# CSX: Md. Train Explosion Caused by Chemical Cargo

BEN NUCKOLS & DAVID DISHNEAU, Associated Press

ROSEDALE, Md. (AP) — Train operator CSX Transportation on Wednesday pointed to a hazardous chemical in a rail car as the source of an explosion on a derailed train near Baltimore that sparked a fire, rattled homes and damaged buildings. A company spokesman said officials still weren't sure what caused the sodium chlorate to explode in the first place, but it ignited another chemical in a second car.

A fire burns at the site of a CSX freight train derailment, Tuesday, May 28, 2013, in Rosedale, Md., where fire officials say the train crashed into a trash truck, causing an explosion that rattled homes at least a half-mile away and collapsed nearby buildings, setting them on fire. **(AP Photo/Patrick Semansky)**

Robert Sumwalt, a member of the National Transportation Safety Board, said investigators were examining evidence on the scene and reviewing train video that shows the collision with a garbage truck that led to the derailment. The fire that followed sent a plume of black and gray smoke into the air that could be seen for miles.

On Wednesday afternoon, workers were using heavy cranes to move the damaged rail cars, and an excavator was picking up broken pieces of track. The mangled truck lay on its side on the side of the railroad tracks, its contents littering the ground. Next to the track, the corrugated metal walls of a warehouse were bent and warped.

Sumwalt said at a news conference Wednesday that the freight train was traveling 49 mph and that the engineer blew a whistle three times before it collided with the truck around 2 p.m. Tuesday. The whistle on the locomotive was first blown 17 seconds before the collision, Sumwalt said, and it was sounding at the moment of

impact.

Surveillance video and a camera mounted on the locomotive show that the garbage truck drove onto the tracks 3 seconds before it was struck. The truck was moving when the train collided with its right rear axle, officials said.

The train driver applied the emergency brakes, and the locomotive came to rest nearly a mile from the collision site, Sumwalt said. Smoke was visible 33 seconds after the collision, and flames were seen 10 seconds after that. But it was more than 5 minutes after the collision that the explosion occurred.

There is dense foliage on either side of the crossing, which is marked with signs but no flashing lights or moving barriers. Sumwalt said investigators would be looking into whether there were any obstructions that limited visibility for drivers using the crossing.

Of the 45 cars on the train, 14 were loaded and 31 were empty. Four were carrying hazardous materials, and of those, three derailed, Sumwalt said.

The chemical that first exploded, sodium chlorate, is highly volatile. The sodium chlorate was in powder form and was being hauled in a covered hopper car. Another chemical burned for nearly 10 hours after the crash.

CSX spokesman Gary Sease said the sodium chlorate was in a derailed car near the front of the train; the blast ignited terephthalic acid in another derailed car.

Sodium chlorate is used mainly as a bleaching agent in paper production. Oklahoma State University chemist Nick Materer said it could make for a potentially explosive mixture when combined with an incompatible substance such as spilled fuel.

Another chemist, Darlene Lyudmirskiy, of Spectrum Chemical Manufacturing Corp. in Gardena, Calif., said such a mixture would be unstable and wouldn't need even a spark to cause a reaction.

"If it's not compatible, anything could set it off," she said.

Sease said Wednesday that one of the cars that derailed was empty but might have contained residue of fluorosilicic acid. Fluorosilicic acid, a liquid, is a hazardous material that can produce toxic gases and vapors, according to a National Institutes of Health website. It is put in drinking water to prevent tooth decay and is used to preserve wood, harden ceramic and masonry, and treat animal hides, according to the NIH.

The railroad said in a news release Wednesday that it continues to work with state and federal environmental officials to "clean up products released in the derailment." The company said it is conducting air, water and soil sampling and sharing that information with officials.

Among the buildings that sustained the most damage was a training facility for a

plumbers and steamfitters union a few hundred yards away from the explosion site. Only a handful of employees were in the building at the time of the blast, and all but one rushed outside to see what had happened. They heard the crash first, followed by the derailment, then saw a plume of smoke.

Al Clinedinst, the training director for the facility, said he and a colleague drove closer to the derailment scene before the explosion to see if they could help, but they were turned back by the overwhelming heat.

"It was paint-bubbling hot," he said.

Then the explosion shook their truck.

"The blast, the force, it took the wheel out of my hands," Clinedinst said. "It really took a shot."

Sumwalt said late Tuesday that the collision occurred at a private crossing where the only marking was a stop sign, but he backtracked at a news conference Wednesday, saying the crossing was registered with the government and that the agency had to determine whether or not it was private.

The truck driver was hauling a load from his company's office near the tracks to a location in Baltimore about 6 miles away, the NTSB said. The driver has used that crossing frequently, Sumwalt said.

The driver, 50-year-old John J. Alban Jr., remained in serious condition Wednesday at Shock Trauma in Baltimore, a hospital spokeswoman said. Two CSX workers aboard weren't hurt.

Online court records show that someone named John J. Alban Jr., pleaded guilty in 2011 to using a handheld telephone while driving. The records also indicate that he pleaded guilty to failure to secure roll-on/off/hook-lift containers on May 9.

According to the records, Alban was again cited for the failure-to-secure containers charge on Saturday, three days before the train crash. The court records to not list a lawyer for Alban.

Baltimore County police did not immediately return a call seeking further information on the court records. NTSB spokesman Eric Weiss said late Wednesday that the agency is currently focusing on documenting the scene as rail cars and other evidence are moved and had not yet checked into driving records.

In addition to the NTSB, the Federal Railroad Administration is investigating the crash of the 45-car train, which was en route from Selkirk, N.Y., to Waycross, Ga.

Baltimore County spokeswoman Elise Armacost said it wasn't clear whether the truck driver would face charges.

The county's Public Safety Department said that county, city and CSX hazmat

experts did not believe the burning chemicals would produce toxic inhalants. But a National Institutes of Health website says oxidizers such as sodium chlorate may produce irritating, corrosive and/or toxic gases when burned.

Toxic inhalation hazards are a worry when trains carrying hazardous materials derail. They include chemicals such as chlorine, which killed nine people after a derailment of a Norfolk Southern train caused a release of the toxic gas in South Carolina in 2005.

In 2008, about 6 ½ years after a CSX derailment and fire in Baltimore's Howard Street Tunnel, the railroad agreed to provide real-time information to Maryland State Police on shipments of certain chemicals called "toxic inhalation hazards." The federal Transportation Department maintains a list of about 150 of these chemicals, all gases or volatile liquids that meet certain toxicity thresholds if inhaled. Sodium chlorate is not on the list. It is usually shipped in powdered form, Materer said.

The fire was called under control late Tuesday just before midnight, and the fire department remained on scene only in a supporting role.

CSX said in the Wednesday news release that it was preparing to begin work on the tracks once the NTSB completes its work. The railroad said customers should expect a 24- to 36-hour delay in rail traffic passing through the area, with some freight trains being rerouted. CSX has also set up a community outreach center at a Rosedale hotel to work with affected residents.

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AP writer David Dishneau reported from Hagerstown, Md.

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