



## Engineers in deadly Ontario train derailment 'misperceived' signals: TSB

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Officials from the Transportation Safety Board of Canada believe a deadly train crash near Burlington, Ont., occurred because crew members may have "misperceived" a signal telling them to proceed slowly due to the presence of workers on the tracks.

The TSB released a video animation Tuesday showing the moments leading up to the deadly crash of Via Rail train #92 on Feb. 26, 2012, and announced three new requirements to help prevent similar accidents in future.

The video shows the train passing a signal instructing the crew to approach the next signal at 15 miles per hour. The train then arrives at Aldershot station, where it stops for about seven minutes.



A person working at the VIA Rail derailment site walks past a passenger car off the tracks in Burlington, Ont., on Feb. 27, 2012. (Pawel Dwulit / THE CANADIAN PRESS)



Rob Johnston of the Transportation Safety Board attends a news conference in Burlington, Ont. on Tuesday, June 11, 2013. (Chris Young / THE CANADIAN PRESS)



Transportation Safety Board of Canada Chair Wendy Tadros speaks about the deadly VIA rail derailment in Burlington, Ont., Tuesday, June 11, 2013.

Upon leaving Aldershot, the crew was confronted with a signal that showed a red light over flashing yellow or green lights, which indicated the train should proceed at no more than 15 mp/h past the signal and through the approaching crossover, which would take them around a work crew on the tracks ahead.

That didn't happen -- possibly because the seven-minute delay interrupted the flow of signals, or simply because all three engineers "misperceived" the signal, TSB train derailment investigator Rob Johnston told reporters Tuesday morning.

"The train accelerates and the horn sounds as the crew sees the workers ahead," Johnston said, describing what took place after the locomotive left the Aldershot station.

"The train should be travelling at 15 mph approaching the crossover; instead it approaches at 67. Due to the excessive speed, the locomotive derails, flips to its side, slides down the embankment and collides with the building."

Johnston acknowledged that investigators will never know for sure why the train was travelling at such a high rate of speed.

"Three people misperceived what was out there," he said.

According to TSB Chair Wendy Tadros, crew members on Vail Rail train #92 might have misperceived the signals for a number of reasons:

- Engineers were expecting to go straight through the crossover as they do "99 per cent of the time," Tadros told CTV's Power Play on Tuesday. "That expectation is a very strong cue."
- Crews might have been distracted by the work crew ahead of the train.
- Crews might have misinterpreted the lights and only read the bottom two. "If they did that...that would have told them to go ahead at track speed," Tadros said.

Tadros called for the following three changes to prevent similar crashes in the future:

- An "automatic, fail-safe way of stopping trains" should be implemented, meaning that even if engineers fail to apply the brakes, the train's automatic system will kick in to slow the locomotive or bring it to a stop. Similar systems are in place in parts of the U.S., the U.K., France and elsewhere, she said. "Canada is lagging behind in terms of implementing those (systems)," Tadros said. "In the United States on Amtrack, they've had such a system for over 60 years."
- In-cab video cameras and voice recorders should be installed, so that investigators probing the cause of a crash have more information about the final moments and what went wrong leading up to the accident: "Without having in cab video recording or voice recording there's absolutely no way for us to know what happened in that cab," Johnston said.
- Crash effectiveness standards should be applied not just to new locomotives, as they are now, but also to older and refurbished trains such as the one involved in the crash. Under current regulations only new locomotives are tested for crash safety effectiveness.

According to the president and CEO of the Railway Association of Canada, these recommendations have the full support of railway workers.

"From our membership standpoint, we're very anxious to install these devices in locomotives, in particular for mainline freight locomotives," Michael Bourque told CTV News Channel on Tuesday. "We want to put them in and we want to use that technology to prevent accidents."

In a statement released on Tuesday, Via Rail said prior to last year's fatal crash, they had begun installing outward-facing video cameras on its fleet trains. "VIA Train 92 had not yet been equipped with an outward-facing camera. However, that work will be completed on the entire fleet, early in 2014."

The statement also explained that following the crash, Via Rail management had begun the work necessary to introduce voice recording devices inside its locomotives. This work is expected to be completed sometime in 2014.