UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
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SEPTA TROLLEY COLLISION	*	
PHILADELPHIA, PENNSYLVANIA	*	Accident No.: DCA17FR003
JANUARY 4, 2017	*	
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Interview of: SCOTT SAUER

SEPTA Headquarters
Philadelphia, Pennsylvania

Sunday,
January 8, 2017

APPEARANCES:

RYAN FRIGO, Operations Group Chair
National Transportation Safety Board

MIKE HOEPF, Human Performance Investigator
National Transportation Safety Board

STEPHEN JENNER, Ph.D., Human Performance Investigator
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TROY LLOYD, Lead Accident Investigator
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ELIZABETH BONINI, State Safety Oversight Manager
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Southeastern Pennsylvania Transportation Authority
(SEPTA), City Division

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PennDOT State Safety Oversight Program
(Posting)

I N D E X

I N T E R V I E W

MR. FRIGO: My name is Ryan Frigo, and I am the Operations Group Chair for NTSB on this accident.

We are here today on January 8, 2017, at SEPTA Headquarters in Philadelphia, Pennsylvania to conduct an interview with Mr. Scott Sauer who works for SEPTA.

This interview is in conjunction with the NTSB's investigation of a collision between two SEPTA trolleys in West Philadelphia, on January 4, 2017. The NTSB accident reference number is DCA17FR003.

Before we begin our interview and questions, let's go around the table and introduce ourselves. Please spell your last name and please identify who you are representing and your title. I would remind everybody to speak clearly so we can get an accurate recording. I'll lead off and then pass to my right.

Again, my name is Ryan Frigo. The spelling of my last name is F-r-i-g-o, and I am the Operations Group Chairman for the NTSB on this accident.

MS. BONINI: Elizabeth Bonini, B-o-n-i-n-i, Pennsylvania Department of Transportation, State Safety Oversight Manager.

MR. FRAZIER: Steven Frazier, F-r-a-z-i-e-r. I'm a contractor to the PennDOT State Safety Oversight Program, and I'm posting.

MR. LLOYD: Troy Lloyd, L-l-o-y-d, Lead Accident Investigator, Federal Transit Administration.

DR. JENNER: Stephen Jenner, S-t-e-p-h-e-n, J-e-n-n-e-r, human performance investigator with the NTSB.

MR. HOEPF: Mike Hoepf, H-o-e-p-f, NTSB, human performance.

MR. LYLES: Michael Lyles, L-y-l-e-s, Director of Surface Operations Supervision, City Division, SEPTA.

MR. SAUER: Scott Sauer, S-a-u-e-r, Assistant General Manager, System Safety, SEPTA.

MR. FRIGO: Mr. Sauer, do we have your permission to record our discussion with you today?

MR. SAUER: Yes.

MR. FRIGO: Thank you. And just to put into the record, the purpose of this investigation is to increase safety, not to assign fault, blame or liability. The NTSB cannot offer any guarantee of confidentiality or immunity from legal or certificate actions, and a transcript or summary of the interview will go into the public docket.

And, Mr. Sauer, are you okay if we proceed on a first name basis?

MR. SAUER: Yes.

MR. FRIGO: Thank you, Scott. Would you like any representation with you today?

MR. SAUER: No.

MR. FRIGO: Okay. Thank you. Thank you, Scott.

INTERVIEW OF SCOTT SAUER

BY MR. FRIGO:

Q. If you can start out by giving us a synopsis of your work experience here at SEPTA?

A. I am currently SEPTA's assistant general manager of system safety. I started my career at SEPTA in 1990, August 22, 1990, as a surface train operator for SEPTA at SEPTA's Elmwood District. In 1993, April of 1993, I transferred to the subway elevated division, as a Market-Frankfort Line train operator. I moved back to Elmwood District in September of 1999, resuming my duties as a surface train operator.

In October of 2003, I was promoted to transportation manager in SEPTA's suburban light rail division. In 2005, I was promoted to safety officer in SEPTA's System Safety Department. In 2008, I was promoted to manager of operational safety in SEPTA's System Safety Department. In 2012, I was promoted to then director of system safety and risk management, eventually changing my title to assistant general manager of system safety in 2015.

Q. That's great, Scott. And I think your experience here in SEPTA makes you the right person to be talking to us here today.

So I kind of want to ask you just an open-ended question here. I'm hoping you could, you know, talk for a while and help us really understand SEPTA's philosophy on system safety.

A. Okay. So system safety at SEPTA is -- our philosophy boils down to a grassroots approach to managing safety throughout the Authority. We do that by encouraging our employees and managers in the frontlines to identify hazards, manage the risks, develop

and review their processes and to make changes where appropriate, and to make repairs to infrastructure or equipment where appropriate in order to mitigate the hazards they've identified.

System Safety's -- the System Safety Division and its personnel serves as the Authority's consultants, advisors and oversight to ensure that these processes occur. We do that through continual interaction with the operations and maintenance divisions and employees, with all the divisions and employees, even the administrative divisions.

We do that through our auditing processes. We do our internal audits from the System Safety or the corporate level, but we also assist operations and maintenance in developing and executing their own internal audit processes.

System Safety also serves as the corporate accident investigator. We would investigate any accidents that are deemed severe or at a level where a corporate investigation is necessary. Where accident investigation is concerned, we also assist operations and maintenance and anyone in developing and executing their own accident investigation protocols and procedures and provide technical assistant wherever we're needed.

We also train our frontline supervisors on how to conduct accident investigations. We are the facilitators and administrators of our location safety committee programs where we encourage the grassroots approach to safety by having the rank and file, the union leadership engaged in the safety process with

their management teams and liaisons from System Safety.

We meet on a regular basis, on a monthly basis at every location. There's an upper level safety committee, executive level safety committee, which I co-chair with the union leadership on a monthly basis, that assists the local committees in executing their functions.

Safety at SEPTA is identified as the foundation for all we do. We have a strategic business plan that identifies safety as one of our key strategic functions and safety is the core of our business.

Our System Safety Program Plan has been in existence since the '80s. It's, of course, evolved over the years, but it is a core document to our strategic business plan. It identifies all the things that SEPTA does to ensure safety throughout the authority. Everyone in the Authority, every department, every group of people within their organizations is mentioned in this System Safety Program Plan as a participant. They have their own functions and responsibilities in executing the functions of the safety plan.

System Safety assists in the development of training, the oversight of training. We deliver training such as accident investigation training, location safety committee training, but we also oversee SEPTA's primary training department.

System Safety is also the key -- is the chief liaison to our external agencies, our state safety oversight program, federal

authorities, any other authorities having jurisdiction that we -- that have a safety or health or environmental impact. So we would interact directly on behalf of the Authority with those agencies to ensure that those agencies' needs are met, that they are getting the information that they need in a timely manner. So System Safety is the primary liaison for those folks.

My position reports directly to the general manager. We are -- my position was elevated just a few years ago to have that direct relationship on a peer level with all the other assistant general managers: operations, engineering, maintenance and construction, customer service, public relations.

I also am -- have a dotted line reporting relationship to SEPTA's board chairman. So I am in on monthly board meetings and discussions with the chairman.

The System Safety Department or Division, rather, is structured into four separate departments: Operational Safety; Accident Prevention and Investigation; Occupational Safety and Environmental Management; and Construction Safety.

There are 27 staff that report to me through those different departments. The departments are headed by a director. There's four directors, and then within each department are groups of safety officers and administrative staff.

Each of those departments has individual functions, but they are also interrelated. So the Operational Safety group is primarily responsible for managing and executing the System Safety

functions of the System Safety Program Plan, such as the internal audit safety process, the management of the document itself; our hazard management program, performing risk assessments, performing field audit activities of transportation and maintenance activities. That comes out of the Operational Safety group.

Accident Prevention and Investigation performs the corporate level accident investigations. They are also responsible to train transportation and maintenance managers on performing accident investigations as well as overseeing the accident investigation program. They also have a statistical collection and analysis and reporting groups, and that group is responsible for collecting, reporting and analyzing safety data throughout the Authority.

The Occupational Safety and Environmental Management group is made up of different safety officers, partially responsible for industrial hygiene or industrial safety-type activities, and then environmental compliance and management activities.

And the Construction Safety group is responsible for overseeing the safety aspects of our capital group, whether it's internal or external construction forces. They do perform site visits. They review designs. They interact on safety certification activities and attend job progress and safety meetings.

The System Safety Division, as the corporate safety function, is responsible for all the modes of transportation that SEPTA runs. So we also have responsibilities for the commuter rail,

rail transit, bus, and paratransit operations. So we interact with all those management groups.

We also interact with all of SEPTA's 17 labor organizations to ensure that they are active participants in the safety program, that they understand the safety program and that they are attending and participating in the safety committee process.

As I mentioned, the System Safety Program Plan originates and is managed by the System Safety Division. We perform oversight of all the different groups throughout the Authority. We perform all the internal safety audit activities and manage our state safety oversight compliance, compliance with part 69.

Q. That's a lot, Scott. That's a lot that you guys have on your plate and -- but how many staff members are there?

A. There's 27 total, and that's -- that's combined. So within Operational Safety, there's a director and six safety officers. Accident Prevention and Investigation is a director, two safety officers and three statistical or data analysts. The Occupational Safety and Environmental Management group is three industrial hygienists, three environmental safety officers and one environmental safety planner. The Construction Safety Department is a director and two safety officers. And -- oh, I'm sorry. Within Occupational Safety and Environmental Management, we have also added a safety training specialist. Within Operational Safety we've added a safety communications specialist.

Q. So I have to ask you, with the number 27, and you mentioned

in your description of the program that you guys are multimodal and you're corporation-wide, is 27 enough to do the job?

A. Well, it's certainly challenging. It is certainly challenging. However, the way the program is structured, System Safety serves as its corporate oversight and consultant. So it's really our job, our responsibility to engage the entire Authority in the safety program, and if we're doing our job and doing it well, and we get everyone engaged, then the program should function with or without System Safety. They should be performing -- they should be auditing their own processes. They should be auditing their own people.

So, yes, we have a lot on our plate, and we do a lot with the resources that we have, but we are able to do the things that we need to do.

Q. And you briefly mentioned, you know, an issue that I like to put under the category of safety communication, but I want to kind of walk through -- if we can start to talk about the safety policy and how that's formulated, and then maybe transition again into -- you touched on a few of them, but talk a little bit about some of the programs and then go into some of the safety assurance measurements and then, you know, again just touch a little bit more on the communication aspect, because, you know, it does sound like your program is based a lot -- the success of your program is based upon the knowledge of the agency to do what they need to do to keep themselves safe, and I -- like I said, if we can kind of

structure it that way --

A. Sure.

Q. -- to get a better understanding, it would be helpful.

A. So our communication strategy starts with our corporate brand. We branded our safety program several years ago, "It's never too busy for safety." And very often, in the transit industry, the common theme has always been "Never sacrifice safety for schedule," and that was not -- it was the same here at SEPTA. So we kind of co-opted that a little bit and developed "Never too busy for safety." Our general manager developed that slogan. It was something that he was very passionate about, that he never wanted the employees or managers to believe that their work was more important than safety.

So with that brand, we developed a logo, developed the slogan, and we started right away printing materials and every safety notice or instruction that's developed throughout the Authority contains that logo, that slogan, and that's the way that we just constantly put it in people's minds.

The other piece of that is twice annually we do what we call now our employee safety awareness days, where we have a systemwide stand-down for, you know, half an hour, a few minutes during each shift, where managers and employees can kind of get together, talk about safety, whatever's hot, whatever's, you know, going on at a particular location or shop or line or whatever. We give the managers the freedom to develop the message.

System Safety will also develop corporate messaging that they can use in addition to whatever they develop, or they can use our message exclusively if they feel that that's the way they need to go.

So we do that twice annually, once in the spring, once in the fall, and that is intended to have everybody take a moment to think that -- to rethink about safety and reemphasize the importance of that. So we get that message out through that mechanism.

Prior to those events, we bring all the mid-senior level managers together to talk about what the safety day is for, what it's meant to accomplish, and what the corporate messaging is, that System Safety has developed, and then ask for feedback on what they would like to see us do to try to help them out.

My staff fans out across the entire system. We try to get to each and every one. I usually accompany the general manager. We pick out a handful of locations that we want to visit, and we get the general manager out there to talk to as many of the frontline employees as we can possibly get to in that day, both of those days.

So then we take that for the employee side, and then we've sandwiched those around our corporate community safety day. And we take the same idea, the same concept once a year, in April, mid or late April/early May, and we get 3- to 400 of our employees out into the field, out into rail stations, bus terminals, anywhere

where we're going to get large groups of passengers and even non-passengers, people who may just happen by. We create literature. We create messaging. We speak with the media. The media helps get our message out. We'll wrap buses and wrap train cars and put banners on the train cars and car cards on all of our vehicles, talking about just key safety tips for the entire operation. If you're riding a railcar, we talk about making sure you're holding onto the stanchions, not running for trains, not trying to board or alight moving trains. On the bus side, it's much of the same messaging.

But we always try to incorporate a safety message for pedestrians. We've partnered with Operation Lifesaver over the years to help get their message across. We've partnered with local partners such as the Bicycle Coalition of Greater Philadelphia. We've partnered with our sister transit and rail agencies such as Amtrak, New Jersey Transit, PATCO, and tried to get regional messaging out as much as we can.

So between the two employee days and the one community day -- and we specifically call it a community day and not just a customer day because our message is not just for our customers. Our message is for the entire community. And such as trespassing, say, on rail property, we like to get the message out because very often it's not our passengers trespassing. It's the local communities that use the rail for shortcuts or dog walking or whatever it is, and so we try to get that message out to those

folks.

And our government affairs, our media relations people are excellent at getting the media involved, getting them engaged, and we've produced our own safety videos. We've produced videos for the customers. We've produced videos for the communities, for the schools. We've even begun producing videos for our employees.

So we've done a lot on the communications side to get the message out it's safety, safety, safety all the time. That's on the messaging side.

On the training side, we have very aggressive training programs for all of our employees. Safety starts with new employee orientation day. So on your first day on the job at SEPTA, whether you're hired as a track general helper or a corporate litigation attorney, you have to go to new employee orientation, and you get to sit with System Safety for an hour to talk about the safety programs and who System Safety is and what we do and how important safety is to the organization. And each of my directors rotate through that program and deliver the content to the students.

Then you take that and couple that with, once they leave new employee orientation and they go into their respective jobs and get their job training, safety is a vital function of all the operations and maintenance functions. As well as when we do our employee safety day, we don't just do it for operators and mechanics; we do it for procurement and for legal, for claims.

All those employees are expected, in this building even, to gather up for a couple of minutes and talk about safety. So we will develop messaging for those employees. So whether it's office safety or driving safety or anything of that nature, so that we make sure that we include the entire organization, all 9600 employees.

So once those employees are in their job functions and they're training, safety is hammered throughout that training program. All the rules that they follow are all based on safety. The System Safety Department sits on all those committees to make sure we're part of that, that we're a voting member of the rule committees. So that safety has a vital -- is an integral part of the fabric of the organization.

Q. Scott, thank you for that informative response to my question on the communication aspect.

You mentioned before one of the programs being field audits. Can you talk a little bit more about how your -- how System Safety, your group interacts with operations, and let's just focus it on trolley operations for field auditing?

A. Okay. So there's several different types of audits we do with rail transit. First we do spot field audits. The safety officers primarily in the operational safety section of the division will go out randomly, select locations and rules to audit. They'll go out and say stand on a street corner and watch a dozen trolleys pass through a facing point switch and mark

compliance. They'll ride the vehicles. Take a trip on a vehicle and observe operator behavior, compliance with rules, compliance with signals, et cetera.

In addition to our own individual observations, once a month we partner with transportation to do a joint audit, where we take a transportation manager with a safety officer hand-in-hand and go out and look at those same rules and procedures but with transportation along. That serves a couple different functions.

Number one, we are able to observe the operation like we would normally do, but we also get a chance to talk with the transportation managers and give them the System Safety perspective on how we do compliance tests, efficiency tests, and what we're looking for, and the importance of these rules versus, let's say, your average run-of-the-mill uniform checks and things like that. Not that those things aren't important; they're very important, but we also want to make sure that the transportation managers understand the importance of doing the safety checks. So we get out there and help them see our -- see things through our eyes.

We will go into the shops on a regular basis. We'll go -- because we're at the safety committee meetings every single month, so as part of that safety committee meeting, the safety officers will also walk around the facility, the maintenance facility, the storage facility and look for and help identify hazards. We have partnered with the safety committees themselves to do walkarounds

of the facility, again, with the union membership in tow and the maintenance managers in tow, and again it kind of serves as the same function that we do with transportation, is this is what we look for, this is how we address hazards.

We've shared our checklists for doing these types of audits with the different departments so that they can use them as they are, make them work for themselves, whatever it is that they want to do with it, but the idea is we're giving them a baseline that they can formulate their own compliance program.

Once a year or once every other year, rather, we do a full team inspection of every facility in the Authority, where we'll do like a traditional industrial safety audit where we walk through and look for personal protective equipment issues. We'll look for any other regular equipment issues, walking surfaces, housekeeping, fire/life safety, environmental compliance. And we do that hand-in-hand with management at the location, make sure that they're engaged.

And then each month, the safety officers as part of their location safety committee duties are responsible to go out and ensure that the items that were identified as part of that audit are being corrected. So they monitor that.

On the infrastructure side, it's much the same. For example, roadway worker protection, if the -- whenever there's roadway worker -- well, first off, we attend -- someone from my group, from the Construction Safety Department attends all the track

outage meetings. So we're aware of where the crews are going to be and when. From there, we'll go out and visit, make random visits to roadway worker locations, where we'll audit all the 214 -- part 214 requirements for setting up protections, taking tracks out of service, train approach warning, whatever protections they happen to be using, and we'll do that audit.

There's typically a foreman on a jobsite if there's a production gang working. If there isn't, we'll make sure that they're aware that we were there and what we checked and what we found.

All these audits end with a report that we address to the manager of that -- whatever group we audited, whatever group we reviewed, and we list -- if there were deficiencies, we list them. If corrective actions are needed, we write them in, and if everything went great, we write that, too. We want to pat them on the back more than we want to beat them up, but we have to tell them when they need to improve. So we do that. But we always want to tell them when they're doing a good job just as much as we want to point out any deficiencies.

So we do all that. That's all of our field auditing, and then we get into the process auditing.

So once -- at least once every 3 years, to stay in compliance with our training on cycle, we go and hit the track department, the signals department, the communications group, the buildings and bridges group, the transportation training, drug and alcohol,

and my department is responsible to ensure that all those audits, process audits are completed. And what we do with that is we ask them what their program is; what is it based on? We measure it against any applicable regulations or standards. Is the program compliant with those regulations or standards? Are they following the program that they have written that is in compliance with those programs and standards?

So if they have paperwork that goes along with that, checklists, forms, whatever, we want to see those. We'll ask for a random sample of a couple months' worth of records that we can comb through to make sure that they're looking at all the things that they're supposed to be looking at, that they're checking the appropriate boxes, that they're performing all the functions that the program says they're supposed to be performing.

In addition to that, for example, say on a track inspection process or a track inspection of maintenance process audit, we would then, after we've completed our administrative section of the audit, we would then walk with a track inspector and watch them inspect track, and measure what they're doing against what the program says they're supposed to be doing, ensuring all the time that the inspector is doing what the program says, that the director is overseeing the program the way the program says it is, and that the program itself is compliant with the rules -- with regulations, rules, standards, whatever is applicable to that particular document.

That same thing holds true when we audit the track department or the control center or the vehicle maintenance group or rules efficiency testing, which they're virtually the same process, we're just looking at different aspects of the program.

We dial it all the way down to, are your people trained on the program? Can we see the training program itself? How is it delivered? How is it tracked? How do you ensure refresher if refresher is needed? And that's in addition to auditing the training department themselves. So we would go to the training department and ask to see certain programs. We'll attend classes. The safety officers will attend certain classes and look at the training programs and make recommendations if need be.

Several of my staff, probably half, if not more than half, have come up through the ranks at SEPTA. So they're former transportation managers, they're former instructors, they're former EM&C employees. So they have institutional knowledge that they can apply from their own experiences to perform these audits.

In addition to that, we take that knowledge and that experience and we couple that with the folks that we've brought in from outside who have very specific talents and skills, such as industrial hygienists and fire protection specialists and those folks, and we then we utilize all that knowledge and those skills to try to get the best product out to our customer, and our customer really is the entire Authority and all of our customers and the community-at-large, because our role here is to make sure

that SEPTA's being safe, doing the right things, staying in compliance with the rules that they need to stay in compliance with, and also looking for best practices and ways to innovate and improve in our safety performance. So those are the things that we use the audit program for.

Q. So to me it sounds like you have an extremely comprehensive program and I'm just wondering what -- who audits you and what do they think of your program?

A. Lots of people audit us. It all really starts with the state safety oversight program. So the state safety oversight program in Pennsylvania is managed by the Pennsylvania Department of Transportation and the program is, in my opinion, one of the more robust programs. We see them literally every week. That's what we see. We hear from them more often than that. The PennDOT program is managed out of Harrisburg. The project manager works at Harrisburg, but the contractor that supports the program is based in Philadelphia. In fact, it's just a few blocks from SEPTA's headquarters.

So many of the contractors that manage the program are customers of SEPTA. They ride the system. They're out on it every day. We -- SEPTA actually supplies them with fare instruments so that they can ride the system at their leisure, whether it's to commute or just to visit stations, ride vehicles, whatever it is that they feel like they need to do.

So we hear from them quite often. They'll go out and look at

-- really perform the same observations that we're performing. They do it probably as frequently as we do, and they usually couple a lot of things at the same time. They'll ride a vehicle. They'll get off at a few stations. They look for maintenance issues at the stations. They look for safety hazards at the stations. They're looking along the right-of-way. And then we'll get a fairly comprehensive report of their day's activity, what they rode on, what they did, what they saw. And if they had a specific recommendation or something they would like us to do right away, they can -- they do that as well. That's on the written side.

The PennDOT -- the program manager as well as the contractors have my personal cell number as well as all the control center numbers, and they're actually very familiar with most of the senior management at SEPTA. So when they see something that needs immediate action, they'll call whoever they need to call. Very often that first call is going to be to the control center, and then they'll call me to let me know what they saw. They've done that on many occasions where they've identified what they believe to be an imminent hazard that they wanted addressed. Control center acts on it. The control center, as well as all the transportation managers and maintenance managers, they know who the state safety oversight people are. They know what their role is, and they know that they're required to be responsible.

Whenever we get a written report of their daily observations,

we forward those to the appropriate managers for correction, and then we track to make sure that those things are being addressed.

Just like we do, the PennDOT folks will do process audits. They perform or accompany us even on our audits. They'll perform their own audits, and at the same time, they'll audit System Safety. So they come in at least once every 3 years, but it's usually more frequent than that, to ensure that System Safety is performing its required function.

Every single month, the Safety Department packages a submittal for PennDOT. It's basically every email report, everything we've done for the entire month, every activity that SEPTA has performed in response to our rail transit safety program and we send that to PennDOT, to the State Safety Oversight.

So on a monthly basis, at a minimum, they have everything that we've done, but as we complete major audits, we send those over immediately. So they get those as soon as they're complete.

PennDOT measures our performance against their program because they have a program aside from the part 659 rule, and their program is in many ways more comprehensive than 659. It has more requirements. So we have additional obligations we have to meet in order to stay compliant with that program.

They review our System Safety Program Plan and approve it on an annual basis. So they're well aware of what's in it. As I said, they'll accompany us on audits. We'll accompany them on their audits, and then they'll do their own. They could show up

at a facility and do what they have to do. They've attended safety meetings with the hourly employees and the managers. They've gone out on audits with me, inspections with me. We're in constant contact. If something major is occurring that we want to make sure that they're aware of right away, regardless of whether we report within the 2-hour window of the incident, very often I'll make a separate call to the program manager or the project manager to let them know that something is going on that needs immediate attention. We've done that on several occasions. We obviously have to track our corrective action plans. We send those over to the state as well as just about everything that we do. That's just one agency that oversees what we do.

We're participants in APTA's safety audit program. So APTA, once every 3 years, will come in and audit our commuter rail side, our bus side. They're constantly looking at the System Safety program. Of course, the FTA is in once every 3 years to look at the program. On the commuter side, of course, we're always being looked at by the FRA.

And then in addition to all the federal agencies and state agencies, there's also local agencies that look at us, such as Philadelphia's Licenses and Inspections Unit, the Philadelphia Fire Department's hazmat unit. We have -- we are -- one of our insurance carriers provides, as a service to us, they'll perform inspections of our facilities for fire, loss control, risk management. So we have them come in and audit many of our

facilities, some annually, some triennially. So we're being looked at a lot.

MR. FRIGO: Well, Scott, thank you, and I'm going to save some questions for later and pass off to my right here.

BY MS. BONINI:

Q. So, Scott, it's Beth Bonini from PennDOT. It sounds like you were an operator for, was it 15 years?

A. Thirteen.

Q. Thirteen years. Could you explain, how do -- I know now that you're in charge of the Safety Department, but how do you see the changes from when you first started to now in changes of the safety culture within SEPTA?

A. Well, I can say that from the time I first started, as I said, safety's always been talked about. Safety's always been part of our rulebook. Safety's always been very important.

But the changes that have occurred in, you know, over my -- the latter half of my career, have been seismic to say the least. What has changed that's -- that you notice right away is just the look of the agency when it comes to safety, that safety is everywhere. As I said, we've branded it. So it's on letterhead. It's in posters. It's just -- it's in your face all the time.

But what's most notable and what's actually most pleasing to me is the change in attitudes among senior leadership. You know, from the general manager, he sets the tone and it goes down through senior leadership, through middle management all the way

to the frontlines. The union leadership is fully engaged. They work very hard with System Safety, with management, to work on safety issues.

So what you've seen over the last few years is just this shift in culture where safety is not just talked about, it's embraced. And it's almost like watching them compete to see who can be safer, who can find the things that they need to find, and then tell me about it. People are very anxious to tell me what they're doing and what they're seeing. It's evident in the cooperation that the Safety Department now receives and has been receiving for the last few years, where the challenge in doing so much as an efficient Safety Department is not because we just have a lot of things we've got to, it's because we're asked to participate in everything.

Very often I hear from people who come to me that their boss told them make sure you tell Scott, make sure you tell Safety, make sure they're at the meeting. And so we get included in a lot of things that, you know, maybe 10 years ago we weren't. Maybe 10 years ago it wasn't -- we weren't as embraced in the organization as we are now.

But today, you know, it has changed dramatically. Like I said, our general manager, he embraces the safety culture. He's challenged me to change that culture and get it to where he wants it and, you know, I love that challenge. I love the idea that that's what people want.

Our assistant general manager of operations sat in my chair 20 years ago. He was the director of System Safety. The chief of the control center was my predecessor. He was the director of System Safety. So safety just permeates throughout the Authority because those are the hats that people are wearing. The head of operations is a safety professional, which I think is amazing. It makes my job so easy that the head of operations knows exactly what I'm talking about and very often he's got me beat. By the time I go to see him, he's already got it fixed. So it's great. It's fantastic.

So, yes, so from the time I started in 1990, which seems like a long time ago -- you know, I'm not going to say that there was no safety culture. It's certainly far better today than it was back then.

MS. BONINI: Thank you.

BY MR. LLOYD:

Q. Scott, Troy Lloyd from the Federal Transit Administration. So the word culture that Beth was talking about has been the buzz word for the last 10 years in the Agency, and it took probably 5 for people to grasp, what do you mean?

So you're talking about it in the 1990s when you were hired, how the culture changed or it probably wasn't even called culture back then. It was probably called attitude, you know. But what do you think this agency did to promote that change to make that culture better?

A. Well, I'd like to say that the agency did something, but I think it's really the people that are leading the agency. As I've said a couple of times already, the general manager sets the tone, but even if you remove the general manager from the equation, the executive leadership team, you know, that I'm now part of, they embrace safety. They want me included in what they're doing. The managers that report to those leaders are -- they embrace it. They want to be part of it.

I don't know that I can say that within the last couple of years SEPTA as an organization did something, but what we did is we just -- we talk about it. Safety is talked about. It's talked about all the time, and it's not talked about because we hurt someone or we had an accident. It's talked about because it's important. It's one of our core values. It's mentioned prominently in the strategic business plan. This is what we're about. This is our -- this is the foundation of what we're doing. So safety is not -- we're not responding to something.

When we did our -- when we first kicked off our employee safety day in 2013, the very first time we ever did it, the general manager called me and asked me to put together this day. He wanted to do something, not because we messed up, not because we were being audited or that we got a recommendation against us or, God forbid, hurt someone or crashed something. He just said this is the right thing to do. We've got to start talking about safety, put it out in front. People have got to talk about it.

When the only time you talk about safety is in response to an accident, then the only time people are going to think about safety is after the accident. If you talk about safety before the accident, hopefully the accident doesn't occur. Accidents will occur. They happen, but if you've been doing or trying to do the right things leading up to the accident, then perhaps the aftereffects of the accident won't be so dramatic that you have to go back and rethink your entire strategy on how you got there.

Now you respond to the accident, you make the necessary adjustments to try to ensure that the accident doesn't happen again, but whatever adjustments you're making, should fit into the fabric of your culture. Your culture is already talking about safety. Now you've got to make a couple of adjustments.

So you've got to talk about it. You've got to get it out there to where -- one change that we made in the last year, which I think in the beginning it was kind of thought of as a little silly, but we require our roadway workers to do a job briefing at the start of every shift, every day, when conditions change, they have to talk about safety: What are they going to do? If this happens, where are we going to go? If that happens, what are we going to do?

In this building, when we kick off a meeting, we have a safety briefing. We get 12 suits in the room to talk about budgets, we have a safety briefing. If the alarm goes off, what are we going to do? If somebody falls with a heart condition,

what are we going to do?

Yeah, in the beginning, some of the administrative people thought, well, this is a little silly, you know. Not any more. We do it all the time.

We hung posters in the room, in every conference room in this entire building, in every conference room at every SEPTA facility, that tells them how to do the safety briefing. This is what you say. This is where you're going to go. This is what you're going to do. So now they're there.

You're talking about safety before something happens. When the alarm goes off, everybody knows where to go. When somebody has a heart condition or a medical emergency, everybody knows what to do.

Maybe it'll help, maybe it won't, but I'd be more inclined to believe it'll help than it wouldn't. It's much better than if we didn't talk about it and the alarm goes off and everybody freezes and says now what do we do? Where are we going to go?

We don't have that problem. Everybody's talked about it. And then everybody who meets in this building, because they hear it every single day at every meeting that they go to, it's just like that track production gang that every single day for the last 3 weeks, they worked on that same piece of track, on that same piece of railroad, and every day they took out the same protection with the same trains running by, and every day they talked about it, and every day we talk about how to get out of 6A, and every

day we talk about how to get out of the general manager's conference room. So that when the alarm goes off, everybody knows what to do.

Q. So you were talking about the -- when you started, earlier, about a grassroots campaign, how you promote safety and all that stuff, you know, hitting all the employees. I'm sure you have LSCs, or local safety committees, through all your mechanical departments, your track departments, your transportation departments. Explain that to me, how your local safety committees are appointed, who heads them up and what do they discuss at that local peer level?

A. So System Safety administers 36 local safety committees every single month. And in just sticking with rail transit, each of the rail transit locations have their own local safety committee. The safety committee is comprised of the location's director or assistant director. If there's a transportation and/or maintenance function within the same location, you get both directors or both assistant directors. You get representatives of the groups of employees that are on the committee or that are represented by the committee. So if, again sticking with the transportation or maintenance location, transportation -- and it's collectively bargained with the Transport Workers Union. So the Transport Workers Union selects and appoints 1 transportation representative for every 100 employees at the location. The maintenance department, also Transport Workers Union, they would

select and appoint 1 representative for every 50 maintenance employees at the location.

So at a location like Elmwood, where the trolleys run out of, they have about 150 operators, which would really only allocate them 1 transportation rep, but they have 2, and then they also get a maintenance rep. That's out of the union's ranks, and then, of course, you have the two directors.

System Safety attends every single meeting every single month, all 36. Minutes are kept, generated after every meeting. An agenda is published before every meeting. These meeting minutes and agenda are posted in the district so all the employees and managers can see it, see what's going on. And the way it's supposed to work is, because we're promoting grassroots, we want hazards identified and fixed as promptly as possible.

So if an employee encounters some type of hazard in the field, we want that employee to report it immediately. Report it to your supervisor immediately. Report it to the control center immediately. Ideally that manager or controller would pass that information along to the appropriate party, get the hazard fixed. A couple days it goes away; it's done.

But on the off chance that that hazard needs longer term attention, so I reported, say, a light bank out somewhere. It's going to take some time. It's not an immediate danger. So we're going to put that on our list to go out and replace. When the meeting is held, the union would raise that as an issue because

it's still outstanding, and it would go into the minutes and be tracked. It would be assigned to a manager because the facilities department also attends the meeting. So it would be assigned to the facilities department's representative to ensure that that -- whatever that hazard is, is fixed.

Let's say at the following month's meeting, the hazard's been addressed. They meet. The facilities manager, they say, hey, what about these lights? He says that we finished that on whatever date; it's done. They mark it complete. It moves from the minutes of the meeting to the list of accomplishments, and they maintain at least, at the minimum, a running 12-month accomplishments list. We do that because, just like we want to reward good behavior, we want the members in the location as well as the managers to see that the safety committee is functioning. They're addressing hazards. They're looking at things and fixing stuff.

Each of the safety committee members appointed by the union, their information is posted in the district, their contact information, so that the membership, if they don't feel comfortable coming to management with something, they can go to their safety committee members, and safety committee members can bring it up at the safety committee.

System Safety's presence at the safety committee performs several functions. Number one, make sure the committee meeting's being held and that they're functioning well. Make sure that any

matter that's, say, in dispute -- maybe management and the local doesn't agree on whatever the issues is, System Safety would perform an independent evaluation to make sure that it's in fact a hazard and needs correction.

And System Safety may be needed to provide technical expertise or advice. So we're there to ensure that that happens. But in order to promote the grassroots effort, we always let the folks know that the safety committee is your safety committee. It's not System Safety's safety committee. This is the local safety committee. This is the managers and the hourly working together to fix hazards, and they do that every single month.

Now on the off chance that the local safety committee just can't address whatever it was that was raised, maybe it's a capital item, maybe it's just too big for whatever it is for the people at the table, there's a second tier safety committee which we call the joint health and safety committee, which is co-chaired by me and my counterpart from the Transport Workers Union, and the Transport Workers Union has seven members at the table that they appoint, and myself as well as the chief officers of transportation, maintenance, infrastructure, we're at the table representing management. And we would take those items from the local safety committees that can't be fixed after, say, 90 days. What they do is they refer them to the joint, and that's us. We take that referral. We look at what they've done with the item so far and then we address it.

If it needs to be addressed, if it's in fact a real hazard and something that needs to be addressed, we address it. We fix it, get it done as quickly as we can. If it's a capital item that is not posing an immediate danger but, yeah, it needs to be repaired or replaced, then we submit that for capital planning, but we'll track it. Sometimes it takes several months. Sometimes it could take a year or more depending on what the issue is, but it goes into the minutes and it gets tracked until it's done.

There's never been an item that's gone unresolved or in dispute. But if there were at the joint, then the Transport Workers Union could always go through their grievance process and address that. But we -- I'm proud to say we've never had that in the 12 years that I've been part of the process. We've addressed every single item brought to the joint.

MR. LLOYD: That's all.

MR. FRIGO: Okay. Mr. Jenner.

DR. JENNER: Steve Jenner.

BY DR. JENNER:

Q. Part of your duties are accident investigation. Do you investigate all modes within SEPTA?

A. Yes, that meet a certain threshold or criteria severity.

Q. Sure. Which mode has the largest number of accident investigations?

A. Performed by my office or just --

Q. Performed by your office --

A. Performed by my office.
Q. -- that meet the criteria for investigation?
A. Bus probably.
Q. What percentage do you think that is roughly?
A. It's close. They're all relatively close. We don't do -- we don't do very many each year. We're doing less than five a year.
Q. In each mode?
A. In all modes.
Q. So five investigations total?
A. Total.
Q. Okay. Were you involved in other trolley investigations in the past?
A. Personally?
Q. Yes.
A. Yes.
Q. Okay. What I'd like you to do, if you can walk me through the investigation process, who's involved and how long an investigation may take and what's the result of it?
A. Okay. So an incident occurs. Let's say it's a severe incident. The control center gets the first notification from the field, the operator or whoever witnessed the accident. An employee would notify the control center that this incident has occurred and they need assistance. They would describe the incident.
The control center would then dispatch everybody that needs

to be dispatched. So it starts with -- if it's a transportation-related incident involving a trolley, the first SEPTA people dispatched would be the transportation department, their transportation managers. Simultaneously while they're dispatching SEPTA forces, they're also dispatching emergency response personnel, police, fire, rescue, whatever, whoever is needed.

There's a paging system that goes to all of our phones that the control center will then type out a text message to inform everyone that needs to know about the incident. So it starts with the general manager on down.

My group -- there's a specific safety group grouping that they create within their text messaging system that they select the different groupings and it goes out to pre-selected people who get that message. So the safety group has it's own grouping, and that safety is not just me. It's anybody who would have a need to know about a safety-related incident.

So once that text message is sent, my office would receive it. I get it. My director of accident prevention and investigation gets it. We have a safety officer that's assigned on call every day, they get it. And my other directors, even though they're not directly involved in the accident investigation, they get it. And the reason why so many people get it in my group is to create redundancy. We don't want to miss anything.

So once we get the page, we decide that it meets our

criteria, we dispatch first our on-call person. They're assigned a vehicle. They're assigned the tools and equipment they need to perform an investigation.

Very often we're -- let's say, during off hours, we're sometimes last to the scene because we're coming from home or something like that, whereas transportation managers are roaming the system 24 hours a day. During different times of day, it could take us anywhere from a couple minutes to an hour or more to get to an accident scene. We're not authorized like police to get to an accident.

So when we arrive on the scene -- we usually instruct first the control center to hold the scene for us, don't disturb anything. When we arrive on the scene, we become the investigators-in-charge. The transportation department remains the incident commander. Because they're the first responders, it's their scene. They're managing the scene. They're managing the incident. We perform the investigation. So we would work with them to ensure scene safety so that we can access the scene, do the things that we need to do to take care of it.

Usually by the time we get there, any injured are transported. So they're usually removed from the scene by the time we get there.

If the operators or employees are uninjured, they would be held at the scene to wait for us so we can interview them. We take photographs. We take measurements. We'll interview

employees, witnesses, whomever we need to talk to. All the while the transportation department or the affected department, they are performing their own parallel investigation but they have a different need for the information than we do. They're using it to process labor issues.

So we would gather any paperwork that was generated from the incident. So if it's other departments within SEPTA, Transit police, outside agencies, anybody who was involved, whether they're investigating it or participating in it, we're the gatekeepers of all that information once we get involved. We become the IICs.

Once we've taken care of all the at-scene evidence collection, if the vehicle or vehicles require to be inspected -- are required to be inspected, which they would be in most cases, we would then quarantine those vehicles to the maintenance department to have them, under our supervision, run whatever tests and so on. We would then collect all that information.

If the vehicles needed to be held for another agency, we would coordinate that. We, System Safety, make all notifications to external agencies. So whether it's NTSB, State Safety Oversight, whomever had an interest in the accident or has a requirement to be told, that comes from our office. If the local police get involved and they want to hold the scene and they want to do their thing, then we facilitate that.

From there, once we've gathered all the on-site incident

evidence, once we've gathered all the witness interviews and employee interviews, we've examined the cars, we've examined the infrastructure, whatever it is that was involved, and we're ready to walk away, we release the scene back to the incident commander and then they can do their cleanup.

From there, we take all of what we gathered at scene and we go back and we analyze that as well as collect additional data. So if we want to collect employee records, track inspection records, vehicle maintenance records, we would ask for anywhere from 3 to 6 months' worth of records or more depending on what we need, and we gather up all this evidence and we start writing our report. There's lots of other evidence I'm sure I'm forgetting. Video, audio, et cetera.

Q. Right. Don't --

A. Yeah.

Q. I don't want to burden you with such level of detail. What I'm interested in is --

A. So from there --

Q. -- yeah, with the reports --

A. Yeah. So the report comes from System Safety. We'll gather all this information and we write a very detailed, what we call a corporate investigation report. And we actually model our report format after the NTSB's format. So we try to write pre-incident, incident, post-incident, data analysis or findings and analysis. And then within the findings and analysis, we'll break it down by,

you know, equipment, signals, track, et cetera.

From there, we formulate recommendations. If we find -- first we want to find probable cause, and from there we'll formulate recommendations.

Once we've completed a draft of the report and formulated our recommendations, our thoughts, we then convene all the interested parties, transportation, maintenance, and so on. We give them a copy of the draft and tell them to read it over, give us any factual corrections that we need to have. We make those corrections, if necessary, and then we discuss the recommendations.

There's always more than one way to skin a cat. So my recommendation or my thought on a corrective action may not be the best thought. So I like to hear from the subject matter experts, am I on the right track or not? I have this issue I want to address; this is the way I think we should address it. Is it the best way? And if it's not, and they can come up with a better way, then I'll take that, as long as I get the end result that I'm looking for.

Once we agree on that -- of course, all the while Steven and Beth and their colleagues are involved because we work very closely -- on these large scale events, they would be intimately involved. So we make sure that they're dialed in.

Once we've formulated all that, we've run it through the draft process, we've agreed on our recommendations, we've agreed

on corrective actions, the report gets published and it becomes a final, submitted to the State Safety Oversight and any other entity that has an interest, and goes into our corporate file. And then we track the corrective actions until they're all completed.

Q. What's an average length of the process from the day of the incident to when it's published?

A. It can vary. If the only people involved in the crafting of the report is System Safety, it goes much quicker. It could be anywhere from 3 months to 6 or 8 months. If we have to hire a consultant such as an engineering expert or a fire consultant or something like that, then it could take longer. But anywhere from say 3 to 8 months would be standard --

Q. Okay.

A. -- to do a full corporate level investigation.

Q. You must come across some -- some of the recommendations that are harder to negotiate --

A. Sure.

Q. -- than others.

A. Sure.

Q. Are there times where you don't come to a conclusion, you come to agreement?

A. No, no. We always come to a conclusion. Because the nice thing about being in an assistant general manager and reporting directly to the general manager is I can always get an arbitrator,

and the general manager will help me decide on what's appropriate. So, yeah, we can always -- we'll always come to a conclusion. Then, of course, we have the state and their resources to help us develop recommendations.

We'll benchmark against other agencies because one thing -- once nice thing that I kind of have in my pocket is I have lots of colleagues throughout the industry, networks I've built with my peers and with folks in the regulatory community that I can call upon to say, hey, have you ever had something like this and what did you do about it? And invariably somebody has experienced it somewhere. So we can always come to a resolution.

Even -- there have even been cases where we've had to buy things or rebuild things or engineer fixes, and we'll do it. We've never written a recommendation or a corrective action that's gone unresolved like at all. So --

Q. You led me into the next question. Do you have a process following up on the recommendations to see how successful they are?

A. Yeah. Well, you mean after the fix?

Q. Yes.

A. Yes. Yeah, we'll go out and monitor -- we'll do that as part of our process audit usually, go back and look at corrective actions to ensure that nothing new has popped up.

Q. And is there a time frame assigned to the recommendations, that it has to be implemented within a certain time?

A. Always. Always. It varies, depending on what the recommendation is. If it's a capital improvement, that could take a little longer. If it's just a process improvement, that's a lot shorter. It ranges from days to months, sometimes a year. It depends on the issue.

Q. Okay. Great. Thanks for that.

One other area, just -- do you talk to other agencies, transit companies, and compare issues and challenges and lessons learned?

A. Always.

Q. If you can just, in general, what opportunities do you have?

A. Well, like I said, I've built up a nice network of colleagues and peers that I can talk to. But, for example, when I come across an issue that I've seen happen in another city, if it looks like something that's going to -- could cause me an issue here, my first call is usually to their chief safety officer to find out whatever I can find out about what happened.

Q. Um-hum.

A. There's been a couple of those in recent years that I can. Sometimes I can get information pretty timely. Sometimes I can't, depending on the nature of the incident and who's involved. For example, if the NTSB gets involved, obviously they can't tell me anything so that stymies the conversation a little bit. But where that situation doesn't exist, very often my peers are more than happy to talk to me about what's going on.

We've had issues where -- say, down in Washington, D.C., they have issues with their -- the third rail insulators, and so we were trying to get a handle on what exactly was going on down there so I spoke with some folks down there. Our chief engineer spoke with his peer down there to figure out what they had going and what we could to look at things.

We do -- we've done the same thing with our peers out in California. I have a close colleague that works for Los Angeles Metro that I talk to a lot when I hear about things happening out on the West Coast. I've been teaching for many years for the Transportation Safety Institute so many of my colleagues who I've met over the years I've built through that network.

Anytime the -- a federal agency publishes a report that I can get ahold of, I read every one that I can to figure out what happened there that could happen here.

I've reached out to my peers in New York after Metro North's troubles and after Long Island Railroad's issues in recent years, and gotten thought from them on what they were doing to fix their issues so that we can try to bring some of those practices here or take their practice and alter it to our environment. I do that constantly. That's really -- one of my primary functions as the chief safety officer is to have that 30,000-foot view and not be so mired in the details, so that I can see what's happening in the industry and try to nip that in the bud before it becomes an issue here.

Q. If someone were interested in your report for incident investigation and to understand the facts and changes they made, how can they get ahold of it?
A. All of our records are subject to open records. So they could file a FOIA request to get it, or if it's somebody in the industry, somebody that I'm -- you know, that wants it, I'm happy to share it.
Q. Okay. But it's not necessarily a public document?
A. We don't publish it for public reading. We publish it internally. We share it internally. We share it with our oversight. We share it with those who have a need to know. But if somebody wanted it, there's lots of ways to get it.
Q. Do you have a board of directors that you operate under?
A. Yes, we do.
Q. Do reports go through your board of directors?
A. They go to the board of directors. They don't go through. You mean before they're written -- as they're being written or when they're final?
Q. When they're final.
A. When they're final, yes.
Q. Are they voted on by the board?
A. No, they're not.
Q. Okay. So what's their need to know in this case? What's their role in this?
A. Their overseeing the entire Authority. Their responsibility

is to ensure that we're managing the Authority in a manner that's good for the -- good for SEPTA, good for, you know, for the public, good for the people that they represent.

DR. JENNER: Terrific. Thank you for all the information.

MR. HOEPF: This is Mike with the NTSB.

BY MR. HOEPF:

Q. Again thanks for taking the time to talk with us today, Scott. We appreciate it. We have really a much better understanding of your Safety Department.

I just have, this round, a couple of kind of follow-up questions to some of the things you touched on when you were talking to Ryan earlier. You talked about your doing risk assessments and I'm just wondering -- you don't have to give me the, you know, weeds level of details on everything, but maybe even just walk me through, just on the just general level quickly, an example of a risk assessment that you guys have done in some area and, you know, how -- what that process looks like and then, you know, maybe what kind of mitigation you've taken based on that.

A. So there's two different models that we use for risk assessment. We use the MIL-Standard as kind of our baseline risk assessments. It's an easier -- it's easier to apply to smaller items. When we get into more complex issues, we have a model that was designed by Dan Peterson, who is a safety professional, published, and it's been modified to account for costs and things

of that nature. So we'll use that. It's a three-variable model that we can plug and come up with a quantitative measure of our hazards.

So if we had a very complex hazard that we were faced with that we wanted to, for example -- I'm at a loss to try to come up with a quick example, but if we wanted to account for probability, severity and consequences, then we could plug into this three-variable model, and depending on what numbers are assigned to it based on the values that we've obtained either through data that we've collected or through our own institutional knowledge, we would come up with a number with a grand total that would measure against a predetermined rate that would determine whether it's acceptable, acceptable with modification, unacceptable, et cetera, and then we make adjustments.

We would make recommendations based on whatever our assessment is, the same methodology we would use in an accident investigation, where we perform the assessment, we draft the report with the model, we share it with the affected parties, make recommendations, discuss recommendations, formulate a final corrective action plan and implement, and then re-measure.

Q. Okay. Great. Great.

So do you use -- does the risk assessment -- how shall I ask? Let me just ask you generally and not load it. How do you prioritize your efforts to improve safety, so with respect to funding, manpower, et cetera? What do you --

A. It's a really a multifaceted approach because the Safety Department is not going to rate every single hazard in the Authority. We're not going to look at every, say, frayed extension cord or, you know, piece of flooring that might be a tripping hazard. We rely on the local, the grassroots, the employees to identify those hazards and correct them and correct them depending on the severity of the hazard. Our Facilities Department does that every day, and we measure that when we audit them, when we audit their process.

(Pause.)

MR. FRIGO: I'm sorry. Just for the record, somebody just knocked on the door but it's no big deal. We're just going to go ahead and continue on. So please go ahead.

MR. SAUER: So we measure B&B's effectiveness in prioritizing their facilities issues when we audit their process. When it comes to the Safety Department prioritizing hazards, we do that with our hazard model, with the MIL-Standard mostly. When we write a -- when we do whatever audit or assessment or anything that we do, we apply a hazard rating to it, and anything that is in the critical zone gets immediate attention, and so on down in the different hazard levels associated with that MIL-Standard.

The Peterson model is the same way except it's more precise because it's quantitative. So we can measure it based on the severity, or the higher the number, the more severe the consequences are, and we can address those higher-numbered issues.

So that's how we rate the different -- the severity or the priority of the different hazards.

BY MR. HOEPF:

Q. Got you. So the risk assessment funnels into where you're allocating your resources.

A. Correct.

Q. Yeah, makes sense. Makes sense. So, yeah. So one of the areas where I saw this sort of informally talking to people and maybe some of the interviews previously was, you talked about a system you implement in your tunnels where you've got sort of a positive train control sort of system. I just wanted to ask briefly, it sounds like a pretty nice system. Would it be cost prohibitive to implement that across your entire system or is that something that you would like to do? Or, maybe you can just educate me a little bit on how that works.

A. So the positive train control system in the subway surface tunnel is -- it's an airborne signal system that communicates via radio waves from trolley to trolley with transponders. To do something like that on the street would be very challenging because of the environment, whereas we have a closed system in the subway; we can mount our transponders anywhere we want and they're always in reasonably close proximity to the cars.

The difference in street running traffic, even -- and I'm not a signal engineer so I certainly can't speak to the feasibility of such a system on the street. But assuming that that type of

system could be done on the street, it may prevent those very rare trolley-versus-trolley collisions, but we wouldn't be able to communicate with automobiles and bicyclists and pedestrians and skateboarders, et cetera, et cetera, where the majority of our accidents lie. The vast majority of our accidents on the streets are with privately owned vehicles and objects.

So, yes, for -- if such a system were feasible in mixed traffic and it were cost effective, then, sure, I think it would help. But again, it would only mitigate or maybe eliminate a very small miniscule percentage of incidents that occur on the street.

Q. And the situation such as the collision that occurred on January 4th, I imagine that's rare?

A. The last one that I can remember occurred 9 or 10 years ago.

Q. Got you. Okay. Great. Thanks on that.

I'm going to go ahead and try to get in my second round of questions. The fitness for duty question, is the Safety Department involved with that?

A. Only insomuch as we evaluate it and we would author the program if there were -- you know, if need be, but we would not administer the program. The Safety Department only serves as oversight and consultation and advisor, so we would not own the program within SEPTA. That would be owned either by operations or medical or somebody who would administer that program.

Q. Okay. Got you. I just wanted to get your thoughts on it. I don't want you to speculate if that's outside, you know, your

department. I'm just wondering if that was something that, you know, fit into your risk assessments and the implementation of how to maybe, you know, develop those standards and --

A. We have done that. We've performed a risk assessment on fitness for duty. We did that, I don't know, 7 or 8 years ago, maybe more. And we looked at all the possibilities, given the design of our equipment, given the different, you know, the environment that we're in, how the equipment reacts to an incapacitated operator and so forth, and we did perform a risk assessment on that.

Q. Oh, yeah. Do you remember how the results turned out for that?

A. The results actually turned out pretty favorable for what we currently have, that the -- because of the designs of the equipment, signal systems, et cetera, that the risk was low for a catastrophic event occurring due to an incapacitated operator.

Q. Got you. Do you think you could talk briefly about what your medical standards are for a trolley operator?

A. I can't really speak to that.

Q. Okay.

A. That's more for medical.

Q. And again, thank you. I don't want you to, you know, go ahead and go there.

MR. HOEPF: That's all the questions I've got.

MR. LYLES: Mike Lyles from SEPTA.

BY MR. LYLES:

Q. Scott, where did you start in the Authority?

A. I started at Elmwood District as a trolley operator. We were called surface train operators, but it was a trolley operator.

Q. So -- but this last incident, would you say you're pretty much familiar with the light rail vehicles?

A. Intimately.

MR. LYLES: That's all the questions I have.

MR. HOEPF: Okay. We're going to take a quick break.

(Off the record.)

(On the record.)

MR. HOEPF: Okay. We are going back on record, and I believe it is Mr. Frigo's chance to ask a question.

MR. FRIGO: Okay. Great.

BY MR. FRIGO:

Q. Scott, I just have one more question for you. What do you see as the greatest challenges to the continued success of the safety program at SEPTA?

A. So I think the greatest challenge that we're faced with today is the attrition of our employees. SEPTA is a company that people traditionally stay a long time. Most of our senior managers have turned over in the last 5 years, but that same pattern is -- we're currently underway with that even with our mid-management and even hourly ranks, where many of our long-term employees are leaving the Authority to retirement and we're bringing in a lot of new

staff, inexperienced folks that we're bringing in; very talented people, no doubt, but new to the industry, maybe even new to the workforce, and that's been a challenge. Because when you lose folks with 25, 30, 35 or more years under their belt, they kind of know where everything fits and they know where the historical problems have been and what they've done to overcome them. And sometimes those problems are decades old, and if they resurface, we'll have to kind of treat them as something brand new, where maybe in the past we had somebody who had experienced it and had overcome it and could help us get right back to where we were.

So I would say attrition and turnover personnel is a big challenge for the Authority right now.

Q. Do you have a plan within your department to work on that?

A. We do actually. We are -- within the Authority, they've -- we've stepped up an Office of Innovation, and within the Office of Innovation, we have a safety culture working group that I chair, and we have representatives of the different departments within the Authority, both administrative, finance, operations and we're tasked with identifying these issues, these types of issues and coming up with innovative strategies to deal with them.

And one of the first ways we've dealt with it on the safety side -- I mentioned that we recently added a safety training specialist position to my department. That's something brand new that we've never had. And along with that employee, we've also gotten funding and executed a contract for safety training

services from an outside vendor that that person will manage.

So for the first time in the Authority's history, we'll have a person in the Safety Department who oversees safety training, safety training programs, monitoring of the effectiveness of those training programs with the safety plan, and that's something brand new that we just executed just last calendar year towards the end of the year.

So we're still formulating the plan going forward, but we have a great opportunity now to really do something that we've never done.

Q. Good luck.

A. Thank you.

Q. I wish you luck.

A. Thank you.

MR. FRIGO: I don't have any further questions.

BY MR. LLOYD:

Q. Scott, you said you're a man of many modes. You've got bus. You've got light rail. You've got FRA. And I'm Troy Lloyd from the Federal Transit Administration. You've got regulated railroad. Going back to the two modes, your light rail and your commuter rail, what differences do you see between the two that makes your life --

A. Between the two?

Q. Between the commuter rail side --

A. Commuter rail and rail transit?

Q. -- and rail transit, that makes it -- your life easier?
A. Well, I mean, the most obvious difference on the commuter rail side is they're a heavily regulated industry. Their rules are very prescriptive as set down by the Federal Railroad Administration. Everything from the, you know, how wide the tracks should be and how many times it should be inspected and which forms should be used and where you sign it and where you initial it.

The transit industry is not like that, never really has been. Its regulation is really the framework of a program. It's not as prescriptive as the Federal Railroad Administration.

In some ways, on the railroad, on the commuter rail side, that makes it a lot easier because just do what they say and they're happy. But even with regulation, there are safety challenges to meet those regulations, number one, because no matter how good the regulation is written, you still need the people to execute.

But at the same time, there's lots of things that go on, on the railroad that aren't regulated that we have to rely on something else to help us with that, whether it's OSHA or something like that, that we have to go and look for.

So regulation, it's good in that it prescribes exactly what you should do, but regulations, at least some of them, seem to be what I would say, they're not really safety related. They're more administrative, you know, what form I should use and how I should

fill it out, that sort of thing.

On the transit side, while, yes, absent regulations, but what my experience -- and I've spent my entire career in Pennsylvania at SEPTA, so my experience is really here. I see what the industry does and I have friends that talk to me about what their experiences are.

In Pennsylvania, we've always treated rail transit like a regulated entity. We've -- when we've needed support from the state to convince people to do things, we use them. We tell the state -- my office will tell the state that, hey, we have an issue and we need your help, and they help. Sometimes they find the problem and tell us about it, and they'll write us a finding and, you know -- we've minimized the numbers of recommendations that the state has currently tracking on us. We're down to under 10, 7 or 8. That's the lowest that we've ever been. Is it because they're not looking? No, of course not. They're here every day. They're always looking, but what we've done here at SEPTA with the state is create a culture where the state is the regulator.

If you spoke with our employees who are familiar with the state program, our managers with the state program, they'd probably tell you, if you ask them, who regulates trolleys and subways, they'll tell you the state. They don't know any different. That's the way we train them.

So I don't really need to convince them as much as I used to. I mean, when you're in safety, you're a salesman. You're selling

safety because not everybody thinks of safety first. It's my job to try to get them to. But some people do it, it's instinctive, and some people need a little more help, and that's where we come in. We're here to help. We want to make sure that you know that safety's important, not just because I say so or because my boss says so. It's important because I'm sure your family would like to see you at the end of the day.

So when it comes to the commuter rail versus the rail transit, yeah, I could go through pros and cons on each, and sometimes the regulations are very easy. It's very easy for me to hold up a part 213 guide and say, hey, you're supposed to have 5/8 of an inch between this switch, or not.

One of the things that we've benefited from here at SEPTA is because we're multimodal, because we have commuter rail, and commuter rail being a heavily regulated entity, we've simply taken the FRA regs and applied them to transit. So our track inspection and maintenance program on transit is 213. Our roadway worker protection program in transit is 214. Our signal inspection program is 236. So we don't differentiate, and we do that for uniformity because the commuter rail track maintenance department and the rail transit track maintenance department reports to the same chief engineer. So the chief engineer, it's in his best interest not to have two sets of rules to play by. So he doesn't.

The training department who trains locomotive engineers, conductors, transit operators, is the same training department.

Now, they have different departments within training that train commuter rail, train transit, train bus, but they all report up to the same training director.

So it would be difficult for us as an organization to manage all these different entities with one management structure if we didn't try to play by the same rules. So we do.

Q. So I know our wheels have been spinning here for the last 3 days and we've been crunching here for the last 3 days, but with everything we've talked about and looked at, I know your wheels are spinning. What can you take home from this accident that you'll take forward and (indiscernible) here?

A. Well, I think that, you know, we all develop a level of complacency where we need to be shaken to say, hey, don't forget, because as good as I think we are, like I said, we all have issues we have to deal with. We never want to get caught being too proud of ourselves because we want to always be alert, and I think that that's where the state and the feds kind of come in and help us with that, to shake us every once in a while and say, hey, don't forget.

This incident will -- has certainly shaken us. It's certainly gotten our attention, and it's something that we need to reexamine and make sure that, number one, our operators aren't becoming too complacent, that our rules are still good rules, that our processes are still good processes, and that our training is good. And if it's not, it's not. If it's not adequate, then we

have to make some changes, and maybe the NTSB will help us with that and maybe the FTA will help us with that and maybe the state will help us with that. Maybe we'll come up with it on our own; who knows. But the idea is that I think that what this has done for us as an organization is stirred us to the point where we want to know now, we want to know what can we do? And that's something that I'm sure I'll discuss at great lengths over the next few weeks with my team and with my general manager to see what's out there, what can we do to make things better?

Q. Good deal, Scott. Thank you.

A. Yep.

MR. LLOYD: Thank you.

DR. JENNER: Great. Scott, thank you. I have no other questions.

MR. SAUER: Okay.

BY MR. HOEPF:

Q. All right. Scott, I just have one more question for you, and --

MR. FRIGO: Identify yourself.

MR. HOEPF: Oh, I'm sorry. Thank you. Thank you. This is Mike from the NTSB.

BY MR. HOEPF:

Q. I just have one final question for you, and again this is another one that if it's outside your wheelhouse, I don't want you to speculate on it or -- you know. From a safety point of view --

okay, first of all, let me just start by, are you familiar with the system that operators have when they call in sick, the point system?

A. Yes, I am.

Q. Okay. From a safety point of view, does the point system where you receive a two-point penalty for not calling into work and also no pay for that day, provide a disincentive for people to call in when they don't feel up to the challenge of coming to work?

A. Well, I would say that the point system doesn't. No pay certainly can hurt for sure. I know that someone who -- nobody wants to lose a day's pay. I lived under the point system when I was an operator. The point system's been on SEPTA property for at least 26½ years, as long as I've been here. I don't know when it came into effect. It was something that was negotiated with the union.

What I liked about the point system when I was a -- when I was using it, is that it leveled the playing field, that I was going to be treated for my absences the same exact way that my peers would be treated, that my absence was worth 2 points and so was theirs, and that I had to get to 20 -- and I think at the time I started, it might have even been 25 -- before I was disciplined, before I was in trouble.

And it was a way for me to manage -- I could manage my points very easily because we lost points as well as gained them. So if

I went 30 days without being sick or utilizing my sick time, I lost 2 points. So I could conceivably take a day off every 31 days and hover at 2 points for my entire career.

Yeah, I'd lose 12 days' pay a year if I wanted to, if I had to, but the other nice thing about the way the contract is structured, is if my days off are, say, Monday and Tuesday, and I call in sick on Sunday, I can work Monday -- I can volunteer to work Monday or Tuesday and I get the pay right back, and I lose the two points. So that creates tremendous flexibility for the operator to be compensated and take a sick day.

Now on the other hand, if I'm ill so much that I've got to be off a week, then the contract allows for them to collect partial pay beginning on the fourth day and for the duration of their illness.

So, yes, if you're the type of person who takes a day off a couple times a month, the point system is going to hurt you because you're going to rack up points quick. And then you -- but then at the same time, if I do manage to accumulate 20 points, along with my discipline, they subtract 10 points from my total. So I go back to 10, and then I start all over again.

So, to me, what it does is it allows for the employees to be flexible enough to take the time off, but at the same time it is a detriment to the habitual offender who's taking sick time not because they're sick but because they're -- they want a day off or they want to go to the shore or they want to -- those people are

the ones that usually get in trouble with points.

As I said in one of the earlier stories I told, that our employees are -- prior to recent years, the average tenure of a SEPTA employee is about 20 years. You can't go 20 years at SEPTA and rack up points. You can't. You'll -- I've seen people be terminated for points. It takes a long time to get there but it happens. But if you're an average employee who takes an average amount of sick time each year, the points are -- it's a non-issue/ Because I know some people don't even know how many points they have because they're usually hovering somewhere between zero and four, you know.

And at the same time, you know, the points that you accumulate, yes, to the non-SEPTA person or layperson, the two points seem like a punishment. I'm going to get two points if I turn in sick, but the two points really aren't -- that's not the punishment. You don't get punished until you get to 20. Two is just a record of whether or not you're going to be trying to game the system or whether you're legitimately sick.

And, you know, if you had to try to adjust your days off, if you take sick early in the week and you want to adjust and work one of your days off, you can do that and make up the pay if that's what you want to do.

You know, we're very generous in the amount of sick time we give to our employees. They get 60 sick days a year to use, 60, and those sick days are cumulative. So if you use 10 in year 1,

you now have 110 to start year 2, and so on, all the way through your entire career. There are some people with thousands of sick days. Do they get paid for them, no, but they're there when you have a catastrophic illness and you just want to maintain your employment and collect sick benefits and maintain your healthcare, you have 5,000 sick days to use, which usually happens towards the end of our career and when you develop illnesses that come with age. But if you're the type of person who utilizes your sick time only for when you're sick, if in your 50s you do develop some type of illness that's going to require you to stay out for months or a year, you've got plenty of time to use it and stay on the roles and keep your seniority, and when you are health enough to return, you go right back where you came from and start right like you never left.

And I think that's a tremendous benefit. I know when I was an hourly employee, a union employee, I thought that was amazing, and I'm a second generation SEPTA employee. My father retired from SEPTA with 30 years as an hourly employee. He was not a manager. And he had a heart condition, and maybe someday I'll have one; it could possibly be, you know, genetic. I like to think that when I'm healthy and I can return, they'll let me, and with that kind of program, they will. So I think it's a benefit, not a detriment.

MR. HOEPF: Okay.

MR. LYLES: No questions from the SEPTA representative in the

room.

BY MR. FRIGO:

Q. So, Scott, I have one more question that might lead to a few follow-up, but -- so we know that there's CBTC in the portal, and we also know through our fact finding that there's not CBTC once the trolleys are street running. Is there a reason why? Is there a challenge to implementing CBTC?

MR. HOEPF: Just -- yeah. Ryan had to step out of the room to, you know, address somebody else. So I think he missed part of the interview where Scott Sauer addressed the system. So not Ryan's fault.

MR. FRIGO: Okay. Well, with that, are there any further?

Okay. With that, we'll go off the record. Scott, thank you. We appreciate you being here.

MR. SAUER: Thank you.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	SEPTA TROLLEY COLLISION PHILADELPHIA, PENNSYLVANIA JANUARY 4, 2017 Interview of Scott Sauer
ACCIDENT NUMBER:	DCA17FR003
PLACE:	Philadelphia, Pennsylvania
DATE:	January 8, 2017

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

_____
Kathryn A. Mirfin
Transcriber