

National Transportation Safety Board

Office of Railroad, Pipeline and Hazardous Materials

Washington, DC 20594



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PROJECT MANAGEMENT AND TRANSIT OVERSIGHT

Group Chair's Factual Report - Supplemental

November 20, 2023

TABLE OF CONTENTS

A	ACCIDENT.....	3
B	INVESTIGATION GROUP.....	3
C	SUMMARY.....	4
D	DETAILS OF THE INVESTIGATION	4
1.0	WORK PROJECT INFORMATION	4
2.0	STATE OVERSIGHT.....	5
3.0	FTA TRIENNIAL AUDIT OF NJDOT.....	8
4.0	INTERVIEW SUMMARIES.....	9
4.1	Oversight	9
4.2	Workers on the Bridge Project.....	10

A ACCIDENT

Location: Camden, New Jersey
Date: October 14, 2022
Time: 9:21 pm local time
Train: PATCO train westbound 1

B INVESTIGATION GROUP

Investigator-in-charge	Matthew Thompson Investigator-In-Charge National Transportation Safety Board (NTSB)
Group Chair	Ruben Payan Signal Group Chair, NTSB
Group Chair	Michael Bachmeier Operations Group Chair, NTSB
Group Chair	Troy Lloyd Track Group Chair, NTSB
Party Coordinator	David Fullerton Port Authority Transit Corporation (PATCO) Safety Director
Party Coordinator	Phillip Herbert Federal Transit Administration (FTA) Accident Investigator
Party Coordinator	Eugene Stewart OSHA Compliance Safety & Health Officer
Party Coordinator	Todd Kropilak New Jersey Department of Transportation (NJDOT) Administrative Analyst
Party Coordinator	Robert Finnegan Delaware River Port Authority (DRPA) Chief Security & Safety Officer

C SUMMARY

At approximately 9:21 pm on October 14, 2022, two contractor employees from JPC Group Inc. were struck and killed by a westbound Port Authority Transit Corporation (PATCO) train called Westbound #1 on track 2 on the Benjamin Franklin Bridge in Camden, New Jersey.

There was a planned outage on track 2 for contract concrete work. However, at the time of the accident, track 2 had not been taken out of service when the contractors entered the bridge in a close clearance area. The striking train was traveling at a recorded speed of 33 mph. The train was put into emergency braking, stopping about 1 ½ car lengths from where the 2 contractors were struck.

D DETAILS OF THE INVESTIGATION

1.0 Work Project Information

PATCO is a subsidiary of the Delaware River Port Authority (DRPA). The General Manager of PATCO reports to the authority's Chief Executive Officer (who also holds the title of President of PATCO). PATCO's public transportation agency safety plan states:

The Delaware River Port Authority of Pennsylvania and New Jersey (DRPA) and Port Authority Transit Corporation (PATCO) function under the legal authority of Compact legislation jointly approved by the State of New Jersey and the Commonwealth of Pennsylvania in 1931, 1951, and 1992, and affirmed by Consents of the Congress of the United States in 1932, 1952, and 1992.

The DRPA's Safety Administrative Manual describes minimum requirements for contractors and subcontractors working on its properties. The manual states:

- The CONTRACTOR shall be responsible for developing, initiating, maintaining and supervising all safety programs required for its Employees, so as to ensure compliance with all applicable federal, state and local safety laws, rules, regulations, codes and the Contract Documents.
- Within fifteen (15) days from award of a Contract or Purchase Order pursuant hereto, but before commencement of any on-site Work, the CONTRACTOR will submit to the AUTHORITY a Site Specific Safety Plan

The manual includes a section PATCO Specific Requirements, describes training requirements, conditions of access to the tracks, and contractor hi-rail equipment. This section states:

- When it is necessary for CONTRACTOR's personnel to work in or near the track areas, PATCO reserves the right to determine the number of, placement of, and need for its watchmen.
- The CONTRACTOR is required to provide watchpersons for the safety of its employees, and for the safe performance of its obligations under its Contract.

Skanska Site Specific Safety Manual, EHS Manual Rev.1, for the Ben Franklin Rehab of Spans project describes policies for the project. Some of the topics include fall prevention and protection; scaffolds; excavation and trenching; and hazard communication. The PATCO Specific Requirements describes training requirements, conditions of access to the tracks, and contractor hi-rail equipment.

2.0 State Oversight

The Federal Transit Administration (FTA) oversees transit operations as described in 49 CFR part 673 Public Transportation Agency Safety Plans and part 674 State Safety Oversight. For part 673, *673.1 Applicability* states:

- (a) This part applies to any State, local governmental authority, and any other operator of a public transportation system that receives Federal financial assistance under 49 U.S.C. Chapter 53.
- (b) This part does not apply to an operator of a public transportation system that only receives Federal financial assistance under 49 U.S.C. 5310, 49 U.S.C. 5311, or both 49 U.S.C. 5310 and 49 U.S.C. 5311.

For part 674, *674.3 Applicability* states:

This part applies to States with rail fixed guideway public transportation systems; State safety oversight agencies that oversee the safety of rail fixed guideway public transportation systems; and entities that own or operate rail fixed guideway public transportation systems with Federal financial assistance authorized under 49 U.S.C. Chapter 53.

PATCO has a public transportation agency safety plan dated August 2022. The plan states:

The Delaware River Port Authority (DRPA) and Port Authority Transit Corporation (PATCO) Board of Directors have adopted this Public Transportation Agency Safety Plan (PTASP) to comply with FTA regulations established by Section 5329(d) of the Moving Ahead for Progress in the 21st Century (MAP-21) Act and 49 CFR Part 673.

Section I of the plan describes, in part, roadway worker protection. The plan states:

To enhance the safety of Right of Way (ROW) workers, PATCO has developed a Right-of-Way Safety Plan. The plan governs PATCO personnel and contractors performing facility inspection, construction, maintenance, and repair duties on the rail system. PATCO's goal is to eliminate injuries and accidents related to personnel activities in the ROW. By following its standards, the employees, contractors, and other stakeholders referenced in the Plan, will play a critical part in achieving this goal. Compliance with all PATCO rules is mandatory, and failure to comply may result in disciplinary action.

The New Jersey Department of Transportation Office of Fixed Guideway, State Safety Oversight Agency (SSOA) is the designated state oversight agency for PATCO. The most recent SSOA triennial audit of PATCO's compliance with their public transportation agency safety plan was conducted September 23-29, 2020. The final audit report was dated December 10, 2020. According to the report, the audit focused on PATCO's rail system safety program including its roadway worker protection program. The audit report stated, "Over the past two years, PATCO has had challenges in the area of Roadway Worker Protection that have been monitored closely by the NJ SSOA."

Although the audit reported noted some improvements in PATCO's program, the report identified several roadway worker protection program areas of noncompliance and areas of improvement. One corrective action stated, "PATCO needs to Audit and review implementation of the overall program." Areas of improvement described included job safety briefing forms, training, and the right-of-way safety plan.

The SSOA conducted a roadway worker safety audit of PATCO April - August 2021, and the final report is dated November 23, 2021. According to the report, the objective of this audit was to evaluate PATCO's response and actions to the issues identified in the triennial audit report. The report states:

Recommendations were made in the 2020 PATCO Triennial Safety Audit Report for PATCO Management to conduct an internal audit on specific aspects of the PATCO RWP program. PATCO Management completed their

internal audit in April 2020, and there were zero (0) findings of non-compliance.

The SSOA audit report listed significant findings that included employees' familiarization with the right-of-way safety plan, job safety briefing form, and PATCO's not submitting training forms as requested by the auditors.

On January 10, 2019, the SSOA issued a letter to PATCO documenting meetings to address near misses involving PATCO and affiliated workers. The letter directed PATCO to develop corrective action plans to be submitted to the SSOA by February 15, 2019. A list of corrective actions included an immediate action to make job safety briefings mandatory before all track-side operations. The proposed implementation and actual implementation dates were listed as February 28, 2019.

On June 6, 2019, SSOA issued a First Notice of Operational Violation to PATCO. The violation letter stated:

Due to a series of near misses of roadway workers, a formal request was made on January 10, 2019, for PATCO to develop a Corrective Action Plan by February 15, 2019. Although there is evidence of the plan's progress, the Way and Power Department has failed to provide information necessary for the SSO to review and issue a formal approval.

In the letter, the SSOA stated that "PATCO must provide the SSO a complete Corrective Action Plan" or complete the corrective action plan spreadsheet within 10 business days of receiving the letter.

In a letter dated June 11, 2019, the SSOA stated that they reviewed and approved PATCO's Hazard Management CAP to Mitigate Roadway Worker Near Misses. The letter also stated that PATCO should provide status updates of all open actions during monthly safety meetings.

On February 25, 2020, the SSOA issued a Second Notice of Administrative Action to PATCO. The letter stated that PATCO was not in compliance with the First Notice of Violation and the SSO CAP Approval. The notice required PATCO to provide written monthly updates on the PATCO Right-of-Way Worker Protection CAP beginning March 6, 2020.

On March 4, 2020, the SSOA issued two First Notice of Operational Violation for concerns about PATCO's roadway worker protection program. Both notices listed seven near-miss incidents from June 2018 to January 2020. One letter stated that the SSOA conducted an on-site visit and were examining PATCO's effectiveness and compliance with their Right-of-Way Safety Plan training, procedural, and record-

keeping requirements. The second letter reviewed conditions for an incident titled "Persons Too Close to the Dynamic Envelop." It stated that corrective action plans must be provided to address the underlying and systemic issues.

In a report dated April 2020, a PATCO Right-of-Way Worker Protection Program Review documented a PATCO internal audit of safety activities. The report states that employee and director interviews were conducted and documents reviewed. The report concluded:

In conclusion, while both departments have a general understanding of the RWPP, the program offers practices that are required to be completed in order for it to be fully effective. This does require time to periodically review and update the RWSP and other procedures, conduct trainings, complete and document job briefings, and communicate with Transit Services.

3.0 FTA Triennial Audit of NJDOT

Prior to the accident, the most recent FTA audit of the NJDOT was documented in a final report dated October 7, 2021. In that report, the FTA stated:

CAP information from FTA's State Safety Oversight Reporting (SSOR) database was reviewed by the FTA Audit Team and 26 closed-overdue CAPs and 23 open-overdue CAPs from the period of 2017-2020 were identified. Based on these numbers, NJDOT is not overseeing the management and tracking of CAPs to closure within the schedule specified or revising CAPs to update implementation schedules.

Finding 9 - NJDOT did not ensure that the RTAs included an accurate schedule for CAPs.

Required Action - NJDOT must develop, submit, and implement a CAP monitoring process to ensure CAP tracking logs are updated and contain all required information, including current schedules.

In a letter dated July 25, 2023, the FTA stated, "As a result of NJDOT's submissions, the FTA's SSO Program Office is satisfied with the audit Corrective Actions and relevant documentation and is able to closeout all Findings of Non-Compliance from FTA's SSO audit."

4.0 Interview Summaries

4.1 Oversight

Director of Safety Services, DRPA

The director described the safety office. He reported that there are 4 safety specialists. Two specialists are focused on bridge operations and two PATCO employees who focus on PATCO. All four specialists can work on either bridge or PATCO operations.

The director stated that they are responsible for implementing PATCO's agency safety plan including training on SMS, roadway worker protection, and drug and alcohol testing for DRPA and PATCO.

The director described their internal safety audit process. He said that it includes PATCO's public transportation agency safety plan and an audit which occurs every three years. The director also reported that they are responsible for coordinating PATCO's monthly safety coordinating committee (SACC). He stated that SACC reviews incidents that were reported to the SSOA and the FTA. The following is a portion of the interview transcript:

Q. As far as results coming from the safety committees, for internal processes, do you have the ability to direct, and I mean, by direct, I mean require, changes within PATCO?

A. Unilaterally?

Q. We'll start there, yes.

A. In general, no.

Q. If there was a safety issue observed internally, what would it require to get safety actions taken? Additional approval, or could it be something else?

A. In general, to get action on a safety just takes asking for action on a safety issue. If additional resources are needed or change is needed to be made, we make those changes.

Q. And who would have the ultimate authority to require or approve those changes?

A. Depending on the level of resources needed, or -- it could come from the general manager, it could come from the CEO and president of PATCO and DRPA; or, if it requires capital approval or some policy change, it may have to come from the Board of Commissioners.

The director reported that the requirements for drug and alcohol testing programs for contractors is described in the DRPA's Safety Administrative Manual. He stated that contractors are responsible for ensuring that their employees are compliant with those requirements.

Program Manager, NJDOT SSOA

The program manager reported that an audit was conducted on PATCO in September 2020 and a report issued in December 2020. He said that state staff and contract staff to conduct the audit. He reported that audits include on-site observations that occur throughout the year. The program manager said that open corrective actions are discussed at monthly meetings with PATCO's management. When asked if the SSOA has the ability to direct PATCO to make safety changes, the program manager said that they would have PATCO develop a corrective action plan to address issues.

The program manager said that his organization is responsible for monitoring PATCO and three New Jersey Transit rail line. He reported that the SSOA has 8 full time equivalents. The project manager reported that his agency meets quarterly with an FTA representative.

The program manager reported that an unscheduled SSOA audit of PATCO's RWP program was conducted in 2021. He stated that this audit was conducted because a PATCO internal audit did not include any findings about their RWP program.

The program manager was asked about PATCO's response to the SSOA's post-accident action items. For one action item, an email provided by the NJDOT stated that PATCO did not intend to take any new actions on that item. When asked about this response, the program manager stated that the SSOA could issue an administrative notice of violation to PATCO if they believed further compliance was needed.

4.2 Workers on the Bridge Project

PATCO Track Foreman

A PATCO track foreman who was the employee-in-charge (EIC) on the accident night stated that he gave a job safety briefing with PATCO workers, including the PATCO power and signal maintainers and a flagman, before the workers left Lindenwold for the work site.

The track foreman explained his standard EIC duties for the project work. He stated that he would contact the workers ensure that they were in place and ready to begin the work. Once the foreman knew that the PATCO workers were ready, he would begin to establish the track outage. He reported that he would contact center tower and ask for permission to establish the track outage. After center tower gave him their permission, the foreman would give that message to the power and signal maintainers and tell them to confirm that third rail power was deenergized. Once the maintainers confirmed that power was deenergized and safety devices placed, the foreman would confirm with center tower that the workers had permission to begin work. After center tower confirmed permission, the foreman would tell the flagman that the flagman could inform the contractors that they had permission to begin work. The foreman said that, prior to the accident, he would be the "point man" for the outage, but "not necessarily on the scene."

The track foreman also stated that before the accident, a job safety briefing at the work site with contract workers was not done. The track foreman explained EIC responsibility changes since the accident. He stated that EICs must be on-site to give a job briefing and to verify that all the contractors have their qualification cards. The following is a portion from the interview transcript:

So what's changed is -- yes, so we have -- the EIC must be on-site to give a job briefing, make sure that all the contractors have their qualification cards, give them a briefing of, you know, what's going to take place with the outage, where they can and cannot go. Basically, you know, it powers, deenergize, you know, all that good stuff. We take -- establish our outage now before we allow them to go to the track area. So once the outage is established, then they're allowed to enter.

Skanska Assistant Superintendent

The assistant superintendent stated that on the night of the accident, he reported to their contractor yard. He said that Skanska ironworkers and laborers were on site to work on steel repairs and a few miscellaneous work items.

The assistant superintendent said that their subcontractor, JPC Group, was going to be working in three different locations on the bridge. Two of the work locations, the New Jersey anchorage and the Philadelphia anchorage involved working on or near the track.

The assistant superintendent said that he met JPC workers in the Skanska contractor yard for a verbal job hazard analysis which was like a pre-shift meeting. He said that he spoke with the JPC Group foreman and discussed where they would be

working that night, what work they would be doing, and what support they needed. After this, the workers began traveling to their work areas.

The assistant superintendent stated that he normally coordinates with a team that PATCO sends out for the track outage and that that team is usually the power and signal maintainers and a flagman. He said that this team informs him when the track has been taken out of service and when it's safe to work around the track. He stated that all communication about the track outage goes through him. The assistant superintendent said that he believed that there is usually one flagman and that the number of flagmen is requested by email a week ahead of time.

JPC Foreman

The JPC foreman stated that they usually start to set up their work and wait until they get a call from a Skanska representative that the track outage is in place. He reported that on the night of the accident he and four other JPC workers met in Skanska's main yard, and a pre-shift meeting was conducted by a Skanska employee. He said that although they would usually get track access at 9:30 pm, the access time was not consistent.

The JPC foreman said that at the accident area, he first helped one work crew to start their work at the approach and pedestrian sidewalk where track clearance was not required. He said that he told the second work crew to head to their work area (the New Jersey anchorage) to begin preparation work that needed to be done before going onto the tracks. He also said that he told the crew to wait for him, and he would help them. After he dropped off the first work crew at the approach, he began heading toward the second work crew, but the accident had already happened.

The JPC foreman reported that he speaks directly with Skanska to get confirmation that the JPC workers can go onto the tracks and begin work. Before receiving this confirmation, JPC workers can begin setting up equipment because the equipment is located on a road. He stated that his communication and coordination is with Skanska and not with PATCO.

The JPC foreman reported that two JPC work crews were at the pre-shift meeting. He stated that PATCO was not present at this meeting, but "DRPA is usually there."

Submitted by:

Matt Thompson
Investigator-in-charge