Amtrak Train 89, the New York City-Savannah, Ga., Palmetto, partially derailed at Chester, Pa., approximately 15 miles southwest of Philadelphia, on the Northeast Corridor early Sunday, April 3, 2016, after striking a maintenance-of-way vehicle described in news reports as a "backhoe" on the tracks. Two Amtrak maintenance-of-way employees were killed and 35 on board the train were injured, one seriously.
Amtrak Train 89 had 341 passengers and seven crew members on board at the time. Information obtained by *Railway Age* indicated that the victims were the equipment operator and a track supervisor. Debris from the crash flew into the first two cars, injuring some passengers.

Amtrak suspended service along the Northeast Corridor between New York and Philadelphia and SEPTA (Southeastern Pennsylvania Transportation Authority) also briefly halted its operations. New Jersey Transit was continuing to offer its regular Sunday service along the Northeast Corridor, and would accept Amtrak tickets between New York and Trenton during the service interruption.

This was the second Amtrak wreck involving fatalities in the space of about a year. On May 12, 2015, the derailment of New York-bound Amtrak train no. 188 at Frankford Curve in Philadelphia left eight people dead more than 200 others injured. 188 derailed due to an overspeed condition.

This incident begs important safety questions: Amtrak completed installation of ACSES (Advanced Civil Speed Enforcement System, its form of Positive Train Control), on the
Northeast Corridor late last year. ACSES/PTC is required to include "roadway worker protection" designed to prevent tragedies such as what occurred at Chester, Pa., on the NEC. If roadway worker protection was available and functional, how could this accident have happened? Does this accident indicate that ACSES—indeed, no PTC system—is 100% fool-proof and fail-safe? Was the piece of track equipment described in various reports as a "backhoe" actually working on the track, or was it off-track but improperly cleared? Some reports have suggested that it was sideswiped, not hit head-on.

Noted one industry observer: “A fully functioning PTC system would have a GPS receiver and data radio on every piece of railroad m/w equipment to indicate whether or not it has cleared the track so that the dispatcher can grant an authority for the train to proceed through the work zone.”

Added another: “Just like any other engineering system, PTC only works when used properly, meaning it is still necessary for a track gang to formally establish a work zone. It is not known if the workers were actually on track, where track should be out of service, or working under a fouling order. Prior to PTC, a track outage would have been protected by a stop barricade that is clamped to the rail and provides a positive shunt, which means even if a train is misrouted into the block, the most favorable signal it would receive would be a Restricting. The message here is that, in the "old days," with cab signals and positive shunt barricades, the work zone would have been protected.”

Was the work zone protected? Was the train operating at restricted speed? If it wasn't, why not? Only a thorough, time-consuming investigation will uncover the facts, the answers to questions like these as well as others that will undoubted arise. The NTSB and the FRA have investigators on the scene for this purpose.