wireline" ECP systems.

Mr. Ameen says the biggest issue was a lack of a sustainable power supply for the wireless electronic components. Therefore, the decision was made for the wireline standard.

Rick Inclima (Brotherhood of Maintenance of Way Employes Division (BMWED)) asks if there are any hazards concerning electrical energy issues for the man on the ground?

Tim Murphy (Booz Allen Hamilton) responds, "No." He says the system has performed without problems.

Patrick Ameen (AAR) says an advantage with a wired system is that the capacity of the data cable is so large that other functions can be performed, such as diagnostic tools.

Mr. Murphy says hand brakes can cause two types of problems: (1) employee back injuries from setting hand brakes; and (2) if left in position, wheel damage. He says replacement wheel sets now cost around $1,500. He announces an "open house" on October 12-13, 2006, to tour the New York Air Brake Company and inspect its fleet of ECP-equipped cars. He asks anyone wishing to attend the tour to contact him.

Dennis Mogan (AAR) asks what happens if a train breaks in two, following an accident? How do you get the train back on the move? What about brake hoses?

Mr. Murphy responds that FRA is working on a "set-out program in the NPRM it plans to issue on ECP brakes," i.e., railroads will set-out the damaged cars and have the train consist continue without the damaged cars.

Chairperson Cothen confirms that FRA is considering language to address this topic. He asks Patrick Ameen for a comment.

Mr. Ameen says the car wireline connection is very robust. He adds, the wireline is also ergonomically friendly.

Fred Fink (TWU) asks about the proposed elimination of the "intermediate" brake inspections.

Mr. Murphy says there is constant monitoring of brake line pressure and electronic monitoring of the ECP brake system as a result of this new technology. The locomotive engineer will receive an immediate warning of detected problems in brake line pressure or ECP brake component failure. In contrast, the intermediate brake inspections will confirm that the brakes are working, as intended, at the particular point in time that the brake test was performed.

With no further questions of Tim Murphy, Chairperson Cothen thanks Booz Allen Hamilton for the presentation on ECP brake systems.

Chairperson recognizes Olga Cataldi (FRA–Office of Safety). He says she is FRA's senior electronics engineer who is putting together a report on new technologies. He recognizes Dave Blackmore (FRA–Office of Safety, Program Manager). He says Dave Blackmore is working on applied technology issues from a broad agency perspective. Chairperson Cothen adds, FRA is trying to put together documentation on the safety benefits for ECP brake systems, as a follow-up to the Booz Allen Hamilton Report.

Chairperson Cothen asks Charles Bielitz (FRA–Office of Safety) for a report on Passenger Safety (PS) Working Group (WG) activities. He acknowledges that Cynthia Gross (FRA–Office of Safety, RSAC Working Group Facilitator) was scheduled to make this presentation. However, she was called away for a medical emergency.

Charles Bielitz (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Mr. Bielitz explains that the PS WG met September 12-13, 2006, in Orlando, Florida. At today's meeting, Brenda Moscoso (FRA–Office of Safety) will report on Emergency Preparedness (EPREP) Task Force (TF) activities and John Mardente (FRA–Office of Safety) will report on Track Vehicle Interaction (TVI) TF activities. The next PS WG meeting will be April 17-18, 2007.

Under the viewgraph, “Crashworthiness/Glazing Task Force,” Mr. Bielitz comments that issues raised during Crash Energy Management (CEM) design reinforce the FRA belief that a dynamic standard should be an option for certifying this equipment, in addition to the WG-recommended quasi-static testing procedure. Consequently, FRA will solicit comments on a dynamic testing standard in the NPRM for crashworthiness/glazing.

Under the viewgraph, “General Mechanical Task Force,” the NPRM was published last summer. FRA is nearing completion of the final rule on general mechanical issues, which amends rules in the following five areas: (1) making clarifications related to piston travel indicators; (2) providing design and inspection criteria for new passenger equipment which does not allow inspection of brake application and release from outside the equipment; (3) permitting latitude in the use of passenger equipment with redundant air compressors when a limited number of the compressors become inoperative; (4) permitting an alternate pneumatic pressure test for main reservoirs; and (5) adding provisions to ensure the proper securement of unattended equipment.
Mr. Bielitz says FRA is also clarifying the existing regulatory requirements and is mandating an identification and inspection protocol related to the attachment of safety appliances on passenger equipment. He says this was a non-consensus issue. FRA is proceeding independently of the WG to resolve this issue. Finally, FRA is amending the regulations to permit railroads to apply “out-of-service” credit to certain periodic maintenance requirements related to passenger equipment.

Under the viewgraph, “General Passenger Safety Task Force”, Mr. Bielitz says the Passenger Safety Working Group (PS WG) authorized a new General Passenger Safety Task at its September 12-13, 2006, meeting. Dan Knote (FRA–Office of Safety) will lead the TF. Mr. Bielitz says data reveal a steady and dramatic increase in the numbers of FRA-reportable passenger accidents/injuries between 2002 and 2005. The PS WG granted permission for General Passenger Safety TF activities with the following guidance: (1) regulation is not necessarily the outcome; (2) the data used to support this activity should be normalized to reflect that in terms of the increasing numbers of passenger train miles reported, the number of these incidents are small; (3) TF activities should include representatives from freight railroads; (4) the TF should consider resolving safety issues through changes in a carrier’s System Safety Plan; and (5) the TF should consider flexible solutions to account for differences between rail properties, i.e., not a one size fits all approach. Mr. Bielitz says the General Passenger Safety TF will initially work on the following issues: (1) passenger safety during boarding, while onboard, and debarking (passenger strikes by second trains); and (2) passenger safety in stations (platform gaps and platform design with Americans with Disability Act (ADA) considerations).

Charles Bielitz (FRA) asks Brenda Moscoso (FRA–Office of Safety) to report on EPREP TF activities.

Brenda Moscoso (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "Notice of Proposed Rulemaking," Ms. Moscoso says an NPRM on topics covering (1) emergency window exits, (2) rescue access windows, (3) emergency communications, (4) emergency roof access, and (5) foot-candle and repair of emergency systems was published in the Federal Register (FR) on August 24, 2006 (71 FR 50276, 49 CFR Parts 223 and 238 Passenger Train Emergency Systems; Proposed Rule). The public comment period closes October 23, 2006. The EPREP TF will assist FRA with the review of public comments to the NPRM.

Under the viewgraph, "APTA [American Public Transportation Association] Emergency Lighting Standard," Ms. Moscoso reads existing APTA requirements for emergency lighting in passenger equipment. For door exits, vestibules, diaphragms, stairways, passageways, aisles, toilets, cabs, and specialty areas: (1) new equipment requires an average of 1 foot-candle of illumination measured at the floor, or 25-inches above the floor (as appropriate), for 90 minutes; and (2) existing equipment requires an average of 0.5 foot-candle of illumination measured at the floor, or 25-inches above the floor (as appropriate), for 60 minutes.

Ms. Moscoso explains that the EPREP TF is considering extensive revisions to the existing APTA standard. These include: (1) minimum light levels for manual door releases; (2) initial and periodic system testing requirements; and (3) battery maintenance requirements. For existing equipment compliance will be required by the year 2015, or when conveyed, transferred, or leased. For new equipment, there is an additional requirement for an independent power source (battery or capacitor) for emergency lighting that is located within a half-car length. Ms. Moscoso says once the APTA Emergency Lighting Standard has been issued, FRA will incorporate the APTA Standard into 49 CFR § 238 rules by reference.

Under the viewgraph, "New Issue," Ms. Moscoso explains that at the September 12-13, 2006, PS WG meeting, the United Transportation Union (UTU) requested that the WG consider revising 40 CFR § 239.105, debriefing and critique, to clarify that train crew members should participate in the debrief and critique session following a train emergency, or a full-scale simulation of a train emergency. Consideration of this issue has been assigned to the EPREP TF.

Under the viewgraph, "Emergency Egress," Ms. Moscoso says the Volpe National Transportation Systems Center (Volpe) has begun a study of passenger car emergency egress using emergency evacuation simulations. These simulations will be used to predict the amount of time needed to evacuate passenger rail cars under various circumstances and different environments. Available for this research is a passenger car "rollover rig,"

which can tilt an entire passenger car during simulations to evaluate lighting and egress simulations. This study will be a tool for evaluating and comparing alternative egress system configurations.

Brenda Moscoso (FRA) asks for questions and comments.

With no questions or comments for Ms. Moscoso, Chairperson Cothen asks John Mardente (FRA–Office of Safety) for a report on Track Vehicle Interaction (TVI) TF activities.

John Mardente (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "Objectives," the TVI TF is revising 49 CFR § 213, Part G, issued in 1998 to reflect experience gained in qualifying several vehicles for high-speed and cant deficiency operation (i.e., Amtrak's Acela, MARC-III, ALP-46, and Comet 5). The objectives are: (1) consolidate inconsistencies between track and equipment rules, low- and high-speed track safety standards, and requirements within the track safety standards; (2) establish necessary safety limits on wheel profile and truck equalization; (3) revise qualification requirements for high-speed/high cant deficiency operation;
(4) revise safety criteria (acceleration and wheel force limits); (5) revise inspection, monitoring and maintenance requirements; (6) revise track geometry limits for high speed; and (7) establish consistent requirements for high cant deficiency operations. Mr. Mardente says the proposed changes are intended to maintain and improve public safety without introducing unnecessary burdens on the rail industry.

Under the viewgraph, "Approach," Mr. Mardente says the TVI TF achieved the following: (1) established a technical subgroup to address safety (derailment) criteria;
(2) considered foreign practices (France, Japan, and Germany), the results of current research, and VTI test data; (3) considered models to conduct dynamic simulation studies;
(4) examined the impact of each proposed change on current operations; and
(5) achieved consensus on all items among TF members. He says the TVI TF will present its recommendations as one package to the PS WG.

John Mardente (FRA) details TVI TF work for each of the TF objectives. Under the viewgraph, "Consolidate Inconsistencies Between Track and Equipment Rule," Mr. Mardente says there were different and repetitive qualification requirements for acceleration limits in 49 CFR § 213, Part G, and 49 CFR § 238. The TVI TF developed language for consolidating these limits into 49 CFR § 213, Part G with cross-references to 49 CFR § 238, and for removing duplicate requirements.

Under the viewgraph, “Establish Limits on Wheel Profile and Truck Equalization,” are the following considerations: (1) There are currently no controls on truck equalization. There is a concern over truck response to warped track; (2) There are currently no controls on wheel profile. Wheel profile affects vehicle response; and (3) The TVI TF agreed that these issues should be controlled by industry standards. Subsequently, this issue has been handed-off to APTA PRESS (Passenger Rail Equipment Safety Standards) Committees for resolution.

Under the viewgraph, “Revise Qualification Requirements,” Mr. Mardente says the TVI TF is (1) refining tests and analyses required for qualification at each track class speed and cant deficiency; and (2) developing consistent qualification and monitoring requirements between low- and high-speed standards and within respective standards.

Under the viewgraph, “Revise Safety Criteria (Acceleration and Wheel Force Limits),” Mr. Mardente says for 49 CFR § 213.233, the TVI TF has (1) established separate acceleration limits for passenger and non-passenger carrying equipment to reflect occupant safety; and (2) revised wheel-rail force limits (NAL, Vmin) based on current research.

Under the viewgraph, “Revise Track Geometry Limits for High Speed,” Mr. Mardente says the TVI TF has (1) proposed track surface and alignment limits based on VTI performance; (2) used computer modeling/simulation of in-service vehicles;
(3) combined track geometry defects; (4) proposed language to eliminate references and rules related to FRA Track Class 9; and (5) proposed language to reduce the maximum speed for FRA Track Class 8 to 150 mph.

Under the viewgraph, “Establish Requirements for High Cant Deficiency Operations,” Mr. Mardente says the TVI TF has: (1) developed regulatory provisions for qualifying vehicles for high cant deficiency on all classes of track; (2) developed consistent qualification and monitoring requirements between low and high speed standards and within respective standards; and (3) established tighter track geometry limits for high cant deficiency operations.

Under the viewgraph, “Overall Status,” Mr. Mardente says the TVI TF is approximately 90 percent finished with its technical work. The TVI TF anticipates 4 more meetings to complete its work, i.e., about six more months of work.

John Mardente (FRA) asks for questions.

Thomas Peacock (APTA) asks when the “General Mechanical Final Rule” will be published?

Chairperson Cothen responds that the General Mechanical Final Rule will be published in October 2006.

Chairperson Cothen reports on other FRA regulatory activities. He says the Final Rule on Locomotive Crashworthiness was published on June 28, 2006. This is another instance of incorporating an AAR Standard by reference into FRA's rules. However, he adds, APTA has requested that the AAR consider changes in three areas as they relate to passenger locomotives [Note: under AAR S-580 (2005), Locomotive Crashworthiness Standards, APTA wants the following resolved from a passenger equipment versus freight equipment perspective: (1) the interior configuration of narrow-nose locomotives; (2) the interior configuration of monocoque/semi-monocoque design locomotives; and (3) the truck attachment for monocoque semi-monocoque design locomotives.] APTA also noted the absence of rollover protection for passenger locomotives. Once these areas of concern are resolved, APTA can get out of involvement with the AAR's S-580 Standards.

Under "Occupational Noise Exposure for Railroad Operating Employees–Final Rule," Chairperson Cothen announces that this rule cleared the Office of Management and Budget (OMB) on September 20, 2006. He expects publication of this rule in early October 2006.

Under "Locomotive Horns–Final Rule Amendments," Chairperson Cothen says the Final Rule on Locomotive Horns was published on August 17, 2006, and became effective on September 18, 2006. He says FRA tried to act on everyone's needs.

Under Railroad Operating Rules (ROR), Chairperson Cothen says an NPRM will be published in early October 2006. Following a 60-day comment period, he hopes to call back into session the ROR WG to help FRA deal with expected comments. The ROR WG would be asked to convene in early 2007.

Under the Pipeline Hazardous Materials Safety Administration's Security Rulemaking with the Transportation Security Administration (TSA), Chairperson Cothen says the NPRM is undergoing review at OMB. He says risk assessment analysis will be necessary for the transportation of certain hazardous materials.

Chairperson Cothen says he will continue his report on other regulatory activities following lunch. He announces the lunch break.

L U N C H B R E A K 12:00 P.M. - 1:08 P.M.

Chairperson Cothen reconvenes the meeting. He announces that the Roadway Worker Protection (RWP) WG meeting scheduled for November 28-29, 2006, has been cancelled. He says it is his fault. He wants to be able to attend RWP WG meetings, as this WG nears

completion of its work. However, FRA scheduled a senior management meeting during the same time, which he is required to attend. He asks Jeffrey Horn (FRA–Office of Safety) for a report on RWP WG activities.

Jeffrey Horn (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "Session Status," Mr. Horn says there were five Sessions in 2005, and five Sessions in 2006. The next meeting is scheduled for January 17-18, 2006.

Under the viewgraph, "Recent Consensus Items," Mr. Horn describes the following consensus items: (1) movement and operation of on-track snow thrower and weed spray equipment on non-controlled track without making the track inaccessible;
(2) roadway worker-in-charge training to include a training module on how a railroad is to assure that such employee is available to roadway workers being protected;
(3) revision to watchman lookout definition; (4) clarification of the contents of annual on-track safety training for all roadway workers; and (5) clarification that annual training and qualification will not exceed 24 months for lone workers, watchman/lookout, flagman, and roadway maintenance machine operators.

Under the viewgraph, "Under Discussion," Mr. Horn describes the following topics:
(1) on-track training of other than roadway workers who provide protection for roadway work groups; and (2) on-track safety of employees and contractors clearing snow at passenger station platforms.

Under the viewgraph, "Future Discussion Points," are the following topics: (1) roadway worker definition; (2) electronic documentation; (3) roadway worker limitation when warned by watchman; (4) yard limits–controlled/non-controlled; (5) block register territory; (6) railroads informing contractor of on-track safety requirements; and
(7) contractor training and railroads informing contractors of on-track safety requirements.

Under the viewgraph, "Other Activities," Mr. Horn says the WG is considering on-track safety requirements for switch manipulation during maintenance operations. The AAR has provided survey information to FRA for analysis by the WG's post-rule accident analysis team. The findings will be presented to the RWP WG.

Jeffrey Horn (FRA) asks for questions and comments.

Timothy DePaepe (Brotherhood of Railroad Signalmen (BRS)) says the BRS membership is satisfied with the existing on-track safety requirements for switch manipulation during maintenance operations.

Chairperson Cothen asks David Jamieson (FRA–Office of Safety) for a report on Continuous Welded Rail (CWR) WG activities.

David Jamieson (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, "SAFETEA-LU," Mr. Jamieson explains that on August 10, 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act–A Legacy for Users (SAFETEA-LU) required each track owner to implement procedures to improve the identification of cracks and other incipient failures in bolted joints within continuous welded rail (CWR). He says FRA published an Interim Final Rule to address SAFETEA-LU requirements on November 2, 2005 (70 FR 66288).

Under the viewgraph, "CWR Working Group," Mr. Jamieson says RSAC established the CWR WG on February 16, 2006 to review and revise the CWR-related provisions of FRA's Track Safety Standards.

Under the viewgraph, "CWR Working Group Tasks," Phase 1 involves analyzing the Interim Final Rule (IFR) for CWR, reviewing the comments to the IFR, and preparing recommendations for the Final Rule. Phase 2 involves evaluating further enhancements for the management of CWR to prevent track buckling and joint failures, including design, maintenance, and inspection.

Under the viewgraph, "Recommendations to FRA," Mr. Jamieson explains the following CWR WG actions: the elimination of the nationwide joint bar inventory requirements of the Interim Final Rule by substituting (1) periodic joint bar inspections; and (2) the collection of data in Joint Bar Fracture Reports which will be used by the Volpe National Transportation Systems Center to analyze joint bar failures.

Under the viewgraph, "Enhancements for the Management of CWR (Phase 2)," Mr. Jamieson says the WG is considering the following topics: (1) training–consideration of a standard for the qualifications of a person who inspects and maintains CWR; (2) special inspections–consider incorporating in 49 CFR § 213.119 (f) indications of damage to joints, environmental conditions, or other factors; (3) CWR Plans–develop a mechanism for updating and submitting CWR program procedures to FRA Headquarters; (4) CWR Manuals–maintenance and retention of procedures/guidelines in the field by maintenance-of-way personnel; and (5) ballast and anchoring criteria.

Under the viewgraph, "Accident Review," Mr. Jamieson says the WG established a team to review accidents with track buckling as the primary or secondary cause. The team will consider accidents investigated by FRA, the National Response Center (NRC), the NTSB, and review accident information from railroads.

David Jamieson (FRA) says the next CWR WG meeting will be January 30-31, 2007. He asks for questions and comments.

Chairperson Cothen says the Final Rule on CWR joint bar inspections is ready for publication. He expects it to be issued within two weeks.

With no questions of Mr. Jamieson, Chairperson Cothen asks Charles Bielitz (FRA–Office of Safety) for a report on Locomotive Safety Standards (LSS) WG activities.

Charles Bielitz (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes.

Under the viewgraph, "Locomotive Working Group Report," Mr. Bielitz says the LSS WG had its second meeting on August 8-9, 2006, in Grapevine, Texas, where the WG continued discussions on the initial topic of dealing with an AAR waiver request concerning locomotive sanders. Mr. Bielitz says the LSS WG reached consensus on all aspects of the locomotive sander issue with the exception of requirements for sanders on locomotives used in switching service at "outlying locations" where no sand delivery system is in place. FRA will utilize information developed during the WG deliberations to develop requirements for locomotives used in switching service at outlying points and then circulate a draft of proposed rules for locomotive sanders to the full RSAC for a vote.

Mr. Bielitz reads the LSS WG draft language for locomotive sanders. He says the full RSAC will be asked to approve this language, after which the language will be forwarded to the FRA Administrator for action. The draft WG recommendation is as follows:

49 CFR § 229.131 Sanders.

(a) Except for MU locomotives and except as provided in paragraph (c) of this section, each locomotive shall be equipped with operative sanders that deposit sand on each rail in front of the first power operated wheel set in the direction of movement at the time of departure from an initial terminal as defined in § 229.5.

(b) Locomotives being used in road service with sanders that become inoperative after departure from an initial terminal as defined in 49 CFR § 229.5, shall be handled in accordance with the following:

(1) Lead locomotives being used in road service that experience inoperative sanders after departure from an initial terminal may continue in service until its next initial terminal, a location where it is placed in a facility with a sand delivery system, its next periodic

inspection under 49 CFR § 229.3, or fourteen calendar days from the date the sanders are first discovered inoperative, which ever occurs first;

(2) Trailing locomotives and distributed power locomotives being used in road service that experience inoperative sanders after departure from an initial terminal may continue in service until its next initial terminal, a location where it is placed in a facility with a sand delivery system, or its next periodic inspection under 49 CFR § 229.23, which ever occurs first.

(c) Locomotives being use in switching service as defined in 49 CFR § 229.5 shall be equipped with operative sanders that deposit sand on each rail in front of the first power operated wheel set in the direction of movement. If the sanders become inoperative, the locomotives shall be handled in accordance with the following:

(1) (FRA TO DETERMINE LANGUAGE) Locomotives being used in switching service at "outlying locations" (to be identified as ...regulation may or may not use the term, "outlying location.")

(2) Locomotives used in switching service at "locations not considered outlying locations" (based on definition used in paragraph (c)(1)) with sanders that become inoperative shall be handled in accordance with the requirements contained in
49 CFR § 229.9.

(d) Any locomotive being handled under the provisions contained in paragraph (b) and (c)(1) of this section shall be tagged in accordance with 49 CFR § 229.9(a).

Definitions to be added:

"Initial terminal" to be added to 49 CFR § 229.5. The definition would be identical to that contained in 49 CFR § 232.5, i.e., means a location where a train is originally assembled."

"Sand delivery system" to be added to 49 CFR § 229.5.

Chairperson Cothen says the locomotive sander issue came out of a Petition from the AAR to remove sanders from locomotives. Upon further discussion within the WG, there was "give and take" among WG members regarding this subject.

Jim Kienzler (AAR) says the Canadian Pacific (CP) Railway Company disagrees with the notion that locomotive sanders are a safety appliance. He asks that FRA continue to study locomotive sander function to determine if they are necessary for braking (a safety issue), or whether their use is to assist in train start-up (an operational decision). He says the CP will participate in the LSS WG discussions on this topic.

Bob Keane (AAR) says the Canadian National Railroad agrees with the CP remarks.

Chairperson Cothen says a representative from Transport Canada attended the LSS WG meeting in St. Louis, Missouri, where he said that under Canadian rules, if a sander is on a locomotive, it must be operable.

Patrick Ameen (AAR) clarifies that with respect to locomotives in the lead position, Transport Canada says locomotive sanders must be operable. However, he adds, CP and CN do not have specific railroad operating requirements that specify locomotive sanders. Therefore if sanders are not necessary as a safety requirement, CP and CN do not want the maintenance and operation of sanders to be a Federal safety requirement.

Chairperson Cothen asks for a motion that draft language for locomotive sander rules be approved, as read.

Bob VanderClute (AAR) moves that the draft language for locomotive sanders be approved.

Alan Lindsey (AAR) seconds the motion.

> BY UNANIMOUS HAND VOTE, THE FULL RSAC APPROVES DRAFT RULES FOR LOCOMOTIVE SANDERS.

Charles Bielitz (FRA) continues the presentation on LSS WG activities. In other LSS WG activities, Mr. Bielitz describes the following: (1) the LSS WG discussed the use of electronic data storage to maintain required locomotive records. "Paper" records are currently required. As of September 21, 2006, FRA's Safety Board has granted seven waivers to allow for electronic signatures and electronic storage of required locomotive records. The LSS WG is reviewing all electronic recordkeeping waiver conditions to incorporate these into a proposed rule that allows electronic recordkeeping for locomotive records; (2) the LSS WG discussed locomotive air brake waivers. FRA suggested including language to codify some of these waivers into the Code of Federal Regulations (CFR); (3) the LSS WG discussed changing rules for locomotive head lamps to allow the use of halogen lamps and to provide a lamp specification, rather than identify a specific acceptable lamp and lamp manufacturer; and (4) the AAR introduced a concept for a Risk-Based Performance Standard for locomotive inspections, which would replace the current daily and periodic inspections required by the CFR. Mr. Bielitz adds that the AAR will make additional presentations on this topic at the next LSS WG meeting, scheduled for September 25-26, 2006. He asks for questions or comments.

John Bell (Federal Transit Administration (FTA)) asks if a review of light rail vehicle headlamp requirements will be undertaken by the LSS WG?

Mr. Bielitz responds, “No.”

Chairperson Cothen says the issue raised by FTA involves the use of 100,000 candela lamps in light rail use.

Chairperson Cothen asks Joseph Gallant (FRA–Office of Safety) for a report on Collision Analysis Working Group (CAWG) activities.

Joseph Gallant thanks a number of individuals who helped with the August 2006, CAWG Final Report. They include Danny Boyles (UTU), Raymond Holmes (BLET), David Skinner (Volpe National Transportation Systems Center (Volpe), James Stem (UTU), and George Gavalla. He also thanked Charles Dettmann, who helped with initial case selection, and Bill Browder, for their contributions to the discussions underlying the report. He asks David Skinner (Volpe) to continue the presentation.

David Skinner (Volpe) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, “CAWG Overview,” Mr. Skinner says in June 2002, FRA proposed a collision study to identify effective measures to prevent human factor-caused train accidents. CAWG had its first meeting in July 2002.

Under the viewgraph, “CAWG Process,” Mr. Skinner says the WG: (1) selected cases; (2) reviewed and discussed each case; (3) analyzed cases for important trends and commonalities; and (4) made findings and recommendations where appropriate.

Under the viewgraph, “CAWG Case Section,” Mr. Skinner explains that: (1) collision cases were examined from 1997 though 2002; (2) involved mainline operations only; (3) involved freight trains with at least two crew members; and (4) involved passenger trains. Mr. Skinner says 310 cases met the criteria. He says 65 main line collisions met the following CAWG selection criteria: A train must have exceeded authority, i.e., passed a stop signal, failed to comply with restricted speed, or entered territory without train order, track warrant, or direct traffic control authority.

Under the viewgraph, “CAWG: Case by Case Review,” the following information about each case was entered into a database: (1) location; (2) time; (3) conditions; (4) train information; (5) employee information; (6) locomotive information; and (7) other information. There was a group discussion about each case.

Under the viewgraph, “CAWG: Analysis,” there was a search for trends and themes concerning: (1) possible contributing factors; (2) crew experience; (3) crew alertness; (4) method of operations; (5) crashworthiness; and (6) exit/stay onboard locomotives.

Under the viewgraph, “CAWG: Findings and Recommendations,” Mr. Skinner says the August 2006 CAWG Report identifies the following areas that can contribute to train collision prevention: (1) crew composition and experience; (2) crew alertness; (3) intra-crew communications; (4) high-risk holiday periods; (5) end of train devices; (6) crashworthiness (7) operating methods; and (8) collision investigation and reporting.

An electronic version of the August 2006 CAWG Report can be found at the following Internet Web Site: www.fra.dot.gov/us/content/1704.

Joseph Gallant (FRA) asks for questions.

Timothy DePaepe (BRS) asks if very many changes have been made to the Final CAWG Report, since the last meeting?

Mr. Gallant says there have just been editorial changes since September 2005.

Chairperson Cothen says he does not expect all RSAC members (labor and management) to agree on every item within the CAWG Report. But, he adds, there is interest in this topic by all parties. He asks Alan Misiaszek (FRA–Office of Safety) for a presentation on medical fitness for duty.

Alan Misiaszek (FRA) uses a Microsoft PowerPoint presentation projected on to a meeting room screen. Photocopies of the Microsoft PowerPoint viewgraphs were distributed to meeting attendees. All meeting handouts will be entered into the RSAC Docket and are not excerpted in their entirety in the RSAC Minutes. Under the viewgraph, “Why are we doing this?” Mr. Misiaszek outlines the following: (1) there are many jobs in the railroad industry where workers perform tasks that would be considered “safety critical;” (2) the tasks require certain physical and mental capabilities to be un-impeded by medical conditions that could lead to sudden incapacitation;
(3) sudden incapacitation of employees doing these tasks could lead to immediate harm to themselves, other employees, or the public; (4) 46 percent of Class I railroad workers belong to “safety critical” crafts; and (5) potentially, 101,894 of total railroad employees are in safety-sensitive jobs.

Under the viewgraph, “US Railroad Employee Population by Age Group,” a bar chart shows the largest portion of railroad employees to be in the 45-64 age group, followed by the 25-44 age group.

Under the viewgraph, “US Chronic Medical Conditions, % by Age Group,” Mr. Misiaszek says the selected chronic medical condition categories are: (1) all heart disease;
(2) hypertension; (3) diabetes; and (4) arthritic symptoms.

Under the viewgraph, “Estimate of Chronic Medical Conditions in RR Age Groups,” a bar chart shows the largest number of railroad employees with one of the selected medical conditions is contained within the 45-64 railroad employee age group.

Under the viewgraph, “NTSB has recommended:” are two recommendations:
(1) Develop a standard medical examination form that includes questions regarding sleep problems and require that the form be used pursuant to 49 CFR § 240, to determine the medical fitness of locomotive engineers. The form should also be available for use to determine the medical fitness of other employees in safety-sensitive positions (NTSB Recommendation R-02-24); and (2) Require that any medical condition that could incapacitate, or seriously impair the performance of an employee in a safety-sensitive position be reported to the railroad in a timely manner (NTSB Recommendation R-02-25).

Under the viewgraph, “What Other US DOT Modal Administrations Cover,” Mr. Misiaszek says FRA lags behind all other DOT Modal Administrations except the United States Coast Guard (USCG) in the frequency of evaluation for medical conditions of safety-sensitive employees (three years for FRA versus five years for USCG; 6 months to 2 years for Federal Aviation Administration (FAA); 2-years for Federal Motor Carrier Safety Administration (FMCSA). FRA also lags behind all other DOT Modal Administrations in the number of medical conditions evaluated ranging from six medical conditions for FRA (alcohol use, color perception, hearing acuity, use of illegal or habit forming drugs, vision acuity, and visual field) to 19 medical conditions for the FAA and USCG (alcohol use (FAA but not FMCSA), allergies (FMCSA but not FAA), amputations, cardiovascular, color perception, diabetes, epilepsy or loss of consciousness, gastrointestinal, genitourinary, hearing acuity, hypertension, mental/nervous/organic/or functional brain disease, neuromuscular, orthopedic, psychiatric disorders, pulmonary/respiratory, review of use of prescribed medication, use of illegal or habit forming drugs, vision acuity, and visual field). The FMCSA tests commercial drivers at 2-year intervals for 16 medical conditions.

Under the viewgraph, “Foreign Railway Agencies–Medical Standards Programs,” Mr. Misiaszek says all countries examined have more extensive medical standards programs than the United States. Mexico is the most centralized. Australian, Canadian and United Kingdom programs allow railroads to select examiners and make final determinations of employee medical fitness. Railroad and labor representatives are involved in the development of Canadian and Australian standards. Canada and Australia allow railroads discretion in identifying safety-sensitive positions. Canada and Australia have public welfare systems to cover medically disqualified workers.

Under the viewgraph, “What are the next steps going to be?” Mr. Misiaszek says the following issues need to be resolved: (1) how narrow/broad should the standards be? (2) who will be covered? (3) who determines the criteria? (4) how will the criteria be kept up-to-date–medical science changes? (5) who decides fitness for duty–railroad doctor or private doctor? (6) how will these rules affect current FRA rules, i.e., drug and alcohol

testing? (7) what appeals process is appropriate? And (8) how can the processes be done to permit auditing while maintaining medical confidentiality?

Alan Misiaszek (FRA) asks for questions and comments.

With no questions, Chairperson Cothen asks the full RSAC to look at draft RSAC Task Statement No.: 6-03, Medical Standards for Safety-Critical Employees. He says he sees acceptance of the proposed RSAC task as an opportunity for RSAC to verify employee fitness for duty. He does not see this as a means to disqualify individuals from service, although ultimately, that may happen. He notes that an evaluation of this issue will also look at other rules, i.e., 49 CFR § 219 (drug and alcohol rules) and 49 CFR § 240 (locomotive engineer certification). He says there is also an opportunity to manage fatigue as it relates to sleep disorders. He views this issue as covering Hours of Service Act employees and fitness for duty. He says as these issues are developed, FRA anticipates that it will have adequate resources to support the Committee. He is concerned about Agency resources. However, he has been assured by the FRA Associate Administrator for Safety, Jo Strang, that the resources will be available. To the extent that the resources are made available, he believes the proposed new Task can move forward. He asks for questions.

Rick Inclima (BMWED) asks if there have been any thoughts about when disqualification occurs on the basis of medical grounds, what role will the Railroad Retirement Board (RRB) have? Once someone is disqualified, what benefits will the employee receive from the RRB?

Michael Rush (AAR) agrees that the two cannot be divorced. He says RRB benefits and disqualification will be addressed by the proposed WG.

Joseph Mattingly (BRS) cites the Task Statement Purpose: “To enhance the safety of railroad employees and the public by establishing standards and procedures for determining the medical fitness for duty of employees engaged in safety-critical functions.” He believes that medical fitness should be tied to the work that employees are performing. He does not believe these requirements should be limited to Hours of Service Act (HOS) employees.

Mr. Rush says restricting the rules to HOS employees will limit the scope of the proposed RSAC Task.

Mr. Mattingly believes that contractors should fall under these rules.

Chairperson Cothen says these issues can be discussed by the proposed WG.

Jim Kienzler (AAR) asks about the terms, “safety critical” versus “safety sensitive” employees?

Chairperson Cothen says FRA tends to apply “safety critical” to HOS employees. He says the initial focus of the WG, i.e., prepare a report, will apply to HOS employees.

Chairperson Cothen asks for a motion to accept RSAC Task No.: 06-03, Medical Standards for Safety-Critical Employees.

Joseph Mattingly (BRS) requests changes to Task language before entertaining a motion. He offers the following. The word “employees” should be changed to “personnel.” Under “Purpose,” he suggests the following. “To enhance the safety of persons in the railroad operating environment and the public by establishing standards and procedures for the medical fitness for duty of personnel and contractors engaged in safety-critical functions.” Under “Description,” he recommends removing the sentence, “Determine applicability to employees performing service subject to the Hours of Service Law. Under “Issues requiring specific report,” he recommends breaking-up the first “bullet” into two bullets, i.e., (1) Develop proposed FRA standards implementing medical guidelines to provide an industry wide means of verifying medical fitness for duty; and (2) develop a process for identifying conditions that could lead to sudden incapacitation or impairment of safety-critical employees.

Michael Rush (AAR) does not want to pre-dispose that there will be uniform medical standards. He wants railroads to have discretion over these matters. Some railroads might disqualify some employees; some railroads may not disqualify employees for the same medical condition. He says the issue of how contractors should be addressed should be left up to the WG. He objects to eliminating references to HOS. He says this will broaden the scope of the Task too much. He disagrees with breaking-up the first issue “bullet” into two bullets. He says FRA should not be identifying “medical” guidelines. That, he says, should be left up to the medical profession. He requests that the original Task Statement be left alone.

James Stem (UTU) offers an overview comment. He believes that FRA wants to establish medical criteria for a safety-critical person.

Mr. Mattingly asks if there are going to be uniform standards in the Federal arena?

Chairperson Cothen responds that to date, the railroad industry has taken a self-regulation position in this arena. However, he adds, now there is probably a need for uniformity in the application of these rules. He is concerned about HOS employees in the signal area. He says contractors will be included unless the WG decides otherwise. The issue of uniformity has been exposed by comments made by Joseph Mattingly and Michael Rush.

He believes there is a need and a will to proceed on this topic. He agrees that FRA needs to adjust the wording of the Task Statement.

Mr. Rush says as one looks at individual railroad policies on this topic today, some railroads take a harsher policy on epilepsy than others. He says if the WG drives all railroads to uniformity, he believes uniformity will drive more employees out of their jobs. He believes that medical physicians need to be involved in this topic.

Mr. Mattingly says he is concerned about the lack of uniformity, i.e., that one employee may be dismissed on one railroad, but retained by another for the same medical condition.

Chairperson Cothen asks for a break so that FRA can review the proposed Task Statement. He announces an afternoon break and FRA caucus.

F R A C A U C U S A N D A F T E R N O O N B R E A K
2:40 P.M. - 2:55 P.M.

Chairperson Cothen reconvenes the meeting. He reports on FRA caucus activities to modify language in proposed new RSAC Task No.: 06-03, Medical Standards for Safety-Critical "Personnel."

Rick Inclima (BMWED) suggests amending the 4th "bullet" under "Issues requiring specific report" to read: "Purpose: the procedures for determining the fitness of individuals." He suggests a similar change to the 2nd "bullet."

With no further discussion on language of proposed RSAC Task No.: 06-03, Medical Standards for Safety-Critical Personnel, Chairperson Cothen asks for a motion from RSAC to accept the Task. He says this is an important day in the lives of railroad employees and this issue.

Bill Bohne (International Brotherhood of Electrical Workers (IBEW)) moves that the full RSAC accept Task No.: 06-03, Medical Standards for Safety-Critical Personnel, as amended.

Greg Pardlo (American Train Dispatchers Association (ATDA)) seconds the motion.

> BY UNANIMOUS VOICE VOTE, THE FULL RSAC ACCEPTS NEW TASK NO.: 06-03, MEDICAL STANDARDS FOR SAFETY-CRITICAL PERSONNEL, AS AMENDED.

Timothy DePaepe (BRS) requests that a "clean" copy of the accepted Task Statement be sent to RSAC members.

Chairperson Cothen responds that copies of the revised Task statement will be available to meeting attendees before the end of today's meeting and that the revised Task statement will be posted on the RSAC Internet Web Site.

Chairperson Cothen makes a report on Remote Control Locomotive (RCL) Operator Training activities. He says FRA's RSAC Facilitator, Cynthia Gross, was scheduled to make this presentation, but was called-away for a medical emergency.

Under the viewgraph, "Introduction," Chairperson Cothen says an RCL Operator Training Committee was formed and on May 18, 2006, during which highlights from a Congressional Report regarding RCL operations was presented. The highlights of the Congressional Report included the following: (1) accident/incident rates; (2) human factor causes; (3) RCL main track operations; (4) operating remote control operators riding cars; (5) remote camera highway-rail grade crossing monitoring; (6) RC: signal system integrity; (7) RCL requirements related to 49 CFR §§ 240 and 232; and (8) RCL training for new hires. At FRA's invitation, FRA, railroad technical training managers, and rail labor representatives met on July 29, 2006, to discuss RCL training with an emphasis on new hire training.

Under the viewgraph, "Issue," Chairperson Cothen says FRA has asked railroads to administer 100 hours of on-the-job-training (OJT) to RCL operators. He notes that the OJT phase of these programs represents about 90 percent of the total RCL training that RCL operators receive. However, Chairperson Cothen says, railroads do not believe this is a reasonable standard, i.e., OJT time is not a guarantee of adequate training.

Under the viewgraph, "Action Items," Chairperson Cothen says the RCL Operator Training Committee reached consensus on the following action items: (1) complete a Job Task Analysis for new RCL operators of major tasks and subtasks (railroads are receiving input from labor); (2) identify essential safety steps to perform the tasks;
(3) identify conditions for the learning transfer; (4) identify the standards for measuring learning; (5) document that the learning transfer occurred; and (6) independently validate the process is implemented as intended.

Chairperson Cothen says the next RCL Operator Training Committee meeting will be November 1-2, 2006. He asks for questions.

Michael Rush (AAR) says railroads spent the summer getting data together. He says a good consensus package should be ready for the November RCL Operator Training Committee meeting.

James Stem (UTU) says labor has asked that its members be permitted to comment on adequacy of RCL Operator training issues.

Chairperson Cothen says FRA's staff loves reporting on WG activities; however, other working group members are also most welcome to participate in briefing the Committee. He says if WG members have other issues to present before the full RSAC, he encourages them to contact FRA and be scheduled for presentations at future RSAC meetings.

Chairperson returns to his Report on Other Regulatory Activities.

Under Passenger Train Emergency Systems, an NPRM was published in the Federal Register on October 24, 2006. The comment period ends on October 23, 2006.

Chairperson Cothen expects publication of the Final Rule on passenger train mechanical issues (49 CFR § 238) in October 2006.

Chairperson Cothen expects an NPRM to revise 49 CFR § 228 to allow electronic recordkeeping in early calendar year 2007.

Under "freight safety appliances," FRA is preparing an NPRM to address these issues after completing conversations within the freight railroad community. He anticipates a similar approach for the passenger railroads.

Finally, he says, there are some "nits and picks" with accident/incident rules under 49 CFR § 225. He requests RSAC approval to reconvene the Accident/Incident WG to consider comments made to this NPRM.

Andrew Corcoran (AAR) asks for clarification on what the WG would be expected to do.

Chairperson Cothen says a Task Statement would be circulated.

Dennis Mogan (AAR) asks if the Accident/Incident WG members would remain the same as the original Accident/Incident WG?

Chairperson Cothen says the Accident/Incident WG members would likely remain the same.

> WITH NO OBJECTION, FRA WILL PROCEED TO CIRCULATE A TASK STATEMENT FOR A REVIVAL OF THE ACCIDENT/INCIDENT WG, IF THE RECONVENING OF THE ACCIDENT/INCIDENT WG IS NECESSARY TO ADDRESS 49 CFR § 225 ISSUES.

Chairperson Cothen says there will be a report on an NTSB recommendation at the next full RSAC meeting.

Robert Chipkevich (NTSB) says the recommendation to be discussed involves forbidding the use of “after arrival orders” in dark (non-signal) territory.

Chairperson Cothen asks permission to put that recommendation before the Railroad Operating Rules (ROR) WG when it meets in 2007 to go over expected comments that will be received following the issue of the NPRM on railroad operating rules.

Alan Lindsey (AAR) says the BNSF Railroad is meeting with the NTSB in two weeks. He asks for a delay in FRA action on this issue until after that meeting.

Rick Inclima (BMWED) asks for clarification of the term, “after arrival orders.”

James Stem (UTU) responds, “after arrival orders is the same as conditional track authority.” He believes this issue should be put before the ROR WG. He says this is also a major concern for Roadway Worker Protection. He reiterates his belief that this issue should be put before the ROR WG.

Michael Rush (AAR) says the BNSF Railroad wants to be able to discuss this issue with the NTSB first. He says railroad management is not objecting to discussing this issue within an RSAC WG.

Chairperson Cothen asks about a date for the next full RSAC meeting? He suggests February 21, 2007.

There is a general Committee discussion on meeting dates after which Thursday, February 22, 2007, in Washington, D.C., is requested for the next full RSAC meeting.

Chairperson Cothen asks for additions and corrections to the Minutes for the May 18, 2006, full RSAC meeting.

Thomas Pontolillo (BLET) says he has submitted corrections.

With no further discussion, Chairperson Cothen accepts the Minutes for the May 18, 2006, meeting, as corrected.

> THE MINUTES FOR THE MAY 18, 2006, MEETING ARE APPROVED BY THE FULL RSAC, AS CORRECTED.

With no further business, Chairperson Cothen thanks the FRA staff for their assistance with today’s meeting. He adjourns the meeting at 3:30 pm.

M E E T I N G A D J O U R N E D 3:30 P.M.

These minutes are not a verbatim transcript of the proceedings. Also, Microsoft PowerPoint overhead viewgraphs 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.