

RRD22LR004  
Accident  
Southeastern Pennsylvania Transportation Authority  
December 9, 2021  
Darby, PA

## **National Transportation Safety Board**

### **Operations Group – Factual**

June 6, 2022

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## **Synopsis**

On Thursday December 9, 2021, at approximately 8:35 AM local time, CSX Transportation freight train number I03309 traveling westbound on CSXT’s Philadelphia Subdivision at 25 miles per hour, when it struck the front of SEPTA trolley car No. 9070 in Darby, PA. SEPTA Car 9070 was operating “inbound” on SEPTA’s Rt. 11 trolley Line in Darby, PA. The accident occurred at the SEPTA / CSXT crossing located at 6<sup>th</sup> Street & Main Street in Darby Borough.

There were 6 injuries on the trolley including the car operator and 1 injury on the CSX train crew, which was the CSXT locomotive engineer. Out of a total of 10 passengers on board, 4 passengers refused any treatment. 5 passengers were transported to local hospitals for treatment and released. The car operator was also transported to a hospital.

On Thursday December 9, 2021 at approximately 0825 CSXT freight train I03309 was traveling westbound at 25 miles per hour on the Philadelphia subdivision and struck the front of a SEPTA trolley at mile post BAK 4.97 at the main street crossing in Darby Borough. The SEPTA trolley was fouling the CSXT track, and the crossing gates were on top of the trolley car.



View of damaged trolley look south on Main Street, CSX Transportation track in foreground.

## Accident Narrative

*CSX Train – Westbound Train Number I03309*

CSXT Train I03309 Train No. I03309 on the morning of December 9, 2021, consisted of 2 locomotives and 48 freight cars. 5555 tons and 8464 feet. This train originated at North Bergen New Jersey. The involved crew consisting of a locomotive engineer and conductor located in the cab of the lead locomotive, went on-duty at 0615 at Philadelphia.

At the time of the accident, CSX Transportation freight train number I03309 traveling westbound on CSXT's Philadelphia Subdivision at 25 miles per hour.

At approximately 8:25 am CSXT freight train I03309, traveling westbound impacted the trolley at 22 miles per hour, at mile post BAK 4.97 at the main street crossing in Darby Borough.

At the time of the accident, the SEPTA trolley was fouling the CSXT track, and the crossing gates were on top of the trolley car.

### ***SEPTA Trolley No. 9070***

SEPTA Trolley No. 9070 on the morning of December 9, 2021, consisted of one trolley car and originated at the SEPTA Elmwood Trolley Yard, located at 7311 Elmwood Ave. Philadelphia PA 19142. The train was manned and operated by a single car operator that went on duty at Elmwood Yard at 5:05 am. The car operator boarded trolley No. 9070 at Elmwood Yard at approximately 5:08 a.m. Leaving Elmwood Yard at approximately 5:18 a.m.

The trolley made 2 uneventful trips from Darby Transportation Center to 13<sup>th</sup> Street Station and return 13<sup>th</sup> and Market St Station to Darby Transportation Center.

SEPTA Trolley No. 9070 left Darby Transportation Eastbound at approximately 8:21 a.m. in route to 13<sup>th</sup> and Market St. The trolley made a transit stop at 6<sup>th</sup> and Main St. The operator proceeded to cross the CSX railroad crossing, stopping with the trolley fouling the CSX tracks. The approaching westbound CSX freight train made contact with standing SEPTA trolley #9070.

### **Method of Operation and Location - SEPTA**

SEPTA trolleys are governed by highway traffic signals operating on street trackage. The accident occurred southwest of Philadelphia proper. The trolley track configuration at this location consists of double track in Main Street of Darby Borough. Trains are operating on street trackage at this location and are governed by traffic signals

as well as SEPTA Operating Rules and Special Instructions. Normal operation is the established direction of movement. SEPTA trolleys operating through Darby Borough follow the street posted speed limit on both tracks.

## **Method of Operation and Location – CSX Transportation**

CSXT trains are governed Traffic control Rule 510.1. The railroad at this location is single main line with a Dimond for SEPTA.

## **Operating Rules**

### **SEPTA Operating Rules in effect**

Operating rules governing employees were the Rail Operations Division, Rules Manual 3<sup>rd</sup> Edition, effective Sunday, November 6, 2011. In addition to Daily Operating Bulletin Orders in effect the day of the accident.

### **CSX Transportation Operating Rules in effect**

Trains operating are governed by the CSX operating rules in effect July 1, 2019, and any updated system bulletins and Philadelphia Subdivision Timetable NO. 2 Effective Friday, November 1, 2019, and any updated general bulletins. The maximum authorized speed on the track is 30 MPH. In addition to Dispatcher Bulletin NO. 71562

## **Operating Crews**

### **SEPTA Trolley 9070**

Train Operator: Shante Jordan  
Date of Birth:  
Hire: 07-23-2018  
Last observational Ride:

### **CSX Train I03309**

Locomotive Engineer: Charles Henry Johnson  
Date of Birth: 06-28-1977  
Hire: 09-28-2008  
Last observational Ride: 10-13-2021

### **CSX Train I03309**

Conductor: Jeffrey L. Sessa  
Date of Birth: 07-26-1988  
Hire: 10-12-2008  
Last observational Ride: 9-03-2021

### **Train Consists**

SEPTA Train (Run) No. 41 consisted of one trolley car. The car number was 4090

Westbound CSX Train I03309 consisted of 2 locomotives and 48 freight cars. On the head of the train the lead locomotive number was CSXT 3008. The train was lined up as follows:

CSXT 3008 17 cars DP locomotive CSXT 999 30 cars

### **Employee Interviews**

The Operations (OPS) Group conducted five employee interviews related to the accident. Below are bullets from these interviews (a copy of the full interview will be placed into the accident docket:

Name : Shante Jordan  
Title : Train Operator – Trolley 9070

Date / Time of Interview : 12/11/2021 9:30 am.

- Car operator
- Walk through beginning of the day on 7/8/2019
  - Started shift at approx. 5:05 am at Elmwood Yard
  - Started run
  - Made two round trips between Darby Transportation Center and 13<sup>th</sup> St.
  - Accident occurred on third trip eastbound

- On accident trip, boarded passenger at stop at CSX crossing
- Gates then came down on car
- Went in full brake D-10
  - Tried to Reverse
  - Continued to attempt to reverse
- Saw CSX train approaching
  - Opened all doors and instructed passenger to evacuate out of rear door
- Felt that she blacked out when the trolley was struck
- Never had chance to communicate with control operator
- Stated that had cell phone stowed in bag

Name : Nicole Richards

Title : Control Operator No. 1

Date / Time of Interview : 12/11/2021 10:50 am

- Worked the “Suburban Side” Desk.
  - Trolley lines are controlled by 2 desks in the Control Center, the Suburban Side and the Green Line Side.
  - Based on workload either desk can handle emergency calls
  - After getting call from Darby Police checked GPS system to determine the location of the involved car
  - Car 80 (SEPTA supervisor) was first SEPTA employee on scene
  - Once an emergency was determined, a General Radio announcement was made to all trolley operators via a public radio announcement
  - Job experience Started second half of shift at Olney
    - 24 Years with SEPTA
    - 1<sup>st</sup> trained as a bus driver
    - 2006 trained as a train operator on the Market / Frankfort Line
    - 2009 promoted to district supervisor
    - 2019 promoted to a Suburban Light Rail Controller

Name : Kim Scott

Title : Control Operator No. 2

Date / Time of Interview : 12/11/2021 11:55 a.m.

- Stated that Nicole, the other control operator for trolley operations received the emergency phone call concerning the accident

- Never heard anything from the car operator of the involved trolley
  - Stated that Chuck Graham was the first SEPTA supervisor on scene in Car 80
  - Confirmed the involved trolley was the 9070
  - Helped Nicole pull up the GPS screen to locate the 9070 car
  - Did have prior contact with the 9070 car before the incident, concerning removal of customer for the car on earlier run.
- During Rush hour, 6 to 8 minutes between cars on Rt. 11 Line
- 15 to 16 cars on Rt. 11 Line during Rush Hour
- 11 to 12 cars on the line during off hours

Name : Jeffery Sessa

Title : CSX Transportation Conductor – Train I03309

Date / Time of Interview : 12/12/2021 9:30 a.m.

- Train I03309 originated in North Bergen, NJ
- Train consisted of 47 loads, 1 empty, weighing 5555 tons
- Received train at RG Tower in Philadelphia
  - Departed Phila. no problems with train brakes
- Approaching Darby, passed through work limits
  - Clear signal at Darby interlocking, located just before Darby proper
- Came around curve and saw trolley fouling crossing
- Engineer started applying brake
  - Engineer continued to apply brake as train approached trolley
- Train struck trolley at approximately 8:26 am
- Train went approximately 10 car lengths past the accident
- Walked back to assist with emergency response, engineer stayed in cab of lead locomotive
- Train was released at 10:19 am
- Took train to Feltonville and tied down train.
- CSX Philadelphia Subdivision is not cab signal territory.

Cont.

- Approaching the Darby crossing train crew anticipated the trolley to back up, but it did not.
- There was no Haz Mat on the I03390
- Weather was clear, there was no sun glare



Name : Darryl Wright  
Title : Trolley Car Operator

Date / Time of Interview : 12/12/2021 11:00 a.m.

- Performs Pre-Trip inspection before leaving Elmwood Yard
- 5 MPH over CSX crossing
- Different trolleys accelerate at different rates.
- Always stops before the first pole approaching the Darby crossing
- Has never had a problem stopping before the CSX crossing
- Crossing gates have come down with no trains, often in the past, but not as often recently
- There are no street marking to assist with stopping in the clear prior to the CSX crossing
  - Based on past experience, after hearing the train horn, and the bell starts sounding it is 5 to 7 seconds before the gates come down.
- If a near miss occurs, the car operator notifies the control operator.
- In his experience he has made a D-10 emergency brake application at a red traffic light, but not at the CSX crossing.
  
- Feels trolley operator must have extra high awareness when operating across the CSX crossing
  
- Feels additional marking on the street indicating clearance for the crossing would definitely assist trolley car operators.
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- Feels additional attention could be made about the CSX crossing during annual recertification of trolley car operators.

### **Accident Sight - Observation**

On Dec. 10, 2021, the investigative team conducted a Sight Observational visit to the accident scene at 6<sup>th</sup> and Main in Darby, PA. NTSB, FTA, FRA, and SEPTA qualified group members with proper safety gear examined the approximate location of the SEPTA trolley car when it was struck by the CSXT freight train.

Multiple sight observations were made for the benefit of the investigation team. Photos for this activity can be found in the NTSB docket.

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