Two male employees (ages 22 & 30) were fatally injured when they were struck by an Over-The-Road (OTR) tractor/trailer while working in a six man crew during the installation of snow plowable raised pavement markers (SPRPM) along the broken white line that separated the two west bound lanes of traffic on I-40 in the vicinity of mile marker 26.2 near Arlington.

It was confirmed the mobile operation on multilane road (MOMR) was stationary at the time of the incident and that the posted speed limit was 65 MPH for automobiles and 55 MPH for trucks. A & A Safety, Inc. had a six-man work crew assigned to the project along I-40 and several vehicles. There was a Saw Truck #90, Glue Truck #891, Truck-Mounted Attenuator (TMA) #SS147 (Shadow Vehicle 1), and early Warning Truck #SS116 (Shadow Vehicle 2). The Operator of the Glue Truck #891 and the SPRPM Installer at the Glue Truck #891 were the two fatalities.

On the day of the incident, the Saw Truck #90 was the lead vehicle of the MOMR. It was stationary in the right lane of I-40 westbound. It used its boom-mounted multi-head cutter to cut the reservoir in the pavement to the proper dimensions for the SPRPM. The Saw Truck #90 was fitted with yellow flashing lights and white work lights that were all operating properly.

The Glue Truck #891 was next in line and was approximately 160 feet behind the Saw Truck #90. It was stationary in the right lane of I-40 westbound. It used its boom- mounted compressed air nozzle to remove any debris from the reservoir with compressed air and deposits the epoxy adhesive in the reservoir from the boom- mounted epoxy adhesive nozzle. The compressed air nozzle and the epoxy adhesive nozzle were co-located on the same boom. The SPRPM was manually installed into the epoxy adhesive in the reservoir by a worker generally working in the vicinity of the rear of the Glue Truck #891. The Glue Truck #891 was fitted with yellow flashing lights and white work lights that were operating properly.

The Tennessee Highway Patrol SUV was next in line and was approximately 150 feet to 250 feet behind the Glue Truck #891. It was stationary in the right lane of I-40 westbound. The THP SUV was fitted with blue flashing emergency lights that were operating properly.

The TMA #147 (Shadow Vehicle 1) was next in line and was approximately 150 feet to 250 feet behind the THP SUV. It was stationary in the right lane of I-40 westbound. The TMA #147 (Shadow Vehicle 1) was fitted with yellow flashing lights, a lighted arrow board, an illuminated warning sign: Right Lane Closed, and a truck-mounted attenuator. The lighted arrow board was set up to direct traffic to merge to the left into the left lane of the interstate. The truck-mounted attenuator is device mounted to the rear of the truck and is designed to absorb the colliding vehicle's kinetic energy. The yellow flashing lights, the illuminated warning sign and the lighted arrow board were operating properly.

The Early Warning Truck #SS116 (Shadow Vehicle 2) was next in line and was approximately one-quarter mile behind the TMA #147 (Shadow Vehicle 1), and was at the tail end of the MOMR. It was stationary in the right shoulder of I-40 westbound. The Early Warning Truck #SS116 (Shadow Vehicle 2) was fitted with yellow flashing lights, a lighted arrow board, an illuminated warning sign: Right Lane Closed Ahead, and a truck-mounted attenuator. The lighted arrow board was set up to direct traffic to merge to the left. The yellow flashing lights, the illuminated warning sign and the lighted arrow board were operating properly.

A Tennessee Department of Transportation (TDOT) Inspector was assigned to the project. The TDOT Inspector's truck did not have a set, assigned location in the MOMR, but 'floated' along the length of the MOMR, usually in the right shoulder of I-40 westbound, to ensure the MOMR was in compliance with the Manual on Uniform Traffic Control Devices (MUTCD) and to ensure the SPRPMs were installed properly. The TDOT Inspector's truck was fitted with yellow flashing lights that were operating properly.

An OTR tractor/trailer was travelling in the right lane when it struck rear of the TMA #147 (Shadow Vehicle 1) and initiated the chain reaction collision with the vehicles in the MOMR. The first victim (Glue Truck laborer) was apparently standing in the westbound emergency lane (outside shoulder) near the right front of Vehicle 4 (Glue Truck) and was struck by the OTR tractor/trailer. The second victim (Glue Truck operator) was separated from the glue truck and struck as well.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

This investigation's findings and conclusions **do not support issuing any citations**. The operator of the OTR tractor/trailer did not comply with the illuminated warning signs and the lighted arrow boards on the Early Warning Truck #SS116 (Shadow Vehicle 2) and the TMA #147 (Shadow Vehicle 1). The OTR tractor/trailer did not merge to the left but stayed in the right lane. The OTR tractor/trailer initiated the chain reaction collision when the OTR tractor/trailer struck the rear of the TMA #147 (Shadow Vehicle 1).

Description: View of the Truck Mounted Attenuator #SS147 at the bottom of the embankment along the north side of I-40 and of the OTR tractor/trailer as it was being recovered.

