UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

OFFICE OF ADMINISTRATIVE LAW JUDGES

In the matter of:	
METROLINK TRAIN NO. 111 COLLISION WITH UNION PACIFIC RAILROAD LEESDALE LOCAL, September 12, 2008, Los Angeles, California	Docket No.: DCA-08-MR-009

NTSB Board Room and Conference Center
490 L'Enfant Plaza
Washington, D.C. 20024

Tuesday,
March 3, 2009

The above-entitled matter came on for hearing, pursuant to notice at 9:00 a.m.

BEFORE: KATHRYN O'LEARY HIGGINS, Chairman
PAUL L. STANCIL, Hearing Officer
ROBERT L. CHIPKEVICH
DR. JOSEPH KOLLY

APPEARANCES:

Technical Panel:

WAYNE WORKMAN, Investigator-in-Charge
JAMES A. SOUTHWORTH
JAMES REMINES
TIMOTHY J. DePAEPE
RICK NARVELL
TED TURPIN

TERRY N. WILLIAMS, Public Affairs Specialist

Parties to the Hearing:

GRADY COTHEN, Federal Railroad Administration
RICHARD CLARK, California Public Utilities Commission
GRAY CRARY, Southern California Regional Rail Authority (Metrolink)
TOM McDONALD, Connex Railroad LLC
WILLIAM FRITZ, Connex Railroad LLC
ROBERT GRIMALLA, Union Pacific Railroad Company
JIM CUMBY, United Transportation Union
BILL WALPERT, Brotherhood of Locomotive Engineers and Trainmen
THOMAS ROBERTS, Mass. Electric Construction Company
JOHN QUINTANAR, City of Los Angeles, California

I N D E X

I N D E X (cont'd.)

I N D E X (cont'd.)

I N D E X (cont'd.)

E X H I B I T S

EXHIBIT NUMBER	MARKED	RECEIVED
NTSB		
NTSB 1(a) - 1(f)	17	20
NTSB 2(a) - 2(v)	17	20
NTSB 3(a) - 3(w)	18	20
NTSB 3(x)	21	21
NTSB 3(y)	22	22
NTSB 3(z)	109	--
NTSB 3(aa)	110	--
NTSB 3(dd)	134	--
NTSB 3(ee)	145	--
NTSB 3(ff)	146	--
NTSB 3(gg)	168	--
NTSB 3(hh)	168	--
NTSB 3(ii)	216	--
NTSB 3(jj)	245	--
NTSB 4(a)	19	20
NTSB 4(b)	228	--
NTSB 4(c)	230	--
NTSB 4(d)	235	--
NTSB 4(e)	242	--
NTSB 5(a) - 5(b)	19	20
NTSB 6(a) - 6(d)	20	20

E X H I B I T S (cont'd.)

EXHIBIT NUMBER	MARKED	RECEIVED
NTSB 7(a) - 7(f)	19	20

P R O C E E D I N G S

(Time Noted: 9:00 a.m.)

CHAIRMAN HIGGINS: Good morning. Would everyone please silence their cell phones and pagers? This public hearing has been convened by the National Transportation Safety Board under the authority of Section 304(b) of the Independent Safety Board Act of 1974. This hearing is part of the Safety Board's investigation of the accident involving a collision of a Southern California Regional Authority Metrolink Passenger Train Number 111 and Union Pacific freight train LOF65-12 in Chatsworth, California on September 12th, 2008.

I'm Kathryn O'Leary Higgins, a member of the National Transportation Safety Board and Chairman of the Board of Inquiry for these proceedings.

The other Safety Board employees comprising the Board of Inquiry are: Robert Chipkevich, Director, Office of Railroad, Pipeline and Hazardous Materials Investigations; Dr. Joseph Kolly, Deputy Director, Office of Research and Engineering; Mr. Paul Stancil, Accident Investigator, Office of Railroad, Pipeline and Hazardous Materials Investigations. Mr. Stancil is the Hearing Officer. We're also joined by Gary Halbert, who is the NTSB General Counsel and is serving as counsel to the Board of Inquiry, and Denise Daniels, who is a special assistant to me.

This hearing is part of the Safety Board's investigation of the accident involving the collision of Metrolink Passenger

Train Number 111 and Union Pacific freight train LOF65-12 in Chatsworth, California on September 12th of last year. On behalf of the Board and the staff of the NTSB, I would like to offer our deepest sympathy to the family and friends of those who lost their lives in this terrible accident and to the survivors who are still recovering. We are convened here today to consider the facts of this accident in an effort to prevent tragedies like this from ever happening again.

On Friday, September 12th, at approximately 4:23 Pacific Daylight Time, westbound Metrolink Passenger Train Number 111 and eastbound Union Pacific freight train Number LOF65-12 collided head-on while operating in a six-degree curve on Metrolink's Ventura subdivision between Topanga and Tunnel Number 28 near Chatsworth, California, which is approximately 30 miles northwest of downtown Los Angeles. The Metrolink train derailed its locomotive and lead passenger car. The UP train derailed two locomotives and 10 cars.

As a result of the collision, the Metrolink locomotive was shoved about 50 feet into the lead passenger car. Emergency response agencies reported that 102 injured persons were transported to local hospitals. There were 25 fatalities. Damage was estimated at $10.6 million. This accident has been investigated by the Safety Board. We have been assisted in the investigation by representatives of the parties to this hearing.

The purpose of the hearing is, Number 1, to go beyond

our field investigation, tests and interviews to develop a factual record for determining the probably cause of the accident; Number 2, to report the facts, conditions and circumstances relating to this accident and (3), to assist the Safety Board in making recommendations to prevent similar accidents. We plan to conclude this hearing tomorrow, on Wednesday, after taking testimony for two days. This hearing is an administrative fact finding proceeding with no adverse interests and no adverse parties.

It is not our purpose to assign blame or to determine the legal rights and/or liabilities of persons or organizations, and the Safety Board will not make any attempt to do so. Matters directly related to such rights and liabilities will be excluded from these proceedings. Pursuant to Safety Board rules, a pre-hearing conference was held February 25th, last week, in Washington. The pre-hearing conference was attended by members of the Board of Inquiry, members of the Technical Panel and the parties to the hearing.

The witnesses for the hearing, the areas on which they are to be questioned and the issues to be addressed were discussed and agreed upon by the participants. In addition, exhibits to be introduced in evidence were identified and agreed upon by the participants. Copies of the witness list developed for this hearing have been made available. Terry Williams, a Safety Board Public Affairs Officer, is here to assist the press and the public. He can furnish a copy of the witness and provide access

to the exhibits. The docket containing the exhibits and any other related materials is available for inspection at the Board's D.C. office.

The transcript of the testimony that will be taken during the hearing will be entered into the docket as soon as practical. Copies of the transcript, exhibits and photographs introduced during this hearing may be obtained for a fee from the court reporter. The conduct of this hearing will be governed by the Safety Board's Rules of Practice.

Under these rules, the witnesses will be questioned first by the Technical Panel, then by the spokesman for each party, and finally, by the Board of Inquiry. Cross-examination, in the legal sense, will not be permitted. After one round of questions, I may go around for a second time for any follow-up questions and/or clarifications. However, I expect follow-up questions to be limited to those necessary to clarify the record or to address some new matter that has not been raised.

The formal issues that will be addressed in this hearing and to which testimony and questioning will be limited are the following: an overview of the accident, the investigation and the Metrolink system; signal system operation and testing; operating rule requirements and oversight for calling train signals; the use of cell phones and personal electronic devices; the presence of authorized persons only in the cab of a locomotive; Union Pacific's random alcohol and drug testing program; and the

implementation of positive train control as a safety redundant system. The parties to this hearing will have the opportunity to submit proposed findings of fact, conclusions and recommendations to the Board of Inquiry.

After the close of this hearing, I encourage the parties to make use of this opportunity. If you decide to submit proposed findings, conclusions or recommendations, please send them to the National Transportation Safety Board with 60 calendar days after we finish the hearing. You should also send copies of any submissions to each of the other parties. Any proposals will be made part of the public docket of the investigation and will receive careful consideration during the Safety Board's analysis of evidence and preparation of the final report.

At this time, I would like to recognize Chairman Rosenker, if he is still here. He's in the back room. Thank you, Mr. Chairman, for -- Acting Chairman, for joining us today. And I also want to recognize the Safety Board's Technical Panel. Mr. Wayne Workman, who is the Investigator-in-Charge; Mr. Jim Remines, he's the accident investigator with the Railroad Division; Mr. Tim DePaepe, accident investigator; Ted Turpin, accident investigator; Rick Narvell; and Jim Southworth, who's the chief of the Railroad Division.

Also present are Ms. Denise Whitfield and Ms. Nancy Mason for administrative assistants. I will now call upon the parties to the hearing and ask each spokesperson to

stand, identify themselves, their affiliation with the party they represent and introduce those other persons at their party's table. I understand Member Hersman is also here, is that right? Member Debbie Hersman, my colleague on the Board. Thank you for coming.

Federal Railroad Administration, would you introduce yourselves and your representatives, and identify your party's spokesperson?

MR. COTHEN: Good morning, Member Higgins. My name is Grady Cothen. I'm Deputy Associate Administrator for Safety Standards at the Federal Railroad Administration. At the table this morning for FRA, Mr. Doug Taylor, who is chief of our Operating Practices Division in the Office of Safety Assurance and Compliance; and Mr. Patrick Patten, who is Deputy Regional Administrator for FRA Region 7.

CHAIRMAN HIGGINS: And you'll be serving as the spokesman, Mr. Cothen?

MR. COTHEN: I will.

CHAIRMAN HIGGINS: Thank you. California Public Utilities?

MR. CLARK: Good morning, Member Higgins. My name is Richard Clark. I'm the Director of Consumer Protection Safety Division of the California Public Utilities Commission. I'll be the spokesperson. With me are Rick Gallant, the program manager of our Railroad Operations Safety Branch, and Tom Logan, a

supervisor for Southern California.

CHAIRMAN HIGGINS: Thank you. Good morning.

Southern California Rail Authority?

MR. FEREE: Member Higgins, my name is Gray Crary; I'm the Assistant Executive Officer for Metrolink. I'm here replacing Ed Pedersen, who has been involved, but has been sick, back in Los Angeles. At our table is John Hiernster and Marilyn Bacon, legal counsel.

CHAIRMAN HIGGINS: Okay, thank you. Connex Railroad.

MR. McDONALD: Good morning, Member Higgins. My name's Tommy McDonald. I'm the general manager for Connex Railroad. I'll be the spokesperson. At the table with me is Mr. Jefferson Schohet and Mr. Chris Young, who are my attorneys.

CHAIRMAN HIGGINS: Okay, thank you.

Union Pacific?

MR. GRIMALLA: Good morning, Madam Chairwoman. I'm Robert Grimalla with Union Pacific Railroad, our Chief Safety Officer. At the table with me today are Larry Breeden, our General Manager of Operating Practices; Jeff Young, our VP of Transportation Systems; and Adrian Randolph, our general solicitor.

CHAIRMAN HIGGINS: Thank you. And United Transportation Union?

MR. CUMBY: Good morning, Member Higgins. Jim Cumby, I'll be the spokesperson for the United Transportation Union, and

with me is Joe Szabo, our assistant legislator.

CHAIRMAN HIGGINS: Brotherhood of Locomotive Engineers and Trainmen.

MR. WALPERT: Yes, good morning. I'm Bill Walpert, the National Secretary/Treasurer of the BLET and also chairman of our Safety Task Force. I have here with me Tom Panrola (ph.), who is assistant to the president. I also have Ben Blissett, who's the Assistant Safety Task Force Director. I have Scott Palmer, who is the Oregon State Legislative Board Chairman and also assisted in the accident investigation with the NTSB. And also with me, I have Tim Smith, the chairman of the California State Legislative Board, and our Associate Safety Task Force Member, Carl Fields.

CHAIRMAN HIGGINS: Thank you. Mass. Electric Construction Company.

MR. ROBERTS: Good morning. I'm Thomas Roberts. I am a signal supervisor for the Mass. Electric Construction Company and with me today I have Jim Schneider. He's our counsel with our parent corporation, Kiewit Corporation.

CHAIRMAN HIGGINS: And the City of Los Angeles.

MR. QUINTANAR: Good morning. My name is John Quintanar. I'm the chief with the LA City Fire Department. I'm representing LA City today.

CHAIRMAN HIGGINS: Okay. Thank you very much. At this time, I will call on the Hearing Officer to describe the exhibits to be used during the hearing. Mr. Stancil?

HEARING OFFICER STANCIL: Thank you, Madam Chairman. The exhibits for this hearing are organized in seven separate groups. Group 1 contains administrative exhibits 1(a) through 1(f) and includes the Order of Hearing, designation of the chairman of the Board of Inquiry, Notice of Public Hearing, and designation of hearing officer.

(Whereupon, the documents referred to as NTSB Group 1 Exhibits 1(a) through 1(f) were marked for identification.)

HEARING OFFICER STANCIL: Group 2 exhibits contain the train signal system related items 2(a) through 2(v). The exhibits in this group begin with the NTSB group chairman's factual report. The remaining exhibits in this group, 2(b) through 2(v) include an overview of the track route and signal system; recorded signal data; dispatch center data logs and screen shots; pre- and post-accident signal and switch testing records; Metrolink instructions governing the maintenance, inspection and testing of signal systems; Metrolink signal and switch trouble tickets for the six-month period prior to the accident; post-accident testing of radios and communication systems; and federal regulations relating to inspection, maintenance and repair of signal and train control systems and radio communications.

(Whereupon, the documents referred to as NTSB Group 2

Exhibits 2(a) through 2(v) were marked for identification.)

HEARING OFFICER STANCIL: Group 3 contains operation rules related exhibits, 3(a) through 3(w). This group includes the NTSB group chairman's factual report followed by an event log prepared by the Safety Board that depicts various operation parameters of the Metrolink locomotive leading to the time of the accident; the remaining exhibits of the General Code of Operating Rules, Metrolink and Connex notices, additions and revisions to the General Code of Operating Rules pertaining to the use of electronic devices, duties of crew members, authorized persons within a control compartment and other rules.

Group 3 also contains certain federal operating rule regulations; FRA Emergency Order Number 26; a Brotherhood of Locomotive Engineers and Trainmen and United Transportation Union petition for review of Emergency Order 26; and California Public Utilities Commission Resolution SX-88, prohibiting the use of certain electronic devices by train crews. Group 3 further excerpts of contracts, operational testing and inspection programs, and the results of federal, state and railroad oversight inspections. Finally, this group contains the Federal Railroad Administration's response to the NTSB Safety Recommendation R-03-1 pertaining to the use of cellular telephones by on-duty railroad operating employees.

(Whereupon, the documents

referred to as NTSB Group 3
Exhibits 3(a) through 3(w) were
marked for identification.)

HEARING OFFICER STANCIL: Exhibit 4(a) consists of the NTSB Human Performance Group chairman's factual report.

(Whereupon, the document
referred to as NTSB
Exhibit 4(a) was marked for
identification.)

HEARING OFFICER STANCIL: Group 5 exhibits relate to positive train control and consist of Exhibits 5(a), excerpts of the Rail Safety Improvement Act of 2008, and Exhibit 5(b), a Union Pacific Railroad presentation describing their positive train control system and implementation plan.

(Whereupon, the documents
referred to as NTSB Group 5
Exhibits 5(a) and 5(b) were
marked for identification.)

HEARING OFFICER STANCIL: Group 7 contains photographic Exhibits 7(a) through 7(f). These exhibits consist of photographs of the accident scene, track switch and signals.

(Whereupon, the documents
referred to as NTSB Group 7
Exhibits 7(a) through 7(f) were
marked for identification.)

HEARING OFFICER STANCIL: These exhibits were accepted into the docket at the time of the pre-hearing conference on February 25th, 2009.

(Whereupon, the documents referred to as NTSB Group Exhibits 1(a) through 1(f), 2(a) through 2(v), 3(a) through 3(w), 4(a), 5(a) and 5(b), and 7(a) through 7(f) were previously received into evidence.)

HEARING OFFICER STANCIL: The following Group 6 exhibits have been entered into the record today. Exhibit 6(a), cellular/wireless device records factual report, Metrolink engineer. Exhibit 6(b), cellular/wireless device records factual report, Union Pacific conductor. Exhibit 6(c), onboard video recording, group chairman's factual report. Exhibit 6(d), time correlation study.

(Whereupon, the documents referred to as NTSB Group 6 Exhibits 6(a) through 6(d) were marked for identification and received into evidence.)

HEARING OFFICER STANCIL: Madam Chairman, at this time we have two additional exhibits the staff would like to enter into the record. The first exhibit is NTSB Safety Recommendation

R-05-10, Recommendation Report.

CHAIRMAN HIGGINS: Thank you. Mr. Stancil, all these new exhibits have been distributed to the parties in the Board of Inquiry?

HEARING OFFICER STANCIL: No, they have not yet. They will be once -- if you agree to enter in the exhibits.

CHAIRMAN HIGGINS: I agree to enter them.

HEARING OFFICER STANCIL: Okay.

CHAIRMAN HIGGINS: Okay, thank you.

HEARING OFFICER STANCIL: Okay, I'll mark that exhibit Exhibit 3(x), NTSB Safety Recommendation R-05-10, Recommendation Report.

(Whereupon, the document referred to as NTSB Exhibit 3(x) was marked for identification and received into evidence.)

HEARING OFFICER STANCIL: The second exhibit is identified as Federal Railroad Administration response of May 16th, 2006 to NTSB Safety Recommendation R-05-10 to require train crews to call signal indications over the radio and the NTSB reply dated November 15th, 2006.

CHAIRMAN HIGGINS: We will also enter this into the docket.

HEARING OFFICER STANCIL: Okay. I'll identify that as

Exhibit 3(y). Again, it is the Federal Railroad Administration response of May 16th, 2006 to NTSB Safety Recommendation R-05-10 to require train crews to call signal indications over the radio and the NTSB reply November 15th, 2006.

(Whereupon, the documents referred to as NTSB Exhibit 3(y) were marked for identification and received into evidence.)

HEARING OFFICER STANCIL: Madam Chairman, this concludes the introduction of exhibits.

CHAIRMAN HIGGINS: Thank you. At this point, we will have a description of the accident by Investigator-in-Charge, Mr. Wayne Workman.

PANEL 1 PRESENTATION BY MR. WORKMAN

MR. WORKMAN: Good morning, Member Higgins and members of the Board of Inquiry. On Friday, September 12, 2008, about 4:22 p.m., a westbound Metrolink passenger train collided head on with an eastbound Union Pacific freight train in a curve near Chatsworth, California. It was daylight and sky conditions were clear at the time of the accident.

(Slide.)

MR. WORKMAN: This photo was taken the day of the accident. There were 25 fatalities as a result of the collision, including the locomotive engineer of the Metrolink train and

passengers occupying the cars behind the locomotive. The Safety Board launched a Go Team to Chatsworth and I am the Investigator-In-Charge for the accident. Member Higgins accompanied the Go Team to the accident site. The on-scene portion of the investigation lasted nine days, starting on the day of the accident and continuing until Saturday, September 20, 2008. Parties to the investigation include the Federal Railroad Administration; the California Public Utilities Commission; Los Angeles Fire and Rescue; the Los Angeles Police Department; Metrolink; Connex Railroad, a Metrolink contractor; the Mass. Electric Construction Company, a Metrolink contractor; Union Pacific Railroad; the United Transportation Union; the Brotherhood of Locomotive Engineers and Trainman; and Bombardier, Inc., the rail passenger car manufacturer.

I will address the following topics in this presentation: mechanical and track evidence; train movements and signal indications; the dispatch plan for the trains; track switch damage; engineer radio callouts and post-accident radio testing; and animation of the accident sequence. The last four topics that I will briefly address will also be further explored during the hearing.

Those topics include signal testing, cell phone use by crews, allowing unauthorized persons in the locomotive cab, and drug and alcohol test results. Although the Safety Board's investigation is still ongoing, no evidence of any mechanical

anomalies was found that would affect the safe operation of either train involved in the accident. The brakes of both trains were inspected and tested to the maximum extent possible after the accident and no significant issues have been noted. No evidence of track problems has been identified. The investigation has examined in detail the movement of each train and the signal indications that were presented to each train.

(Slide.)

MR. WORKMAN: Recorded data were gathered from multiple sources as shown in this slide: Metrolink's dispatch center, wayside signal equipment, locomotive event recorders and forward video from the UP train. There was damage to the switch at Control Point Topanga that was consistent with the Metrolink train operating through the switch while it was lined to direct the UP train into the siding track. All of the evidence is consistent with the Metrolink train engineer failing to stop at a red signal and then continuing along the main track that was reserved for the UP train.

(Slide.)

MR. WORKMAN: This slide shows the top view of the accident area. The accident occurred in single main track territory, therefore in order for the trains to pass each other; one train had to enter a siding track while the other stayed on the main track. Wayside signals are displayed to train operators to provide advance notice when they are required to slow or stop

their train. The system relies upon the proper response by the train operator to the wayside signals. There is no positive train control system on this line that would enforce train movements in accordance with the signal system. In this case the train dispatcher arranged the signals and aligned the track switch for the trains to pass at the north end of the siding at Control Point Topanga. The UP train was to follow the green route into the siding and the Metrolink train was to stop and wait on the main track at the red stop signal at Topanga until the UP train had entered the siding and the red signal was upgraded to a more favorable indication by the train dispatcher.

However, physical evidence and recorded data show that the Metrolink train did not stop at the red signal at Control Point Topanga. Instead, it went past the signal and traveled around the curve on the main track, which at that time was reserved for the UP freight train. The Metrolink train struck the UP train before it could reach the siding at Topanga. The UP freight train was just exiting a tunnel as it entered the curve where the accident occurred.

Post-accident sight distance testing indicated that the trains were visible to each other only for about five seconds before the collision. Data from the event recorders indicate that the Metrolink train was traveling about 42 miles per hour and the UP train was traveling about 41 miles per hour just before impact. The signal presented several indications to the Metrolink and UP

trains in advance of the accident. At Control Point Bernson, lower right, the Metrolink train received a flashing yellow over red advance approach signal which tells the engineer to proceed and be prepared to stop at the second signal. This is confirmed by a recording of the engineer calling out the signal over the radio and by recorded data from the train dispatch and signal systems. At Control Point Davis, upper left, the UP train received a green clear signal which indicated that the track was clear to proceed. The UP lead locomotive had a forward facing camera that recorded the signal indication. Train dispatch data also confirmed this signal indication. Just before reaching Chatsworth Station, the Metrolink train received a solid yellow approach signal which tells the engineer to proceed and be prepared to stop at the next signal.

The Metrolink train made a 57-second passenger stop at Chatsworth Station. At Intermediate Signal 4426, the UP train received a double yellow approach diverging signal which tells the engineer to proceed and be prepared to divert off the main track at the next signal; in this case, to enter the siding at Control Point Topanga. The train dispatcher and signal system recorded data from the day of the accident show there was a red stop signal indication at Topanga for the Metrolink train and that the switch was properly lined for the UP movement into the siding.

(Slide.)

MR. WORKMAN: This slide shows the train dispatcher's

display screen about two minutes before the accident. Control Point Topanga appears in the lower left corner circled in yellow. Trains occupying a block are shown in red. The UP train, LOF65, appears on the middle line and was properly routed to move from the main track into the siding, shaded in green, at Control Point Topanga in the lower left. The Metrolink train, identified in red, is on the main track approaching Topanga. The pink arrow points to the dispatcher's indication that the route was not lined for the Metrolink train to proceed beyond Topanga. Next we will look at the visibility of the signal at Control Point Topanga. (Slide.)

MR. WORKMAN: This picture is taken from Chatsworth Station looking toward Control Point Topanga. The track between Chatsworth Station and the Topanga signal is straight and clear of obstructions. It is about one mile from the station to the signal. The Safety Board interviewed the Metrolink conductor and three witnesses who were at the Chatsworth Station when the accident train departed and they each reported that they saw a green clear indication that they presumed to be the Topanga signal.

However, sight distance tests conducted after the accident showed that the Topanga red stop signal was not clearly visible until the train left the station and moved about 950 feet closer to the signal. Extensive testing and examination of all recorded data show that the track and signal systems were

functioning properly at the time of the accident. Recorded data from the Metrolink dispatch center and wayside signal equipment show that the signals were set about 4:10 p.m., which is about six minutes before the Metrolink train approached the area.

(Slide.)

MR. WORKMAN: This slide shows a photograph of the red signal at Topanga. Recorded data shows that the signal at Control Point Topanga displayed a red stop indication for the entire time that the Metrolink train was at the Chatsworth Station.

(Slide.)

MR. WORKMAN: This slide shows the switch at Control Point Topanga. The Metrolink train traveled, as shown. Upon arrival, investigators inspected the switch machine at Topanga. The yellow circle on the left of the slide shows the switch was found with the point split in mid-stroke, which indicates it was run through in the trailing position, which was the direction the Metrolink train was traveling. Visual inspection also showed that the switch machine throw rod, located below the rail, was bent and damaged in the area as indicated by the orange circle.

Physical evidence indicates that the Metrolink train ran through the switch while it was properly lined for the UP train to move into the siding. Metrolink's operating rules require the engineer to call out all signals on the radio. The Metrolink dispatch radio recordings captured the Metrolink engineer calling a flashing yellow advance approach signal at Control Point

Bernson. There was no recording of the engineer calling the solid yellow approach signal just before Chatsworth Station; there was also no recording of the engineer calling out the red stop signal at Control Point Topanga. However, when the Metrolink train passed Topanga, a wayside defect detector broadcast a radio message that was captured on the dispatch center radio recording. Post-accident radio testing did not indicate any dead zones where locomotive radio broadcasts could not be received and recorded by the dispatch center. The UP train lead locomotive had an onboard video camera that recorded the scene forward of the locomotive cab.

The UP camera recorded a green clear indication at the Control Point Davis signal allowing the train to proceed. The camera also recorded a double yellow approach diverging indication at Intermediate Signal 4426, which told the engineer to proceed and prepared to divert off the main track into the siding at Control Point Topanga. A significant issue in this accident is cell phone usage by train crews.

A Metrolink rule in effect at the time of the accident stated that employees on duty must not use cell phones when operating the controls of moving equipment except in emergencies. The investigation collected records for the Metrolink engineer's cell phone calls and text messages from the service provider. The records show that the engineer had sent and received numerous text messages while he was on duty. The last text message was sent

shortly before the accident while the train was in motion.
(Slide.)

MR. WORKMAN: This slide shows the extent of the Metrolink engineer's cell phone texting activity on the day of the accident. The Metrolink engineer reported for duty at 5:54 a.m. Between 6:44 and 9:26 a.m., while he was responsible for operating trains, the engineer sent and received 30 text messages. During the afternoon shift, between 3:35 p.m. and the accident at 4:22:23, the engineer sent six messages to and received seven messages from the same person.

The engineer's cell phone activity for the day totaled 95 text messages; 43 of those were while the engineer was on duty. We also examined the Metrolink engineer's cell phone activities for the time he was scheduled to operate trains in the days before the accident, which occurred on a Friday. On the Tuesday, Wednesday and Thursday before the accident, the Metrolink engineer sent a total of 136 text messages and received 114 during the time he was scheduled to operate trains. The Metrolink engineer's text message records also indicate he had previously allowed unauthorized persons into the cab of the locomotive on the Tuesday prior to the accident.

One of those individuals was allowed to sit at the controls while the train was operating. That person was also given the same opportunity on Wednesday. The engineer's text messages on the day of the accident indicate that he intended to

allow another person to ride in the cab and run the locomotive later that evening. Safety Board interviews have confirmed these actions. Both company and federal rules prohibit these activities. It was also reported to investigators that the conductor of the UP train had been using his cell phone shortly before the accident. Records were collected for the conductor's phone that show he made and received several cell phone text messages during the time he was on duty and while his train was operating. Phone records show that his last outgoing text message was recorded at 4:20 p.m. at about the time his train exited the tunnel and passed the signal at 4426.

Pursuant to federal regulations, toxicological specimens were obtained from the engineer and conductor of the Metrolink train and the engineer, conductor and brakeman of the UP train. The UP conductor tested for marijuana in both his blood and urine specimens. Test results were negative for the presence of drugs and alcohol for all crew members except for the UP conductor.

I will next show a video animation of the accident sequence that will show the movement of each train. Train motion was derived from the data captured by the event recorders onboard each locomotive. Signal indications were derived from data recorded by the dispatch center and signal systems. The Safety Board has correlated the cell phone records to determine, as precisely as possible, the exact times of the Metrolink engineer's text messages in relation to his operation of the train. The time

and length of each text message that was received and sent by the engineer's cell phone is overlaid onto the animation. This two-dimensional animation displays the pre-accident operations of Metrolink Passenger Train 111 and Union Pacific freight train LOF65-12, which collided head-on in a curve near Chatsworth, California on September 12, 2008. This accident reconstruction is based on information obtained from the Metrolink dispatch center, wayside signal equipment, locomotive video and event recorders, and assessment of the physical damage to the track and cell phone records. The accident occurred on track owned and maintained by Metrolink and approximately six miles of track are shown in the animation.

The accident occurred in daylight conditions. Weather and visibility at the time of the accident are not depicted. The time of day clock at the bottom of the screen is depicted as text and the clock runs in real time from 4:16:37 p.m. until the accident at 4:22:23 p.m. The legend in the lower left shows the representations for each train with the Metrolink train in orange and the Union Pacific train in white. The Union Pacific train traveled through three tunnels that are shown as darkened, semi-transparent areas in the animation.

The representations of signals shown in this animation are only the signals visible to each train that governed operation of that train. There are other signals in the area that are not shown in this animation. As a train passes a signal and enters

the block, the signal turns red. Refer to the Signals Group factual report for complete signal locations and time history. The text boxes in the upper portion of the screen show text messages sent and received during the timeframe of the animation. The times at which cell phone text messages appear are the time at which the messages were recorded at the phone service provider's network. There is a time delay between the time recorded and the time a message is actually sent, received, on the phone. All recorded data and physical evidence in this accident are consistent with the Metrolink train failing to stop at a red signal at Topanga and continuing along the main track that was reserved for the Union Pacific train. Please play the animation.

(Video animation played.)

UNIDENTIFIED SPEAKER: This animation shows the train movements leading up to the accident that occurred in Chatsworth, California on September 12, 2008. It is based on data obtained from the Metrolink dispatch center, wayside signal equipment and locomotive video and event recorders, as well as an assessment of the physical damage to the track. In the lower right, you can see the Metrolink train moving as it approaches the signal at Control Point Bernson.

In the upper left, you can see the Union Pacific train in white as it approaches the signal at Control Point Davis. You will note that once a train passes a signal and enters the next block, that signal will turn red. The Union Pacific train is

traveling about 47 miles per hour as it passes Control Point Davis on a green clear signal indication. As the Metrolink train approaches the signal in Bernson, the train is traveling about 68 miles per hour.

MR. WORKMAN: The Metrolink train engineer correctly calls out flashing yellow Bernson over the radio. This signal is an advance approach which tells the engineer to proceed and be prepared to stop at the second signal. As the Metrolink train passes the Bernson signal, the engineer begins to reduce the train speed. At this point, the Union Pacific train enters a tunnel. Just before the Metrolink train arrives at the Chatsworth Station, it passes a solid yellow approach signal at 4:18:41 p.m. which tells the engineer to proceed and be prepared to stop at the next signal.

There is no recording of the engineer calling out this signal or any other signal that follows. By this time, the engineer has reduced the train speed to about 48 miles per hour. The Metrolink train stops at Chatsworth Station for about 57 seconds, allowing passengers to exit and board the train. About this time, the Union Pacific train is in a tunnel approaching a double yellow signal, 4426.

This is an approach diverging indication which means to proceed and prepared to divert off the main track at the next signal which would be into the siding at Control Point Topanga. At 4:20:07, the Metrolink engineer moves the throttle to the

Number 2 position and releases the train brake. Phone records indicate that the Union Pacific train conductor sends an outgoing text message about the same time that his train passes signal 4426. As the Metrolink train approaches Devonshire Street, the engineer activates the locomotive bell for 42 seconds to warn the public. He also sounds the horn for 11 seconds before reaching the Devonshire Street grade crossing. About 4:21:03, phone records indicate that the Metrolink engineer receives a text message as the train continues to accelerate. Twenty second later, the engineer activates the bell for 19 seconds and sounds the horn for the Chatsworth Street grade crossing.

The Metrolink train is now traveling about 52 miles per hour. There is a speed restriction of 40 miles per hour in the upcoming curve. The engineer rapidly moves the throttle from Number 8 to 5 then 6 then 7 back to 3 and finally, to 4. He applies a brake application and train speed begins to decrease. The Metrolink train passes the signal at Topanga. It is displaying a red stop indication. Phone records show that by 4:22:01, the engineer has sent a text message in response to the message he just received.

The Metrolink train operates through the track switch at Topanga which was lined for the Union Pacific train to enter the siding. At 4:22:23 p.m., the trains collide in a six degree curve. The trains were visible to each other in the curve for only about five seconds. Event recorder data indicate there was

no braking on the Metrolink train, but the emergency brakes on the Union Pacific train were activated about two seconds before the collision. The Metrolink train was traveling about 42 miles per hour and the Union Pacific train was traveling about 41 miles per hour at the time of impact. All recorded data and physical evidence in this accident are consistent with the Metrolink train failing to stop at the red signal at Topanga and continuing along the main track that was reserved for the Union Pacific train. Member Higgins and members of the Board of Inquiry, this concludes my opening statement.

CHAIRMAN HIGGINS: Thank you, Mr. Workman. It was a very thorough and enlightening presentation. I will now call on Mr. Stancil to call and qualify the first witnesses.

PANEL 2 WITNESSES SWORN AND QUALIFIED

HEARING OFFICER STANCIL: Would Mr. Howard Cox and Mr. Dan Guerrero please take the witness stand? Mr. Cox, would you please raise your right hand?

(Witness sworn.)

HEARING OFFICER STANCIL: Mr. Cox, would you please state your full name?

MR. COX: Howard Eugene Cox.

HEARING OFFICER STANCIL: And your current employer, sir?

MR. COX: Southern California Regional Rail Authority, Metrolink.

HEARING OFFICER STANCIL: Could you speak a little closer to the microphone, please?

MR. COX: Southern California Regional Rail Authority, Metrolink.

HEARING OFFICER STANCIL: And your title there is?

MR. COX: District Communications and Signal Manager.

CHAIRMAN HIGGINS: It's hard to hear. Could you all please speak into the microphone?

MR. COX: Did you get that? District Signal and Communications Manager.

HEARING OFFICER STANCIL: Okay. And what is your company address?

MR. COX: 186 University Parkway, Pomona, California.

HEARING OFFICER STANCIL: And how long have you been in your current position, sir?

MR. COX: Approximately nine years.

HEARING OFFICER STANCIL: What are your duties and responsibilities?

MR. COX: I'm responsible for the oversight of the maintenance testing and inspection of the signal systems on the Valley, Ventura and River subdivision of the Metrolink.

HEARING OFFICER STANCIL: And what are your specific duties and responsibilities?

MR. COX: I over see the contractor, Mass. Electric, who is responsible for this testing. I review the tests they perform.

I do field inspections to ensure they're meeting their contractual requirements.

HEARING OFFICER STANCIL: Okay. And how long have you been in the railroad industry?

MR. COX: About 32 years.

HEARING OFFICER STANCIL: Can you give us a brief description of the positions that you've held and your duties and responsibilities in those positions?

MR. COX: I held Assistant Signalman, which was learning -- was my initial position with Southern Pacific. I moved on to Signalman, Signal Maintainer, Lead Signalman, Signal Foreman, Signal Inspector. I then came to the Metrolink initially as a signal supervisor and then took this position with the Authority as a District Signal Manager.

HEARING OFFICER STANCIL: Thank you, sir.
Mr. Dan Guerrero, would you please raise your right hand?

(Witness sworn.)

HEARING OFFICER STANCIL: Mr. Guerrero, would you please give us your full name?

MR. GUERRERO: Dan Cordova Guerrero.

HEARING OFFICER STANCIL: And could you spell your last name, please?

MR. GUERRERO: G-u-e-double r-e-r-o.

HEARING OFFICER STANCIL: Your current employer?

MR. GUERRERO: Southern California Regional Rail

Authority.

HEARING OFFICER STANCIL: And what is your title there?

MR. GUERRERO: I am Manager of Communications Signal Engineering.

HEARING OFFICER STANCIL: And what is your company address?

MR. GUERRERO: 700 South Flower Street, 26th Floor, Los Angeles, California.

HEARING OFFICER STANCIL: How long have you been in your current position, sir?

MR. GUERRERO: I transitioned from a title change in a restructuring about six months ago, eight months ago. My former position was Manager, Signals and Communications.

HEARING OFFICER STANCIL: I'm sorry? Could you speak up, sir?

MR. GUERRERO: I said my former position was Manager, Signals and Communications.

HEARING OFFICER STANCIL: Okay. And what are your specific duties and responsibilities?

MR. GUERRERO: I manage the design and engineering consultant contracts and internal design staff, engineering and design staff. I also participate in the development of ongoing projects with the engineering as far as it relates to the C and S for both highway rail grade crossways and wayside.

HEARING OFFICER STANCIL: And what is the length of

employment, of your employment, in the railroad industry?

MR. GUERRERO: Thirty-seven years.

HEARING OFFICER STANCIL: Okay. Could you give us a brief description of all the positions that you've held during your tenure?

MR. GUERRERO: Like Mr. Cox, I entered as a signal helper, then assistant signal person. The Signalman, Signal Foreman, CTC Maintenance Foreman, Signal Supervisor. I moved to Southern California Regional Rail Authority as a System Maintenance Manager. I was promoted to Manager, Signals and Communications and now I'm currently the manager of C and S Engineering.

HEARING OFFICER STANCIL: Thank you, sir. Madam Chairman, the witnesses are qualified. I will turn the questioning over to Mr. Timothy DePaepe on the Technical Panel.

CHAIRMAN HIGGINS: Thank you. Mr. DePaepe.

TECHNICAL PANEL QUESTIONS

MR. DePAEPE: Good morning, Member Higgins and members of the Board of Inquiry. Mr. Guerrero, let's start off giving a general overview of the Metrolink system. Approximately how much single and double track have they -- has Metrolink has on their entire system?

MR. GUERRERO: Metrolink has approximately 360 track miles; 180 miles of that is double track.

MR. DePAEPE: How many railroads operate over

Metrolink's trackage?

MR. GUERRERO: We have 149 weekday/78 weekend trains, approximately 36 daily Amtrak inner-city trains, 22 in-city Coaster weekday trains, in between 70 and 80 UP railroad and B&S trains daily, and we have a passenger load of approximately 43,000 passengers.

MR. DePAEPE: Is that on a daily basis or is that trains during the week?

MR. GUERRERO: That's on a daily basis. It does vary from time to time.

MR. DePAEPE: Okay, thank you. Would you please describe the type of signal system that is in use on the subdivision where the accident occurred?

MR. GUERRERO: The signal system is a centralized traffic control signal system that utilizes the GE transportation system, Vital Harmon Logic controller at the CP Topanga location. At the crossings at Chatsworth, I believe we have an HXP-3 crossing processor and at Devonshire, it's a Safetran GCP 3000 processor. The intermediate signals and control point information from control point to control point is coded track generated from an EC4 Gatts (ph.) product, as well.

MR. DePAEPE: Thank you. Could you please describe some of the vital features of this signal system?

MR. GUERRERO: Some of the vital features incorporated are the failsafe design that we incorporate into the system; the

dual processors that are incorporated into the processor equipment, themselves; the closed circuit principle that is used in the circuitry and the failsafe approach to designing the system, itself.

MR. DePAEPE: How does the train dispatching system work? How does this system respond to train dispatcher commands?

MR. GUERRERO: When a command is received from the office, the processor receives that information. There are -- internally, there are checks within the logic that validate the condition of the field. If the condition in the field is such that it will allow a switch to move or a signal to clear and then the function is performed, that information is then sent back to the office.

MR. DePAEPE: Thank you, sir. I'd like you to look at Exhibit 2(i), Page 1, which shows Screen 1, which is a screen snapshot of the dispatcher monitor on the day of the accident. It's up on screen right now. Can you briefly describe to me what this shows and what this would tell a dispatcher at that time?

MR. GUERRERO: This shows Metrolink 111 at CP Elicker actually traversing over CP Ramer with the line -- westbound to Chatsworth to Topanga. Amtrak 784 is on the Number 2 Main heading eastbound and is at Van Nuys Station, has a line up eastbound to Burbank Airport or CP Lockheed. The LOF65 is between CP Strathern and CP Santa Susana with a line up to CP Davis.

MR. DePAEPE: Thank you. I'd like to now go to

Exhibit 2(i), Screens 2 and 3, which are further points in time that the dispatch was seeing on his screen at that time of day.

MR. GUERRERO: This screen depicts the Metrolink --

MR. DePAEPE: Excuse me, Mr. Guerrero, let's concentrate on Metrolink 111 and the LOF. We can leave the other trains out for the discussion right now, thank you.

MR. GUERRERO: Yes, sir. Metrolink 111 has a line up to CP Topanga. The LOF65 has a line up into the siding at CP Topanga up to CP Bernson.

MR. DePAEPE: On the lower line on the lower left hand side, you see where Metrolink 111 is designated in red. Right in front of it is a green circle with a triangle behind it. What does that green circle with the triangle mean?

MR. GUERRERO: It means that the signal at that location is clear for that direction of traffic.

MR. DePAEPE: What does the -- that, as you proceed to the left as you're looking at the screen, you'll see that there is a signal or a gray circle with a triangle. What does that mean to the dispatcher when he's looking at the board?

MR. GUERRERO: That represents a signal at stop.

MR. DePAEPE: Okay, thank you. Let's look at Screen 3 at this time. Can you describe what this screen shows for the Metrolink 111 and the LOF65?

MR. GUERRERO: Metrolink 111 is between CP Topanga and CP Bernson. The LOF65 was left CP Davis with a line up into the

siding at Chatsworth to CP Bernson.

MR. DePAEPE: At this time, let's look at Screen 4. Could you explain what this screen shot of the dispatcher's screen represents?

MR. GUERRERO: Metrolink 111 is between CP Topanga and CP Bernson on the approach to CP Topanga. It also shows LOF65 on the approach to the CP Topanga control point and lined into the siding.

MR. DePAEPE: Could you please tell us what that green signal with the triangle facing to the right that also points down into the side track at CP Topanga, what does that tell the dispatcher?

MR. GUERRERO: The green signal with the triangle, is that --

MR. DePAEPE: Yes, sir.

MR. GUERRERO: That represents a clear signal into the siding.

MR. DePAEPE: A clear signal for which train?

MR. GUERRERO: For the LOF65.

MR. DePAEPE: Thank you. Let's look at Screen 5 at this time. At this point, what happened to that signal on the lower left hand side? It now appears to be gray. What does that tell a dispatcher?

MR. GUERRERO: What this represents is the signal has been placed to stop with an occupancy in the detector circuit at

CP Topanga.

MR. DePAEPE: When you say the detector circuit, are you talking one track circuit or multiple track circuits within the interlocking at CP Topanga?

MR. GUERRERO: Those are multiple track circuits within the -- well, that's one track circuit, in essence, at CP Topanga.

MR. DePAEPE: Okay. Let's look at Screen 6. Can you explain what the dispatcher is seeing on his board right now?

MR. GUERRERO: The dispatcher is seeing the signal being slided off at CP Topanga by that occupancy in the CP Topanga detector section.

MR. DePAEPE: Let's look at Screen 7. Could you explain why the color has changed for the Metrolink 111 designation and what that might indicate to a dispatcher?

MR. GUERRERO: The Metrolink 111 occupancy has -- is no longer there. It indicates that it has moved and the Metrolink 111 ID has not moved, so it means the train is no longer present.

MR. DePAEPE: Okay. Let's look at Screen 8. Could you explain why the Metrolink 111 designation has changed colors to magenta?

MR. GUERRERO: For the same reason. The train has been lost, if you will.

MR. DePAEPE: Would it be appropriate that the machine or the system is trying to locate the Metrolink 111 at this point?

Or does that know where Metrolink 111 is at this point?

MR. GUERRERO: It does not know where it is.

MR. DePAEPE: Okay. Let's look at Screen 9. The lower left hand side, it's shown on the previous screens that the track circuit was occupied on the circuit for Topanga. Now it appears to be white and a red arrow has presented itself where the power switch machine is located. Can you explain what that means for the dispatcher?

MR. GUERRERO: What this represents is that the detector section at CP Topanga has been unoccupied.

MR. DePAEPE: What does that red arrow represent?

MR. GUERRERO: That is an office locking device in the dispatcher's office that represents a five second switch lock on their screen.

MR. DePAEPE: Does that tell him that that switch is locked in line for the side track anymore or --

MR. GUERRERO: No. It tells him that there's a five second automatic timing device that --

MR. DePAEPE: Okay.

MR. GUERRERO: It's internal to the system.

MR. DePAEPE: All right, thank you. That's all the questions I have for you at this time, Mr. Guerrero. At this point, I would like to move on to Mr. Cox. Mr. Cox, good morning, sir.

MR. COX: Good morning.

MR. DePAEPE: The first question's going to reference Exhibit 7(e), which is a picture of the Topanga switch and the question I have is when you arrived at Control Point Topanga, what was the condition of the power switch machine?

MR. COX: The power switch machine, itself, appeared to be in good condition.

MR. DePAEPE: Can you move the mike closer, sir? I'm having difficulty hearing you.

MR. COX: Can you hear me now?

MR. DePAEPE: Yes, sir.

MR. COX: The power switch machine, itself, at CP Topanga appeared to be in good condition.

MR. DePAEPE: Was there any damage to the track or to the rods that connect the power switch machine to the track?

MR. COX: Yes, sir. The basket rod and the throw rod showed signs of being bent. And let me correct that, too. They were bent.

MR. DePAEPE: What were the conditions of the points for the switch machine?

MR. COX: The points had moved to approximately the center position.

MR. DePAEPE: What did that indicate to you when you were making your inspection after the accident?

MR. COX: That the switch had been run through.

MR. DePAEPE: In what direction, sir?

MR. COX: In a westbound direction from the main track.

MR. DePAEPE: You described some mechanical damage to the rods, I believe you said throw rod, throw rod basket, lock rod. What did you have to do to those parts to repair the switch machine?

MR. COX: It had to be replaced.

MR. DePAEPE: As your signal team inspected the power switch machine, itself, did you find any damage and if so, what did you do to repair it?

MR. COX: Yes. After we were able to open up the switch machine and inspect it internally, the machine was damaged beyond repair and was replaced in it entirety.

MR. DePAEPE: Was that damage consistent with a locked-in-line switch being forced out of alignment?

MR. COX: Yes, sir.

MR. DePAEPE: When you arrived at Control Point Topanga, was there any evidence of tampering with the equipment or vandalism to any of the signal and switch equipment?

MR. COX: No, sir.

MR. DePAEPE: There's discussion about what signal aspects the train saw as they traversed their line ups. Could signal data recorded that could identify signal aspects at a specific time?

MR. COX: Yes, sir.

MR. DePAEPE: In this case, you had signals at

CP Bernson, Intermediate Signal 4451, Control Point Topanga, Intermediate 4426. How is that signal data recorded at those locations?

MR. COX: By internal recording modules within the processor units, themselves.

MR. DePAEPE: Okay, thank you. If the event recorder at these locations, there's a separate recorder at each location, if they lose power, is the recorded data lost?

MR. COX: Not generally. There's a backup battery system for the modules.

MR. DePAEPE: So you have an alternate source of power, an original source of power. If you lose that power, there's a backup battery on the recording system, is that correct?

MR. COX: In most cases.

MR. DePAEPE: If you lose the first power source and then the backup power source, will you lose the data?

MR. COX: To my knowledge, yes.

CHAIRMAN HIGGINS: Sir, it's really difficult to hear. Could you please pull that microphone -- is it --

MR. COX: Is that okay?

CHAIRMAN HIGGINS: You're very soft-spoken and we just --

MR. COX: Is that okay now?

CHAIRMAN HIGGINS: That's better.

MR. COX: Okay.

MR. DePAEPE: Mr. Cox, were you able to retrieve recorded data at Control Point Bernson?

MR. COX: Yes, sir.

MR. DePAEPE: Were you able to retrieve recorded data from Intermediate Signal 4451?

MR. COX: Yes, sir.

MR. DePAEPE: Were you able to retrieve recorded data from Control Point Topanga?

MR. COX: Yes, sir.

MR. DePAEPE: Were you able to retrieve recorded data from Intermediate Signal 4426?

MR. COX: Yes, sir.

MR. DePAEPE: At this point, I want to reference Exhibit 2(d), Page 2, this is a portion of the recorded data from Control Point Bernson and these were notes by the signal team. Explain what the notations are written on this piece of paper, Mr. Cox.

MR. COX: These were notes made by the signal team to clarify the data that was recorded.

MR. DePAEPE: All right, Control Point Bernson is where there is a signal for that control point. According to this data, where would you find the information that would indicate the aspect of the signal at Bernson and this would be a signal for the Metrolink 111 train?

MR. COX: If you look at Line B-47, you'll see where we

-- where the indication changes there and that indicates that the signal was a flashing yellow. The actual nomenclature would be FMFYEC.

MR. DePAEPE: So when you get this data, it's in what appears to be a one and zero format and then you correlate it to the information above in order to determine what has changed in the signal information, is that correct?

MR. COX: That is correct.

MR. DePAEPE: And according to this data, the recorded data of the event recorder indicated that the aspect at Control Point Bernson was a flashing yellow, is that correct?

MR. COX: That is correct.

MR. DePAEPE: Let's look at Exhibit 2(e) at this time, Page 2, which is the recorded data for Intermediate Signal 4451. This would be the next signal that Metrolink 111 would have encountered as it proceeded west onto main, is that correct?

MR. COX: That is correct.

MR. DePAEPE: On this piece of paper, where does it show you what the aspect was for Signal 4451 on the day of the accident?

MR. COX: It would be at the train stamp marked 16-21-29.

MR. DePAEPE: And what does that tell you?

MR. COX: It tells me the signal displayed was yellow.

MR. DePAEPE: So according to this information that was

downloaded on the day of the accident, this tells you that the signal aspect at Intermediate Signal 4451 was a solid yellow, is that correct?

MR. COX: That is correct.

MR. DePAEPE: Let's move on to Exhibit 2(f). This is the recorded data for Control Point Topanga. I'm looking for Page 10. This part I want to ask a question about how the signal operates as the train is moving on. When the Metrolink 111 train was approaching 4451, when he passed that signal to pull into station at Topanga, by design, what happens to the westbound signal at Topanga?

MR. COX: It would light.

MR. DePAEPE: It would light up. Why?

MR. COX: Because it approached that signal.

MR. DePAEPE: It approached that signal means what?

MR. COX: It means it lights up when the train is on the approach to the signal.

MR. DePAEPE: Okay. So in other words, prior to reaching Intermediate Signal 4451, the signal at Topanga, the westbound signal, was it lit or was it unlit?

MR. COX: It was unlit.

MR. DePAEPE: Okay, thank you. So we're looking on Page 10 here. Here's the downloaded data from Control Point Topanga. Can you tell me where I would look to find where the westbound signal at Topanga would receive the command for

illumination?

MR. COX: Would have been at the time stamp 02:15:08.

MR. DePAEPE: Can you tell me specifically what I'd be looking for?

MR. COX: Yes. You see the WARGE?

MR. DePAEPE: Yes.

MR. COX: The true offset -- these are either true or false and this has come as true now. And the WBRGE has also come up true which indicate that the red bulbs have been lit.

MR. DePAEPE: When you say the red bulbs, for what signal are you talking, the westbound signal on the main track or is there another signal there?

MR. COX: There is a westbound signal in the siding also and both have a lit red.

MR. DePAEPE: So according to this information contained in the event recorder, when the Metrolink 111 passed Intermediate Signal 4451 and occupied the track circuit, that's when these bulbs received illumination to light up and this description, as you stated, WARGE and WBRGE, what does that stand for?

MR. COX: Westbound A red light bulb.

MR. DePAEPE: Okay.

MR. COX: Westbound B signal red light bulb.

MR. DePAEPE: Okay, thank you. When was that recorded data collected for the signal events of the day of the accident?

MR. COX: I believe we started collecting data at about,

on or about the 13th.

MR. DePAEPE: What was done to secure that data between the time of the accident and the arrival of the NTSB?

MR. COX: We had placed seals, physical seals -- they're metal straps -- on all of the locks and door handles so that they cannot be opened. That included all the signals, switches.

MR. DePAEPE: And were they numbered or identified in any way?

MR. COX: They are identified by a number.

MR. DePAEPE: Who is the authority to have those seals removed?

MR. COX: Nobody -- your arrival, sir.

MR. DePAEPE: Okay, thank you. I want to move on to some of the signal tests that were done. First, could you describe who was on the signal group team for the investigation on the day of the accident?

MR. COX: Yes, sir. Yourself, as the NTSB lead investigator for the signal group. We had Mr. David Reed with the Union Pacific Railroad. We had Mr. Ralph Roberts with the FRA. We had Mr. Gerald Mumphry (ph.) with the CPUC. And we had Mr. John McIntire with Mass. Electric.

MR. DePAEPE: I'd like to reference Exhibit 2(r) now. After the track was reconstructed and put -- was released back to the signal group in order to begin signal tests, we began conducting tests that were required by 49 C.F.R Code of Federal

Regulations. I'm going to ask you about some of those tests that were done and the purpose of those tests. One of the required tests is to do an insulation resistant test of the switch and signal cables. Was that test performed?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of that test?

MR. COX: To ensure that the conductors and insulation thereof are in good condition.

MR. DePAEPE: Were switch obstruction and point detector tests performed on the power switch machine in question?

MR. COX: Yes, sir. After it was --

MR. DePAEPE: What were the results of those tests?

MR. COX: It was found operational.

MR. DePAEPE: Were there any exceptions noted?

MR. COX: None.

MR. DePAEPE: Were signal route locking performed at that interlocking?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of signal route locking tests?

MR. COX: To make sure the switch machine can't throw underneath of a train going through the detector and opposing signals cannot be cleared.

MR. DePAEPE: Were signal time locking tests performed?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of that test?

MR. COX: To ensure after a signal's been cleared that you can't line the switch or opposing or conflicting signals against that train -- against that signal for a predetermined set time.

MR. DePAEPE: Were there any exceptions noted to this test?

MR. COX: No, sir.

MR. DePAEPE: What are the purpose of signal indication and switch indication locking tests?

MR. COX: To ensure that the signals, once they're cleared, that they lock the -- in other words, lock the switch and the signal indications are to ensure that the switch is indicating properly in the position it's in.

MR. DePAEPE: Were there any exceptions noted after these tests were performed?

MR. COX: No, sir.

MR. DePAEPE: Did you perform switch contact brake tests?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of that test?

MR. COX: Again, to ensure that the switch is in the position that it is indicating to the dispatcher and to the system that it is in the proper position.

MR. DePAEPE: Were there any exceptions noted when this

test was performed?

MR. COX: No, sir.

MR. DePAEPE: Did you perform the loss shut timer test?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of the loss shut timer test?

MR. COX: To ensure that the switch will not throw underneath the train should a momentary -- so we lose the shut for a predetermined period of time.

MR. DePAEPE: Were there any exceptions noted with this test?

MR. COX: No, sir.

MR. DePAEPE: Did you perform track circuit verification tests?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of that test?

MR. COX: To ensure that the tracks circuits for the system are appropriate to where they are located in the field.

MR. DePAEPE: Did you perform ground tests?

MR. COX: Yes, sir.

MR. DePAEPE: What's the purpose of a ground test?

MR. COX: To make sure we don't have any current that could cause any -- outside of the signal enclosure and cables where they're intended.

MR. DePAEPE: Did you record the operating

characteristic of the relays and the signal lamp voltages?

MR. COX: Yes, we did.

MR. DePAEPE: Were there any exceptions noted when you took those recordings?

MR. COX: No, sir.

MR. DePAEPE: The tests that were performed after the accident, post-accident tests, were they in compliance with the Federal Railroad Administration regulations contained in 49 C.F.R. 236 described as the rules, standards and instructions governing the installation, inspection, maintenance and repair of signal and train control systems, devices and appliances?

MR. COX: Yes, sir.

MR. DePAEPE: To further test the system, did the signal group simulate or reenact the movement of the LOF65-12 and the Metrolink 111?

MR. COX: Yes, sir, we did.

MR. DePAEPE: When you did that test, did you have the dispatcher line up the signal routes the same way they were routed on the day of the accident?

MR. COX: Yes, sir.

MR. DePAEPE: Did you have personnel observing the signal aspects as you simulated the movement of the trains?

MR. COX: Yes, sir.

MR. DePAEPE: Did the signal system operate as designed and intended?

MR. COX: Yes, it did.

MR. DePAEPE: During that simulation, were there any improperly displayed signals during the simulation/reenactment?

MR. COX: No, sir.

MR. DePAEPE: We talked about route locking a little bit earlier. Can you explain briefly for us how when a signal route is lined for a train's movement how the system achieves route locking so that the trains cannot be routed into each other over the same piece of track with clear signals?

MR. COX: Those are logic programs built within the processors at that location -- which when one signal is cleared, it simply will not allow the other signals to clear.

MR. DePAEPE: Okay. So in this instance, the data indicated that the UP train was lined from the single main into the siding at Control Point Topanga and that he had a clear indication signal into that siding. Are the systems designed to line a route on the main line to the westbound movement with a clear signal?

MR. COX: Into the siding? No, sir.

MR. DePAEPE: No, no. For the Metrolink 111 to proceed westward at Topanga, if you had the eastbound movement into the siding clear, route locking, does that prevent the westbound signal from being clear?

MR. COX: Yes, sir.

MR. DePAEPE: Thank you. In an effort to determine if

there was any source of light permeating from the westbound signal Control Point Topanga, were these signals inspected for any damage?

MR. COX: Yes, sir.

MR. DePAEPE: Such as cracks, worn insulation, bullet holes?

MR. COX: Yes, sir.

MR. DePAEPE: And what's the purpose of looking for that?

MR. COX: Make sure there was no foreign light that could have made the signal appear other than what it was.

MR. DePAEPE: In that signal housing, there are three separate lenses. One is for red, one is for yellow, one is green, is that correct?

MR. COX: Yes, sir.

MR. DePAEPE: And you checked to see if there was any alternate source of lighting that could possibly illuminate any of the other lenses, is that correct?

MR. COX: Yes, sir, we did.

MR. DePAEPE: Was there any source of alternate lighting discovered or reflection or --

MR. COX: Nothing found.

MR. DePAEPE: Okay, thank you. Can you tell me what the recorded voltages of the signal lamps at Control Point Topanga were?

MR. COX: Not off the top of my head. We put them in the report. I could read them.

MR. DePAEPE: Can you reference Exhibit 2(a), Page 6 for me, please?

MR. COX: Okay, I'm there.

MR. DePAEPE: Can you tell me what the recorded voltages were for the westbound signal at Control Point Topanga in Paragraph 2, the last sentence, last two sentences?

MR. COX: The 2WA, the voltages for the 2WA signal, which is the signal on the main track, the red lamp was 8.60 volts; the yellow lamp was 8.85 volts; the green lamp was 9.91 volts. The signals in the siding, the voltages were the red lamp had 8.90 volts; the yellow lamp had 8.90 volts; and the green lamp had 8.65 volts.

MR. DePAEPE: These were recorded voltages during the test when we actually -- or when the lamps were actually lit?

MR. COX: That is correct.

MR. DePAEPE: All right. Are those lamp voltages consistent with the policies and standards effective on Metrolink?

MR. COX: Yes, sir.

MR. DePAEPE: Okay, thank you. I'd like to go to Exhibit 2(h) at this time, Page 2. Prior to the accident, when was the last time that the westbound signal at Control Point Topanga was cleared or green? Now, Exhibit 2(h), Page 2, what is this a representation of, first off? What are we looking at?

MR. COX: Page 2 is -- this is the download of the Digicon system.

MR. DePAEPE: Okay.

MR. COX: We call it Data Logger.

MR. DePAEPE: What is the number that the westbound signal at Control Point Topanga is giving in the dispatch center? What is it designated as?

MR. COX: Which signal, sir?

MR. DePAEPE: The westbound signal at Control Point Topanga.

MR. COX: Let me look that up for you.

MR. DePAEPE: On Page 2.

MR. COX: The westbound signal at CP Topanga, the main track is designated as 14.

MR. DePAEPE: As 14. Can you show me, on Page 2, where the dispatcher may or may not have initiated a request to clear the signal, 14?

MR. COX: Yes, sir. 3:29:47, the 14 signal clear indication has come in.

MR. DePAEPE: Okay, but prior to that, where is the control for requesting that that signal clears?

MR. COX: That was at 3:29:33.

MR. DePAEPE: So at 3:29:33 the dispatcher lined up a route for a train through Control Point Topanga to clear the westbound signal?

MR. COX: That is correct.

MR. DePAEPE: What I'd like you to do now is look at Page 3 of this same exhibit and show me or indicate to me on Page 3 where Signal 14 goes to stop or the dispatcher gets an indication that Signal 14 has gone to stop.

MR. COX: It would be at 3:44:46.

MR. DePAEPE: The line -- or there's two -- or excuse me, there's three lines with information. What does the one that says 26 occupy, train move A775 meant?

MR. COX: That means that the Track Circuit Number 26 has been occupied by Amtrak 775.

MR. DePAEPE: And 26 track circuit is for -- is that for the -- is that the track circuit between or on the interlocking at Control Point Topanga?

MR. COX: Yes, sir, it is.

MR. DePAEPE: So this is when the signal went to stop when that train occupied that track circuit is that correct?

MR. COX: That is correct.

MR. DePAEPE: If you look through the rest of this data up to the point of the accident, if you could look at Page 4, Page 5, page 6, Page 7, Page 8 to the end, do you see anywhere where it says that 14 signal was selected to be cleared or lined for a train? And if you see that, can you show where the signal cleared again or if it cleared again?

MR. COX: Sir, I've looked through to Page 12 and I have

not seen that that signal was requested or cleared again.

MR. DePAEPE: So according to what -- excuse me. On Page 2, the last time the signal was requested for a train was at 3:29:33. It indicated at 3:29:47 and it went to stop at 3:44:46?

MR. COX: That is correct.

MR. DePAEPE: What was the time of the accident between the Metrolink 111 and the Union Pacific train?

MR. COX: I believe it was pointed out at 4:23 -- or no, 4:22:23.

MR. DePAEPE: So approximately 37 minutes prior to the accident, the westbound signal at Topanga went to red?

MR. COX: That would be correct.

MR. DePAEPE: And according to this data, it was never selected or cleared again?

MR. COX: That is correct.

MR. DePAEPE: Do you happen to know when the next time that route was selected and cleared after the accident?

MR. COX: I believe it was when we began our signal testing.

MR. DePAEPE: Would that have been on Tuesday, September 15th?

MR. COX: On or about, yes, sir.

MR. DEPAEPE: Okay, thank you. Let's talk about signal testing prior to the accident. We went through the signal test

that you did after the accident. Are those tests required to be done at certain intervals -- you know, on a regular basis?

MR. COX: Yes, sir. Depending on federal regulation.

MR. DEPAEPE: Well, I'm not going to have you go through Exhibit 2(k). I would just like you to note, Exhibit 2(k) shows the prior six months of signal tests for Control Point Topanga, Intermediate Signal 4451, Control Point Bernson, Intermediate 4426 and Control Point Davis. After examining those tasks, were there any exceptions noted to any of the signal equipment that were tested?

MR. COX: No, sir.

MR. DEPAEPE: Did all the tests and records show that the signal equipment was functioning as designed and intended?

MR. COX: Yes, sir.

MR. DEPAEPE: Member Higgins, that's all I have for these two witnesses at this time.

PARTY QUESTIONS

CHAIRMAN HIGGINS: Thank you very much. We will now take questions from the party representatives and why don't we start with -- we'll just go around and we'll end with the Metrolink -- so we'll start over here with Federal Railroad.

MR. COTHEN: The Federal Railroad has no questions of either witness. Thank you.

CHAIRMAN HIGGINS: California Public Utilities.

MR. CLARK: The PUC has no questions. Thank you.

CHAIRMAN HIGGINS: Mass. Electric.

MR. ROBERTS: Mass. Electric has no questions. Thank you.

CHAIRMAN HIGGINS: Union Pacific.

MR. GRIMALLA: Union Pacific has no questions of either witness. Thank you.

CHAIRMAN HIGGINS: Okay. How about the UTU and the BLET?

MR. CUMBY: UTU has no questions of either witness.

MR. WALPERT: Yes, the BLET has a question. Mr. Cox, is the signal, CTC signal system capable of stacking train movement?

MR. COX: Yes, sir.

MR. WALPERT: Do you know if, on the day of the accidents, the routes were stacked?

MR. COX: I think I'd defer that question to Mr. Guerrero here.

MR. GUERRERO: I believe they were.

MR. WALPERT: Okay. So Mr. Cox or Mr. Guerrero, on the day that the signal system was tested, were they tested with the routes being stacked?

MR. COX: No, sir.

MR. WALPERT: Okay. That's all the questions I have.

CHAIRMAN HIGGINS: Okay. Connex.

MR. McDONALD: Mr. Cox, I have a couple questions here, please. First question is did the team test both -- signals at

Topanga to determine visibility from Chatsworth Station?

CHAIRMAN HIGGINS: Please use your microphone because it's --

MR. McDONALD: I'm sorry. Did the team test both the red and green signal at Topanga to determine visibility?

MR. COX: Yes, sir.

MR. McDONALD: Okay. And one other question for you. On Page 3 of 2(q) -- reports a problem with -- cycling from green to red to yellow on September 8 in the vicinity of the Chatsworth Station. Could you explain what was done to evaluate that signal, determine the cause of the problem, to repair it?

MR. COX: That was Page 3?

MR. McDONALD: Yeah, Page 3 of 2(g).

MR. COX: Yeah, this is a signal which is the eastbound intermediate signal. This signal -- we had a repetitive problem that -- a reoccurring problem, if you will, that reoccurred over a couple of weeks. I do believe we finally ended up changing a module out here, if my recollection serves --

MR. McDONALD: Okay, one final question I have here. You mentioned earlier about the inspection of the signal at Topanga. Could an external source, in your opinion, a light such as a laser pointer, alter the illumination of the signal on approach?

MR. COX: Sir, I don't make opinions. I have factual information to provide you.

MR. McDONALD: Thank you. I have no more questions.

CHAIRMAN HIGGINS: And for Southern California Regional Rail?

MR. CRARY: This question is for Dan Guerrero. Dan, you mentioned that the dispatch system lost Metrolink 111. Could you further explain the dispatching logic in its relation to the signal system?

MR. GUERRERO: The logic within the dispatching system is what we consider to be non-vital.

CHAIRMAN HIGGINS: Please use your microphone.

MR. GUERRERO: I'm trying. The dispatch system is what we consider to be a non-vital portion of the system and it's -- as it is applied to the signal system. It basically sends out the request for lining signals, requesting switch movements. The vital aspects are in the wayside equipment as illustrated by Mr. Cox in his testimony. They portray a picture, the graphics portray a picture of what's happening in the field. As it relates to loss, it tracks the train movements and in that case that you mentioned, the train ID did not move, but we lost the indication at that point.

MR. CRARY: Member Higgins, we have no more questions.

BOARD OF INQUIRY QUESTIONS

CHAIRMAN HIGGINS: The Board of Inquiry. Dr. Kolly.

DR. KOLLY: Yes. Mr. Cox, you described a number of tests that you did post-accident on the signals in question. Do

you believe that that was a complete and thorough examination of these signals?

MR. COX: Yes, sir.

DR. KOLLY: And were any tests omitted that you think should have been conducted to determine the proper functioning of those signals?

MR. COX: No, sir.

DR. KOLLY: That's all.

CHAIRMAN HIGGINS: Mr. Chipkevich.

MR. CHIPKEVICH: Excuse me. I have none for this witness.

CHAIRMAN HIGGINS: Mr. Stancil.

HEARING OFFICER STANCIL: No questions.

CHAIRMAN HIGGINS: Thank you. Well, I have a couple questions. As Mr. Workman indicated in his presentation, there have been witnesses who, both the conductor and some individuals who were on the platform at the Chatsworth Station reported that they saw a green clear signal indication they presumed to be the Topanga signal. Do you know whether it's possible to see the Topanga signal from the Chatsworth Station?

MR. COX: I can answer for myself personally only. I cannot.

CHAIRMAN HIGGINS: You cannot. And I think Mr. Workman said that the Topanga signal is not clearly visible until the train left the station and moved about 950 feet closer to the

signal. Is that a problem in not being able to see that signal before leaving the Chatsworth Station?

MR. COX: I think that's more of an operating rules question for us. The signal had plenty of visibility for normal field conditions.

CHAIRMAN HIGGINS: I'm sorry, say that again.

MR. COX: Maybe I didn't understand your question. Could you repeat it?

CHAIRMAN HIGGINS: Well, I think there's a question. I mean, obviously signals are critical to what happened in this accident and the issue of the -- I think we documented pretty clearly that the signals, we believe, were working and yet, there is other eyewitnesses who believe that the signal was green. Mr. Workman reported that the signal is not really visible, at least the red signal is not visible until about 950 feet and moved about 950 feet closer after leaving the Chatsworth Station. Is that something -- when you look at signals, do you look at -- are you just testing for their -- whether they're working or are you looking at all as to whether you can see them?

MR. COX: We would, of course, looked to see if we could see them and make sure they're there, but -- okay, yeah. Yes, we would look to make sure the signal is visible.

CHAIRMAN HIGGINS: Okay. And I think you said that you couldn't really see the Topanga signal from the Chatsworth Station, is that correct?

MR. COX: Yeah. I cannot.

CHAIRMAN HIGGINS: Okay. I couldn't either, when I did the sight distance test and I know the train that I was on, we had to pull through the station. But is that -- do you think that's significant at all from the standpoint of what happened in this accident?

MR. COX: Honestly, your line of questioning would probably be better asked to the operating group. We only make sure the signal is visible and compliant with regulations and our own standards. As far as the visibility of the signal goes, that was quite a long distance for signal sight of that signal for other locations.

CHAIRMAN HIGGINS: Okay. In your part of the operation, are you -- do you have responsibility for placing signals or determining what distance, how far apart they are and how far apart they are from the station to --

MR. COX: The signal placements are based on locations and control points that we -- you know, as part of the design, the rules support, and that's why we're directing you to the operations group, the engineering -- the operation of the locomotive engineers and their issues, I guess, on visibility if there are any. We do not see it as a problem. There approximately is, I understand, sufficient preview of the signal and leaving the station, the locomotive engineer would've handled his train appropriately to -- up to the point that he was able to

act on the signal and clearly see the aspect. So we don't see it as a problem. And we also, if a signal is dark or considered dark, that you're not able to see it, it represents a stop signal to the industry.

CHAIRMAN HIGGINS: And again, maybe this is a question for the operations group, but -- and if so, I'm happy to hold it until then, but we know at what speed the train left the station which would indicate -- I believe the speed was that for a clear signal, is that your understanding?

MR. COX: Can you repeat that again?

CHAIRMAN HIGGINS: And again, if you can't answer this, that's fine, but the train left the Chatsworth Station, I believe, at -- we know that the accident happened about 40 -- I think we said 41 miles an hour. They left the station at a speed, as I recall, that would indicate that it was a clear signal. I'm trying to understand. I mean, again, you know, signals are at the heart of this and I think we -- all the tests that you've done, all the documentation that you've provided, that the team has provided, indicates the signals were working the way they were intended.

The question is, were there any -- was there anything interfering with the ability of the engineer to see that signal? We have the conductor's report that it was a green signal, we have eyewitness accounts it was a green signal. Mr. DePaepe, in his questioning, you indicated that there were no malfunctions, that

there was no damage to the Topanga signal. So we have a conflict here and I think we have some evidence that suggests why there may have been, why he may have missed that signal, but we also have indications you can't really see it from the Chatsworth Station, so I'm just trying to understand, as you all looked at all the information and did you take into -- I mean, he left the station at a speed that would indicate that he had a clear signal, is that --

MR. COX: Yeah, the actual -- how he handled the train is not our area of expertise. I would like to add that I have ridden the head end of trains through that location several times over the last few years and I have never received any complaints of the signal visibility.

CHAIRMAN HIGGINS: I'm sorry, you've never what?

MR. COX: Received any complaints of signal visibility from the engineers I was riding with and so -- but as far as how the train was handled, itself, that's out of my area of expertise.

CHAIRMAN HIGGINS: Okay. But isn't it fair to say that it is a system of signals? We know that there was a flashing yellow at Bernson, right?

MR. COX: That's correct.

CHAIRMAN HIGGINS: Okay. What does that indicate?

MR. COX: That indicates that the engineer should be prepared to stop short of the second signal.

CHAIRMAN HIGGINS: And what was the second signal?

MR. COX: The second signal would've been the red at Topanga.

CHAIRMAN HIGGINS: Topanga. What was the next signal he saw?

MR. COX: A yellow, solid yellow.

CHAIRMAN HIGGINS: Okay. And what would that signal have told him?

MR. COX: To prepare to stop short of the next signal.

CHAIRMAN HIGGINS: Okay. And the next signal was?

MR. COX: The signal at Topanga.

CHAIRMAN HIGGINS: Topanga. So we know that all those signals were working. We know that he called out the flashing yellow, but the next two were not called out. They were either not seen or they were just not called out. I also have a question about the role of the dispatcher and I think this is maybe the only opportunity we have to talk about that.

I mean, because the dispatcher -- there was a lot of questions at the time of the accident about the role of the dispatcher and setting signals and we know that the signals were set in plenty of time for the crews to -- for both trains to have -- so that it wasn't -- the signals were set and they should've been able to see the signals. Is the signal -- is the dispatcher in any kind of communication with the crews on the trains or is it just in the signal setting itself? Does he have any verbal communication with the crews?

MR. COX: Yeah, he does. We have a voice radio.

CHAIRMAN HIGGINS: He does. What is -- when would he typically have a conversation with crews, either a commuter rail, the Metrolink crew, engineer or the Union Pacific crew?

MR. COX: Again, a better question for dispatchers and operations group, ma'am.

CHAIRMAN HIGGINS: Okay, thank you. That's all the questions I have. Are there any further questions for this panel?

MR. DePAEPE: I'd like to have a couple follow-up questions, Member Higgins.

CHAIRMAN HIGGINS: Sure.

FURTHER TECHNICAL PANEL QUESTIONS

MR. DePAEPE: Mr. Cox, let's go to Exhibit 2(q), Page 3. That was brought up by one of the questioners. The report for the signal was that the signal changed colors repeatedly. The comment is Metrolink 110 reported that the Intermediate 4452 was green, changed to yellow and back to green. What direction is Signal 4452, what direction or movement does it give signal aspects for?

MR. COX: Eastbound.

MR. DePAEPE: And that's eastbound movement. The Union Pacific train in question here was moving in the eastbound direction. According to the reported data, was there any indication that the eastbound signals for the Union Pacific train displayed any improper aspects?

MR. COX: No, sir.

MR. DePAEPE: According to the video that was on the front end of the Union Pacific train, we were able to verify that the signal aspects were -- matched the signal download data. With this particular report, you stated that you believed there was a module that was changed out. Does that module affect anything but 4452 signal? I mean, would it affect eastbound signals that were in question at the time of the Metrolink 111 movement on the day of the accident?

MR. COX: No, sir. Again, we're going back in time and I deal with -- these reports, hundreds of them a month, and then I don't remember the exact module change.

MR. DePAEPE: Sure, okay. There was also a question about whether the dispatcher stacked the routes during the rolling shunt reenactment. Does stacking the route, did that affect the aspects of the signals or not stacking the route? I mean, would the signal aspects be the same if it was stacked or not?

MR. COX: To my knowledge, it would be the same.

MR. DePAEPE: Okay, thank you. Member Higgins asked what kind of questions or conversations dispatchers might have with trains. I know you're not an expert on operating rules, but are dispatchers or signal representatives allowed to tell trains what signal aspects they are coming up to or what signal aspects they may have?

MR. COX: Certainly not signal representatives.

MR. DePAEPE: Okay. It's -- I mean, engineers and conductors are supposed to identify signals; no one else is supposed to give them that information?

MR. COX: That's correct, I mean as far as -- unless we're on a train, then we're obligated to call those colors with them, but other than that we don't tell them what the colors --

MR. DePAEPE: Okay.

MR. COX: -- they're looking are.

MR. DePAEPE: All right, thank you. That's all I have at this time, Member Higgins.

CHAIRMAN HIGGINS: Thank you. Any other questions?

MR. REMINES: Chairman Higgins, I have a couple follow-up --

CHAIRMAN HIGGINS: I'm sorry. Mr. Remines.

MR. REMINES: Yes, thank you. The alignment of signal lenses, does that have an affect on the distance they can be seen?

MR. COX: Yes.

MR. REMINES: Has anyone changed the alignment of the signal lenses at CP Topanga since the accident?

MR. COX: No.

MR. REMINES: Thank you. I have no further questions.

CHAIRMAN HIGGINS: Is there a question over here? Yes, sir. Connex.

FURTHER PARTY QUESTIONS

MR. McDONALD: Yes, ma'am. A couple follow-up, Mr. Cox.

Did the approach circuit activate when 111 was stopped at the Chatsworth Station?

MR. COX: Yes, it is.

MR. McDONALD: Okay.

MR. COX: The approach to Topanga, Mr. McDonald.

MR. McDONALD: I'm sorry, yeah. Okay. And a couple more.

CHAIRMAN HIGGINS: Please use -- talk into your microphone because the rest of us can't hear.

MR. McDONALD: All right. Has anyone ever told you that the green was visible from Chatsworth, the green signal?

MR. COX: Not that I recall.

MR. McDONALD: Okay. When you said you could not see the signal until after the train left the station and traveled some 900 feet, was that signal red that you were speaking of?

MR. COX: Yes, sir.

MR. McDONALD: Okay. And I think I have one final question. I have one final question here. Do the dispatchers often report to the engineer when the scheduled two trains may not meet each other -- difficult -- they may meet at that location?

MR. COX: One more time, Tommy. Sorry, Mr. McDonald, sir.

MR. McDONALD: Okay. All right, Howard. You stated earlier that the dispatchers do not tell the trains what the signal indication is. Do dispatchers have occasion to sometimes

tell the engineer that they're going to meet a train at a location?

MR. COX: That's a question better asked to the operating department.

MR. McDONALD: Okay, thank you.

CHAIRMAN HIGGINS: Okay. Any other questions from the parties? Yes.

MR. WALPERT: First, Mr. Cox, you indicated that you saw the -- you could not see the signal from the station at Chatsworth, is that correct?

MR. COX: I personally cannot.

MR. WALPERT: And what color signal were you trying to see?

MR. COX: I couldn't see the signal, sir.

MR. WALPERT: You couldn't see -- did you check with different colors, green or red or yellow?

MR. COX: I was told the signal was green. I couldn't see it to verify.

MR. WALPERT: Okay. I want to follow up on the stacking question. When routes are stacked and a train clears the route and the system then performs the second function, if, for some reason there was anomalous clearing of the route for the first function, would it go ahead and perform the second function?

MR. GUERRERO: Can you expand on what you mean by anomalous?

MR. WALPERT: Well, for some reason it -- the system thought that a train had cleared the route but it actually had not.

MR. GUERRERO: Again, I need some further clarification. You're saying that the train is -- the route is clear ahead of it? Because the route would not initiate until or the stack would not initiate until the field allowed it to do so. It --

MR. WALPERT: Yeah.

MR. GUERRERO: -- will not override the field.

MR. WALPERT: Well, let's say, you know, the system's showing that it disappeared from the system, the first train disappeared from the system. Would it then go ahead and perform the function for the second train?

MR. GUERRERO: If the system decided that it did not have an occupancy ahead of it --

CHAIRMAN HIGGINS: Again, please use your microphone. I realize it's --

MR. GUERRERO: If the system initiated just like a control coming out of the office, if the field is not -- if the conditions within the field are not such that it would allow the lineup or switch movement to take place, it will not take place regardless of the information being sent from the office.

MR. WALPERT: Okay. Just one follow-up question on another subject. Mr. Cox, you indicated the signal power sources have alternates and I think you also said that in most cases, in

answer to Mr. DePaepe's question, what about the actual field signal power source at Topanga, did it have an alternate or backup system?

MR. COX: Yes, sir.

MR. WALPERT: Okay. That's all I have, thank you.

CHAIRMAN HIGGINS: Mr. Chipkevich, did you have a question?

MR. CHIPKEVICH: Yes, just a couple of brief questions. With regards to spacing on signals -- and this would be for either witness -- the flashing yellow and then the solid yellow signals, are they set back a particular distance from, for example, the Topanga switch, to allow for trains to have adequate distance for stopping? Is there a particular distance that you would set one back?

MR. GUERRERO: The aspects that are applied to those intermediate signals and approach signals are based on braking curves and algorithms for the braking dynamics of each of the -- we use a freight train braking dynamic to assure distance.

MR. CHIPKEVICH: Okay. So the distance is where they're actually placed and located considers the type of train traffic that moves through there and the amount of distance that would need to stop a train at the speeds that they're authorized?

MR. GUERRERO: That's one consideration and operational needs are another.

MR. CHIPKEVICH: Okay. Would there be -- was there, in

this particular case, an additional signal? Was the flashing yellow one that might not be used if it was just passenger train service but an additional one because it was freight trains that also use it so it provides an additional warning?

MR. GUERRERO: We utilize the four aspect signaling which includes from a red to a yellow or red -- backing up. Red, yellow, flashing yellow to a green. So those aspects will be displayed accordingly when the lineup is made.

MR. CHIPKEVICH: Okay. Maybe I'll follow up with some operation -- thank you.

CHAIRMAN HIGGINS: Mr. DePaepe.

MR. DePAEPE: Yes, Mr. Cox, we're going to look at Exhibit 2(f), Page 8 for a second. This is the raw data that was downloaded from Control Point Topanga the night of the accident. There was discussion about how the Metrolink 111 disappeared on the dispatcher's screen. The route was lined and locked into the siding and the machine had taken, had shown that the track circuit for CP Topanga showed occupied, which would have been normal -- or would that have been normal if the Union Pacific train had proceeded through the route into the siding?

MR. COX: Yes, sir.

MR. DePAEPE: Okay. So that point, the dispatch screen, when that track circuit went out, it believed the UP train was moving into the siding, would that be correct?

MR. COX: Yes.

MR. DePAEPE: Okay. After that track circuit cleared up at Topanga, now the UP train did not proceed into the siding, which would have been the normal route of that train moving, so now, at that point, that screen was when the Metrolink 111 went to magenta and the question that came up was when that train disappeared, would the system have just selected the route for the movement for the opposite way? Can you show me on -- in Exhibit 2(f), Page 8, when that sequence of events did not happen properly, what did the Vital Harmon Logic controller do once it got that information relayed from the field? Specifically, I'm asking what happened at approximately 2:18:46?

MR. COX: At this time, the OS, the on station, has cleared and --

MR. DePAEPE: And the OS is the track circuit --

MR. COX: Track between signals at Topanga.

MR. DePAEPE: Okay.

MR. COX: Has picked up and the signal has gone into time.

MR. DePAEPE: It's gone into time because something is out of sequence with the movement of the trains, is that correct?

MR. COX: Yeah, the approach was -- because the train did not move through the detector track in the proper direction.

MR. DePAEPE: Okay. And when the eastbound signal went into time, what does that mean? What happens?

MR. COX: Everything stays locked for a predetermined

amount of time.

MR. DePAEPE: The Vital Harmon Logic controller at Topanga locks up the system at the control point for six minutes, approximately, is that correct?

MR. COX: That is correct.

MR. DePAEPE: So nothing can be cleared in either direction because the proper sequence wasn't followed, is that correct?

MR. COX: In this case, yes, sir.

MR. DePAEPE: Okay, thank you. That's all I have, Member Higgins.

CHAIRMAN HIGGINS: I have a question. Again, this is something that came up at the time of the accident. In terms of the dispatcher and I'm directing this to you, but perhaps either Mr. Workman or Mr. DePaepe would want to answer, as well. Does the dispatcher have any aids other than the -- what he's viewing on the screen? Are there any oral alerts that sound when the -- a train is not, would say blow a signal or is this essentially in violation of the switches that he set?

MR. GUERRERO: There are alarm messages for events of that nature.

CHAIRMAN HIGGINS: And in this case, I guess, thinking about the sequence of events, when -- what was the first indication that something was not going according to what he had previously set and was there -- was it a visual cue and an oral

cue or just a visual cue?

MR. GUERRERO: In this case it would've been just a visual cue and that would've been a switch out of correspondence and the unoccupied track section and approach to CP Topanga.

CHAIRMAN HIGGINS: Okay. So you said that -- this is the Digicon system that is the basis for the dispatcher's -- the dispatcher and the signal system, is that right?

MR. GUERRERO: Yes, it's a Digicon system.

CHAIRMAN HIGGINS: Okay. When are -- would oral alerts be sounded in the system?

MR. GUERRERO: I'm not sure what you mean by oral alerts.

CHAIRMAN HIGGINS: Audible alerts. I'm asking for what kind of event would trigger an oral alert in addition to the visual cue on the screen.

MR. GUERRERO: Well, there are alarm bars that pop up on the bottom of the screen for different, say, switch out of correspondence or a passed red signal, that type of alarm.

CHAIRMAN HIGGINS: I'm sorry, I can't hear you.

MR. GUERRERO: There is an alarm bar that is displayed, it's a yellow alarm bar, for any events that are of note like that.

CHAIRMAN HIGGINS: But in this case there was no alarm that sounded?

MR. GUERRERO: No, there wasn't. That was because the

system believed that the move into the detector section at CP Topanga or the OS section at CP Topanga was the intended move, which was the UP train.

CHAIRMAN HIGGINS: Okay. Even though, in fact, it wasn't?

MR. GUERRERO: That's correct. The lineup was such and the timing was such that he was on the approach; his next logical step was to step into the OS and detector section and when that was occupied, the system determined that that was the appropriate move, so therefore no alarm.

CHAIRMAN HIGGINS: Okay. So the system can't distinguish, even though we've seen these colored diagrams and I saw the screen when I was in -- at your offices. The system, itself, can't distinguish between, in this case, the Metrolink train and the UP train. It reads it the same, is that right?

MR. GUERRERO: What it does is, it basically has a graphical depiction of tracking of the moves as they're going through and occupying each track section.

CHAIRMAN HIGGINS: Okay. But one train was heading north, or heading west, and the other train was heading east and even though we've seen -- we saw the -- our recreation and the slides and I saw it -- we have here just static depictions of the trains, but in fact, on the controller's screen or the dispatcher's screen, you can see the train move, is that right?

MR. GUERRERO: That's correct. But it's --

CHAIRMAN HIGGINS: Okay. And you can see the movement of both trains?

MR. GUERRERO: That's correct.

CHAIRMAN HIGGINS: Okay. But the system, itself, in an incident like this, doesn't distinguish, is that what you're telling me?

MR. GUERRERO: It doesn't distinguish between two when you have a meet and the succession of track occupancies like the Union Pacific --

CHAIRMAN HIGGINS: All it knows is that the track is occupied? It doesn't know who is occupying it?

MR. GUERRERO: And it assumes if that -- if that was the next logical occupancy, then it assumes it was that train that was intended for that route.

CHAIRMAN HIGGINS: In this case being the UP --

MR. GUERRERO: That's correct.

CHAIRMAN HIGGINS: -- local train? Okay. And so -- and I don't know whether we can -- at some point, we can maybe put together -- because I think, again, we're trying to understand what happened and then think about what changes we might want to make going forward to perhaps address some of these issues and I'm just trying to understand how this system currently works. Have you made any changes in the software since this accident or have asked Digicon to?

MR. GUERRERO: No.

CHAIRMAN HIGGINS: Okay. So the system that was in effect at the time of the accident is still the system that's in effect today, is that right?

MR. GUERRERO: That's correct.

CHAIRMAN HIGGINS: Okay, thank you. Any other questions?

(No response.)

CHAIRMAN HIGGINS: We are actually, believe it or not, running ahead of schedule. Why don't we take a 15-minute break, come back at 11:30 and then we'll start the questioning of the next panel and then we will -- if we can finish that in a reasonable time, we'll break for lunch before we get into the questioning from the parties and the Board of Inquiry. And so let's come back here at 11:30. Thanks.

(Off the record.)

(On the record.)

CHAIRMAN HIGGINS: And we are now going to hear from a panel and Mr. Stancil, will you introduce the panel and swear them in?

HEARING OFFICER STANCIL: Yes.

CHAIRMAN HIGGINS: This is on operating rules?

HEARING OFFICER STANCIL: Correct.

PANEL 3 WITNESSES SWORN AND QUALIFIED

HEARING OFFICER STANCIL: Mr. Rick Dahl, Mr. Gregg Konstanzer and Mr. Tom McDonald are at the witness

stand. Mr. Dahl, would you raise your right hand?

(Witness sworn.)

HEARING OFFICER STANCIL: Mr. Dahl, could you please state your full name?

MR. DAHL: Richard Phillip Dahl.

HEARING OFFICER STANCIL: And could you spell your last name, please?

MR. DAHL: D-a-h-l.

HEARING OFFICER STANCIL: Mr. Dahl, your current employer?

MR. DAHL: Is Connex Railroad.

HEARING OFFICER STANCIL: And your job title?

MR. DAHL: Manager of Safety and Operating Practices.

HEARING OFFICER STANCIL: And what is your company address, sir?

MR. DAHL: 2558 Supply Street, Pomona, California.

HEARING OFFICER STANCIL: And what is your current position with Connex?

MR. DAHL: Manager of Safety and Operating Practices.

HEARING OFFICER STANCIL: And could you describe your duties and responsibilities?

MR. DAHL: Yeah, I oversee our testing, efficiency tests and observation program. I schedule testing events with foreign railroads. We invite regulatory agencies. I evaluate test data to look for trends, do some analysis, determine our direction for

testing efforts. I also maintain the injury/illness statics (ph.) for the operation and trying to analyze and develop trends for that.

HEARING OFFICER STANCIL: And how long have you been employed in that capacity?

MR. DAHL: Three months.

HEARING OFFICER STANCIL: And prior to that, what did you do in the railroad industry?

MR. DAHL: I was Transportation Manager for Metrolink with Connex assigned to the Ventura County line.

HEARING OFFICER STANCIL: And how long were you employed in that capacity?

MR. DAHL: Approximately eight years.

HEARING OFFICER STANCIL: Do you have any experience prior to that?

MR. DAHL: Yes, I was a Transportation Manager with Metrolink for approximately four years before that and a Safety/Environmental Control Engineer with Metrolink prior to that.

HEARING OFFICER STANCIL: Okay, thank you. Who is the gentleman seated to your left, sir?

MR. SCHOHET: Hi. I'm Jeffrey Schohet with DeLay Piper (ph.). I'm counsel for the witnesses.

HEARING OFFICER STANCIL: Thank you, sir. Okay. Mr. Konstanzer, would you raise your right hand, please?

(Witness sworn.)

HEARING OFFICER STANCIL: Okay. Mr. Konstanzer, would you state your full name?

MR. KONSTANZER: Gregg Brian Konstanzer.

HEARING OFFICER STANCIL: And could you spell your last name for the record, please?

MR. KONSTANZER: K-o-n-s-t-a-n-z-e-r.

HEARING OFFICER STANCIL: Your current employer?

MR. KONSTANZER: Connex Railroad.

HEARING OFFICER STANCIL: And your title?

MR. KONSTANZER: Assistant General Manager.

HEARING OFFICER STANCIL: And your business address?

MR. KONSTANZER: 2558 Supply Street, Pomona, California.

HEARING OFFICER STANCIL: And how long have you been in your current position, sir?

MR. KONSTANZER: Since June 25th of 2005.

HEARING OFFICER STANCIL: And how long have you been employed in the railroad industry?

MR. KONSTANZER: Thirty-two years.

HEARING OFFICER STANCIL: In terms of operating rules, oversight and enforcement, what experience do you have, sir?

MR. KONSTANZER: Maybe it's best for me to -- very quick summary of my career.

HEARING OFFICER STANCIL: Please go ahead, yes.

MR. KONSTANZER: May 16th of '77, switchman with the

Atchison, Topeka and Santa Fe Railway. Brakeman --

HEARING OFFICER STANCIL: Could you get a little closer to the microphone, please? Thank you.

MR. KONSTANZER: Engine foreman, brakeman, conductor, Supervisor of Operations. I went to work for Amtrak, Supervisor of Operations, Assistant Transportation Manager, Transportation Manager, road foreman, Assistant Superintendent, Superintendent and Assistant General Manager.

HEARING OFFICER STANCIL: Thank you. Mr. McDonald, would you raise your right hand, please?

(Witness sworn.)

HEARING OFFICER STANCIL: Okay. Would you please state your full name?

MR. MCDONALD: Tommy Anthony McDonald.

HEARING OFFICER STANCIL: And you are employed by Connex?

MR. MCDONALD: Yes, I am.

HEARING OFFICER STANCIL: And what is your job title, sir?

MR. MCDONALD: My position is General Manager.

HEARING OFFICER STANCIL: And your business address?

MR. MCDONALD: Is 2558 Supply Street, Pomona, California.

HEARING OFFICER STANCIL: And what are your duties and responsibilities with Connex?

MR. MCDONALD: I actually have the overall responsibility for the delivery of the contract between Connex Railroad and SCRRA. And I coordinate the various departments in delivery of service in that regard.

HEARING OFFICER STANCIL: Okay. And what is the extent of your employment in the railroad industry?

MR. MCDONALD: I was a locomotive engineer with the Illinois Central Railroad. I went to Amtrak in 1987 as a passenger engineer, took various management position with Amtrak between '89 and 1997, which I went to Metrolink with Amtrak as the Assistant General Manager. In 1998, I assumed the position I have now with Amtrak as the General Manager.

HEARING OFFICER STANCIL: Very good. Thank you. Madam Chairman, the witnesses are qualified and I'll turn the questioning over to Mr. Jim Remines at the Tech Panel.

TECHNICAL PANEL QUESTIONS

MR. REMINES: Good morning, Madam Chairman and members of the panel. Today I'm going to cover three sections, three specific rules, and the calling of train control signals, use of electronic devices --

CHAIRMAN HIGGINS: Mr. Remines, is your microphone on?

MR. REMINES: I'll put it right in front of me. Today I'm going to talk about the Rules and Oversight Program and I want to ask questions about that and I'd like, I guess, Mr. Konstanzer, could you give me a description of your rules and your operational

testing program at Connex?

MR. KONSTANZER: I think, given Mr. Dahl's new role in that position that it might be best for him to describe that, if that's all right with you.

MR. REMINES: That's fine.

MR. DAHL: Yeah, we have an operational testing and observation program. It's designed to go out in the field and set up scenarios for train and engine crews to be able to show their ability to demonstrate their knowledge of the rules and apply them. We set up different scenarios. We use stop tests, barricade tests, restricted speed tests, protect crossing tests, any of the scenarios that the train crews would encounter on the railroad. We invite guests from other railroads and regulatory agencies and then we enter all of our information into an efficiency test database where all the data is gathered, collated, and we do analyses of the results.

MR. REMINES: Was this a program that came to you from Amtrak or is this your own individual program?

MR. DAHL: This is a program that was developed when we came over in June of 2005.

MR. REMINES: Okay. Mr. McDonald, could you describe Connex and it's a subsidiary of what and how big is it?

MR. MCDONALD: Connex was formed in early 2000, subsidiary of Connex North America. We actually have 160 employees on our property there, at Metrolink. We also operate

MBCR, Sprinter, and TriRail.

MR. REMINES: Are there any other operations in California?

MR. MCDONALD: The Sprinter operation. We also have the -- we operate, since January 1st, the maintenance way operation for Metrolink. We own and operate that, as well.

MR. REMINES: Oh, okay. When you took over for Amtrak, did you bring your employees or were they Amtrak employees?

MR. MCDONALD: Over 70 percent of the employees there, much like myself and Mr. Dahl, were Amtrak employees in that year and we chose to come over with the takeover in 2005.

MR. REMINES: And where do you get replacement employees?

MR. MCDONALD: We hire, recruit, previously recertified and certified engineers from both the Union Pacific, the Burlington Northern and some Amtrak engineers, as well.

MR. REMINES: Okay. Mr. Dahl, I'd like to talk to you more about your operational testing and efficiency program. Do you have specific tests in there for calling of train control signals?

MR. DAHL: For our trains that go out on call signals and how they handle them, is that what you're asking?

MR. REMINES: Correct.

MR. DAHL: Yeah, we have tests we have set up for trains when they approach different sets of signals they're required to

call the signals and comply with the signal requirement which could mean a speed restriction at another signal or a stop in a signal or two, so as we set these up and monitor them, we station managers at different locations to observe the train's performance and then we -- during the completion of the test, we get back together again and discuss the results.

MR. REMINES: Are foreign lines such as the Union Pacific required to be tested under that program?

MR. DAHL: Yeah, all trains, Amtrak, Metrolink, UP and Burlington Northern are tested on the Metrolink property.

MR. REMINES: You've heard a description today of the calling of signals by the Metrolink train. Do you take exception to anything you heard today about the calling of the signals by the engineer or the conductor?

MR. DAHL: Well, the report was that the engineer called the signal flashing yellow at CP Bernson. No recording of the signal at the intermediate at 4452 was reported or of the calling of the signal at Topanga was recorded, so if the engineer did not record it, did not announce it, then yes, we take exception to that.

MR. REMINES: What should've been the conductor's responsibility at that point?

MR. DAHL: The engineer didn't announce the signal, the conductor's responsible to reestablish communication with the engineer at the next station stop.

MR. REMINES: And do you know whether that took place at Chatsworth?

MR. DAHL: Well, according to the conductor's statement, the engineer and the conductor communicated the signal at Topanga, the green signal, upon departing. The conductor reported that he gave the engineer a Hilo (ph.) Train 111 at Chatsworth with green ahead at CP Topanga. Even though that wasn't recorded, that was the conductor's statement. Later, it was followed up by a member of SCRRA that said that were communications between the engineer and the conductor of the signal at Chatsworth.

MR. REMINES: Is the engineer required to call a green signal?

MR. DAHL: The engineer is required to call all signals and locations via radio, yes.

MR. REMINES: Have you ever taken exception to this engineer's calling of signals?

MR. DAHL: Yes, in the past two and a half years, we've tested this engineer, all of our engineers, quite often. We have numerous tests that we perform. We perform over a thousand efficiency tests and observation a month that's recorded. The engineer was tested several times. His calling of signals was fairly above average. I'm not telling you that it never happened. I think I remember once or twice that we had him not calling the signal, but usually his performance was above average.

MR. REMINES: Now, I'd like to talk to you about

electronic devices and your Operating Rule 1.10. What is your rule and explain what the prohibitions are?

MR. DAHL: General Code Rule 1.10 prohibits electronic devices, cell phones, newspapers in the cab of a locomotive or the controlling end of a train. That's General Code Rule 1.10. In September of 2006, we initiated a very aggressive cell phone policy and that not only did it eliminate cell phones in the cab, but we identified areas of concern that we didn't want the employees having their phones on or near the equipment, on or near the tracks when performing service, when switching equipment, when shoving a train, giving car counts and it was actually more aggressive than the general code was at that time.

MR. REMINES: Have you ever taken an exception to the engineer of 111, use of electronic devices?

MR. DAHL: Yeah. In September of '06 when we first put the policy in place, several of the Metrolink and actually Union Pacific and Amtrak officers went out and we performed a blitz joint test in the Glendale and Burbank area where our task was to identify any concerns we had with cell phone devices, to remind the employees. We did different types of scenarios where we rode trains, we stopped trains, we boarded trains, we interviewed crews.

This engineer, at a period -- we got on the train -- actually, I got on the train at Burbank. One of my fellow managers actually called his cell phone and as I was discussing

and having a job briefing with the engineer, the engineer's cell phone rang. It was in his brief case on the other side of the train. I told the engineer that he was in violation of our policy, that I was going to take an exception to that. I was going to enter it in the efficiency test system. The engineer told me that he knows the policy and that he had forgot to turn it off when he stowed it away in the morning.

MR. REMINES: The conductor of the Metrolink train had reported that he had observed the engineer that day, not at that time, but at earlier period, using a cell phone, that he had talked to you about it. What did you do with that and do you remember when it was?

MR. DAHL: Yeah. That was in early August of 2008. As the conductor was walking to his train and passed me on the way, he said that he had noticed his engineer with his cell phone out when the train was stopped and I asked the conductor what he did. He said he addressed it immediately and that the engineer acknowledged that he needed to put it away. He had mentioned something about conducting union business. I did immediate follow up with the engineer, I did a briefing with him where we discussed not only General Code Rule 1.10, but our cell phone policy to ensure he was aware of the policy. During my conversation with him, I asked him where his phone was. He said it was stored away in his grip, that it was off. We talked about the cell phone policy. Confident that he understood the policy and that it was,

in fact, we did -- I did a couple observations within the next two weeks and that was the last of any conversations or observations with the engineer.

MR. REMINES: Did you respond to the conductor in any way about a follow up?

MR. DAHL: No, I did not.

MR. REMINES: Do you have any program other than what the conductor used that day for an employee to call in or report a situation that he's uncomfortable with from a safety standpoint?

MR. DAHL: There's several different options a conductor would have. A train crew will see a manager three to four times a day; once on their on-duty location, when they go off at work, come back on duty, at the platform in the afternoon. He can respond to any one of those managers any time. We have an employee hot line estabulated (ph.) by human resources. He has his union he can go to if he had any concerns.

MR. REMINES: I'll go to Metrolink Notice 17.08 and that's prohibited persons in the operating department and the red strap rule. Can you explain your prohibition -- that's Exhibit 3(i).

MR. DAHL: Yeah, we have a policy in place that does not permit any unauthorized persons in the control compartment of a train. We define control compartment by the area designated by the cabinet in the cab car to the left of the seat opposite of the engineer and of course, a locomotive. So no unauthorized persons

are allowed in that area. We have strict rules and guidelines that train crews are supposed to follow. Anybody that is working, like a manager, myself or a maintenance -- person, a signal person that is in performance of their job can be up there proper ID. The conductor must notify the Metrolink operations center that there is somebody else on the head end. Otherwise, they have to have an authorization letter issued by the general manager or by the Metrolink director of operations authorizing them to be up there and if they're non-railroad familiar, we actually assign a manager to them and allow the manager to go up there and answer questions so they don't disturb the engineer.

MR. REMINES: The red strap rule, what is significant about the red strap?

MR. DAHL: Well, the red strap is a section of the cab car that's isolated when the train is in the push mode, locomotive in the rear. So the front mezzanine area of the car is closed off by a red strap so no people can actually -- no passengers can get in front of the red strap, although there's two tables just in front of the red strap that we could allow sheriffs -- we have LET does enforcement for us. The conductor can come up there and actually work at those tables. That is in front of that red strap, but it is not part of the controlling, the definition of the control compartment of the cab car.

MR. REMINES: I understand the sheriffs, deputies ride on the train. Are they familiar with that rule? Would they

enforce it for you if they saw something in along that line?

MR. DAHL: Yeah, the sheriffs would. Usually, there's nobody that comes in front of the red strap that doesn't understand the policy.

MR. REMINES: Is it possible to board a locomotive undetected?

MR. DAHL: It's possible. The locomotive, underneath our Homeland Security Act, is locked, both front and rear doors. But it would be possible to board a locomotive undetected.

MR. REMINES: So it's normally locked when it's in motion or in use?

MR. DAHL: In use, yes. Both in pull and push mode.

MR. REMINES: So someone, to enter that area, would have to either be let in or have a key?

MR. DAHL: That's correct.

MR. REMINES: Okay. I'd like to ask you about your efficiency testing and observations from a standpoint is, is the cab of a locomotive, is it accessible for doing such things as a cell phone test while it's in motion in the pull mode?

MR. DAHL: I'm sorry, what was the question again?

MR. REMINES: What I'm saying is, is that a locomotive, in and of itself is a compartment with the engineer by himself and if he chooses to use a cell phone in violation of your rules, how easy is that to detect in the pull mode?

MR. DAHL: Oh, that's very difficult. You'd have to

almost, as the train went by, you'd almost have to see a cell phone up to their ear. You'd have to board the train undetected. We do board the train en route from station, but it is very difficult to get on a train. I'll get on the train, I'll have to unlock the door. Usually, the engineer will see you coming. It's extremely difficult to oversee.

MR. REMINES: And the engineman would not be prohibited from possessing a phone, just that it be turned off and in his grip or away from the control department, is that what I understood?

MR. DAHL: Yeah, that's correct.

MR. REMINES: Okay. Under the new EO-26, how did your rules change and your procedures change on your railroad for electronic devices?

MR. DAHL: Our electronic device policy was -- like I said, it was in effect two years before EO-26 went into effect. What EO-26 did made it a federal offense. It put some teeth behind the rule and not only that; since EO-26 came out after the Chatsworth incident, we were very, very aggressive with inspecting for cell phones; stopping trains en route; stopping them in the middle of their run, not at station stops; getting on, boarding them, inspecting the train, the crews, so it just gave it some more authority.

MR. REMINES: This might be going to Mr. Konstanzer or Mr. McDonald. Your new locomotives that are coming, are they

going to have video cameras on them in some sort of fashion?

MR. KONSTANZER: I've been backwards all this time. Excuse me. It's my understanding that the new locomotives will have forward facing camera, but to the best of my knowledge, they do not have inboard.

MR. REMINES: That has been mentioned. Do you know what the prohibitions are of doing such a thing? Have you been told why they're not going to be inward facing, also?

MR. KONSTANZER: I do not know.

MR. REMINES: Okay. No sound will be captured in the cab, do you know?

MR. KONSTANZER: I don't know.

MR. REMINES: Okay. I have no further questions.

CHAIRMAN HIGGINS: You've finished questioning this panel?

MR. REMINES: Yes, I am.

CHAIRMAN HIGGINS: Should we break for lunch or do you want to keep going? If it's okay, why don't we see if we can get through around the questions and then we'll break for lunch, okay?

PARTY QUESTIONS

CHAIRMAN HIGGINS: We'll start with Federal Railroad.

MR. COTHEN: No questions.

CHAIRMAN HIGGINS: California PUC.

MR. CLARK: No questions.

CHAIRMAN HIGGINS: Mass. Electric.

MR. ROBERTS: No questions at this time, thank you.
CHAIRMAN HIGGINS: UP?
MR. GRIMALLA: No questions.
CHAIRMAN HIGGINS: UTU.
MR. CUMBY: No questions at this time.
CHAIRMAN HIGGINS: BLET.
MR. WALPERT: Yes, I have a couple questions. Mr. Dahl, you indicated that there were two signals that the engineer did not call over the radio, is that correct?
MR. DAHL: No, they were not recorded at the Metrolink operations center. We don't know for sure that they weren't called, but they weren't recorded.
MR. WALPERT: Do you know, on that recording, if there was any other radio traffic that could've interfered or stepped on the engineer calling the signals?
MR. DAHL: There could've been, but I didn't listen to the tape.
MR. WALPERT: Okay. In regard to the cell phone usage by the engineer, did -- you indicated there were actually two incidents, is that correct? Where you observed or someone observed the use of the cell phone by the engineer?
MR. DAHL: The first incident was in September of 2006 when we put our policy into place. The second incident was reported by the conductor, that he had saw him at a station stop either about to use a cell phone or was going to use it. That was

the only two incidents I'm aware of.

MR. WALPERT: Okay. Is there any record where anyone or any manager observe the engineer using the cell phone while he was operating the train?

MR. DAHL: No.

MR. WALPERT: You also indicated that one of the incidents of the use of the phone was that the engineer was conducting union business, is that correct?

MR. DAHL: That was a statement by the conductor.

MR. WALPERT: Do you know if the engineer was an officer or a union representative?

MR. DAHL: He was not.

MR. WALPERT: Okay. That's all I have. Thank you.

CHAIRMAN HIGGINS: I missed the City of Los Angeles. Does the City of Los Angeles have any questions?

MR. QUINTANAR: I have no questions.

CHAIRMAN HIGGINS: Connex.

MR. FRITZ: No questions at this time.

CHAIRMAN HIGGINS: Metrolink.

MR. CRARY: No questions at this time.

BOARD OF INQUIRY QUESTIONS

CHAIRMAN HIGGINS: Okay, we will go to the Board of Inquiry. Dr. Kolly.

DR. KOLLY: Yes. Mr. Dahl, with regard to calling signals, you mentioned that the Metrolink engineer's performance

was above average, is that correct?

MR. DAHL: I would say yes. The engineer was a competent engineer. We actually used him to qualify or to train new engineers and conductors on the territory. He was very knowledgeable. He shared his information about the physical characteristics of that specific territory very clearly. He was very valuable to us as far as handling some new employees.

DR. KOLLY: With regard to specifically with calling signals and the term average, what do you mean by average and above average?

MR. DAHL: Well, I would say in the two and a half years of monitoring trains, I would say the engineer was above average. Reviewing the records, I only could find two incidents in the last two and a half years of where he didn't call a signal and it was noted.

DR. KOLLY: And an average engineer, his performance is significantly worse than that?

MR. DAHL: Well, you know, you miss signals from time to time; you get walked on, on the radio; you -- we expect every engineer to call every signal at that location, so the fact that he missed a couple in a couple years, you know, I would say that that was above average, but we expect 100 percent compliance.

DR. KOLLY: And so how is an engineer's performance improved? What types of training or feedback do you give the engineers?

MR. DAHL: The engineers go through classes annually. We have several different type of classes; general code, timetable, operation rules/instructions. For two years they go through recert. They have performance evaluations throughout the year. During their performance evaluation, they're ridden with, evaluated, they're given feedback on areas that they have done well, areas that may need some more attention, review of the rules, that stuff.

DR. KOLLY: Do you have any indication that this feedback or training leads to any improvement in the engineers' performance?

MR. DAHL: Absolutely.

DR. KOLLY: Thank you.

CHAIRMAN HIGGINS: Mr. Chipkevich.

MR. CHIPKEVICH: Thank you. Mr. Dahl, on this particular engineer, Mr. Sanchez, you said two incidents in the last two and a half years he had been identified as not calling signals. How many times was he tested, efficiency checked?

MR. DAHL: He was documented observed over 450 times. He was observed probably thousands of times. We do thousands of efficiency tests that are documented per our instructions every day in our normal performance. But he had over -- I'd have to look again at the numbers, but over 450.

MR. CHIPKEVICH: Documented for calling signals?

MR. DAHL: No, overall efficiency tests for his

performance.

MR. CHIPKEVICH: How many would have dealt with calling signals?

MR. DAHL: I'd have to look at the records.

MR. CHIPKEVICH: Would you be able to provide that for the record?

MR. DAHL: Yes, I would, but not at this time.

MR. CHIPKEVICH: Madam Chairman, I'd like to ask that the witness be able to provide for the record the --

CHAIRMAN HIGGINS: Please. Thank you.

MR. CHIPKEVICH: And that would be the number of times in the last two and a half years that Mr. Sanchez was tested for efficiency checks for calling signals. And could you identify an exhibit number?

HEARING OFFICER STANCIL: That would be Exhibit 3(z).

(Whereupon, the document referred to as NTSB Exhibit 3(z) was marked for identification.)

MR. CHIPKEVICH: And you would provide that to the Hearing Officer.

MR. DAHL: Okay.

MR. CHIPKEVICH: What's the consequence if you are identified as not calling a signal when you're an engineer?

MR. DAHL: Well, first offense on an engineer not

calling a signal would be a verbal discussion about the rules applied. If it was repetitive, if it happened often, then what we would do is we actually kick it up to the Assistant General Manager for his review and his direction as far as any continued discipline.

MR. CHIPKEVICH: What would be the -- so the second time if he's caught for not calling signals, what happens?

MR. DAHL: Well, a second time in a short period of time or over a long period of time, it would depend on the severity and the length of time.

MR. CHIPKEVICH: Do you know, on the two incidents where this engineer was identified as not calling signals, was that in a short period or a long period?

MR. DAHL: I don't recall exactly when it was.

MR. CHIPKEVICH: Madam Chairman, could we have the witness file for the record the two incidents that were identified?

CHAIRMAN HIGGINS: Yes.

HEARING OFFICER STANCIL: That would be Exhibit 3(aa).

(Whereupon, the document referred to as NTSB Exhibit 3(aa) was marked for identification.)

MR. CHIPKEVICH: That would be Exhibit 3(aa) and that would -- what I'd like is the two incidents where Mr. Sanchez was

identified for not calling signals. What about the conductor that was on this train at the time? Had he been efficiency checked for not responding when a signal was called or calling attention to an engineer when the engineer failed to call a signal?

MR. DAHL: The conductor was tested several times over the last two and a half years. Again, I'd have to refer to the actual number of tests and the records to get the numbers.

MR. CHIPKEVICH: Do you know if he failed any of those tests?

MR. DAHL: He had never failed a test.

MR. CHIPKEVICH: And do you know approximately how many times he had been tested in the two and a half years?

MR. DAHL: I don't know without looking at it.

MR. CHIPKEVICH: Madam Chairman, could I ask for the record?

CHAIRMAN HIGGINS: Yes, you may.

MR. CHIPKEVICH: All the tests in the last two and a half years for the conductor with regard to efficiency checks for the last two and a half years, and then whether he failed or passed all of them. Does the State of California or FRA ever come onboard and do efficiency checks or identify if your engineers or your conductors are calling signals and responding?

MR. DAHL: The FRA and the CPUC have accompanied us on several different joint efficiency tests.

MR. CHIPKEVICH: Would that include the calling of

signals?

MR. DAHL: Yes, it would.

MR. CHIPKEVICH: Do you know how many times -- do you keep a record of them when they are on board or do these efficiency tests with Metrolink?

MR. DAHL: Yes, we do.

MR. CHIPKEVICH: And do you know how many times were done in the last two and a half years?

MR. DAHL: Again, I'd have to look in the records, sir.

MR. CHIPKEVICH: Madam Chairman, could I ask that be provided for the record?

CHAIRMAN HIGGINS: Yes, thank you. You may.

MR. CHIPKEVICH: Thank you. With regard to a crew member being caught with a cell phone on board, such as the case where a phone, even if it's packed away and it rings and is not turned off, what's the consequence for a crew member?

MR. KONSTANZER: That would depend upon the severity of the incident. We have to talk about pre- and post-Chatsworth in that -- be careful how I say this. We are very aggressive on disciplining employees who fail to comply with our electronic device policy. It's a termination offense for using a cell phone while on a moving train and it can be a termination offense for lesser levels of use of electronic devices. If you look at the electronic device policy, it talks about different -- it's very clearly laid out on when it can and cannot be used and so we're

pretty aggressive about taking disciplinary action against employees who do not comply with that policy.

MR. CHIPKEVICH: Is that post-accident?

MR. KONSTANZER: Well, we didn't have any observations or recorded efficiency tests that were substantive. We never, that I can recall, had an engineer operating a moving train that we caught red handed, so to speak.

MR. CHIPKEVICH: How can you do oversight to make sure that somebody, that a crew member doesn't have a cell phone?

MR. KONSTANZER: Up until Emergency Order 26, we had two methods, which is direct observation, by getting on the equipment and observing. We also had the ability to call known cell phone numbers and if the employee responded, then that would constitute a failure. Emergency Order 26 changed that and so we no longer do that type of test, but we have no forensic method of checking after the fact whether or not someone has been in compliance with the electronic device policy in a closed environment of an operating cab.

MR. CHIPKEVICH: If an engineer or a conductor is caught with a cell phone that's on but they're not talking on a phone, such as it rings but they don't answer it because somebody's present, what's the consequence for that?

MR. KONSTANZER: It's removal from service. We have a collective bargaining agreement with the BLE and the UTU, so when I say something's a termination offense, that's -- it has to go

through the processes of our agreement with the BLE and the UTU.

MR. CHIPKEVICH: Okay. Mr. McDonald, has Metrolink considered putting cameras or voice recorders in the cabs of locomotives and cars since the accident or do you have plans to do so?

MR. MCDONALD: Well, it's probably a better question for Metrolink -- but my discussion with Mr. Crary and Mr. Solow and Mr. Lettengarver indicates that there are plans to do that.

MR. CHIPKEVICH: And do you know when you'll begin implementing that?

MR. MCDONALD: I don't know the time --

MR. CHIPKEVICH: Is it for certain that that will occur?

MR. MCDONALD: I don't know.

MR. CHIPKEVICH: Okay. How do you determine if there's unauthorized persons getting into the cab of the locomotive, Mr. McDonald or Mr. Konstanzer?

MR. MCDONALD: We do a lot of documented observations, rides, and we -- every time we look for that. We also recruit the efforts of our other property, the maintenance of way employees, who's part of our company, as well, and we just -- we do that by every time we touch somebody, we're looking for that.

MR. CHIPKEVICH: In the last two and a half years have you ever caught an unauthorized person in the locomotive?

MR. MCDONALD: Not to my knowledge, no, sir.

MR. CHIPKEVICH: Is there a requirement that an engineer

watch a signal until he passes the signal once the signal's first in sight?

MR. DAHL: Yeah, the engineer will call the signal and keep an eye on it until he actually passes it.

MR. CHIPKEVICH: And what's the reason for that rule?

MR. DAHL: In case the signals changes indication.

MR. CHIPKEVICH: Okay. So just looking up once and glancing and seeing a signal and then going about doing other business, if they didn't look and continue to watch it until they passed it, would that be a violation of a rule?

MR. DAHL: Yes.

MR. CHIPKEVICH: Do you do efficiency checks for that?

MR. DAHL: Yes.

MR. CHIPKEVICH: Can you tell me if Mr. Sanchez was checked on that, efficiency checks, in the last two and a half years?

MR. DAHL: During evaluation and ride-alongs with managers, yes, he has. That would be one of our normal observations that we would do during the performance evaluation.

MR. CHIPKEVICH: Do you know if he's ever failed that particular examination?

MR. DAHL: No, I don't think so. I don't have any record of it or any knowledge of it.

MR. CHIPKEVICH: Can you provide us -- Madam Chairman, can I request a copy of all their inspections?

CHAIRMAN HIGGINS: Yes.

MR. DAHL: That would be included in his efficiency test report that I'm --

MR. CHIPKEVICH: So that would be in the same document that would be provided already?

MR. DAHL: Yes, it would.

MR. CHIPKEVICH: Okay, thank you. With regard to advance approach signals, approach signals and then the stop signal, are there signals on your railroad where just -- are there locations on the railroad where just passenger trains operate? And this might be for, I guess, Mr. McDonald.

MR. MCDONALD: No, sir.

MR. CHIPKEVICH: Okay. So over your entire railroad, passenger trains and freight trains share tracks, so there's no particular territories that are totally passenger?

MR. MCDONALD: That is correct.

MR. CHIPKEVICH: Okay. So then whenever you have a red or a stop signal, would you normally have, if the signal was going to be red, would you normally have an approach and then an advance approach before that?

MR. MCDONALD: In a normal sequence of events, yes, sir.

MR. CHIPKEVICH: And is part of that reason so that there's adequate warning and more time for heavier freight trains to be able to know that there's an approach signal coming up and a possible stop signal?

MR. MCDONALD: Yes, sir. Any train. It wouldn't be unique to freight trains. It would also be any movement.

MR. CHIPKEVICH: Okay. So then -- but --okay. Madam Chairman, that's all the questions I have. Thank you.

CHAIRMAN HIGGINS: Okay. Let me just do a time check here. It's a little after 12:15. I have several questions. Are we going to want another round after -- okay. All right, so I will ask my questions and if it would okay, we break for lunch and then come back and continue this? Does that work for everybody? Okay. Because I may have some more questions. You know, we're talking about serious rule violations in this particular accident in three areas; in the calling of signals, in the use of cell phones, and in the issue of passengers, unauthorized passengers, riding and in fact, driving the train, with the engineer.

And yet, I'm hearing that we've done all these efficiency checks and this was an above average engineer and everything was operating the way it was supposed to and I'm having trouble reconciling those two. So I want to understand a lot more about how this system works or is supposed to work. And first I want to understand, how large is Connex? Where do you operate, how many employees do you have?

MR. MCDONALD: At Connex at Metrolink, ma'am, we have 160 employees.

CHAIRMAN HIGGINS: One hundred and sixty at Metrolink --

MR. MCDONALD: Right.

CHAIRMAN HIGGINS: -- and how many -- how large is -- is that your only operation?

MR. MCDONALD: No, we have over 2200 employees in North America.

CHAIRMAN HIGGINS: Twenty two hundred in North America.

MR. MCDONALD: Yes, ma'am.

CHAIRMAN HIGGINS: And one hundred and how many at Metrolink?

MR. MCDONALD: One-sixty.

CHAIRMAN HIGGINS: One-sixty, okay. And the 160 at Metrolink, does that include all of the operating personnel, as well as management, as well as --

MR. MCDONALD: That includes the engineers and conductors --

CHAIRMAN HIGGINS: Okay.

MR. MCDONALD: -- the managers, support staff.

CHAIRMAN HIGGINS: Okay. Can you break out for me -- and if you can't do it now, I'd like to have it for the record -- of those 160 Metrolink/Connex employees, how many are operating personnel, engineers and conductors and others who are actually working on the trains versus management versus whatever other categories people fall into?

MR. MCDONALD: There's 133 conductors and engineers, total. There's 12 front line managers, Mr. Konstanzer, who manages that group, and I have the directive operations and

finance and we have corporate support staff.

CHAIRMAN HIGGINS: Okay. So 133 engineers and conductors. And you said 12 frontline managers, so that gets you up to 155. And you said there are 160 total?

MR. MCDONALD: We have clerks, we have crew callers and secretaries and things like that, as well.

CHAIRMAN HIGGINS: Okay. So that would be the other five, is that right?

MR. MCDONALD: Yes, ma'am.

CHAIRMAN HIGGINS: Okay. How many of the that 160 are actually -- have responsibility for doing efficiency tests?

MR. MCDONALD: Primarily, the 13 of those people.

CHAIRMAN HIGGINS: Thirteen of the 160?

MR. MCDONALD: Right.

CHAIRMAN HIGGINS: And how often are these efficiency tests done for the 133 conductors and engineers?

MR. MCDONALD: Daily.

CHAIRMAN HIGGINS: So that's all -- is that those frontline managers, that's all they do is efficiency tests?

MR. MCDONALD: They do observation. They do a number of train rides, they do a number of chores, but part of their core responsibility is efficiency testing.

CHAIRMAN HIGGINS: What percentage of their time, on a weekly, daily basis, is responsible for observing the conductors and the engineers?

MR. DAHL: Basically, a hundred percent of their time is dedicated to observations. Whether they decide that they're going to spend an hour, two hours, riding trains, conducting actually structured efficiency tests is kind of the discretion of them and their schedule, but their total operation is observations from beginning to the end of the day.

CHAIRMAN HIGGINS: And what do they do with those observations?

MR. DAHL: Any exception that they would take, they would document it with efficiency test system. They would give feedback to the employees. Most of the observations they make are not documented because they're making observations all day long about, you know, if they get on a train, are there newspapers in there, is the crew dressed properly, are they making their announcements according to the schedule, so all that process isn't always documented, just observed.

CHAIRMAN HIGGINS: So their job is really to observe how the -- how, in this case, Metrolink, the overall operation of Metrolink from everything from customer service to crew performance to the cleanliness and any other issues observed with the trains, is that right?

MR. DAHL: They don't get involved with the mechanical side of it. They do get -- the operation, the customer service, the announcements, compliance with state and federal requirements, time ticket keeping, so a lot of administrative stuff.

CHAIRMAN HIGGINS: Okay. And this is -- 160 employees, that's not a big organization. I would guess that all of the management personnel are known to the conductors and engineers, is that a fair characterization?

MR. DAHL: Yes.

CHAIRMAN HIGGINS: Okay. So if somebody's doing an efficiency test or is there, you know, riding the train, if that's what they're doing, the engineer, the conductor's going to be aware of that, is that right?

MR. DAHL: If they were visible, then yes. There are several efficiency tests and observation that managers do unobserved from the train crew.

CHAIRMAN HIGGINS: But for the issues that we're talking about, ride-along, cell phones and signal calling, aren't those -- wouldn't those have to be observed by the frontline managers, those doing the efficiency tests?

MR. DAHL: Calling signals can be done monitoring the radio transmission from either alongside the train, you can review prerecorded tapes. You can monitor that from the dispatch center. But the other two issues would have to be on the train and watching the train crews.

CHAIRMAN HIGGINS: Okay. How much of the signal calling -- and do you have a record when you do these reports and the kind of information Mr. Chipkevich asked for, will that indicate whether it was -- whether you've reviewed recordings or monitor

recordings or conversations or observed?

MR. DAHL: No. I don't think that it isolates it unless there's a comment in the test, efficiency test program, itself.

CHAIRMAN HIGGINS: Okay. I have looked at the operating rules and I must say I guess I have some questions about the operating rules because it's not clear to me -- is it the engineer's responsibility to call the signals and the conductor's to respond or is it the conductor's responsibility to call the signal and the engineer responds?

MR. DAHL: It's the engineer and any other persons that are on the controlling compartment of the movement to call the signals to each other and the engineer's responsibility to call it out over the radio to the conductor.

CHAIRMAN HIGGINS: And what is the conductor's responsibility?

MR. DAHL: Anything that he hears that's more restrictive than a green or a clear signal, the conductor's required to respond to it over the radio.

CHAIRMAN HIGGINS: So in the case of the Metrolink 111, the accident train, as I recall from Mr. Workman's presentation, we have the engineer calling the flashing yellow signal at Bernson. I don't recall that we heard the engineer respond to that. Am I correct in remembering that?

MR. DAHL: The engineer called the signal at Bernson and you asked me if --

CHAIRMAN HIGGINS: The question is what did the conductor do?

MR. DAHL: Oh. We have no recording of the conductor calling the signal.

CHAIRMAN HIGGINS: Okay. Was he supposed to respond to the engineer?

MR. DAHL: Yes. Flashing yellow, yes, he was.

CHAIRMAN HIGGINS: Okay. At the next signal, the solid yellow signal before the Chatsworth Station, what was supposed to happen there?

MR. DAHL: The engineer should've called it out over the radio and the conductor should've called it back to the conductor.

CHAIRMAN HIGGINS: Okay. And if the engineer didn't call it out, does the conductor have a responsibility?

MR. DAHL: Yeah. The conductor either has to stop the train or reestablish communication at the next possible point.

CHAIRMAN HIGGINS: Okay. And did that happen here?

MR. DAHL: According to the conductor's statement, they said that they reestablished communication at Chatsworth when they communicated on a green signal, therefore the previous two signals are disregarded and they can continue to proceed on the green proceed indication.

CHAIRMAN HIGGINS: But there's no recording of that conversation, as I understand it?

MR. DAHL: That's correct.

CHAIRMAN HIGGINS: Okay. And we know, from the signal testing that the signals that were working and the signal displays were flashing yellow, yellow and red, is that your understanding?

MR. DAHL: From what they reported, that's correct.

CHAIRMAN HIGGINS: Okay. Do you have any questions about what was reported?

MR. DAHL: Just that there were witnesses with the green signals and since I wasn't there, you know, I didn't see it myself, just some questions.

CHAIRMAN HIGGINS: Okay. But in this issue of calling signals, as I said earlier, it's a series of signals and while there may be some questions -- we have eyewitness accounts of what the signal was leaving Chatsworth, my understanding is that it's a series of signals and the flashing yellow and the solid yellow mean that the next signal is going to be red and you're supposed to stop, is that right?

MR. DAHL: Correct.

CHAIRMAN HIGGINS: Okay. So in a situation where you've got two signals, preceding signals, one of which was called out, one of which wasn't, nor was it acknowledged by the conductor, either one, what does that -- what is the protocol in that? Wouldn't that give -- it seems to me it would give a crew pause as to why were the two previous signals indicating I should stop but now I'm proceeding as if the third one is green even though there's some questions to whether you can really see this signal

from the Chatsworth Station. I guess my point here is that even though we're talking about how, you know, we've got these operating rules, we're talking about how carefully people are monitored, here's one day last fall when, you know, nothing was going according to the way it was supposed to, from -- you know, that's my observation. How can that be?

MR. DAHL: I don't know.

CHAIRMAN HIGGINS: What kind of training do you all do -- I know we've got operating rules and we've got efficiency tests, but what kind of initial training or recurrent training is done for these crews?

MR. DAHL: We have training, we have on-hand training, we have our general code rules training, we have timetable/special instruction training that are each one of the railroads that we operate over besides the engineer recert program. We have emergency preparedness training and besides that, we have our onboard evaluations and assessments.

CHAIRMAN HIGGINS: But what kind of training is done about calling signals and responding to signals? These are two experienced crew members who had worked together for six months.

MR. DAHL: Well, we have the training portion of it. We have the --

CHAIRMAN HIGGINS: When does that occur?

MR. DAHL: That occurs annually.

CHAIRMAN HIGGINS: Are they trained together or are they

trained separately, engineers and conductors?

MR. DAHL: They're sometimes together, sometimes separately. It all depends on manpower permitting whether they're able to get in or not. We rotate them in throughout the year.

CHAIRMAN HIGGINS: Okay. Let's talk about cell phones. Again, the operating rules are pretty clear about use of cell phones. The operating rules, as I understand it, were updated last summer, is that correct?

MR. DAHL: The cell phone policy was updated in September of 2006.

CHAIRMAN HIGGINS: And there was not a change made after that? I thought there was something that was added to that policy last July of 2008. Or am I -- am I incorrect?

MR. DAHL: No. I mean, in --

MR. KONSTANZER: There may have been a minor adjustment to it, but 17.08, which was -- well, that is July 8th, 2008. That's the one, if you read that, which is 3(h), it's not significantly different from the 2006 notice. We tweak and adjust these requirements to better, have a better -- make things clearer. If you look at the Exhibit 3(h), it's written so that even a railroad employee, someone who's not a railroad employee, it makes sense. So we tried to craft this particular issue so it's very clear and easy to understand for anyone.

CHAIRMAN HIGGINS: I think it's written in pretty plain English. My question is when you initiate a policy like this or

when you update it or change it to make it even clearer, how is that communicated to the employees, to the engineers and the conductors?

MR. KONSTANZER: The notices, as all railroad notices do, when they're changed and a new notice number comes out and then they're distributed to the field managers for use in job briefings with employees and in addition, a copy of each notice is given to the employees should they choose to carry it with them.

CHAIRMAN HIGGINS: So that's the job responsibility of the frontline manager is to communicate that policy or that change?

MR. KONSTANZER: Yes, ma'am. And then that would also carry over into rules training, the annual rules training that we have each year, it gets supplemented by changes in our notices and the code of operating rules, general orders and so forth.

CHAIRMAN HIGGINS: Okay. Again, in terms of the efficiency tests on cell phones, if you -- if in a small operation like Connex where there are only 160 people, everybody knows everybody. How do you -- you've talked about calling cell phone numbers if you have them and I guess seeing whether they answer or not.

Have you looked at or tried to find other ways to -- clearly, you thought this is an important issue. There must have been examples or problems that you'd identified that led you to put in place the policy in 2006 and to strengthen it last summer.

Has management though about, tried to think about how to enforce this in a way that would bring home the point that you thought this was important?

MR. KONSTANZER: Aside from terminating the employees --

CHAIRMAN HIGGINS: Well, when did the termination policy go into effect?

MR. KONSTANZER: Well, it's not the policy. We didn't catch anyone until after Chatsworth with a significant violation. But please ask the question again.

CHAIRMAN HIGGINS: Well, again, I mean, I think we're here trying to find ways to, going forward, to address these issues.

MR. KONSTANZER: I agree, absolutely.

CHAIRMAN HIGGINS: And this is a national problem.

MR. KONSTANZER: It's something that prevents it.

CHAIRMAN HIGGINS: And I'm trying to understand, you know, how do we -- it's our job to make recommendations and I'm looking, as one Board member, for ideas, recommendations, strategies for how to do this from all of you because I think, you know -- I just don't ever want to be in a position again where 25 people have to die before we solve this problem. I just think it's unacceptable in this day and age.

MR. MCDONALD: Madam Chairman, if I could, we are working cooperatively with the BLE and with SCRRA to address strict compliance with Emergency Order 26 and exploring the

technology out there that would give us a tool not only to monitor this but maybe to modify behavior, so we are -- there's a lot of discussion at our level; we're concerned about it as well. So we're working with the BLE and with SCRRA to address this issue.

CHAIRMAN HIGGINS: And then we've got the issue of ride-alongs. I mean, this is one train, one day, one crew. I mean, it raises questions for me about what the heck else is going on out there and I'm sure it does for you, too. I mean, was this really the only example of use of cell phones, people riding along that were unauthorized, not calling signals? I frankly find that hard to believe, notwithstanding all the efficiency tests that you're doing. I mean, in the aftermath of this accident what has Connex -- what questions are you asking yourselves about how you could do things differently here?

MR. MCDONALD: We have increased our frequency. We can have all the rules in the world, but if an employee is intent on just intentionally -- to avoid detection, there's not a whole lot we can do. We get on unannounced, our managers are out there every day, not only our managers, SCRRA. We have the sheriffs out there. There are signal people out there. And we do, you know, just only you're just right there with them, you'll have 145 trains operating, but if you have an employee who's not going to comply with the rules, it's very difficult. But we have stepped up our game.

CHAIRMAN HIGGINS: How large is the Metrolink system? I

know you -- 400 and some thousand passengers a day. How does that compare to, if you know or anybody who might know, to other commuter rails around the country, other commuter systems?

MR. MCDONALD: I don't have that information handy.

CHAIRMAN HIGGINS: I think I'm right in saying, isn't Los Angeles and certainly the Los Angeles area the largest, our largest metropolitan area in this country?

MR. MCDONALD: I would think one of the largest, yes.

CHAIRMAN HIGGINS: Okay. In fact, I was impressed. I didn't realize there was so much commuter rail in LA and that's a good thing and we're going to see more of it because we're going to make more investments in terms of rail. These are issues that are going to confront every community in this country and already are and we have got to get our arms around it. And I guess I'm under-whelmed by the system that's currently in place, which I haven't heard any that has been changed at all since the accident other than that we now have a federal requirement. Have you made changes in your strategies for enforcement?

MR. MCDONALD: Well, yes, we did. We created -- Mr. Dahl's position -- that his entire focus now is on that. We've increased our number of observations requirement and we've hired two additional personnel, the SCRRA's allowed us to hire two of these people that would give us more vision out there, so we have looked at that and we continue to look at that as ways we can improve in that area.

CHAIRMAN HIGGINS: But do you have the sense that if -- it seems to me the enforcement strategy that currently exists and I don't mean to be -- I am being critical because I think this is a very serious accident. I mean, essentially, people study the test. If they know they're being observed, they're going to behave differently, perhaps, than when they're not being observed and I think if the only system we have is to observe people while they're operating the train and they're doing everything right, then that doesn't give me a whole lot of comfort and I think the question for all of us is federal, state and local, are there -- and for those representing these workers -- are there other things we should be doing? What can we do to ensure not just compliance on the day that somebody's riding along, but that there's a compliance a hundred percent, 365 days a year, 24/7?

MR. MCDONALD: I don't know. That's something for us all to jointly get our arms around.

CHAIRMAN HIGGINS: I think, Mr. Konstanzer, you mentioned that the new federal rule limits the way you can enforce the cell phone requirement?

MR. KONSTANZER: No, it changed the way that -- we used to call a known number of an employee of a cell phone and this would be with an observation test and listen to hear if the phone rang. That was a tool that was used but is no longer permitted, but I think where we're going with this is technology that we don't have a 145 managers to ride 145 trains to make sure that

everybody's doing everything just right. This certainly is starting to look like, in addition to PTC, that the onboard cameras with the recording is -- I don't know how one can argue against that from my perspective.

CHAIRMAN HIGGINS: Okay. But just to finish on the -- so the federal, the new FRA rule, Emergency Order, does not allow you to call cell phones?

MR. KONSTANZER: That's my understanding and I think I don't -- they write very large explanations of things and I apologize for not reading on why that was done, but I believe it's not so much a case of entrapment but a case of a manager calling a cell phone on a locomotive of a moving train and the engineer picks up the phone and you've caused the employee to violate your rule. I believe that's -- does that make sense? I believe that's --

CHAIRMAN HIGGINS: Except that it's supposed to be off, as I understand?

MR. KONSTANZER: Yes, ma'am.

CHAIRMAN HIGGINS: Okay. All right. Mr. Kolly, Dr. Kolly, do you have a question? Let me stop. As I said, we can pick this up after lunch and let me -- but let me ask Dr. Kolly to ask his question before we break for lunch.

DR. KOLLY: I'd like to go back and talk about the effectiveness of this testing and training that's done. What types of assessments have you done to determine its effectiveness?

MR. DAHL: Well, our field testing has been increased, our joint testing, and when we're out and testing, we give immediate feedback to the train crews, if possible. If not, we always do follow up to inform them that they either complied with the rule, that we took exception to it, that we suggest they need to review a rule, so we've increased the conversations, the job briefings. We've done reinforcement that's created quite a bit of conversation throughout the crews. They're coming to us and discussing the different testing that we're doing. It's raised their level of awareness. They're asking for clarifications. Just the overall communication in our industry has changed from a casual type, you know, go to work and get the job done to very in-focused on the rules.

DR. KOLLY: Has there been any formal assessments done on your part?

MR. DAHL: We do an analysis with our efficiency test database that we look for different types of trends and then what we do with those trends, we develop our next target of tests to see if we can go out and raise the level of awareness, you know, for this certain scenario.

DR. KOLLY: And do you know if you've provided that information to our investigators?

MR. DAHL: It's in our efficiency test database. I'm now aware if we've provided it or not.

DR. KOLLY: The trending information that you're talking

about, it has to do with, I assume, some type of an analysis of the data within the database, correct?

MR. DAHL: Correct, yes.

DR. KOLLY: And so has that analysis been provided to us?

MR. DAHL: I don't think so but we do have it.

DR. KOLLY: Can I ask that that be provided?

CHAIRMAN HIGGINS: Yes, you may.

DR. KOLLY: If you'll wait just a second, the Hearing Officer will assign an exhibit number.

HEARING OFFICER STANCIL: Yes, that would be Exhibit 3(dd).

(Whereupon, the document referred to as NTSB Exhibit 3(dd) was marked for identification.)

HEARING OFFICER STANCIL: Okay. And would you give me that again, what we're asking for?

DR. KOLLY: Their assessment based on an analysis of their -- of a trending analysis of their database for essentially determining the effectiveness of their testing and training programs.

HEARING OFFICER STANCIL: Thank you.

DR. KOLLY: I believe you mentioned that this program -- did you say it was a carry-over from Amtrak?

MR. DAHL: No, the program was actually designed by the Veolia Corporation IT people along with help from all of the outlying or the other properties and it's a database that all the properties use to record efficiency testing.

MR. KONSTANZER: It's very similar to Amtrak's program.

DR. KOLLY: Okay. Is this program certified in any way?

MR. KONSTANZER: I am not aware of a certification. Certified always is a word that throws me. I'm not sure what -- it's been submitted to the FRA and approved, if that's what --

DR. KOLLY: Yeah. Are the results that I was referring to, either the analysis of the results or the raw data, is that information communicated to Metrolink?

MR. DAHL: Yes, it is.

DR. KOLLY: And what types of discussions have you had with Metrolink over that type of information?

MR. DAHL: That information is submitted quarterly in the quarterly report. The intercommunication that's between Metrolink and Connex would've been gone through probably the director of safety and then during our meetings, our staff meetings, information for us as far as targeting the areas of concern are addressed with us.

DR. KOLLY: And so has Metrolink taken any exceptions to any of the information that you've passed along to them?

MR. DAHL: Not that I'm aware of. That probably could be a question for Metrolink.

DR. KOLLY: Okay, all right. Madam Chairman, I have no further questions.

CHAIRMAN HIGGINS: Thank you. Am I correct in assuming that we will want a second round of questions? Okay. Why don't we break for lunch? It's 12:47. We'll come back here at 1:45, okay, and we'll resume with this panel and we'll do a second round of questions from the parties from the Technical Panel and from my colleagues.

(Whereupon, at 12:47 p.m., a lunch recess was taken.)

A F T E R N O O N S E S S I O N

(Time Noted: 1:45 p.m.)

CHAIRMAN HIGGINS: We resume questioning and we'll start with the Tech Panel to see if they have any follow-up questions they want to ask.

MR. REMINES: Jim Remines. This morning we covered the conductor and his oversight of the engineer and I had a section of questions I didn't ask and I think they'll be appropriate because the conductor is responsible for the behavior of the engineer under these rules and I want to show you what his --

CHAIRMAN HIGGINS: Jim, can you -- I'm having -- maybe it's me, but I'm having a hard time hearing you.

MR. REMINES: The obligations -- how's that -- of the conductor, I want to emphasize the workload that he has in addition to keeping -- calling signals and monitoring the behavior of the engineer, and what I'd like to do is ask these folks about the size of the train and what the manning level is for a train of this size.

MR. DAHL: Train 111 is a three-car set, approximately 148 seats per car and that's not including standing room. You can anticipate having 450, 500 people on a fully loaded train.

MR. REMINES: What would be the crush load? Is that 450 folks?

MR. DAHL: I would guess and it would be a guess that the crush load would be probably 200 to 250 people per car.

MR. REMINES: And what would be the conductor's responsibilities during the time the train is occupied?

MR. DAHL: Well, the conductor's required to walk his train twice during the trip. He's required to do 25 percent of the train load fare enforcement. He's also required to be in the correct position if there's anybody that requires any extra assistance, a PA. He would have to be at the rear car along with his other duties. He walks the train and he makes announcements about security announcements, unattended packages, answer questions from passengers and then his usual duties with the engineer as far as responding to signals, reminding him of warnings, keeping the delay report up to date. If by chance he does have one of the passengers that doesn't have the correct fare, he does write a citation to them.

MR. REMINES: Handicapped passenger handling, how does he do that on the train? Where is it located and what is he supposed to do? Wheelchair.

MR. DAHL: Our ramp at the stations are at the rear of the train, so as the engineer pulls in to the station stop, they pull into a pre-designated spot and actually spot the rear car to a P&A ramp at the station and then the conductor needs to be at that car to give assistance to that passenger if they require it. He will need to put down a ramp that connects the P&A ramp to the train and then if the passenger requires assistance in training or getting situated, he needs to be there to handle that.

MR. REMINES: Did he do that the day of the accident with the passenger?

MR. DAHL: Yes, there was one at Chatsworth.

MR. REMINES: And he would've had to put the ramp down and load the passenger or unload the passenger?

MR. DAHL: He would have to put the ramp down and I'm not sure if the passenger got on or off the train. It was boarding? Boarding the train.

MR. REMINES: Okay. What's the next size up in -- that would require a second or assistant conductor?

MR. DAHL: Well, right now you can run up to a six-car set with one conductor. The minute we hit a seven-car set, we're required to put a second conductor on the train.

MR. REMINES: No questions. No further questions.

MR. WORKMAN: Wayne Workman. I'd like to direct this to Mr. Dahl. With regard to your efficiency test program, you mentioned earlier tests and observations. Would you go into a little detail for me and explain the difference between a test and an observation?

MR. DAHL: Well, all tests are also observations, but as a manager goes out and performs his daily assignment, he's making observations of the entire day. A test would be a situation that they would either set up or predetermine that they were going to test on. They would determine based on the route, what they were running on, if they were going to test for a delayed-in-block

situation or a stop-at-a-red-signal situation, but an observation is a test.

MR. WORKMAN: I understand efficiency test programs pretty well, so let me rephrase this. Is an observation recorded?

MR. DAHL: Not all observations are recorded.

MR. WORKMAN: Are all tests recorded?

MR. DAHL: Yes.

MR. WORKMAN: Okay. So a test is recorded, an observation may or may not be recorded.

MR. DAHL: Correct.

MR. WORKMAN: When a manager has made an observation and he or she, they, see a failure, what's the requirement of the manager?

MR. DAHL: To first of all, would determine the severity of the failure. All failures must be communicated to the employee for correction, for learning, education. And then depending on the severity, it would be kicked up to the assistant general manager for any consideration for continued observations or discipline.

MR. WORKMAN: So would that include a letter to the employee, would it just be a conversation between the manager and the employee? You're being very vague here. Let me give you a better example. Prior to September the 12th, if a manager observed an employee not calling signals coming into a station, how would he handle that?

MR. DAHL: That would probably be a verbal warning to the employee.

MR. WORKMAN: Would not be any recording that would not go to the employee's record, it would just be manager to employee?

MR. DAHL: That would be entered in the efficiency test database as a failure and the employee would be brought aware of his failure and the fact that it was being entered.

MR. WORKMAN: So that's an observation that would be considered a test?

MR. DAHL: Yes.

MR. WORKMAN: Okay. What if a manager had a situation where he thought an employee -- had an employee that had allowed someone to get on the locomotive and look at the controls while he was sitting at a station? How would you view that?

MR. DAHL: That would be an unauthorized person on the train and that would be a failure and that would be a serious failure.

MR. WORKMAN: Could you give me an example of when an observation would not be considered a failure?

MR. DAHL: If they complied with the rule. If you -- if I got on a train and I was doing an observation of delayed and block, if the observation was that the conductor was complying with responding to signals, reminding the engineer of restrictions, they may or may not be entered as a test, but would be an observation.

MR. WORKMAN: Let me ask this question. When was the last time the engineer in question on Metrolink 111 operational tested on his cell phone? I believe you said in 2006?

MR. DAHL: I'd have to look at the record as far as the last test. The last time I tested him on it was in -- that entered a test was 2006.

MR. WORKMAN: Was that a joint test?

MR. DAHL: Yes, it was.

MR. WORKMAN: And who participated in that joint test?

MR. DAHL: We have several Metrolink managers. We had managers from the Union Pacific railroad and we had managers from the Amtrak railroad.

MR. WORKMAN: How often do you do joint tests?

MR. DAHL: We do joint tests probably two to three times a week now. We've stepped up our testing. Prior to the accident at Chatsworth, every one of the managers would joint test with one of the foreign railroad counterparts at least once per month.

MR. WORKMAN: Okay. It was mentioned earlier that there are 133 engineer and conductors and there are 13 field managers that are responsible for participating and doing operational tests. Am I correct there?

MR. DAHL: Yes.

MR. WORKMAN: So that's a ratio of nearly 10 to 12 to one manager. Is that correct? Do you agree with that?

MR. WORKMAN: Do you believe that's a fair ratio for a

manager to employ?

MR. DAHL: Yes, I believe so.

MR. WORKMAN: Are all employees tested every month with such a fair ratio or are the employees, some employees not receiving tests during the month and other employees being tested multiple times?

MR. DAHL: Every employee should receive at least one test per month.

MR. WORKMAN: Do you validate that in your monthly reports that your employees have all been tested?

MR. DAHL: Yes, we do.

MR. WORKMAN: And so you're saying that they all are tested?

MR. DAHL: Unless they're off for a medical condition or they're off on vacation and not able to be available to us to test, then they wouldn't get a test, but if they're active for the month then yes, they would receive a test.

MR. WORKMAN: Okay. Now, when they receive that test, efficiency test programs are educational programs. Once an employee has been tested, is there any feedback between the manager and the employee? Is there any additional training done between the manager and the employee on something that may have failed so that they understand it?

MR. DAHL: Yes. All failures will be followed up with the employees. In fact, all tests are followed up with the

employees and the failures will be followed up, usually the manager of the crew base that the employee is working out but if an employee or a train and we're out testing or team testing, joint testing, we may call the station supervisor to brief the crew because we're not going to brief them in the field and actually give our position away or what we're doing because we're being unobserved at the time and so we'll ask that the -- another manager at the outlying points or at the station communicates the type of test that we did and how they performed during that test.

MR. WORKMAN: Is there any follow-up training on those tests?

MR. DAHL: If there was a failure that needed some follow up, then yes, there would be.

MR. WORKMAN: Do you have any recorded data that could indicate to us the number of employees that had been retrained or been trained due to failures?

MR. DAHL: No, I don't have it.

MR. WORKMAN: Can you produce that?

MR. DAHL: Yeah, we can produce that.

MR. WORKMAN: Madam Chairman, I'd like to ask that that information be provided to us and be consistent with the request earlier for the last two and a half years.

CHAIRMAN HIGGINS: Sure. Your request is --

HEARING OFFICER STANCIL: Okay. That would be Exhibit 3(ee) and could you restate what the request shall be?

(Whereupon, the document referred to as NTSB Exhibit 3(ee) was marked for identification.)

MR. WORKMAN: The request is any training, any documentation of training that was done in addition to operational test failures between the manager and the employee. And I want to be specific here. This does not include the once-a-year mandatory operational rule training, okay. Okay, thank you. I'd like to address the next question to Mr. McDonald. When was the last 218 audit that Connex had with the government?

MR. MCDONALD: I believe that was this year, wasn't it? Just recently, Mr. Workman. I believe it's just been completed -- I'm not really sure of the date. Was it in January? January of this year, I believe.

MR. WORKMAN: It was January of this year.

MR. MCDONALD: Yes.

MR. WORKMAN: Do you recall when the one or the previous one prior to January of this year was?

MR. MCDONALD: I don't have the date in front of me. I could get it for you.

MR. WORKMAN: I'd like to know when the previous prior to January 218 audit was done on Metrolink by the FRA and I'd like to know the results of that audit and any follow up to that audit.

HEARING OFFICER STANCIL: Okay, that would be

Exhibit 3(ff) and would you please restate the request?

(Whereupon, the document referred to as NTSB Exhibit 3(ff) was marked for identification.)

MR. WORKMAN: I would like copies of the last two FRA 218 audits, one in January. I'd like to know the outcome and the recommendation of that one. And I would like to also see the previous audit to that; that would be prior to 2009. How much time had passed between those. I'd like to know the outcome of those and the recommendations. Okay, regarding, Mr. McDonald, oversight, each month managers are required to do, I'm sure, a certain number of operational tests, is that correct?

MR. MCDONALD: That is correct.

MR. WORKMAN: Could you briefly describe the requirements of that testing program for me, each month, for each manager?

MR. MCDONALD: Each frontline manager is required to do a minimum of 50 tests which should be safety critical.

MR. WORKMAN: What's a safety critical test?

MR. MCDONALD: Well, that would be stop test, radio test, a number of tests that are identified in our program.

MR. WORKMAN: Okay. Do you have a copy of the program that we can refer to?

MR. MCDONALD: I believe it's 3(l), I believe.

MR. WORKMAN: 3(l). So could you define for me from your program what a safety critical test is?

MR. MCDONALD: Those listed on Page 2 of this exhibit (l), 3(l), actually Page 7. Barricade test; stop signal; a dark signal; a stop and proceed signal; all the signal indications; main track authority; delayed and block; speed; automatic warning devices malfunction; written directives; interlock and control points; blue signal utility employee; SOFA (ph.); whistle, bell, headlight, ditch -- marker; how -- cars ahead of engine; provide warning of a road crossing; switching safely and efficiently; positional switches; hand operated crossover switches; derail location and position; reporting clear limits; and -- electronic devices.

MR. WORKMAN: And the last one is actually -- includes cell phones?

MR. MCDONALD: Yes, sir, it would.

MR. WORKMAN: Okay. What percentage of the tests were to be safety critical?

MR. MCDONALD: I believe we indicated that we desired at least half of those to be that.

MR. WORKMAN: So you have a requirement of 50 tests per month of which half should be safety critical?

MR. MCDONALD: A minimum of 50. Yes, sir.

MR. WORKMAN: Okay. Do you feel 50 is a sufficient number of tests?

MR. MCDONALD: We actually increased that recently.
MR. WORKMAN: And what is it now?
MR. MCDONALD: One hundred.
MR. WORKMAN: Okay. With a ratio of one manager to 10 to 12 employees, do you have any kind of mentoring program with your employees?
MR. MCDONALD: When you say mentoring --
MR. WORKMAN: Well, for example, someone an employee can go to if they've got specific questions, some manager that, since there is 10 to 12 of those, that would take the opportunity to assist any of those employees or look over, you know, any problems that they may have?
MR. MCDONALD: Yes, sir. We have a couple of those. Actually, they are what we call special duty people who, that's their specific role.
MR. WORKMAN: And could you explain that program to me?
MR. MCDONALD: Well, they're quasi-managers, if you will. They're employees who have demonstrated a skill set and desire to help the other employees and they do that. They help teach classes, they go out and ride and they mentor certainly those people we have that needs some desire, need some help.
MR. WORKMAN: Did the engineer of Metrolink 111, was he part of the mentoring program?
MR. MCDONALD: I don't believe he was. We've used him as a trainer, if you will. We had new hire, new people learning

the territory. We've used him as a ride-along, if you will. He's not a part of the mentoring program, no, sir.

MR. WORKMAN: So there was no specific manager taking interest other than doing his monthly or her monthly testing that would've been out there to see how this employee was doing or particularly overseeing their activities or had any questions?

MR. MCDONALD: Well, Mr. Dahl was his supervisor. I can let him address that.

MR. DAHL: The employees -- we have access to several different resources, the general rule -- of engines. Mr. McDonald stated we have some special duty employees to teach rules classes for us and actually do some education for us along the railroad and any one of those people the engineer could've had access to. But it's kind of on the employee to come to one of them or us to ask if they have a question or a concern or an issue that they would like clarification.

MR. WORKMAN: So the responsibility is on the employee to come to you, there's no responsibility for you to, with this kind of 10 employees, 12 employees, to manage or go talk to that particular employee or that group of employees?

MR. MCDONALD: One of our additional requirements, Mr. Workman, is that the managers participate in job briefings which are held each day, at least once a day, and the managers participate then. At that point, they make themselves available for any rule changes or anything that may come up in discussion

there, so they are available, they are properly supervised. We have employees strategically -- managers strategically placed where they would see -- they should see at least three managers a day and one of those managers is a part of their core responsibilities with participating in the job briefings.

MR. WORKMAN: I mentioned, in my opening comments, with regard to the cell phone records that the engineer had and plans to allow people to be on the head end of the train or unauthorized people, do you think if there would've been more communication between management and this employee that that would've went on?

MR. DAHL: You know, I can't answer that. I don't know -- we were very available to the engineer. We had daily job briefings, we see them, we talk to them. You know, I -- you know, we had actually a meeting two days before with the engineer where we discussed rules, opportunity to discuss any issues that they had, so yeah, the morning of the 12th, I sat in on a job briefing with the engineer and the conductor and actually interacted with them. At the completion of the sitting in the morning job briefing, I entered two efficiency tests in on them to document the job briefing.

MR. WORKMAN: Okay, thank you. No further questions.

CHAIRMAN HIGGINS: Okay. Why don't -- the parties want to ask questions? We can just make the rounds quickly. Federal Railroad.

(No response.)

CHAIRMAN HIGGINS: California PUC.
(No response.)
CHAIRMAN HIGGINS: Mass. Electric.
MR. ROBERTS: No questions at this time.
CHAIRMAN HIGGINS: City of Los Angeles.
MR. QUINTANAR: Yes, I'd like to ask two questions. Mr. Dahl, regarding documentation as far as critical issues like cell phone use and so forth, is that documented in a personal folder or record for the employee?
MR. DAHL: The employee's documentation on cell phone would've been entered into the efficiency test database, which is part of the records.
MR. QUINTANAR: And can you explain the difference between push and pull as far as announcements go? If the train is being pushed, who does the announcements? Does the conductor or the engineer?
MR. DAHL: The conductor does the announcements both in the push mode and in the pull mode.
MR. QUINTANAR: Okay. And the engineer will relay it via radio, is that correct?
MR. DAHL: The announcements -- let me clarify, when you say announcements, when we talk about announcement, we refer to the conductor making announcements over the PA to the train to the passengers. Both in the push and pull mode, the conductor plugs in to a mike and it broadcasts throughout the train to the

passengers. The engineer is not involved with the announcements for the customers, station stops, getting off and on the equipment, fare announcements. The engineer is focused on driving the train. His responsibility is to call the signals.

MR. QUINTANAR: Okay, thank you.

CHAIRMAN HIGGINS: Union Pacific.

MR. GRIMALLA: Union Pacific has no questions for these witnesses.

CHAIRMAN HIGGINS: Okay. UTU.

(No response.)

CHAIRMAN HIGGINS: BLET.

MR. WALPERT: Yes. I have some questions for Mr. Dahl. Member Higgins asked a series of questions regarding the sequence of signals. I would like to revisit that for a moment, if I could, because I think there may be some confusion in regard to the signal sequence and what the indication may mean. So beginning at CP Bernson, Metrolink 111, according to the tapes, received a flashing yellow advance approach, is that correct?

MR. DAHL: Yeah, that's correct.

MR. WALPERT: And what does that indicate to the engineer?

MR. DAHL: That indicates to the engineer that it's an advance approach and be prepared to stop in two signals.

MR. WALPERT: And is there a speed restriction?

MR. DAHL: No, there's not.

MR. WALPERT: Okay. Then the next signal leading in to Chatsworth Station, Signal 4451, according to the tapes, was an approach indication or yellow, is that correct?

MR. DAHL: That's what it indicates, yes.

MR. WALPERT: Yeah. And what does that indicate to the engineer?

MR. DAHL: That is an approach signal. It's telling the engineer to be prepared to stop at the next signal and at the time of the incident, the engineer would begin to reduce to 40 miles an hour.

MR. WALPERT: Okay. And does that necessarily mean that the signal at CP Topanga would be red?

MR. DAHL: No. That just means to be prepared to stop. There could be a situation where a train ahead would actually clear the block and that signal could go from red, yellow, flashing yellow to green depending on track conditions in front of the train.

MR. WALPERT: Okay. So between 4451 and 4444 at Topanga, there was a station stop at Chatsworth, right?

MR. DAHL: Correct.

MR. WALPERT: And have you observed the tape of the engineer handling?

MR. DAHL: Yes, I have.

MR. WALPERT: And did that -- was that tape consistent with the actions of an engineer who thought that he would have a

red signal at Topanga leaving Chatsworth?

MR. DAHL: No. Actually, the action of the tape indicates that the engineer would be on a green signal, otherwise he would not have gone faster than 40 miles an hour and would've been prepared to stop. The tape indicates that the engineer had released his brakes and got up to a speed of 52, 54 miles an hour and which would mean that -- indicate to me that he was preparing to proceed at the next signal.

MR. WALPERT: Okay. Did you, at any time, ever observe the signal from the station at Chatsworth?

MR. DAHL: Yes, several times.

MR. WALPERT: And what did you observe?

MR. DAHL: On several occasions, you can -- and it bases on environmental condition, the haze, time of day, but a green signal can be seen from both the locomotive and the platform at Chatsworth. In fact, on Monday, a few days following the incident, we ran a reenactment train out there where we did some visual spots to determine where we could see the signal. When the signal was red, we actually had to leave the station stop and go a short distance before the signal came into view. We backed up, the dispatcher changed the signal to a green proceed indication and the signal was visible from the locomotive cab and we got off and we walked back to the platform, the P&A platform, and we all could visually see the green signal from the P&A platform.

MR. WALPERT: Okay, thank you. I have a couple more

questions and this may be -- I'm not sure who is best to answer this, maybe Mr. Konstanzer, but I would like to talk for a moment about unauthorized people in the cab and you know, we've had several references that there may have been unauthorized people in the cab, but is there any evidence of unauthorized person on Train 111 on September 12th?

MR. KONSTANZER: Not to my knowledge.

MR. WALPERT: Okay. Also, we talked about the locking devices on locomotives. Can you tell me who maintains the locking devices for locomotives?

MR. KONSTANZER: That would be Bombardier Corporation.

MR. WALPERT: Okay. And how are the keys made available?

MR. KONSTANZER: They are distributed Bombardier to our conductors and engineers.

MR. WALPERT: Okay. Are those the only people who have access to those keys?

MR. KONSTANZER: No, there are Bombardier mechanical employees who would have authorized access to those keys, as well.

MR. WALPERT: Uh-huh. And managers?

MR. KONSTANZER: Yes, sir, managers, as well.

MR. WALPERT: Okay. All right, that's all I have for now. Thank you.

CHAIRMAN HIGGINS: Okay. Let me check with -- let me see here. Metrolink.

MR. CRARY: Thank you, Member Higgins. We have a few questions. This question is to Mr. Dahl. Who, in the delay and block situation, who would make the call on the signal?

MR. DAHL: The engineer would make the call for delayed and block.

MR. CRARY: Second question is I noted -- mentioned in the Operations Committee, the factual report, that a letter of counseling was given to Engineer Sanchez and Conductor Hildebrand in mid-September. It was related to a delay on Train 119, a delay on August 19th, I believe. What was the subject of the letter to Mr. Sanchez?

MR. DAHL: The letter to Mr. Sanchez was a letter of counseling. The actual counseling session occurred on September 9th, Tuesday, in the afternoon at CMF Taylor Yard with myself and another manager, Mr. Louis Pesovich (ph.). Mr. Sanchez was counseled for an unnecessary delay of Train 119. Train 119 is arriving into Moorpark in August, received by a roll-by by another train that told them to check their markers.

When the train arrived at Moorpark, the conductor turned the markers on. As he looked out the window, the engineer had got up, walked back, looked at the markers, walked back up and got on the train. So they incurred a four-minute delay, an unnecessary four-minute delay and the delay report reflected it. When they got in that night, that information was relayed to Mr. Konstanzer. Mr. Konstanzer asked me to look into it and it

resulted in a letter of counseling.

MR. CRARY: And was the subject the same letter for Mr. Hildebrand?

MR. DAHL: Yes, it was. Mr. Hildebrand had a little different portion of it. Mr. Sanchez was counseled for delay of the train. We talked about teamwork, we reviewed the rules. We actually went into a quite depth conversation about everything out there is on paper and he needs -- you know, if he has any questions. Mr. Hildebrand had the same counseling. It was on the morning of the 11th. The only addition to Mr. Hildebrand is he is the one that failed to turn the markers on in Los Angeles before he departed. So we added the Rule 5.10, requirement of markers, which was the conductor's responsibility in this process.

MR. CRARY: And during this, either the discussion with Mr. Sanchez or Mr. Hildebrand, was the subject of the cell phones ever broached about Mr. Hildebrand's earlier noted concern about cell phones?

MR. DAHL: No, it was not brought up. At the conclusion of both counseling sessions, I did ask them both the exact same question, that if there was any issues that they would like to discuss with me, any considerations. We found it a little odd that the engineer would actually get out of the locomotive and walk back instead of communicating on the radio, which sparked a question. So both of them were asked if there was any issues or questions or any advice that I could help with. They both told me

no, there were no problems, everything was fine.

MR. CRARY: Were the letters given to Metrolink?

MR. DAHL: The letters were turned in to MOC (ph.), my department. I don't know where it went from there.

MR. CRARY: Just a final question. After the 2006 cell phone efficiency failure for Mr. Sanchez, did you ever use the calling Mr. Sanchez tactic in the following two years before that practice was ruled out?

MR. DAHL: No, we didn't.

MR. CRARY: Thank you. That's all my questions.

CHAIRMAN HIGGINS: And Connex.

MR. FRITZ: Mr. Dahl, in your experiences, does the Metrolink radio system always record signals being called?

MR. DAHL: No.

MR. FRITZ: And do you know why not?

MR. DAHL: I don't know the technical side of it, but being on the train, we have had the dispatchers ask us to repeat. I know that if there's other radio transmissions in the area, you get walked on depending on whose signal is stronger, where the tower's located. Sometimes environmental conditions can affect the radio transmission.

MR. FRITZ: All right. Excuse me. Earlier you were asked for a record of PUC and FRA rides. Does Connex, in itself, keep track of every time an FRA or PUC inspector boards a Metrolink train?

MR. DAHL: No. That is actually kept through Metrolink. Maybe I misunderstood the question. I thought I was asked for every time the FRA or CPUC participated in a joint test.

MR. FRITZ: I believe it was stated earlier that Connex has increased their efficiency testing and monitoring. Has this affected the operations since the incident at Chatsworth?

MR. DAHL: Well, like I stated earlier, it's really raised the awareness of the employees out there. We are stopping trains, we are getting on the trains, we're inspecting the trains. Some delays are occurring because of it, but that is part of the procedures that we go through and the engineers and conductors are asking questions, they're getting clarification, they're communicating between themselves, rules, the level of awareness is greatly increased.

MR. FRITZ: All right, thank you. Mr. McDonald, earlier you were asked about cameras on the equipment. I'd like to backtrack a little bit. First of all, could you tell us who owns the equipment?

MR. MCDONALD: The equipment's actually owned by the Southern California Regional Rail Authority.

MR. FRITZ: Is Connex in a position to modify or add items to the equipment?

MR. MCDONALD: Not without their direction, no, sir.

MR. FRITZ: So who would be ultimately responsible for a decision to add cameras to the equipment?

MR. MCDONALD: Ultimately, that would be the decision of the agency.

MR. FRITZ: And would Connex take any exception to cameras being added to the equipment?

MR. MCDONALD: Absolutely not.

MR. FRITZ: Thank you. Mr. Konstanzer, could you tell us a little bit about what Connex did to improve the safety culture when it took over in 2005?

MR. KONSTANZER: Well, from the operating rules perspective, we increased our recorded observations, our efficiency testing. I believe they were somewhere in the neighborhood of 19,000 recorded efficiency tests in 2008, a substantial number of which were critical safety rule related, which we discussed what that constituted earlier. We have a low failure rate, which we are proud of that. We've had a reduction, jointly, with the agency of FRA-reportable accidents since Connex took over, the year 2005, had 53 and 2008 was 33.

On our employee casualty rates, we were at 5.3, we being Amtrak and Connex, in 2005. We had a 5.3 employee casualty rate. That's been driven down to .95 in 2008. We continue to work jointly with the Federal Railroad Administration and the PUC. We welcome audits, we welcome their coming onboard with us and assisting us and suggesting to us ways that we can improve our safety efforts. And finally, the Veolia, our parent corporation, is appointing a special investigatory panel made up of prominent

rail safety experts headed by Tom Downs, the former chief executive officer of Amtrak. That panel will review all the NTSB materials and related policies and practices to prevent the types of security breaches with the unauthorized personnel on locomotives and control compartments.

MR. FRITZ: All right, thank you. I have no further questions at this time.

CHAIRMAN HIGGINS: Okay, thank you. Let me ask my colleagues on the Board of Inquiry. Dr. Kolly?

(No response.)

CHAIRMAN HIGGINS: Mr. Chipkevich?

MR. CHIPKEVICH: Just a couple of questions, thank you. Mr. Dahl, you just explained to us about the counseling that was given to Mr. Sanchez, the engineer, on September 9th and a letter about his performance, the delay of the train. Released this morning was Exhibit 6(a), which is the cellular wireless device records factual report for the Metrolink engineer.

If I could ask the administrative staff to give you a copy of this exhibit to look at, 6(a), and if you'd turn to Page 15, please. Now, this document is the record of the transcription of the text messages and the factual report by the Research and Engineering staff. The first full paragraph there notes that additionally, Person A and the engineer had arranged for a ride-along of some type on the evening of Tuesday, September 9th. Person A and Person B were to board the engineer's

train at Chatsworth and ride it to Los -- LAUS, which they apparently did. Text messages concerning this ride-along were not as detailed as others, the other plans to allow Person A operate the train, so here was an actual day when you had a consultation with the engineer earlier in the day and apparently, that evening a person met that engineer and actually rode in the cab, that locomotive. So I guess, you know, how effective and how stern are these counseling sessions and do you think they're really an effective tool?

MR. DAHL: Well, the counseling session that we did with the engineer was actually a very aggressive counseling session with another manager. I was just doing some research for a Long Beach train, I had a bunch of documentation of rules, Connex notices. I actually physically handed him a Connex notice that had the rules, including this rule, about no unauthorized persons on a locomotive and it also had a cell phone rule that was the same notice as 15.08 that you have in your possession. I thought the counseling was fairly productive. The second manager got involved and discussed some rules about teamwork and stuff. Obviously, not effective enough.

MR. CHIPKEVICH: And I guess for Mr. McDonald, I guess we got some clarification on the cameras. Has Connex recommended that cameras or any other kind of recording devices be installed on the locomotives? You said you don't have an objection to it, but have you recommended such?

MR. MCDONALD: Our parent company, Mr. Joseph, has indicated to Mr. Solow and his staff that they would be willing to assist with any efforts to do that, yes, sir.

MR. CHIPKEVICH: But you think it's a good idea?

MR. MCDONALD: I think it is. It gives us an additional tool.

MR. CHIPKEVICH: Okay, thank you.

CHAIRMAN HIGGINS: Okay, thank you. I have several questions. I want to understand, we've talked about Connex or Metrolink and I think you mentioned that there are 2200 Connex employees nationwide. How many operations does Connex have similar to Metrolink and where are they located?

MR. MCDONALD: In addition to Connex, we have MBCR, which is in Boston. It's a joint venture with Veolia, Bombardier and ACI. We operate TriRail, which is in Miami.

CHAIRMAN HIGGINS: I'm sorry, so Boston --

MR. MCDONALD: Boston, Miami, San Diego County Sprinter.

CHAIRMAN HIGGINS: Okay.

MR. MCDONALD: And Austin, Texas.

CHAIRMAN HIGGINS: So four jurisdictions in addition to Los Angeles?

MR. MCDONALD: That would be right, yes.

CHAIRMAN HIGGINS: And are the operations similar? I mean, I recognize that the -- they're different communities and different systems, but is Connex's responsibility essentially the

same in terms of the engineers and the conductors work for you, you have a management team?

MR. MCDONALD: They're somewhat similar. Both MBCR and TriRail, we provide engineers and conductor, but at MBCR we also provide other services, as well.

CHAIRMAN HIGGINS: Right. I think you do right of way --

MR. MCDONALD: Mechanical.

CHAIRMAN HIGGINS: -- workers, mechanical. Okay. And then tell me about your relationship or Connex's -- I don't mean you, Metrolink, but -- Connex. But Connex's relationship as a subsidiary of Veolia and how large is Veolia and how many subsidiaries does Veolia have?

MR. MCDONALD: Well, worldwide, Veolia and its subsidiaries comprise one of the largest private operators of passenger rail. We're responsible for over 2,000 rail vehicles traveling on 6,000 miles of track in eight countries, including Australia, Czech Republic, France, Germany, Holland, Sweden and of course, the United States.

CHAIRMAN HIGGINS: Okay. The reason I'm asking these questions is because we've talked about the operating rules for -- that you're working with for Metrolink and the efficiency tests and I'm wondering whether those are standardized across Connex and in turn, across Veolia or whether it's -- these are things that are worked out locally for each operation?

MR. MCDONALD: I think it's a little bit of both, actually. We built on -- like I indicted earlier, I've been with Metrolink since 1997 in a similar capacity as is most of our employees, so we just use best practice and built on that. Some of it is dictated by the Federal Railroad Administration and the CPUC. We also, depend on our discipline from our sister properties from across the country and certainly, from around the world.

CHAIRMAN HIGGINS: And how are best practices identified?

MR. MCDONALD: Actually, was working good. We tried to identify that.

CHAIRMAN HIGGINS: And how do you -- I guess, following up on Dr. Kolly's question, how do you know whether it's working well or not? How do you evaluate what seems to work better than something else?

MR. MCDONALD: I guess end results but actually, we -- sharing of information. We also work well with AFTA (ph.), as well. SCRRA has some senior staff operating personnel that I've worked closely with over the years and we certainly -- as well to give us guidance, if you will.

CHAIRMAN HIGGINS: Okay. So is it -- does Connex corporate take the lead in that, does Veolia, is it up to each local to try and discern best practices? Again, this is -- I'm interested -- you know, this is a big country. I think urban

transit systems like commuter rail systems are -- they're a good thing. We want to make sure that they're safe in their operations and most of them, I think we -- we don't fortunately see many of these accidents. But how do we, from the standpoint of the Safety Board, how can we understand what best practices are, how can we identify them working with Federal Railroad or others, because our job is going to be recommendations coming out of this accident.

MR. MCDONALD: I understand, I understand. As you know, Metrolink is federally regulated with oversight from the FRA and CPUC, and we work internally with SCRRA staff and other internal teams around -- along with AFTA recommendations to go that regards, so we don't do it in a vacuum, if you will.

CHAIRMAN HIGGINS: Okay. I guess I would be interested and perhaps -- we have Connex representatives here -- I would be interested in, perhaps, submitting -- if you could submit or ask Connex to submit, Veolia to submit, other examples of efficiency testing and other kinds of practices that are in place in the four areas where Connex is operating, but also in other practices that have been employed by Veolia either in this country or in other countries to address some of these same issues.

MR. MCDONALD: Certainly, we -- our Vice President of Safety is here and I'll task him with that tonight.

CHAIRMAN HIGGINS: All right, thank you. In your -- in the operating rules for Connex, I notice that you mentioned -- there's a mention of crew resource management, CRM, and I'm

wondering how you train, introduce, indoctrinate, whatever the right word is, your crews with the whole idea of a notion of crew resource management. This is a term, an effort that I'm familiar with, primarily in aviation and certainly in the marine industry, there's a focus on it, but I'm wondering how that's -- that kind of program is initiated and institutionalize with Connex and with Metrolink.

MR. DAHL: The CRM, we actually have developed a module that was brought over from the airline industry and crew resource management is actually a class we give, it's mandatory. We give every one of our employees annually. It talks about teamwork and we've actually got a lot of good response and a lot of good things have come out of the actual class.

CHAIRMAN HIGGINS: And what kind -- can you give me some examples of the kinds of things that are emphasized in the class?

MR. DAHL: I don't have the class module in front of me, but it talks about teamwork, being proficient on the operation, knowing the rules, applying the rules, understanding them.

CHAIRMAN HIGGINS: Okay. Perhaps you could submit that for the record, also.

MR. DAHL: Absolutely.

CHAIRMAN HIGGINS: I guess I'm being told that if I'm asking for these things, they have to be identified as exhibits, so -- sorry, Paul.

HEARING OFFICER STANCIL: The former was Exhibit 3(gg)

and that was examples of efficiency tests and other practices and this would be identified as -- okay.

(Whereupon, the document referred to as NTSB Exhibit 3(gg) was marked for identification.)

HEARING OFFICER STANCIL: Exhibit 3(gg) would be examples of efficiency tests and other practices employed by Veolia in this country and in other countries that deal with these same issues.

CHAIRMAN HIGGINS: Okay.

HEARING OFFICER STANCIL: This would be Exhibit 3(hh) and what we call this again?

(Whereupon, the document referred to as NTSB Exhibit 3(hh) was marked for identification.)

CHAIRMAN HIGGINS: I'm asking for the modules, the training modules, on crew resource management that Connex has instituted.

HEARING OFFICER STANCIL: Okay. Training modules on pre-resource --

CHAIRMAN HIGGINS: Crew resource.

HEARING OFFICER STANCIL: Crew resource management that Connex has instituted.

CHAIRMAN HIGGINS: Yes. Now, let me ask you about another initiative that has taken hold in aviation and in the marine industry that I've seen is the whole issue, the whole concept of safety management systems. Is that a term that you're familiar with?

MR. DAHL: No, I'm not familiar with that term.

CHAIRMAN HIGGINS: Okay. Is anybody in the panel familiar with that?

MR. MCDONALD: I am not.

CHAIRMAN HIGGINS: Okay. I won't get into it here but again, I think, as I tried to raise a question earlier, as we look at the issues coming out of this accident where we have an efficiency test system and essentially, the crews are expected to do well in these efficiency tests but as we just heard Mr. Chipkevich give an example, where we have a session in the morning and in the afternoon something else happens, I'm wondering whether the concept of a safety management system -- again, I don't know. I'm just asking. I'm throwing it out there because I think we've got to think outside the box here, whether that's an approach that is worth talking more about. It seems to have worked well in the aviation industry, although it's far from perfect, but that's not something, obviously, that you're familiar with or have instituted.

MR. DAHL: We got to look into it, I mean, anything that could help would be appreciated.

CHAIRMAN HIGGINS: Okay. You mentioned -- we were talking about failures in the efficiency tests and one of the questions I had was -- and see if I can find the document -- but in one of the -- in one of your rules, let's -- I don't know if I can pull it up here, but let's see if I can. On the cell phones, the question -- or the signals, I guess. Is it a failure -- is it considered a failure if the signals aren't called and if they aren't confirmed by -- and/or aren't confirmed by the conductor?

MR. DAHL: Yes.

CHAIRMAN HIGGINS: So you would -- it's a failure both not to call the signal but also not to confirm it on the part of the conductor, is that right?

MR. DAHL: The conductor must confirm anything more restrictive than a green.

CHAIRMAN HIGGINS: Okay. And so that would be considered a failure if that didn't happen?

MR. DAHL: Yes.

CHAIRMAN HIGGINS: Okay, thank you. Does Connex or Metrolink -- is there any kind of -- what I guess we have in the federal government -- a whistleblower program so that if an employee sees -- has a concern about something, they can report it without fear of retaliation either by management or by one of their colleagues?

MR. DAHL: Yes, we do.

CHAIRMAN HIGGINS: Okay. And how -- is that used at

all? I mean, what's been your experience?

MR. DAHL: Well, I don't know if it's been used. It would be a level above mine, but it is posted in all of our on-duty locations, it's posted at central maintenance facility for the employees to see, read and take advantage of it, if necessary.

CHAIRMAN HIGGINS: But you're not familiar with it being used?

MR. DAHL: I'm not aware of it, no.

CHAIRMAN HIGGINS: Okay. And then finally, there was a question that was raised about the issue of unauthorized passengers or individuals in the cab of the train and the reason that we are discussing it, I just want to be sure we're clear about this, because even though there wasn't somebody in the cab at the time of the accident, the text messages that we have that we know were sent and we actually have the transcripts of indicate that there had been unauthorized individuals in the cab of the train earlier in the week, that they'd actually been driving the train, and that that there were arrangements being made -- this accident happened on Friday -- for similar to happen later that evening.

So that's why we're bringing it up because it is -- I think it's directly relevant to this accident. It's the issue of text messaging which there's a rule against, but those messages included efforts to organize unauthorized individuals to be in the cab of the train itself and there's indications both from the

messages and from the interviews that we conducted that those unauthorized -- at least unauthorized person, I think it was just one, had been allowed to drive the train. So I think it's pretty relevant to what's going on here. And I think that is all the questions I have. Are there any questions that anybody else wants to raise for this particular panel? Yes.

MR. CRARY: I just had one follow up. Mr. Dahl, you mentioned that the rules that you gave Mr. Sanchez on September 9th included the rule for unauthorized person in the cab. Was that because you had any knowledge about potentially breaking that rule? Why did you select that rule to hand to Mr. Sanchez?

MR. DAHL: That's our Connex Operation Notice 17.08 and the section that I had highlighted for Mr. Sanchez was the section on teamwork because of the unauthorized delay of Train 119, so when I handed him the -- let him go through all the rules in that document, but we did go over the teamwork rule.

MR. CRARY: But it just happens that 1.22 was also in that one?

MR. DAHL: Yeah, that -- well, unauthorized persons, it's not listed as a rule number but yes, it was in our Connex notice, it is one of the exhibits here in the room.

MR. CRARY: Thank you. That's all.

CHAIRMAN HIGGINS: Yes, FRA.

MR. COTHEN: If I may, to whomever would be appropriate on the panel. And I apologize for the leading nature of the

question, but we had the issue of the emergency order and the use of an efficiency test in which the person's private cell phone would be rung up while the train was in motion to determine compliance with the rule. Given that you have a notice out that requires, in effect, that the cell phone be off and a grip, and given that calling a cell phone that's off is of little value to anyone and would not be known to the employee who's being tested unless the person was later advised, and given that it may be that the cell phone might be in a grip but left on, would you be concerned with distracting the engineer from the engineer's current duties during the conduct of such a test?

MR. KONSTANZER: Yes.

MR. COTHEN: Thank you.

CHAIRMAN HIGGINS: I think we are about to release you. Are there any other comments that you all would like to make before we move to the next panel?

MR. MCDONALD: No, ma'am.

CHAIRMAN HIGGINS: Anybody else?

(No response.)

CHAIRMAN HIGGINS: Okay. Thank you very much and we will now call our next panel.

(Witnesses excused.)

PANEL 4 WITNESSES SWORN AND QUALIFIED

HEARING OFFICER STANCIL: Would Mr. Lettengarver and Mr. Ed Quicksall please come forward and take the stand?

CHAIRMAN HIGGINS: We're still focusing on operating rules.

HEARING OFFICER STANCIL: Mr. Lettengarver, would you please raise your right hand?

(Witness sworn.)

HEARING OFFICER STANCIL: Thank you. Could you move your microphone closer, please?

MR. LETTENGARVER: Is this better?

HEARING OFFICER STANCIL: Yes.

MR. LETTENGARVER: Okay.

HEARING OFFICER STANCIL: Mr. Lettengarver, please state your full name.

MR. LETTENGARVER: Full name is Gary Lee Lettengarver.

HEARING OFFICER STANCIL: And could you spell your last name, please?

MR. LETTENGARVER: L-e-t-t-e-n-g-a-r-v-e-r.

HEARING OFFICER STANCIL: Okay. And could you identify your current employer?

MR. LETTENGARVER: Metrolink, Southern California Regional Rail Authority.

HEARING OFFICER STANCIL: And what is your title, sir?

MR. LETTENGARVER: My title now is Director of Operations.

HEARING OFFICER STANCIL: And your business address?

MR. LETTENGARVER: 2558 Supply Street, Pomona,

California.

HEARING OFFICER STANCIL: And how long have you been in your current position?

MR. LETTENGARVER: About two weeks.

HEARING OFFICER STANCIL: Okay. What positions have you held with Metrolink?

MR. LETTENGARVER: Well, why don't I just start with the railroad career?

HEARING OFFICER STANCIL: Okay, you can begin at the beginning and --

MR. LETTENGARVER: Yeah, I'll start at the beginning.

HEARING OFFICER STANCIL: Okay.

MR. LETTENGARVER: I started out with Conrail as block operator, moved up as a train dispatcher, became Assistant Movement Director, Movement Director, supervisor. Then in 1983 I came over to Amtrak and I was -- started off as a train director, station master, worked in rules for train directors for a train directors for a while, became a Supervisor of Operations. Then in 1992, I came to Metrolink and I was there for the startup of the dispatching office. I managed the dispatching office until December of 2007 and then at that time I became the Assistant Director of Operations and we're here.

HEARING OFFICER STANCIL: And were you the Assistant Director of Operations at the time of the accident?

MR. LETTENGARVER: That is correct.

HEARING OFFICER STANCIL: Okay. And could you identify the person to your left, please, your counsel?

MR. LETTENGARVER: This is Marilyn Baker [sic], she's the counsel for us.

HEARING OFFICER STANCIL: Okay. All right, thank you. Mr. Quicksall, would you raise your right hand, please?

(Witness sworn.)

HEARING OFFICER STANCIL: Okay, Mr. Quicksall, could you please state your full name?

MR. QUICKSALL: Edward Leon Quicksall.

HEARING OFFICER STANCIL: And how is your last name spelled?

MR. QUICKSALL: Q-u-i-c-k-s-a-l-l.

HEARING OFFICER STANCIL: And who is your current employer?

MR. QUICKSALL: Southern California Regional Rail Authority.

HEARING OFFICER STANCIL: And your title?

MR. QUICKSALL: Project Manager.

HEARING OFFICER STANCIL: And your business address?

MR. QUICKSALL: 700 South Flower, Los Angeles.

HEARING OFFICER STANCIL: How long have you held your current position?

MR. QUICKSALL: A little bit, right out of --

HEARING OFFICER STANCIL: I'm sorry, could you repeat

that?

MR. QUICKSALL: Right at one month.

HEARING OFFICER STANCIL: One month, okay. Prior to that, what positions have you held with Metrolink?

MR. QUICKSALL: At Metrolink, I've held a position of Manager of Operations and I've held the position of Director of Operations.

HEARING OFFICER STANCIL: And how many years in total have you worked in the rail industry?

MR. QUICKSALL: I began in 1971 as a locomotive fireman for the Southern Pacific Railroad. October '73, I was promoted to engineer handling mixed brake and passenger. March 19 -- well, October 1988, Amtrak took over the crewing of the passenger trains from SP and I went to work for Amtrak, carrying my full seniority.

In March of 1990, I was a Road Foreman of Engines with Amtrak in New Orleans. And then a whirlwind of promotions with Amtrak as a Transportation Manager II in Chicago, Transportation Manager I in Seattle, Service Manager/Engine Qualified in Seattle, which meant that they added stations to my responsibility.
In 1988, I came over to Amtrak/Metrolink commuter operations as a superintendent. And 2004, I became the Manager of Operations for SCRRA.

HEARING OFFICER STANCIL: And was that the position you held at the time of the accident?

MR. QUICKSALL: I held the position of Director of

Operations at the time of the accident.

HEARING OFFICER STANCIL: Thank you, sir. Madam Chairman, the witnesses are qualified and I'll turn the questioning over to Mr. Remines.

TECHNICAL PANEL QUESTIONS

MR. REMINES: Good afternoon. First, I'd like a description of your relationship with Connex. Are you the manager of that type of information? What is your relationship to Connex?

MR. QUICKSALL: It's a professional and courteous relationship. It is oversight of the contract and it is a good working relationship in that when we ask them to do things, they're almost instantly done.

MR. REMINES: Was it any better or any worse or the same as it was under -- when Amtrak was the operator?

MR. QUICKSALL: Actually, it was pretty transparent. All of the managers from Amtrak with the exception of one came over to Connex. The majority of engineers and conductors came over from Amtrak. It was basically just a transparent operation. You really couldn't tell that -- I guess the only thing that really changed for the employees of Connex was who signed their check.

MR. REMINES: Did you maintain ownership of the rules and operating procedures? Is that something that was there --

MR. QUICKSALL: We did. We work under the General Code of Operating Rules and that just transferred straight over. The

supplemental instructions which we write also transferred straight over.

MR. REMINES: The rules we've been talking about today, were they in effect at the time Connex took over, the calling of signals?

MR. QUICKSALL: Yes. That actually -- the engineer calling every signal was actually instituted at Amtrak.

MR. REMINES: You were -- how about the use of electronic devices, when did you start regulating those?

MR. QUICKSALL: I believe that's the 1.10 rule has always been in the General Code of Operating Rules.

MR. REMINES: Presence of unauthorized persons in the locomotive cab?

MR. QUICKSALL: That has, as far as I know, also always been in the General Code of Operating Rules.

MR. REMINES: Do you have a rules department?

MR. QUICKSALL: We do not have a rules department as you would recognize on freight railroads. We have a rules department which consists of the Timetable Committee and the managers and people of each department of Metrolink are on that Timetable Committee, as well as members of Connex and Amtrak and Coaster (ph.), and any rule additions, revisions, whatever, goes through that committee for approval.

MR. REMINES: Do you partner with Connex when they do efficiency tests in any way?

MR. QUICKSALL: We do, at times, and we also ride trains and make our own observances.

MR. REMINES: In your own observances, are you familiar with the engineer and the conductor of this 111 --

MR. QUICKSALL: I am.

MR. REMINES: And what was your impression or your observations of --

MR. QUICKSALL: The conductor is -- let me start with the conductor. The conductor is a very kind, gentle person. He -- I can't remember ever seeing a complaint on that conductor, probably to the point of not writing citations when he should've, but the conductor is a very caring person. Engineer Sanchez is very capable in his train handling. He's knowledgeable of the rules, from my observations, and he's very capable of complying with the rules.

MR. REMINES: Do you have the ability to bar a Connex employee from your operations?

MR. QUICKSALL: We do.

MR. REMINES: Have you ever done that?

MR. QUICKSALL: We have temporarily barred employees for rule violations pending investigation.

MR. REMINES: Okay. I'd like to direct you to 3(m), your Commuter Rail Operator Trains Operations, Duties and Responsibilities. What I want to ask you here is did Connex have a safety system safety plan and had you seen it and approved it as

required by this contract under Safety, under 2, first paragraph?

MR. QUICKSALL: They did. It would not have been mine to approve. That would've been our safety department to approve.

MR. REMINES: Okay.

CHAIRMAN HIGGINS: I'm sorry. Could you use your microphone, maybe pull it closer?

MR. QUICKSALL: Okay. I'm trying. I'm a soft talker,

CHAIRMAN HIGGINS: If you could just repeat what you just said?

MR. QUICKSALL: I said that Connex did have a system safety plan. As far as approval, that would've come from our safety department and I'm sure that that was approved.

MR. REMINES: It also requires that Connex report to you a monthly summary of its audits and inspections and results. Is that something that would go through your office?

MR. QUICKSALL: That is something that would go through my office. In that report, we would get any discipline assessed in the prior month. We would get any random drug testing, we would get extra board utilization. We would get any injuries or hours of service violations, plus the nature of the rest of that report was giving us an activity report on the transportation managers in the field.

MR. REMINES: On Page 2, it says that the operating efficiency test would be approved by the FRA. If FRA took exception to the efficiency testing on Connex, would they be

required to report to you, also, or would Connex be the one to report?

MR. QUICKSALL: That's a little bit of a mixed bag because Connex has gotten inspection reports from the FRA and forwarded them to us. By the same measure, we've gotten inspection reports from the FRA and shared copies with Connex.

MR. REMINES: Do you have a working relationship with the FRA as far as the safety of your operations and their oversight?

MR. QUICKSALL: Definitely.

MR. REMINES: It also says in here that Metrolink is responsible for head end passes and train authorizations. Is that something you have total control over?

MR. QUICKSALL: That is something that we have control over. As far as written authorization, the head end passes is something we have control over, but they may go to contractor employees such as Bombardier or the signal department or the maintenance of way department.

MR. REMINES: Are you aware of any passes that would've been issued that would've been related to this accident?

MR. QUICKSALL: No, none whatsoever.

MR. REMINES: I'd like to talk to you about dispatching and I think Mr. Lettengarver might be able to answer these questions. You maintain control of dispatching. Why is that?

MR. LETTENGARVER: Metrolink -- no. Am I coming out?

Metrolink took over dispatching in 2002 directly for the oversight of the railroad.

MR. REMINES: Some of the questions that I posed earlier, they talked about the calling of signals over the radio. Are your dispatchers involved in that?

MR. LETTENGARVER: Our dispatchers, they do an efficiency test up in the office every month. They have so many trains that they have to do every month. They call is a diverging test. The dispatcher and the chief will work together and the dispatcher will line the train into a diverging route and the chief and the dispatcher will listen for the advance approach calling and the approach signal and then they record it into their testing.

MR. REMINES: There's been some complaints about the congestion over the radio because of calling of signals. How do you feel about that rule?

MR. LETTENGARVER: Could you repeat that question?

MR. REMINES: Calling of signals over the radio, how do your dispatchers feel about it as far as congestion on the radio and what's their impression of the safety and benefits of it?

MR. LETTENGARVER: They like the calling of the signals. The dispatchers, on occasions, have caught crews, have heard crews saying a green and then a dispatcher will go what did you say? Did you say a green signal? And they said no, no, no, dispatcher, I meant an advance approach or approach. They use -- they monitor

pretty good.

MR. REMINES: Do they give you feedback now on the safety of the operations as far as they can hear over the radio?

MR. LETTENGARVER: Yes, as far as they can hear over the radio.

MR. REMINES: If they took exception to a crewman for a Metrolink train would they make a report of it?

MR. LETTENGARVER: They report it immediately to the chief dispatcher.

MR. REMINES: Okay. If a person is to be on the head end of a locomotive that's authorized, are you supposed to be notified at the dispatch center?

MR. LETTENGARVER: At the dispatch center we get notification of people riding a head end along with the conductor usually would call us.

MR. REMINES: Okay. Do you have any anonymous system for people to report unsafe conditions on Metrolink?

MR. LETTENGARVER: No.

MR. REMINES: I have no further questions.

MR. WORKMAN: Wayne Workman for Mr. Quicksall. At the time of the accident, you were the Director of Operations?

MR. QUICKSALL: That is correct.

MR. WORKMAN: And the oversight responsibility for testing, did that fall under your responsibility?

MR. QUICKSALL: It fell under my responsibility as I was

training Gary Lettengarver as the Assistant Director to eventually take that over.

MR. WORKMAN: Okay. To either one of you with regard to the oversight responsibility, what kind of reporting did you require from Connex with regard to their testing and what were your requirements to Connex with regard to testing?

MR. QUICKSALL: I'm going to -- Gary Lettengarver's got the SOPs. That stands for standard operating practice. I'll let Gary go through that part because I don't have it in front of me. But in answer to the rest of the question, we received a monthly report, which I discussed earlier. We also received a quarterly report and that quarterly report was the one that was really put under the microscope because it listed the types of tests, it listed the dates, the crews, the managers' testing and that's the one that we really paid a lot of attention to. The monthly report also included a total of tests done by the managers. And Gary can go through the SOPS with you. This is what we required of Connex to do above and beyond whatever minimum testing requirements they had.

MR. LETTENGARVER: On this quarterly report, we would have -- the tests would be signal compliance, which was basic descriptions; delayed and block; stop test, stopping short of a stop indication; locomotive engineer event recording review; calling the signals for TNE (ph.) crews; fatigue; TNE crew test monthly; speed checks, where they would read the event recorders;

management testing; emergency prepare efficiency test and TNE crews; skill performance, which is basically a ride check; foreign railroad crew sufficiency testing; road local crews from foreign railroads; and joint efficiency testing.

MR. WORKMAN: At any time when you received these reports, did you review them personally with Connex or was this an internal review?

MR. QUICKSALL: Most of the time it was an internal review. When there were questions that I had that needed further explanation, I reviewed this with Connex.

MR. WORKMAN: So on a monthly or quarterly basis, you did -- you met with Connex or you only met with them if you had a question?

MR. QUICKSALL: I only met with them directly when I had a question about either a test, a procedure or needed explanation as to something I saw that I didn't understand.

MR. WORKMAN: Okay, thank you. No further questions.

CHAIRMAN HIGGINS: Any other questions from the Technical Panel?

(No response.)

CHAIRMAN HIGGINS: Okay. Then we'll entertain questions from the parties.

PARTY QUESTIONS

CHAIRMAN HIGGINS: FRA.

(No response.)

CHAIRMAN HIGGINS: California Public Utilities.

MR. CLARK: Yes. One question for Mr. Quicksall. Mr. Quicksall, do you recall ever having received a written complaint of unauthorized people in the cab on locomotives?

MR. QUICKSALL: No, not with Connex. None whatsoever.

MR. CLARK: Okay, thank you.

CHAIRMAN HIGGINS: Mass. Electric.

MR. ROBERTS: Mass. Electric has no questions.

CHAIRMAN HIGGINS: City of Los Angeles.

MR. QUINTANAR: No questions.

CHAIRMAN HIGGINS: Union Pacific.

MR. GRIMALLA: Union Pacific has no questions.

CHAIRMAN HIGGINS: UTU.

(No response.)

CHAIRMAN HIGGINS: BLET.

MR. WALPERT: Yes, just a couple of questions. Mr. Lettengarver, you indicated that the dispatchers like the calling of the signals over the radio. Are the dispatchers required to monitor the calling of signals over the radio?

MR. LETTENGARVER: No, they're not.

MR. WALPERT: Okay. And do they record the calling of the signals in any way?

MR. LETTENGARVER: Could you explain more?

MR. WALPERT: Well, I mean, if they -- over here, the train crew calling the signal over the radio, do they record that

on any form or anything?

MR. LETTENGARVER: No.

MR. QUICKSALL: Can I add to that, please? When Gary Lettengarver spoke earlier of diverging testing, diverging testing is running a train on other than its normal route. Every day you get a grain here and every day you get a grain there. So it's rerouting the train on a different-than-normal route, maybe through a siding, maybe through -- on the opposite main track. I wrote the test for that when I was at Amtrak and it carried through to the dispatchers at Metrolink and what -- the test requires that the dispatcher note that the flashing yellow is called out, that the yellow is called out; if the train is indeed stopped, that the red is called out, and each time the conductor acknowledges that. Those tests, those diverging tests, are recorded in the test system.

MR. WALPERT: Okay. And that's -- but that's only when a test is performed, is that correct?

MR. QUICKSALL: That's when a test is performed.

MR. WALPERT: Right.

MR. QUICKSALL: That's correct.

MR. WALPERT: Okay. And -- but under normal circumstances, they don't monitor or record, is that correct?

MR. QUICKSALL: That's correct, unless they hear an engineer who is not calling signals, period.

MR. WALPERT: Okay. And how many trains a day does

Metrolink run over that particular territory?

MR. QUICKSALL: Over that particular territory?

MR. WALPERT: Yes.

MR. QUICKSALL: Meaning the Ventura County?

MR. WALPERT: Yes.

MR. LETTENGARVER: How many Metrolink trains?

MR. WALPERT: Yes.

MR. LETTENGARVER: I would have to say anywhere between -- I don't have my timetable here, but I would probably say about 15 to 20 of them.

MR. WALPERT: Okay. That's all the questions I have.

CHAIRMAN HIGGINS: Okay. Connex.

MR. FRITZ: Mr. Quicksall, you were asked about whether you'd received any notices or complaints of unauthorized people in the cab and you said not since Connex. Did you receive any complaints prior to Connex taking over the operation?

MR. QUICKSALL: We had an incident with Amtrak when Amtrak operated and the engineer was removed from service at Metrolink.

MR. FRITZ: Earlier you were asked some questions about the cell phone rules. Prior to Connex adopting their cell phone rule, was there a specific cell phone rule in place?

MR. QUICKSALL: 1.10 added, under additions, revisions, barring the use of cell phones from the controls of a moving train.

MR. FRITZ: And when was that added?
MR. QUICKSALL: I don't know if I --
MR. LETTENGARVER: Rule 1.10 was added in -- the first time it was added was in July of 2004.
MR. FRITZ: Thank you. Do the dispatchers sometimes alert the crews of impending train meets?
MR. LETTENGARVER: It's not their practice.
CHAIRMAN HIGGINS: I'm sorry, could you repeat that question?
MR. FRITZ: Do the dispatchers sometimes alert crews of impending train meets?
MR. LETTENGARVER: It's not their standard practice.
MR. FRITZ: But do they do it at all?
MR. LETTENGARVER: I would not know.
MR. QUICKSALL: I'd like to add to that, also. I would highly discourage that. Plasentia (ph.), in which a BNSF train ran a red signal and ran into our train, the crew was used to the dispatcher telling them to hold back off a crossing if they weren't going to proceed through the interlocking. This particular day they had a different dispatcher. The crew lost attention of the fact that if every day were told we're going to stop short and the signal's going to be red and if we're not told, it's going to be green, and we -- I, myself, want to see the engineer following signal indication without notification by the dispatchers.

MR. FRITZ: All right, thank you. We have no further questions at this time.

CHAIRMAN HIGGINS: Thank you. My colleagues. Dr. Kolly.

BOARD OF INQUIRY QUESTIONS

DR. KOLLY: I'd like to follow up some questions that I earlier had asked Mr. Dahl about the quarterly reporting of the testing results. Can you characterize your review process of these reports? Like, what do you typically do when you get these, who reads them, what actions are taken or potentially taken?

MR. QUICKSALL: When I do -- there's a lot of ways that you can analyze efficiency test reports and none of them are necessarily more right than others. When I would do it, I would literally pick out some of the tests like stop tests, the diversion clear test -- excuse me -- fatigue test, to go through those examples. On the stop test, I would go into the dispatcher's office and match up the train with the crew, with the location, with the delay on the delay report that there was a stop test.

On the -- well, what's another example I gave? I would look at holidays, I would look at nights and weekends to see what kind of tests were being done then to make sure that the tests were evenly dispersed and all the managers weren't off every weekend not doing any testing or not off every holiday and not doing any testing. As I said, there's a lot of ways you would see

-- or the preponderance of tests, were they fairly spread out over the territories that the trains transversed or were they just being done near a crew base. And there's just a lot of ways of doing it, but that's some of the ways I did.

DR. KOLLY: With regard to the results that are reported, are there any types of standards or benchmarks that you're comparing against?

MR. QUICKSALL: I don't -- I think you're asking do I have a level here and is it up here or is it down here and I really didn't because, for example, San Bernardino runs the majority of the trains that we have on Metrolink so you'd have to break that out into percentages if you were looking at the Riverside line which doesn't run that many trains. There were -- and I'll admit -- there were times when I would actually look at certain crews to see how their performance was going.

DR. KOLLY: With regard to looking at certain crews, are these tests -- they're identified or do you have to do something to identify a particular crew or is that made available to you?

MR. QUICKSALL: It's made available to us in the dispatching center. Also, I spent my tenure at Amtrak/Metrolink commuter operation and I knew most of the crews that worked there personally.

DR. KOLLY: Are you able to have any influence on, say, if you saw any particular performance deficiencies with a crew or an individually, do you have any influence over their continued

employment or any type of training or anything along that line?

MR. QUICKSALL: Yes. First off, any formal discipline issued by Connex was reviewed by Metrolink and if we weren't satisfied with the discipline, we had the right to bar the employee. They could appeal that bar after 30 days. We also could recommend remedial training, which we normally did any time there was a major rule violation before we would accept the employee to come back.

DR. KOLLY: Can you give me an idea on how often that may have taken place?

MR. QUICKSALL: Maybe three times a year.

DR. KOLLY: No further questions.

CHAIRMAN HIGGINS: Mr. Chipkevich.

MR. CHIPKEVICH: Thank you. Mr. Quicksall, when -- you said a couple of times unauthorized persons were found in the locomotive or cab, what actions were taken to address that issue?

MR. QUICKSALL: I'd have to review. I don't remember saying a couple of times. Ted Fritz asked me the question about I had said that there hadn't been any reports from Connex and he asked me if there'd been other reports and I said yes, when Amtrak had the contract. That engineer was removed from service and not allowed to work at Metrolink again.

MR. CHIPKEVICH: Okay, thank you. How do you believe that Metrolink, in particular, and then the industry as a whole can improve compliance with the restrictions against using cell

phones, the requirement for calling signals and then prohibiting unauthorized persons in a locomotive?

MR. QUICKSALL: I'm going to give you an opinion that won't be very populate with the BLE and -- but I would like the BLE to note that I used to be a local -- on Zone 9A. The first -- what was the first point? I remember the other two.

MR. CHIPKEVICH: Actions that could be taken to improve compliance with restrictions on the use of cell phones.

MR. QUICKSALL: Personally, I would rather see cell phones banned, just totally, out of the controlling compartment of a cab car locomotive. The only way that's going to work is if you have the right to look through the engineer's grip. That's the only way I know that you can totally regulate it or maybe not even totally regulate it, but regulate it to a fashion that is controllable because that is the single hardest test that I know to find somebody guilty. They're not going to have their phone out when you climb on the train.

They're not going to be talking on the telephone when you climb on the train. Prior to September 12th, we really didn't look at cell phones as being a major safety issue. September 12th changed all that for all of us and I would just like to see the cell phone not even be allowed anywhere in the controlling department of a train. The second question you asked and third, I believe, inward facing cameras would help that issue. That could also, if you don't want to bar the use of a cell phone, it would

handle that, too. I think September 12th, once again, has taught us that we can't have a manager with every engineer out there and the inward facing cameras would not only be a deterrent, they would let us know exactly what happened on that day.

MR. LETTENGARVER: I would like to add that Metrolink is in the process of procuring inward facing cameras for all their locomotives and cabs.

MR. CHIPKEVICH: You're procuring them and -- so they will be installed?

MR. LETTENGARVER: Yes, they will be installed. The installation should start later this -- part of this year, probably near the end of the year or sooner.

MR. CHIPKEVICH: Okay. Thank you very much.

CHAIRMAN HIGGINS: Well, once again I have lots of questions and I don't even know where to start. Let's talk about dispatching. How would you describe the job of the dispatcher?

MR. LETTENGARVER: Job of the dispatcher is the territory we have for them is to be able to move to commuter rush at a pace that will be in a safe and efficient way. They're constantly on the radio or the telephone -- authority in different areas, moving the trains, coordinating with the foreign railroads and when they can, they will oversee and hear what they can.

CHAIRMAN HIGGINS: Okay. You use the term safe and efficient. Would you put more emphasis on one of those versus another?

MR. LETTENGARVER: Safety --

CHAIRMAN HIGGINS: Okay.

MR. LETTENGARVER: -- is always first in the dispatcher's mind.

CHAIRMAN HIGGINS: Obviously, that's what the Safety Board likes to hear, so -- I'm interested -- this issue of how you handle meets and in reviewing the interview with the conductor, he indicated -- I mean, this is -- meeting this local UP train was fairly routine. This crew did the same run every day and had been working together several months and so they were very familiar with it. They would meet the Amtrak train and the UP -- or the UP train, but the -- I'm just struck by the conductor's comments that normally nine out of ten we would meet the Leesdale local probably between CP Santa Susana and CP Davis.

Sometimes we would meet them between Santa Susana and CP Madeira. If it was a day where they had been out working quite late, the dispatcher, upon arriving Moorpark would hold us there and let us go first and they would wait back towards CP Los Pasos (ph.) or -- and Moorpark Avenue and then let us go first. I would say nine times out of ten we would meet the Leesdale at CP Davis. And you already mentioned that it's not typically -- in fact, you, I think, would counsel against the dispatcher communicating with the crew about a meet. I think that's what you said, Mr. Quicksall?

MR. QUICKSALL: That's correct.

CHAIRMAN HIGGINS: Okay. In this case, given that the meet was in a different location than apparently occurred routinely, is there any -- would that affect your thinking about that in any way?

MR. QUICKSALL: No, it wouldn't and I don't think that the conductor gave you accurate figures on those meets because we looked up those meets on about the 13th or 14th and almost 50 percent of the meets were at Topanga.

CHAIRMAN HIGGINS: Okay. Well, if that's -- if we have inaccurate information, then I think it would be useful to know that unless we already know that. I'm looking at Mr. Remine's --

MR. REMINES: I couldn't verify that one.

CHAIRMAN HIGGINS: I'm sorry?

MR. REMINES: I say that one I didn't verify. I mean, the meets were described by different people that I interviewed. Basically, the dispatcher said that wherever, you know, the UP local is, is where he holds them if he's got the Metrolink train coming.

CHAIRMAN HIGGINS: Okay. Well, perhaps you could provide that for the record in terms of what your review of that -- just because I think -- the question here -- and I'm not suggesting that the location of the meet was -- I don't know whether it was significant or not, but according to the conductor, he describes it one way, you're saying you're looking into that, suggests something else.

MR. LETTENGARVER: Well, the dispatcher that they -- he brought that meet down to Topanga because Train 111 was running about four to five minutes late and that's why he moved them down.

CHAIRMAN HIGGINS: Okay. But it's interesting to me in that they have the ability to communicate with the crews and obviously, the engineer and the -- is responsible for calling signals and recognize the signals, calling them; the conductor's supposed to confirm them and we've already talked about the fact that that didn't apparently happen in the way it was supposed to. But I'm wondering at what point -- you said something about the dispatcher -- what can the dispatcher hear and when does he -- when does the dispatcher just switch the -- you know, switch the tracks or set the signals and when does he actively get engaged with a crew?

MR. LETTENGARVER: He aligns the signals in advance what he -- unlike in that case, he stacked that day and so he lined the stack and then he -- he has another subdivision that he operates, too, that he dispatches and then the only time really the dispatcher gets involved with a train crew is when it has to deal with some type of authority.

CHAIRMAN HIGGINS: Okay. So if --

MR. LETTENGARVER: So if he has to talk by a red signal or if he has to give them tracking time or any special instructions or protect crossing and all that, that's when the dispatcher would talk to the crew.

CHAIRMAN HIGGINS: Okay. So on a routine meet like this, he wouldn't -- he would set the signals and that would be it?

MR. LETTENGARVER: He would set the signals, yes.

CHAIRMAN HIGGINS: Okay. What can -- I had written myself a note but then you mentioned it -- what can the dispatcher actually hear as he's at his terminal?

MR. LETTENGARVER: Well, he's basically multitasking. He's hearing radio conversations all over, listening for anybody calling the dispatcher and making line-ups and doing his paperwork.

CHAIRMAN HIGGINS: Could he -- and can he hear signals being called?

MR. LETTENGARVER: Yes, he can.

CHAIRMAN HIGGINS: Okay. Does he have any responsibility for monitoring whether signals are being called?

MR. LETTENGARVER: He will -- if he hears that a train is not calling and he's watching that train, that particular train, then he will notify the chief dispatcher; otherwise, he will not -- you know, he's not paying attention to every train on his territory.

CHAIRMAN HIGGINS: Okay. In the case of the Metrolink 111 and the UP train, did he -- do we know whether he made note of the fact or was aware that the signals had not been called for the solid yellow and for Topanga as the train was leaving Chatsworth?

MR. LETTENGARVER: I do not know that answer.

CHAIRMAN HIGGINS: Okay. Is that the kind of thing -- I mean, I don't -- I'm just trying to understand over what period of time he would be paying attention to whether signals would be called or not or how a priority is that when you've got -- obviously, it's rush hour and he's managing several trains?

MR. LETTENGARVER: It really depends on each dispatcher.

CHAIRMAN HIGGINS: Okay.

MR. LETTENGARVER: You know, it's depending on what his workload is at that moment. If he can, he will listen to it, if he can't --

CHAIRMAN HIGGINS: Is there any -- does Metrolink or is there any sort of standard or norm or guidance or rule that is given to dispatchers about how they're supposed to deal with signals, listening for calling signals?

MR. LETTENGARVER: No, there's no rule out there.

CHAIRMAN HIGGINS: Okay. So Metrolink doesn't have a policy on that or how do you train your dispatchers in that regard?

MR. LETTENGARVER: Well, when they're going through their training, they go through about six months' worth of training, initial training, when they first hire on and in that training there are -- you know, they'll tell them the various that he'll have to try to do and what other duties can they do, you know, to help keep with the safety of the railroad.

CHAIRMAN HIGGINS: I mean, I think -- I don't remember whether it was -- you mentioned it or Mr. Quicksall, that I think you said that in testing dispatchers, that they are expected to monitor signals and that that's part of the --

MR. LETTENGARVER: That's a part of their -- if we do a diversion test where we set up a special test to listen to see if the crews are calling out the signals.

CHAIRMAN HIGGINS: Say more about what a diversion test is?

MR. LETTENGARVER: Diversion test is a test that the dispatching office will do and they will line up a train into a route that the train normally does not go into. They will listen for the calling of the signals. They'll listen for the advance approach and the approach and they will record it as an efficiency test for the dispatching office.

CHAIRMAN HIGGINS: Okay. So the reason efficiency tests -- for dispatchers for monitoring for calling signals?

MR. LETTENGARVER: Yes, that is --

CHAIRMAN HIGGINS: Okay. But if there's -- so -- but they're not expected to do it as part of their normal job?

MR. LETTENGARVER: They can't keep up with all the pace.

CHAIRMAN HIGGINS: So help me understand why you would test them for it if it's not something that they're expected to do routinely.

MR. QUICKSALL: Every train is expected to be tested. I

believe we moved that to twice a year. It used to be once a year. So it will become part of the dispatcher's duties working that territory in conjunction with the chief to test certain trains on certain days. But we test every train twice a year. Not necessarily every crew because you can have a different crew on the train, but every train.

CHAIRMAN HIGGINS: Okay. I don't want to get hung up on this, but when you say he's testing every train, I mean, it's the crews who have to recognize the signals, right?

MR. QUICKSALL: That's correct, but the crew of -- let's say today we're going to test Train 305, 211, 119. So you're testing that crew, but when I said it's not -- you could have the same crew tested on more than one train.

CHAIRMAN HIGGINS: Sure.

MR. QUICKSALL: So --

CHAIRMAN HIGGINS: I guess -- I mean, again, to get back to fundamentals here, the issues we're dealing with are how do we, you know, calling of signals, which didn't happen; cell phone use, which happened -- in fact, talking about cell phones, it really was text messaging which it was not an oral conversation, at least as far as I understand it. And then the third, the ride-along passengers. Could the -- do we -- have you used or is it appropriate, is it something that's ever been done to have dispatchers monitor whether, on a routine basis, as part of the effort to see whether crews, in fact, are calling signals?

MR. QUICKSALL: Dispatchers quite often would let us know when engineers weren't calling signals and that's when we would go out and do some testing on the particular engineer.

CHAIRMAN HIGGINS: Okay. Are there -- is -- I think you also said to me there isn't really a Metrolink policy or protocol or requirement that they do it. I mean, I just -- I'm trying to understand what the standard is. Is it they have to take the initiative, does Metrolink call on them to report? I mean, I don't want to -- obviously, we don't want a Big Brother situation here, but -- I mean, calling signals, it's pretty fundamental. It's something that is part of what's expected to happen. There doesn't seem to be any ambiguity about the engineer's responsibility and the conductor's responsibility. The issue is, is there any other way to evaluate whether this system is working other than efficiency tests?

MR. QUICKSALL: Well, exactly. And that's where we go back to Connex is responsible for the efficiency testing in general, including calling signals and TNE crews to ensure the crews are complying with Rule 1.47 or FRA 202(a), which is Emergency Order 20 requiring that signals be called. Thirty crews are required to be tested per quarter and that's -- that is a calling signals test.

CHAIRMAN HIGGINS: So you're saying that efficiency tests are really the only system that you all have in place for monitoring whether signals are being called or not?

MR. QUICKSALL: I don't know what you're suggesting we do otherwise.

CHAIRMAN HIGGINS: You just said to me that dispatchers will bring it to your attention if they --

MR. QUICKSALL: They will.

CHAIRMAN HIGGINS: -- hear that signals aren't being called, but they're not -- it's not their responsibility.

MR. QUICKSALL: It's not their responsibility to constantly monitor a train. They're monitoring lots of trains on their territory at once.

CHAIRMAN HIGGINS: Okay. Mr. Quicksall, you mentioned, I think, that you were the Director of Operations at the time of the accident and you also mentioned something about a safety department or safety manager, is that right? Did I understand that?

MR. QUICKSALL: That's correct.

CHAIRMAN HIGGINS: Okay. Help me understand the two divisions within Metrolink. What are those -- who's responsible for what?

MR. QUICKSALL: Operations is responsible for passenger services, scheduling and the Connex operations contract. Safety and security is responsible for reporting, FRA reporting, and the sheriff's department and fare enforcement.

CHAIRMAN HIGGINS: Okay. So is it more on the security side and for personal safety that on the safe operations of the

train on some of the issues we've been talking about?

MR. QUICKSALL: No. No, it's commingled. The safety -- it's every employee's responsibility to be responsible for safety. The reporting of safety belongs to the safety department.

CHAIRMAN HIGGINS: Okay, but Connex -- who oversaw the Connex -- oversees the Connex contract?

MR. QUICKSALL: The Operations Department does.

CHAIRMAN HIGGINS: Okay. And Connex, within their contract agreement with you outline various issues in terms of policies on -- regarding safety, is that right?

MR. QUICKSALL: That's correct.

CHAIRMAN HIGGINS: Okay. So is it fair to say that the Operations Department has sort of line responsibility for the issues regarding safety, at least the issues we're talking about today in terms of cell phones, passengers riding along and I'm losing it -- the other, the third issue that we talked about? Is that -- so it's --

MR. QUICKSALL: That's fair to say that that's the Operations --

CHAIRMAN HIGGINS: That's Operations, okay. And let me ask one more question. I raised this earlier, but -- in regard to dispatch, but I want to ask you since Metrolink has responsibility for dispatch. The whole issue of oral alerts. I mean, the Digicon system, as I understand it, the dispatcher's job is to monitor the screen. He was not made aware that there was any

problem because the way the screen displayed the -- what was happening, it didn't -- the Digicon system didn't distinguish between the Metrolink train and the UP train in terms of who is occupying which block, is that right?

MR. QUICKSALL: That's what I understood from the signal to say.

CHAIRMAN HIGGINS: Okay. And so therefore there was -- he didn't understand there was a problem until his screen changed again. Is there -- how do you view oral alerts? What should there -- would there have been any benefit to having a system that would've alerted the dispatcher sooner that there was a problem?

MR. LETTENGARVER: Well, the dispatcher has an alarm, signal -- was telling earlier that alarm on the bottom of the dispatcher's screen will show an alert, but in that situation it could not show it because Digicon actually thought that it was -- I would call it the Leesdale local, I don't -- LOF, whatever it is.

CHAIRMAN HIGGINS: Right. It didn't distinguish between the two trains.

MR. LETTENGARVER: Yeah, it couldn't tell the difference --

CHAIRMAN HIGGINS: Right.

MR. LETTENGARVER: -- between the two trains.

CHAIRMAN HIGGINS: Do you think -- I mean, in hindsight should a system that is so central to the safety of these

operations, you know, you said safety was the first priority in the movement of these trains, be able to make that distinction?

MR. LETTENGARVER: I would really -- can't answer that. I don't know the answer.

CHAIRMAN HIGGINS: Okay. And let me just ask and I'll open it up again for another round if we need one. What changes has Metrolink made post-accident to improve safety of passenger operations?

MR. LETTENGARVER: Our Metrolink board of directors immediately called for a peer review committee to come out and that was 12 rail experts in the field and they implemented a whole mess of safety enhancements that they felt that was out there. They didn't find any safety problems, but ways to improve the system and immediately they ordered up a second set of eyes up on the cabs. This was -- you know, they immediately put them up there. They hired -- we were hiring for expansion of our Orange County service, so we put all the crews into the second set of eyes.

We also are, as I said earlier, they put in their procurement for inward facing cameras because they want to have them going and start installing them sometime this year and they also hired, allowed Connex to hire two more transportation managers for efficiency testing. We have worked with our partners, with the BNSF and the UP, on increasing our efficiency testing, the joint testing, on all parts of our railroad and on

their railroads. We have developed and started up a new department at Metrolink that's going to be called the Field Operations Department which would consist of a manager and two road foremen and they're going to be overseeing the railroad, be testing the testers, listening for everything that they can. It's a newly created division that we've gone with. And we met our board, our chairman of the board and our CEO. We all went all went out to and met with the engineers to get the feedback from the engineers on what they see and what they -- you know, to get our -- so we would have a better understanding what they want to do. And there are -- on electronic devices, that's a no -- we do not allow -- we have no tolerance for electronic devices on the cab of any engine or on our cab cars and these are the steps that we're doing.

CHAIRMAN HIGGINS: Okay, thank you. There are questions from the Technical Panel, parties? Jim.

MR. REMINES: Just one question. Forward facing cameras, are they a given? I haven't heard those mentioned.

MR. LETTENGARVER: They're in our new locomotives that we're receiving and we are installing them on all our cab cars and locomotives.

MR. REMINES: Okay, thanks.

MR. LETTENGARVER: And the other thing that I forgot to bring up was the rule changes that we -- and the help with the situation ever since after Chatsworth. On the calling of the

signals, is one of the rules that we changed was when a train goes into a station or stops for any reason, we have for now the conductor and the engineer have to come to agreement on what signal they came into, either into that station or to stop because, you know, you have the delayed and block when you're leaving the station but what happens if you'd have come under with a restricting signal, so this would -- we want them to confer and communicate between the two of them for signals.

And we also changed some of our signals where advance approach is to be stopping at the second signal. We now added onto that, we added that when you come up to the next signal, you must be at 40 m.p.h., which is a change. And then, the advance signal we changed a little were you have to be -- when you -- and you go past a signal, you have to be at 40 or immediately reduce to 40 m.p.h.

CHAIRMAN HIGGINS: Have you submitted those changes to our staff?

MR. WORKMAN: We have those.

CHAIRMAN HIGGINS: I see one person shaking his head no and one person saying yes. Okay, good. I want to make sure we get them in full because again, our objective is to make sure that not only has Metrolink and everybody involved in this accident understood what needs to be done but that we can -- if there's lessons for others, that we can share those, as well. Okay, thanks. Mr. Chipkevich.

MR. CHIPKEVICH: Just a couple of brief questions to follow up. And I guess first to Mr. Quicksall, does Metrolink have any concern or do you have any concern that self-inspection of Connex crews by Connex doing the efficiency checks could pose a conflict of interest for Connex, such as aggressive efficiency checks could show potentially a significant problem with crews or something could affect their contract?

MR. QUICKSALL: Okay, I believe you're asking self-inspection by Metrolink?

MR. CHIPKEVICH: No, I guess -- is there any concern that you have or that Metrolink may have that if Connex has the contract for supplying the crew members, train crews, and they also have the responsibility of doing the efficiency checks and reporting to you how well those crews are performing, is that a conflict of interest?

MR. QUICKSALL: No, sir, not in my opinion. Once again, I came from Amtrak, I had -- you've had Mr. Konstanzer up here in this proceeding and I did his job at Amtrak with Metrolink. I would put that Metrolink management team, when they worked for me, and I'm sure that Mr. Konstanzer will, against any management team anywhere when it comes to tough efficiency checks, reporting the efficiency test. I just -- I don't believe there's a conflict.

MR. CHIPKEVICH: Do you see use in having a separate party do independent inspections, efficiency checks or your own company doing the efficiency checks as being something that might

be better?

MR. QUICKSALL: I think that that would be highly acceptable. Usually, when I would go out, it would be like the FRA when they would go out with me when I was a first-line manager. They would be testing me testing, seeing what kind of tests I did and how well I performed them. I think it would be beneficial to both Connex and Metrolink to form that kind of partnership.

MR. CHIPKEVICH: Okay. And Mr. Lettengarver, what's your thought on that? Do you think, do you believe that there's a potential conflict of interest with having the same parties providing the train crews doing the efficiency checks?

MR. LETTENGARVER: Yes. Yes, I do.

MR. CHIPKEVICH: Okay. And what kind of solution would you see for that?

MR. LETTENGARVER: Our contract says that we're into an oversight and our new division that we're forming, we're going to be testing the tester.

MR. CHIPKEVICH: I'm sorry, could you say that again?

MR. LETTENGARVER: With our new department that we have formed, the field operations, they will be testing the tester. That is part of their duties and that falls within our oversight in our contract.

MR. CHIPKEVICH: Okay. And so when will this begin?

MR. LETTENGARVER: The jobs right now are being --

they're advertised. We are -- they come down on March 16th and then we will form the team and we expect to have the team up and running probably by May.

MR. CHIPKEVICH: Okay. Thank you, sir.

CHAIRMAN HIGGINS: Any other questions from the panel or the parties? Okay, BLET.

MR. WALPERT: Yes, thank you. I guess Mr. Quicksall, a question in regard to the requirement for calling of all signals over the radio. Does that also apply at areas such as LA Union terminal or terminals that, for example, are terminals and yards?

MR. QUICKSALL: Yes, it does.

MR. WALPERT: Okay. And is there a lot of radio congestion at those locations?

MR. QUICKSALL: There is indeed radio congestion, but usually when you're talking about the engineer calling back to the conductor and the conductor repeating to the engineer, you're talking about the two radios closest to each other, so if there's anything being overwritten, normally it's not the conversation between two crew members on the train.

MR. WALPERT: Okay. All right, Mr. Lettengarver, I want to get into the inward facing cameras that you said that are being procured. Who will monitor those inward facing cameras?

MR. LETTENGARVER: We haven't come up with all our procedures yet and who will be doing that.

MR. WALPERT: Okay. Do you know if that will be real

time monitoring?

MR. LETTENGARVER: I do not know yet.

MR. WALPERT: Okay. What about voice recording? Will there be voice recording in addition to the -- for the cameras?

MR. LETTENGARVER: I don't know that answer.

MR. WALPERT: Okay. The one final question, you indicated that the dispatcher only communicates with a crew in regard to areas of authority, is that right?

MR. LETTENGARVER: That is correct.

MR. WALPERT: So what happens then when a crew calls the dispatcher to ask about a meet, for example?

MR. LETTENGARVER: He will answer them.

MR. WALPERT: And what will he say to him?

MR. LETTENGARVER: Depending on what the crew asks, he will tell them.

MR. WALPERT: Okay. So he does communicate with him in regard to meets?

MR. LETTENGARVER: If the crew asks.

MR. WALPERT: Okay. All right, thank you. That's all I have.

CHAIRMAN HIGGINS: Metrolink.

MR. CRARY: Thank you. After the Board convened the peer review panel, their first task was to identify any immediate safety concerns. To my knowledge, there was no immediate concerns, however, they did identify a list of 64 recommendations.

Mr. Lettengarver, to your knowledge, were any of those recommendations for changing the dispatching department?

MR. LETTENGARVER: Yes, there were.

MR. CRARY: Could you explain what those were?

MR. LETTENGARVER: The changes that we're making in the dispatching department is we're going to be adding another position going into the afternoon, as assistant manager up there following the manager that's on daylights. We're going to try to see if we could have more oversight on our railroad.

MR. CRARY: We also talked a little bit about the role of the dispatcher in the efficiency testing. What is the role of the dispatcher in identifying rule violations and why is it important that we have our own employees in that position?

MR. LETTENGARVER: Most, I would say, probably around 95 percent of all rule violations that happen, the dispatcher would immediately know. He will make the notifications to all the correct departments. These are for safety critical rules. Most of the dispatchers will pick up on that pretty quick, either through the alarms that they have or just by observing.

MR. CRARY: Finally, the dispatcher who controls the Valley and Ventura, how many trains a day would you estimate that operate between 3:00 and 6:00 p.m. at the average rush hour?

MR. LETTENGARVER: It could vary, depending on probably 30 to 40 trains are going on during the rush hour, going up to the Antelope Valley and up to Moorpark and whatever freights

that he has left out on the territory he's running.

MR. CRARY: Member Higgins, I have no more questions.

CHAIRMAN HIGGINS: Okay. Well, I have a couple, sorry. Just for the record, I wanted to -- I asked this of Connex and I want to ask of Metrolink. How large is Metrolink, how many people work for Metrolink? Whoever wants to answer the question.

MR. LETTENGARVER: Metrolink has about 214 authorized positions. Those are Metrolink employees.

CHAIRMAN HIGGINS: You said 14 authorized positions?

MR. LETTENGARVER: Two hundred and fourteen.

CHAIRMAN HIGGINS: Two hundred and fourteen. And how many of those are dispatchers?

MR. LETTENGARVER: We have 22 dispatchers and six chiefs.

CHAIRMAN HIGGINS: And how would you characterize the other positions?

MR. LETTENGARVER: They're the full range from administrative, finance, marketing, operational positions, safety positions. We have a fairly significant engineering and construction department that is approximately 45 people.

CHAIRMAN HIGGINS: Okay.

MR. LETTENGARVER: So it's a full range of professionals.

CHAIRMAN HIGGINS: And how many are in the Department of Operations?

MR. LETTENGARVER: Including the dispatchers, I think about 35. Or no, it would be more with the FSRs. I'm sorry, I --

CHAIRMAN HIGGINS: Okay. Could you provide all that for the record?

MR. LETTENGARVER: Yes, we will.

CHAIRMAN HIGGINS: Okay. Because I think the question I'm trying to understand is how many resources are available to manage some of these issues? I mean, this is a big system. And Mr. Stancil needs -- I guess we'll have to give him an exhibit number.

HEARING OFFICER STANCIL: Yes, I'll give that Exhibit 3(ii).

(Whereupon, the document referred to as NTSB Exhibit 3(ii) was marked for identification.)

CHAIRMAN HIGGINS: Okay.

HEARING OFFICER STANCIL: And I will identify it was Metrolink resource, human capital resources.

CHAIRMAN HIGGINS: Okay. And then my final question, which was triggered by the exchange we just had, was again, in terms of the dispatchers, can they hear conversations that -- we talked about that they can hear signals being called or not being called, can they hear -- could they hear cell phone conversations, could they hear conversations that might be going on in the cab

with people who were authorized to be there as well as people who might not be authorized to be in the cab?

MR. LETTENGARVER: No, they cannot.

CHAIRMAN HIGGINS: They cannot. So they only can hear conversations that are being transmitted on the radio, is that right?

MR. LETTENGARVER: That is correct.

CHAIRMAN HIGGINS: Okay, thank you. Any other questions? All right. It is a little after 4:00. I'm sorry, sorry.

MR. FRITZ: Thank you. Mr. Lettengarver, earlier you mentioned after the dispatcher stacked the route, he went to another subdivision. What criteria goes into determining when a dispatcher will handle more than one subdivision?

MR. LETTENGARVER: That has been on since about 1995, that territory, and that is his territory that he has. Is that the question you're asking?

MR. FRITZ: No, I'm asking what is the criteria you use or was used to determine when a dispatcher would control more than one subdivision?

MR. LETTENGARVER: That was established back in the early '90s, that we would have no more than two subdivisions on each desk and if it's connected to each other.

MR. FRITZ: All right, thank you.

CHAIRMAN HIGGINS: Okay, last call. We have one more

witness. Why don't we take a 10-minute break? It's -- let's call it 4:05. We'll back here at 4:20. Is that right?

UNIDENTIFIED SPEAKER: 4:15.

CHAIRMAN HIGGINS: 4:15, sorry. 4:15. Please -- and we'll have our final witness for today from Union Pacific.

(Off the record.)

(On the record.)

PANEL 5 WITNESS SWORN AND QUALIFIED

HEARING OFFICER STANCIL: Okay, Mr. Breeden, you're at the witness stand. Would you raise your right hand, please?

(Witness sworn.)

HEARING OFFICER STANCIL: Mr. Breeden, could you speak closer to the microphone, please?

MR. BREEDEN: Okay. Yes, sir.

HEARING OFFICER STANCIL: Could you please state your full name?

MR. BREEDEN: James Larry Breeden.

HEARING OFFICER STANCIL: And your current employer?

MR. BREEDEN: Union Pacific Railroad.

HEARING OFFICER STANCIL: And what is your title with Union Pacific?

MR. BREEDEN: General Manager/Operating Practices.

HEARING OFFICER STANCIL: And what is your company address, sir?

MR. BREEDEN: 1400 Douglas Street, Omaha, Nebraska.

HEARING OFFICER STANCIL: And how long have you been in your current position as General Manager?

MR. BREEDEN: Two and a half years.

HEARING OFFICER STANCIL: And prior to that, what positions have you held with Union Pacific?

MR. BREEDEN: I started as a switchman/brakeman in 1979. In 1980, I was a locomotive engineer. 1992, I became the Manager of Operating Practices in Portland, Oregon, and then the Regional Director, Southern Region in 1996, and then the System Director of Operating Practices in 2000 and promoted into my current position.

HEARING OFFICER STANCIL: And what are your duties and responsibilities in your current position?

MR. BREEDEN: My current position, my group is responsible for all the training and exams required for TENY employees required by the C.F.R.; all the engineer certification and licensing, including the remote control operators; also, all derailment prevention and investigation; event recorder center or the event recorder analysis; the track image recorder or the onboard cameras and the event recorder center activities; the training and application of distributing power trains; all operating. airbrake, train handling rules, as well as the system special instructions; and train makeup requirements. I'm also responsible for the field training exercises or efficiency testing program at Union Pacific.

HEARING OFFICER STANCIL: Okay, thank you. And could

you identify the gentleman to your left, sir?

MR. BREEDEN: Yes, I'm sorry. This is Adrian Randolph.

HEARING OFFICER STANCIL: And he is?

MR. BREEDEN: He is counsel.

HEARING OFFICER STANCIL: Thank you very much. Madam Chairman, the witness is qualified and I'll turn the questioning over to Mr. Remines.

TECHNICAL PANEL QUESTIONS

MR. REMINES: Good afternoon. Mr. Breeden.

MR. BREEDEN: Yes, sir.

MR. REMINES: First off, I'd like to start off with a general question of your operating rules, efficiency testing program and observations and how it might differ from what you've heard here earlier.

MR. BREEDEN: Some of the things that -- we have a computerized system that actually, for the various types of tests, it's called FTE (ph.) and there are certain rules that are associated with various types of tests so managers cannot make a mistake in rule association with a particular test type. Also, our testing program includes not only incidents that have occurred, we -- each service unit builds a testing plan based on accident history, personal injuries, rail equipment incidents, as well as associated risk or exposure. And one example of that, if you have a subdivision with a number of interlockers, you would conduct more interlocker tests on that particular subdivision than

a subdivision without one. In addition to just the FTX program, through the help of the FRA, as well at the UTU and BLE, we've had other various programs that began in San Antonio, Houston, Fort Worth, Lagonia (ph.) service units several years ago, but we do have a cooperative effort other than just testing with the close call confidential reporting system that's going on in North Platte with FRA -- endorsement of the FRA, as well as the total safety culture or peer-to-peer observations with the cooperation of the BLE and UTU. So it's a lot more encompassing than just the efficiency testing or FTX program.

MR. REMINES: Your efficiency testing, does it take place on Metrolink property?

MR. BREEDEN: We do have joint testing with Metrolink. It is a calendarized event and has been for a number of years. We have increased that from two structured calendarized events per month to four since September the 12th. Now, we still conducted FTX events by ourselves or with just UP managers on Union Pacific trains. Of course, we would contact the Metrolink dispatching system and they would give us authority to be at a certain location. But it is a cooperative effort. The Cal PUC and FRA also participate with us in these joint testing efforts.

MR. REMINES: Are there ever occasions that you would test a Metrolink train alone with just your employees?

MR. BREEDEN: It would be just an observation test. In other words, if the Metrolink train pulled up and stopped at a

station, we may well board that Metrolink train, but as a routine of a structured event where we may set up a red flag test, something of that nature, we normally would not do that without a Metrolink manager present.

MR. REMINES: Do your officers in your testing program, do you test on calling the signals?

MR. BREEDEN: We do tests for the calling of signals, absolutely. That's monitored over the radio after the signal system is set up to a particular signal indication.

MR. REMINES: Okay. Is there -- on your rule, you do not require the calling of a green signal. Why is that?

MR. BREEDEN: We felt like that it was -- it would just complicate the communication over -- with the crews, themselves; it would become a routine, mundane task if all they did was call clear after clear. We want -- when you announce that signal and location of your train over the radio, we wanted it to really mean something to the crew announcing it, as well as to someone hearing it, that we're, in fact, operating on an approach signal or a stop signal, something that's going to require the engineer to stop instead of just announcing every clear signal on the radio. Now, the crew is still required to communicate all signal indications in the cab to themselves, but we only announce on the radio other than clears or we might get the approach --

MR. REMINES: Do you call the clears on Metrolink?

MR. BREEDEN: We do. We are governed by their special

instructions on Metrolink when operating on their track and we would be required to call them.

MR. REMINES: Do you have a test or examination on cell phones?

MR. BREEDEN: We do. Cell phone monitoring in and of itself is difficult because if you're on board, they're obviously probably going to turn the cell phone off and we certainly haven't observed that many with them on. However, we do make routine onboard observations or we call it an 11A test, then we will check for the cell phone being on and we simply ask the employee, if the cell phone is out, to look at it to see if it's on and if it is on, of course, that it would be an exception under the rule, itself.

The other way we test for that is we'll ask the employee if they have a cell phone and if we could see it and oftentimes, they will offer it up to us and if it's on, of course, that's a failure. Now, it's not just onboard the locomotive that would be an exception. If someone's out on the ground walking down the lead and we observe that, of course, that would be an exception to the rule, itself. So it's not just onboard the locomotive when we talk about testing for compliance with General Code of Operating Rule 1.10.

MR. REMINES: In this accident, your crew -- we found out that the conductor was using a cell phone and it had to be in the presence of the engineer. The engineer made no mention of it.

What would be a fellow crew member's responsibility if he observed the cell phone being used in his presence in this instance?

MR. BREEDEN: A fellow crew member should remind the employee of the rule requirement and tell them they need to turn the cell phone off to be in compliance to the rule. We would expect that of any manager onboard, we certainly would expect it between two crew members. And again, that's what total safety culture is all about is making those observations and enforcing rules among themselves so you don't just have the manager managing the rules part of this; it's also the employees. So instead of 3,000 managers or 3500 managers making rules observations, you have 23,000 TENY employees managing the situation.

MR. REMINES: What's your rule on the presence of an unauthorized person in the locomotive?

MR. BREEDEN: Absolutely not permitted. We do not allow unauthorized persons in the locomotive at all or anywhere on board the train.

MR. REMINES: What would be your response to something if you found that, would there be a removal?

MR. BREEDEN: It would be a removal from service if we found someone unauthorized being allowed to ride a train, absolutely.

MR. REMINES: You've got a history with cameras on forward facing, right?

MR. BREEDEN: We do.

MR. REMINES: What's been your experience?

MR. BREEDEN: Well, on UP, we currently have over 5800 locomotives equipped with onboard cameras and it's there for a couple of reasons. Number one, we call them track image recorders because not only do we observe rules or possible violations of rules, but we certainly use them in the event of public safety, if we have a critical incident; also for any track condition that we may see. So they're used for more than just rules compliance.

A very successful program, we have a very tight chain of custody in the event of an incident or what we call a critical incident, which is a collision of onboard equipment, a grade crossing collision, a trespasser incident. We process all of those, they're in the event recorder center that works for me in Operating Practices, and then of course, a very tight chain of custody in the distribution of the actual video, itself, after it's reproduced.

MR. REMINES: You related in a conversation earlier with me that you sometimes had found out employees were vindicated by these cameras. Could you describe some?

MR. BREEDEN: Yes, sir. We pull these, we actually totally remove the hard drive, bring it in to the event recorder center for processing and we've had engineer say you know, the signal really did look approach instead of giving -- instead of being red and in fact, when we would view the camera, you wouldn't be able to -- view the video, I should say. It would actually,

for some reason -- and the signal department could describe the reasons -- give the appearance of being an approach signal instead of being red due to ambient light coming through the back of a signal or some other reason. Also, when someone would say the train was traveling through an area and not sounding the horn, of course, we have the event recorder and our microphones are mounted on the outside of the locomotive so you could actually hear the horn sounding and know exactly where they were sounding the horn as required by the rule. So it's actually helped prove that, in fact, our crews were complying with the rules.

MR. REMINES: Event recorder. I understand you have a way to remotely download and check the compliance of a crew where an event's taken place on a train. How is that done?

MR. BREEDEN: Yes, sir, we do. We have actually two types of remote downloads, one of them being a radio download bay station and as the train gets within approximately one mile of that bay station, there are 36 of those across the system, it will retrieve the event recorder data by radio and then it places it out on a server on the Union Pacific computer system.

Also, there's what we have called an ARC (ph.) box, it's an onboard system that uses 80211 technology and again, it retrieves the event recorder information, puts it out onto the server and it can be retrieved by the local manager, someone from the event recorder center, myself, and also we have an auto-scan program that we look for various rules and compliance with those

rules. Every day at noon this auto-scan program runs and tells us whether or not the engineer was in compliance with the things we are scanning for.

MR. REMINES: So these cameras record and color that you use on the forward facing?

MR. BREEDEN: All of the new cameras we have are color. The first technology that was available was the black and white, so we have a mixture of black and white cameras and color cameras currently.

MR. REMINES: How do you feel about inward facing cameras?

MR. BREEDEN: I have no issue with them. I understand that the technology's available. We don't have any. But the technology can be accomplished.

MR. REMINES: Are you satisfied that the rights of an employee are not compromised by the use of a camera?

MR. BREEDEN: That really sounds like --

MR. REMINES: That's a loaded question.

MR. BREEDEN: -- a legal question, Mr. Remines, and I'd rather not answer that.

MR. REMINES: That's fine. I have no further questions.

CHAIRMAN HIGGINS: Any other questions from the Technical Panel? Okay, Rick.

MR. NARVELL: Good afternoon. Can you hear me, Mr. Breeden?

MR. BREEDEN: Yes, sir, I can.

MR. NARVELL: Okay, thank you. Several of the questions I'm going to be posing to you today have been drawn from the human performance factual, which is Exhibit 4(a) in the exhibits here. As indicated on Page 5 of that report, the UP conductor tested positive for marijuana. So with that in mind, I'd like to just launch right into here. Since his employment, how many times has this particular conductor undergone random alcohol and drug testing?

MR. BREEDEN: Mr. Narvell, I do not have any specifics of that particular individual nor any other individual for their drug testing record due to privacy of that data. I will have to defer that and we'll get you that information and make it part of the record.

MR. NARVELL: Okay. Madam Chairman, I'd like to request this information that the UP will provide to be an exhibit.

CHAIRMAN HIGGINS: Yes.

MR. NARVELL: This will be entitled the -- for this particular conductor, his history of random toxicological testing. Thank you. What is the date of your --

HEARING OFFICER STANCIL: Hold on just a minute.

MR. NARVELL: Excuse me.

HEARING OFFICER STANCIL: That will be Exhibit 4(b), history of random toxicological testing, UP conductor.

(Whereupon, the document

referred to as NTSB Exhibit 4(b) was marked for identification.)

MR. NARVELL: Thank you. Continuing on here, what is the date of the most recent revision or revisions to your random drug testing program?

MR. BREEDEN: The most recent revision is January the 1st, 2008.

MR. NARVELL: Okay.

MR. BREEDEN: To the random drug and alcohol testing plan.

MR. NARVELL: All right. Can you elaborate, Mr. Breeden, on the nature of those changes?

MR. BREEDEN: Not on the nature of the changes, themselves. I'm not an expert on all of the changes. Again, I am a trained manager for the signs and symptoms; the drug and alcohol group actually works in the safety department. But I can tell you that we have a very elaborate computer system that selects randomly the employees or the jobs or even opens a testing window for the drug and alcohol random testing program. It's actually a custom based computer program that looks at train traffic, the percentage of train traffic so it determines the percentage of tests that should be performed by service unit as well as by location on that particular service unit and that's all across the system. And again, there's another part of the program for yard

jobs, locals, and then it goes into the manager testing, also.

MR. NARVELL: Okay. At some point again, would you be able to provide us either a hard copy or electronic copy for the exhibits of this particular policy, the most up-to-date one?

MR. BREEDEN: Yes, sir, Mr. Narvell. We will get that for you.

MR. NARVELL: Okay, thank you.

HEARING OFFICER STANCIL: Could you identify the policy once more, please?

MR. NARVELL: This will be the most recent drug and alcohol policy from the Union Pacific.

HEARING OFFICER STANCIL: That will be Exhibit 4(c), the most recent drug and alcohol policy, Union Pacific.

(Whereupon, the document referred to as NTSB Exhibit 4(c) was marked for identification.)

MR. NARVELL: Okay, thank you. What types of employees are subject to the random testing program?

MR. BREEDEN: Actually, we have nine different groups of employees that are subject to random testing. We have, of course, all of the hours of service employees; TENY, which I'm the most familiar with, but there are also other groups with manager testing and there are various other tests. Random drug and alcohol testing is just one portion of Union Pacific's policy for

drug and alcohol detection.

MR. NARVELL: Okay. And Mr. Breeden, approximately how many employees does this pertain to?

MR. BREEDEN: It would pertain to the about 47,000 employees we have.

MR. NARVELL: Okay, very good. How are personnel selected for random alcohol and drug testing?

MR. BREEDEN: Again, that is through the computer system and it'll give you the minimum monthly test goals for hours of service employees and again, that's based on the number of trains operated in a particular area and where those trains originate and tie up. Also, it has the random pools for managers and it all depends on the number of managers at a particular location.

It is a very complex computer system and really truly is a random system. And then another part of that, such as myself, if I'm out on a train and I have an hours of service report for this month, then I go into the covered service pool instead of remaining in the manager pool. So it's a real complex computer program that actually does make things random.

MR. NARVELL: Okay. Is an individual or crew selected for and tested at the beginning of their shift, at some point during it, subsequent to it or is it a combination of before, during and after?

MR. BREEDEN: Our drug and alcohol random testing program includes all three of those. You could be tested at the

start of the shift or at some point during the shift or at the tie-up location. It's not any one particular point, but it could be at any of those points during the shift.

MR. NARVELL: Okay. FRA currently requires a minimum annual testing rate of 25 percent for drugs and 10 percent for alcohol. What are UP's current testing rates for random -- for alcohol testing, number one, and number two, drug testing?

MR. BREEDEN: We test at a rate of 50 percent random. That ensures that we're going to meet and exceed the federal requirements and also 25 percent alcohol. And again, we have a lot of tests that are not only just random, but there are many tests, some that are FRA mandatory, some that are Union Pacific tests only, but our random rate is 50 percent --

MR. NARVELL: Okay.

MR. BREEDEN: -- TENY throughout a year's time.

MR. NARVELL: All right. And then when you did increase this testing rate, did you observe any change in the positive rates either for random tests or for post-accident tests?

MR. BREEDEN: Actually, if you looked at our three-year trend line for random -- and I'm sorry, I do not have it broken out by post-accident -- but just our random, we've actually seen a leveling off and now decrease in the number of positives with the -- even with the increase in testing.

MR. NARVELL: Okay. Over the past three years, concluding in December of 2008, what have been Union Pacific's

annual positive rates for random alcohol and for drug tests?

MR. BREEDEN: If you could give me just one moment.

MR. NARVELL: Sure.

MR. BREEDEN: The numbers for 2007 on FRA random alcohol tests was .20 percent; drug, .33 percent. 2008, for FRA random, alcohol, .23 percent, .44 percent and for the first month of 2009, the FRA random is .16 and drugs is .09. So you can see, it's everything -- the highest we've been on anything is .44, so it's less than half of a percent.

MR. NARVELL: Okay. Over that same period, a little bit different twist on this, over that same time period that we just referred to here, what have been UP's annual positive numbers -- do you have that with you -- as opposed to the rate?

MR. BREEDEN: Yes, sir, I believe I do have that. The positive trend analysis for the entire system, on all test types in 2004 was 0.88. In 2005, 0.6. 2006, 0.56. 2007, 0.57. In 2008, 0.48. And again, that's on all test types. And on our random drug test, we do have a 10-panel test that we test for.

MR. NARVELL: Could you elaborate a little bit on that just briefly, the 10-panel -- what does that consist of?

MR. BREEDEN: It consists of marijuana, alcohol, cocaine, methamphetamines -- and I'll just go with the positive here -- amphetamines, propoxylene, Benzedrine, morphine, codeine, hydrocodiene, oxymorphone, barbiturates, oxycodone, heroin, hydromorphone, ecstasy, methadone and PCP.

MR. NARVELL: Okay. This kind of gets into a nice segway to the next question here. What drugs have -- are being detected here, have you seen?

MR. BREEDEN: In our 2008 testing, marijuana was number one; alcohol, number two; cocaine, number three.

MR. NARVELL: Okay.

MR. BREEDEN: But again, I want to emphasize, it's very, very low positive rates.

MR. NARVELL: Okay.

MR. BREEDEN: Less than half a percent.

MR. NARVELL: Let me go back. That's why I believe we talked about the numbers. We talked about 2004, were they rates or were they actual numbers, Mr. Breeden?

MR. BREEDEN: Those were actual rates; again, less than half a percent. I do not have all the numbers here.

MR. NARVELL: Okay.

MR. BREEDEN: Broken out.

MR. NARVELL: All right. At some point, would you be able to provide that information broken down by actual numbers?

MR. BREEDEN: Yes, sir, I will.

MR. NARVELL: Okay, thank you. How about --

UNIDENTIFIED SPEAKER: Hold up, please.

HEARING OFFICER STANCIL: Okay, we're going to request that as an exhibit. That would be Exhibit -- is it --

CHAIRMAN HIGGINS: Yes.

HEARING OFFICER STANCIL: Okay. That would be Exhibit 4(d) and we are asking for the past three years, the annual positive numbers for drug and alcohol tests, is that correct?

(Whereupon, the document referred to as NTSB Exhibit 4(d) was marked for identification.)

MR. NARVELL: That's correct.

HEARING OFFICER STANCIL: Thank you.

MR. NARVELL: The actual numbers, right. How about any prescription, over-the-counter medications? Have they been detected that you're aware of, Mr. Breeden?

MR. BREEDEN: I'm not aware of that. Again, some of this in the 10-panel test are found in prescription drugs, such as the hydrocortisone, some of those things, are in prescription drugs, so that does include some of the prescription.

MR. NARVELL: Okay.

MR. BREEDEN: I don't have a clue of which ones were found prescription or which ones may have been illegal.

MR. NARVELL: I'm aware that all the railroads are evaluated by FRA for compliance with Part 219, as I'm sure you are. What I'd be interested in is as to whether your program has ever been evaluated for its effectiveness either internally or by an outside agency.

MR. BREEDEN: We, of course, evaluate our own program

internally every year and then the FRA, late in 2007, conducted a very extensive audit there in Omaha with our drug and alcohol testing program, so we are -- we have internal audits as well as the external from FRA.

MR. NARVELL: And do you know the results of those?

MR. BREEDEN: I believe we were given a very high score. I know we were given a very high score by Lamar Allen from the FRA and that entire group that made the audit on Union Pacific.

MR. NARVELL: Okay. Is an individual or crew usually seen by a manager or a supervisor prior to going on duty with regard to observation for signs or symptoms of impairment?

MR. BREEDEN: It depends on location. If you're in a major terminal where there is a manager on duty around the clock, it's very probable that a manager would've observed an employee. If it's an outside location where there may be one or two managers assigned, it's less likely that the manager would've been there. However, with our FTX program and the management of our employees through skills evaluations and the other things we do, even at an outside location, there will be occasions that you're going to see the manager. So to say that an employee, a TENY employee, would see a manager each and every trip. That is not true, but it's certainly possible and more probable around the major locations than outside, but even the outside locations, you're going to see that manager any time day or night.

MR. NARVELL: Okay. And would this be, just as a --

over a seven-day period or is there a regular basis for this or is it randomized?

MR. BREEDEN: It really is randomized based on the train operation, itself. If I'm a manager at an outside location and I have, say, two jobs, go to work 1:00 in the afternoon and 1:00 at night, they're most probably going to see me at night instead of there at 8:00 a.m. in the morning.

MR. NARVELL: Okay. Now, what role, if any, do the various labor organizations play in either the development or administration of your program?

MR. BREEDEN: The BLE, UTU and also Maintenance of Way unions are very active in Union Pacific's Operation Red Block program. We certainly welcome them as partners. And as a matter of fact, there's a number of symposiums that have been held. Last year, Union Pacific hosted a symposium for Operation Red Block in Omaha and they certainly are partners and take a very active role in the prevention of drug and alcohol use in the workplace. So without them, of course, the program would be just enforcement and it wouldn't be nearly as successful without their help.

MR. NARVELL: I see. You alluded to other components of the overall program and I'll end with this question for the time being. The random drug and alcohol program is, of course, but one component of the overall program. Since the Chatsworth accident, have there been any changes, actual or proposed, to UP's random alcohol and drug testing program or to any other major component

of the program to reduce the adverse effects of alcohol and drug use in the workplace?

MR. BREEDEN: We have a very solid program and we have not added to or changed our program. We feel like it's very successful and again, with the union partners, we feel like it'll continue to be successful because the declining rates we've seen pretty much year over year, we want to stay with what's working.

MR. NARVELL: You referred to Operation Red Block. Could you, for the record, explain a little bit of what that program is and if there's any other programs that are similar in nature?

MR. BREEDEN: It is a joint labor management effort. It actually began in the 1970s because of the increased substance abuse that we were seeing among railroad employees. So it involves several groups; the Employee Assistance Program, it's behavior/health promotion. We have just cause drug and alcohol testing and again, the number of players that are there, the UTU, the BLE -- and there are also unions involved and I'll just give you a for-instance. We have the opportunity for employees to, if they're called on duty and we say that they're under the influence or feel like they could be under the influence of drugs or alcohol, they can actually lay off and in 2008, we actually had 74 people that, when they were called to work, said no, I can't go to work.

MR. NARVELL: Okay, very good. Thank you, Mr. Breeden.

Madam Chairman, that's all the questions I have at this point.

CHAIRMAN HIGGINS: Okay. Any other questions from the Technical Panel?

(No response.)

PARTY QUESTIONS

CHAIRMAN HIGGINS: Then we'll go to the parties. FRA.

MR. COTHEN: None.

CHAIRMAN HIGGINS: California?

MR. CLARK: No questions from the PUC.

CHAIRMAN HIGGINS: Mass. Electric?

MR. ROBERTS: No questions from Mass. Electric.

CHAIRMAN HIGGINS: City of Los Angeles.

MR. QUINTANAR: No questions.

CHAIRMAN HIGGINS: Okay, Union Pacific. Well, why don't we hold on you and come to you at the end? UTU.

(No response.)

CHAIRMAN HIGGINS: BLE.

MR. WALPERT: Yes, I have a few questions, thank you. Mr. Breeden, do dispatchers monitor the radio signal calling on UP?

MR. BREEDEN: I'm not familiar with the dispatchers testing program. I would have to defer that to John Rieneger there in the HDC.

MR. WALPERT: Okay. In regard to cell phone use, does UP have any concerns if a cell phone is off and stowed in the

employee's grip?

MR. BREEDEN: No, we do not take exception to the cell phone being off. We actually, because of some concerns by the TENY employees, what would they do if a family member needed to contact either the engineer or conductor in the event of a family emergency, we actually set up an 800 number that the family could call in to. The dispatcher will then talk to the train crew, instruct them to stop and then tell them they should call whatever number was called in to the hotline number. So we've set up a program that we don't have to bar cell phones completely off of the train because we have a program and in the event of an emergency, a family member can contact you.

MR. WALPERT: Okay, thank you. One final question. Would it be fair to say that requiring crews to call clear signals would add to unnecessary radio chatter and thereby diminish the operational safety of trains?

MR. BREEDEN: I can tell you that the rule on Union Pacific does not require us to call clear signals over the radio and there's a lot of operational thoughts that went into that decision.

MR. WALPERT: Would safety be one of them?

MR. BREEDEN: Again, we didn't use safety. There's a lot of radio traffic and other operational concerns that we have in the reason we don't call clear signals in our rule.

MR. WALPERT: Okay, thank you. That's all I have.

CHAIRMAN HIGGINS: Thank you. Connex.

MR. FRITZ: We have no questions.

CHAIRMAN HIGGINS: Metrolink.

MR. CRARY: No questions.

CHAIRMAN HIGGINS: And Union Pacific.

MR. GRIMALLA: We have no further questions for Mr. Breeden.

BOARD OF INQUIRY QUESTIONS

CHAIRMAN HIGGINS: Okay. Let me ask my colleagues. Mr. Kolly, Dr. Kolly.

(No response.)

CHAIRMAN HIGGINS: Okay. Mr. Chipkevich.

MR. CHIPKEVICH: Thank you. Mr. Breeden, a few questions. One, you've given some percentages on positive for the random drug and alcohol testing. If you apply that and give us some numbers, how many -- do you have a rough number on how many thousand employees are subject to that and how many actual numbers that would represent instead of a percentage?

MR. BREEDEN: Again, we test at a rate of about 50 percent on random and that's 47,000 people, so with TENY alone, that's 23,000 and again, we will furnish you all those hard numbers broken out by craft, if you need, or covered services employees versus non-covered service or hours of service.

MR. CHIPKEVICH: Okay. If the information that you provide in that exhibit includes actual number of employees so we

can take a look at that, in addition to the percentages, that would be great.

MR. BREEDEN: Yes, sir.

MR. CHIPKEVICH: You mentioned that you give -- that your program includes drug testing at the beginning, as well as during a crew's work as well as it could be at the end of their shift. Can you tell me what percentage of the tests would be, random tests would be at the beginning versus at the end?

MR. BREEDEN: No, sir, I can't.

MR. CHIPKEVICH: Can you provide that for the record?

MR. BREEDEN: I will check with our drug and alcohol group and determine if that is available, to know exactly what point in the shift that the test was conducted.

MR. CHIPKEVICH: Okay. I would hope that you could find that. That was an issue that I think that we've talked about in some previous hearings and it would be useful to understand, you know, if most of the tests are at the beginning or at the end or if there's a balance in there of some type. So could I request that that be an exhibit?

CHAIRMAN HIGGINS: You may. Mr. Stancil.

HEARING OFFICER STANCIL: Okay, that would be Exhibit 4(e) and it'll be identified as the percent of random tests done at the beginning versus the end of a shift.

(Whereupon, the document referred to as NTSB

Exhibit 4(e) was marked for identification.)

MR. CHIPKEVICH: And the middle.

HEARING OFFICER STANCIL: And the middle of the shift, random drug tests.

MR. CHIPKEVICH: And if the administrative staff could give the witness a copy of Exhibit 6(b), please. Thank you. Exhibit 6(b) is cellular/wireless device records factual report for the Union Pacific conductor that was released this morning from our Office of Research and Engineering and this particular report documents the use of the cell phone for multiple text messages by the conductor on the UP train that was involved in the accident. How do you monitor the use of cell phones other than looking to see if they're on or off? Once a crew is out there on the railroad, is there any way to determine if they're using a cell phone or not?

MR. BREEDEN: It's very difficult unless you see them through the window. Again, our prohibition is that you won't even have it on while you're on board that moving train, so when we board a train for an efficiency test or FTX event, that's when we would know. And again, behavior modification through the total safety culture and through things such as confidential close call reporting, that really does more to monitor than even the 17,000 efficiency tests we had in 2008 for cell phone usage or the improper use of cell phone usage.

MR. CHIPKEVICH: And explain how those efficiency tests were conducted?

MR. BREEDEN: Those are onboard observations, what we call 11A. A manager physically gets on board with the crew and determines if the cell phone is out or we'll ask him for their cell phone and if it's on, of course, that's an exception. But again, we have over 17,000 events in 2008 but not all of those are onboard a locomotive. Some of them are seeing the switchmen out on the lead talking on that cell phone. So any time someone's out on the ground, they cannot be using the cell phone while they're working. They have to be inside the locomotive, it has to be stopped or they could be inside a building, of course.

MR. CHIPKEVICH: Specifically, when a train crew's on board the train and once a train's moving and there's no supervisor on board, what's to keep a crew member from turning the phone on?

MR. BREEDEN: It is very difficult to monitor. They can do that.

MR. CHIPKEVICH: And in this particular case in this accident, we had a crew member that used a cell phone on multiple times, so how would you suggest -- is there any way that you could improve oversight once a train is moving? Any ideas on that?

MR. BREEDEN: You know, again, the program that we really believe and has shown great results is our total safety culture where crews actually monitor each other and it has brought

about a number of changes in behaviors; that's why we've seen double digit reduction in rail equipment incidents due to human factor basically year over year because if I see you using that cell phone and you're my conductor on board that locomotive with me, I'm your engineer, I'm going to tell you turn that off, we have business to do here.

MR. CHIPKEVICH: Has this conductor ever been identified as having used a cell phone previously by UP?

MR. BREEDEN: I do not believe so. I would have to check the records specifically for that. I do not see -- I know for the past year he has not been observed using the cell phone. He has no efficiency test or FTX failures on the record for that previous 12 months before the incident.

MR. CHIPKEVICH: Can I ask that that be provided --

CHAIRMAN HIGGINS: Yes.

MR. CHIPKEVICH: -- at a later date?

CHAIRMAN HIGGINS: Yes, sir.

HEARING OFFICER STANCIL: And that would be under operations?

MR. CHIPKEVICH: That would be an exhibit under operations.

HEARING OFFICER STANCIL: Okay, that would be Exhibit 3(jj) and we'll identify it as the UP conductor efficiency tests for cell phone usage.

(Whereupon, the document

referred to as NTSB
Exhibit 3(jj) was marked for
identification.)

MR. BREEDEN: For what period? I'm sorry.

MR. CHIPKEVICH: For ever.

MR. BREEDEN: For ever?

MR. CHIPKEVICH: For this conductor.

MR. BREEDEN: Okay, sir.

MR. CHIPKEVICH: Any record that you have. We heard the Connex representative earlier today note that use of inward cameras would be useful and supported it, and Metrolink's supporting it and actually talked about procuring and beginning to install those cameras inward facing on locomotives beginning later this year. What is Union Pacific's position on that or are you all planning to install any cameras facing inward?

MR. BREEDEN: At this point, we have not had any discussions about inward facing cameras. Again, I understand the technology is available, but it's not something we've explored at this point. Not saying that we won't. It's certainly possible.

MR. CHIPKEVICH: Do you have a personal position on that?

MR. BREEDEN: I have a personal position, but it may not represent the position of Union Pacific, so I'd rather not comment at this point.

MR. CHIPKEVICH: Okay. Did the engineer on the accident

train of September 12th report to Union Pacific that this conductor had been using the cell phone?

MR. BREEDEN: Not to my knowledge, he did not.

MR. CHIPKEVICH: Do you have a program where crew members can report if other crew members are using cell phones?

MR. BREEDEN: We do. There's several ways. Of course, they can use the direct phone call to the manager and advise the local manager. They can use the safety hotline to report something such as this going on. And again, the total safety culture that I've talked about, that's where we actually train extensively our employees to watch for certain behaviors or behaviors that are in violation of the rules. And they actually observe each other for a period of time and then they give feedback to each other and they even present that to you in writing.

And the person that was observed then takes that card and actually puts it away, puts it in a sealed box and the total safety culture -- team which consists of the union members, they actually go through those cards and see what behaviors that need to be addressed by them as well as by management. So we -- there are several ways this particular engineer could've reported this and again, had he felt that it was necessary and the conductor had not changed the behavior when he called it to his attention, could've stopped the train and said we're not going any place until this behavior is corrected.

MR. CHIPKEVICH: Okay, but in this particular case, the train wasn't stopped and to your knowledge, there was no report made by the engineer to UP that the conductor was using a cell phone?

MR. BREEDEN: To my knowledge, that is correct.

MR. CHIPKEVICH: Can you check the records to see if it was reported anywhere? Would it have been reported somewhere else? Would you have the knowledge if it was reported?

MR. BREEDEN: I believe I would've -- with an incident such as this, I believe I would've heard about it.

MR. CHIPKEVICH: Okay. Do you all keep a record of the number of complaints that do come in from other crew members about other crew members using cell phones that have to be investigated?

MR. BREEDEN: If -- our normal routine, if someone comes to me, as the manager, and reports that someone I'm working with is violating a rule, then I will automatically go to that person who had the alleged violation, we'll have the discussion, and then I'll document that discussion either with a safety contact and if -- because a crew members just usually don't report someone doing something that they aren't, then I'll probably place that person into additional training and then of course, all of our training is documented. And again, it may not be just a rule class, it could actually be putting them through the simulator. We actually have 32 simulators across our system that not only are used for the locomotive engineer, we also have the conductors there, run

them through various scenarios and observe their behaviors and actually score them.

MR. CHIPKEVICH: Okay. Specifically talking about the use of cell phones or other electronic devices, can you provide us with the number of either complaints or efficiency checks where it was found to be an issue?

MR. BREEDEN: Yes, sir. I can give the number of FTX events actually now --

MR. CHIPKEVICH: Okay.

MR. BREEDEN: -- and I believe I referenced the number of 1700 but I'll make sure of that. Excuse me. Across the system for violations or for all observations of Rule 1.10, there were 17,169 in 2008 with 643 exceptions.

MR. CHIPKEVICH: So of -- that means of 17,969 observations --

MR. BREEDEN: Seventeen thousand -- excuse me, 17,169.

MR. CHIPKEVICH: One hundred and sixty-nine evaluations or tests or observations, there were 643 --

MR. BREEDEN: Exceptions.

MR. CHIPKEVICH: -- exceptions, meaning they violated the rule --

MR. BREEDEN: There was someone that violated that rule, yes, sir.

MR. CHIPKEVICH: Of either having a cell phone turned on or using it or something of that nature?

MR. BREEDEN: That's correct.

MR. CHIPKEVICH: Okay. And then what do you do with the 643 exceptions that were identified?

MR. BREEDEN: We have a tiered discipline system. It could be a coaching event which is documented. It could be a training event; again, that's documented. And now, we've also made this a 4(c) rule or a cardinal rule, which means that you could still receive coaching, you could receive training in lieu of discipline. Again, we have a tiered discipline system, so we really want to give people the opportunity to know what to do and how to do it and we do believe in training before we actually decide that it's going to be a behavior and there's a much more aggressive approach taken to a person having time off.

MR. CHIPKEVICH: Okay, if you have two men in the cab of a locomotive or two crew members and one crew member is identified as having violated the rule and the second person did not take an action to either stop the train or to turn them in, is there any training for that second person or how is that dealt with?

MR. BREEDEN: Absolutely. And I'll just -- if I was on board the locomotive and I observed the conductor using a cell phone, the engineer could clearly see that person using the cell phone and there was no conversation between them to stop that, then absolutely there would be training because it's also a violation for that locomotive engineer, as well as the conductor or one crew member or the other.

MR. CHIPKEVICH: Thank you. That's all the questions I have.

CHAIRMAN HIGGINS: Thank you. I don't have too many questions. I'm just interested in this issue of -- you described, in some detail, the way you monitor your crews and how many -- on a typical UP train, how many crew members are on a train at any given time or if there is a such a thing as a typical UP train?

MR. BREEDEN: Well, the through freight crews normally consist of an engineer and a conductor. Most locals or at least a lot of the locals will have three crew members, but it depends on the job and then somewhat on the labor agreement at that location for that particular job. But typically, a through freight crew has two crew members.

CHAIRMAN HIGGINS: Okay. And I think there were -- this is a local train. There were three crew members. What is the role of the conductor? We heard a lot about the role of the Metrolink conductor dealing with passengers, walking through the train, making sure people got on and off, communicating with the engineer on signals and other things. What's the role of the conductor on a UP train like this, the local that was involved in this accident?

MR. BREEDEN: The -- and I -- it's governed by General Code of Operating Rule 1.47, the portion for the conductor, and instead of reading you the rule, I'll describe it basically, if that's acceptable with you.

CHAIRMAN HIGGINS: Sure.

MR. BREEDEN: Okay. They're in charge of the general safety and movement of the train or work to be performed. So in this case, the brakeman, of course, would be working under the supervision of the conductor. Now, the engineer's jointly responsible with that conductor for the safety and movement of the train and either one of them are jointly responsible for stopping the train, if necessary, in the event of a rules violation. But the conductor generally is in charge of the work to be performed, the customer, spotting of cars, station switching. Also, they have a duty to fill out what we call the conductor's log. There's certain entries that must be made.

In other words, anything other than a clear signal must be recorded in the conductor's log, the time, the speed of the train; several entries have to be made, which this particular conductor had filled out really perfectly. I mean, it was every -- the train defect detector was recorded, the speed was recorded when required, so we could see this conductor was really performing their work and that's one of the reasons Union Pacific has this conductor's log, to ensure that they are alert, that they are paying attention, that they are on the head end because again, the safety of that train is their responsibility.

CHAIRMAN HIGGINS: So in this accident, we have a conductor who is -- who, in the post-accident drug testing, tested positive for marijuana and also, we later discovered was test

messaging not once or twice, but several times while he was on duty. How would you say that those activities compare with the job description you just gave me of his responsibility for the safety -- safe movement of the train?

MR. BREEDEN: There were certainly times during the trip, with his text messaging, that he absolutely was not performing the job that he was required to do. He's not allowed to text message. Certain parts of his job obviously he was doing very well, such as the conductor's log, the train was being operated properly by the engineer across the territory based on signal indication, but with text messaging going on in that cab, obviously he was not doing everything he was supposed to be doing. He was certainly violating a rule.

CHAIRMAN HIGGINS: Do we know whether -- where was the brakeman located on the train?

MR. BREEDEN: The brakeman on this train was riding the trailing locomotive.

CHAIRMAN HIGGINS: And he was also in the --

MR. BREEDEN: He was in the second unit.

CHAIRMAN HIGGINS: Second locomotive.

MR. BREEDEN: Yes.

CHAIRMAN HIGGINS: Okay. Do we know whether the brakeman reported the conductor for using his cell phone?

MR. BREEDEN: No, I do not.

CHAIRMAN HIGGINS: Okay.

MR. BREEDEN: I do not have a report of that.

CHAIRMAN HIGGINS: So there is no report?

MR. BREEDEN: Correct.

CHAIRMAN HIGGINS: Okay. You know, it's interesting to me that in both of these crews, they resorted to text messaging rather than actual phone calls. Is that -- I just throw this out there because he -- this particular conductor made three telephone calls during the day. I think two were before the accident, one was after the accident, if I'm looking at these times correctly. Page 07 of that exhibit. But he made how many text messages, sent how many -- sent and received how many text messages? Several.

Page 2 has the summary. We talked about how -- we talked about cell phones as if, you know, they're a phone. They're also a messaging, message sending device, as is a Blackberry or any of these handheld communication devices. He sent or received a total of 41 text messages while on duty. Do you have any thought as to whether using texting either as seen as by individuals and this crewman was younger, significantly younger than his counterpart, the engineer, as not a violation of the rule that exists or perhaps alternatively as a way to get around the rule because it's less easily detected?

MR. BREEDEN: I don't want to hazard a guess. I do know that after Emergency Order 26 was issued, that's the only thing we had to change in our rule or the only thing we had to add to our rule is that text messaging or texting on the cell phone is just

as big a violation or is a violation as the voice conversation and again, there are certain circumstances as in -- allowed by the EO26 that will allow you to use voice communication for redundancy, if necessary, but we had to put in the rule that text messaging is not allowed, that, in fact, is a violation. Whether that person thought it was a way around the rule, I can't answer that.

CHAIRMAN HIGGINS: But let me -- then let me ask you, do you think the Union Pacific rule that was in effect at the time of the accident prohibited text messaging?

MR. BREEDEN: Yes, I believe it did. It said electronic devices in the rule. Electronic device, to me, is whether it be text messaging or the cell phone or some other device that is electronic, it's more or less like the airline, if it has an on and off switch, it should be off in that particular case.

CHAIRMAN HIGGINS: And how do you -- you've talked a lot about your total safety culture which is something I raised a little bit earlier. We're talking about safety management systems and crew resource management. How do you communicate, educate, inform your employees on these kinds of issues so that there's no -- they're not making the kind of distinction that would distinguish between cell phones and text messaging, that in fact, all are covered by the rule that you had in place?

MR. BREEDEN: We have several forms of communication and I'll address the total safety culture first. We have localized

implementation teams or I'll call it I Teams and they train all the employees. This is what total safety culture is about. They also are -- they're part of the communications package to all their fellow employees at that particular work location. So then it's not just someone from Omaha telling them here's a change or they're putting it in a online news article, it's the local person there that's really interested in safety and making a difference, communicating that information. Plus, we do have the local -- I mean, the system-wide communications. We have the general orders that point out, the general order that rules changes that point out here's what's different about the rule or here's something that's changed.

So there are various forms. We have annual rules classes for managers and we have rules classes that are actually for TNY every other year. And then, of course, we have all types of other training situations. We have what we call the EDRs and that's the Employee Developmental Review that's held out there on the railroad, some locations twice per year with our employees. We sit down and we go over your individual performance each and every year. We had over 30,000 of those conducted last year on Union Pacific and we're able to update you to make sure you're informed of all the rules changes that have taken place or any that have taken place, both locally and of course, across the system.

CHAIRMAN HIGGINS: But here we have an example

notwithstanding the system you've described, which sounds pretty good, where we have somebody who tests positive for drugs, which perhaps would not have been known to his crew members, but who was using extensively a handheld electronic device during the course of his time on duty and apparently, there was no report from the engineer, there was no cautioning from the engineer or from the brakeman. What does that say about the effectiveness of the program you just described to me?

MR. BREEDEN: This is one individual case, unfortunately. We know we're not perfect and we're going to continue our efforts. We believe that with the partnerships we've formed with FRA, NTSB and also the craft employees, it will make it a hundred percent. We're not there yet. We still have work to do, there's no doubt. This is absolutely a tragedy and this person was involved in an incident before they were detected either by a coworker or by a manager. So we still have work to do. We're not perfect, but we're still going to continue down the path. With certainly, again, with double digit improvements and the prevention of human factor incidents, we believe we're on the right path.

CHAIRMAN HIGGINS: Okay. Can you say a little bit more about confidential close call reporting?

MR. BREEDEN: That's a program that the FRA is involved with on the North Platte service unit and if I have a close call of some type, in other words, I almost get by a signal, I have

something happen that could've resulted in a catastrophic incident, then I'm able to call in a number and report myself to this particular agency and they gather all of the data, there's no names associated with it, no train symbol so management can't come back and say I know who that was on that train on that particular day, but it allows us to build trends and things that we know we need to train against.

If we have people have trouble with lining switches with movable point frogs, for instance, they almost run through this movable point frog. We'll know we need to do more training in that particular area. So it really helps us identify and drill down either things that aren't understood, in other words, people don't know what to do or how to do it and we can really address those training issues, then we can also work on the behavior issues and it will start drilling down to the individual who we need modify their behavior.

CHAIRMAN HIGGINS: So this is a non-punitive anonymous reporting system?

MR. BREEDEN: It is non-punitive. However, there are certain things that are exempt from it, in other -- if you have a decertification event, if the locomotive engineer does go by a stop signal that's detected by a manager or train dispatcher, the engineer, for instance, operates more than 10 miles per hour over the maximum authorized speed and with all those wireless downloads we get every day, we detect that through our auto-scan system or

by an individual manager, those are exempt. Those are punitive. But it's non-punitive if I almost have something happen.

CHAIRMAN HIGGINS: Do you have any kind of whistleblower program where somebody can anonymously report behavior of an employee that would be in violation of a rule without -- so that management could take action without having to step forward and identify themselves?

MR. BREEDEN: Absolutely. And again, not only in our drug and alcohol program with a whistleblower, you know, federal law mandates that coworker referral for drug and alcohol -- me, being a certified engineer today, if someone reported me, it's called coworker referral. You can't take my engineer's certificate because it's coworker referral, even self-referral, and we talk about rules, violations in and of themselves.

That's what total safety culture is about. They can go to that I Team and say this person has a problem, they either don't understand the rule or they're choosing not to comply with it and then you have behavior modification that will take place not only for management, but also all of the union personnel, all of your craft people, also. So it's -- again, part of it's mandated by federal law. The FRA did an absolutely great job with that.

CHAIRMAN HIGGINS: And let me just ask you one final question. In this situation that we have on the day of the accident where you've got the engineer and the brakeman and the

conductor and you've indicated that the conductor's responsibilities for the safety -- safe movement of the train, safety movement of the train, does one -- who's in charge?

MR. BREEDEN: The conductor's actually in charge of the crew. The locomotive engineer's in charge of moving the train, itself.

CHAIRMAN HIGGINS: Physically moving it?

MR. BREEDEN: Physically moving it.

CHAIRMAN HIGGINS: But in terms of -- to use the aviation example, the pilot in charge, chief pilot, not chief pilot, but the pilot -- the person who's in the left-hand seat, in effect, flying the plane, is that -- in this case it was the conductor?

MR. BREEDEN: The conductor is jointly responsible with that engineer. They're in charge of, again, the work to be performed and when I say they're in charge of the safety, if it was -- they were going to set out a car at a particular track and the conductor felt like this switch is hard to throw, the track's unsafe to place that car in, they can make that decision. But jointly, the move-on signal indication, both the engineer and conductor have to agree, much like the pilot/co-pilot situation you just described.

CHAIRMAN HIGGINS: Okay. And this crew pairing, as I understand it -- and I'm not trying to understand the terminology, but this conductor was not a regular part of this crew, is that

right? He was on this trip --

MR. BREEDEN: That's right. He was an extra conductor. You have the regular brakeman and engineer on the job who had worked the job, I think, for quite some time. Certainly, they were very experienced and had worked together for a number of years. The regular conductor, regular assigned conductor, on this job had taken off for some reason on that particular day, so this was an extra board person called to work the job.

CHAIRMAN HIGGINS: Well, one of the things that we always look at these accidents is the crew pairings and the -- sort of the human dynamic and how much that might've affected -- because I think that, you know, what you're telling us is that you have a system in place where a crew member, assuming they had recognized what he was doing, should have called him out on it, but it didn't happen.

And again, it wasn't contributory to the accident but as in so many cases, we find, when we look at one of these accidents, there are so many issues that come to light and here's -- here are a couple issues involving this particular individual. So as you say, we got to keep working at it, but I don't have any further questions. Do any of my colleagues on the Technical Panel or the parties or the Board of Inquiry, further questions for today? Yes.

MR. WALPERT: I just have one final question. Mr. Breeden, are there any instances whereby UP would issue cell

phones to crew members or ask crew members to use their personal phones for operational purposes?

MR. BREEDEN: There is a particular instance in our -- in Chicago with our metro operations that we do have company issued cell phones and General Code of Operating Rule 1.10 allows for that but again, it's very specific as when they can use it, again, never in the control compartment.

MR. WALPERT: Okay, thank you. That's all I had.

CHAIRMAN HIGGINS: Okay. No more questions?

(No response.)

CHAIRMAN HIGGINS: Then I think we have had a long day, very informative day, and we are a little bit behind schedule but not too much and I think we just made an executive decision here to start tomorrow morning at nine o'clock, so with that, we will conclude and we will see you all bright and early at nine o'clock tomorrow. Thank you.

(Whereupon, at 5:22 p.m., the hearing in the above-entitled matter was adjourned, to be reconvened on the following day, Wednesday, March 4, 2009, at 9:00 a.m.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	METROLINK TRAIN NO. 111 COLLISION WITH UNION PACIFIC RAILROAD LEESDALE LOCAL, September 12, 2008, Los Angeles, California
DOCKET NUMBER:	DCA-08-MR-009
PLACE:	Washington, D.C.
DATE:	March 3, 2009

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording accomplished at the hearing.

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Dominico Quatrociocchi
Official Reporter