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## **Crossing Guard**

As the crossing arm slowly lowers and the blinking lights heed caution, motorists patiently—and sometimes not so patiently—wait for a train to make its way through Fort Collins.

A burden, perhaps, but it's something that residents come to accept. The loud and recognizable horn announces the train's arrival and can be heard from businesses and homes throughout the city. On any given day, trains come and go through the middle of Old Town, passing by the courthouse, city buildings, banks, restaurants and the university.

Beyond the noise and traffic delays, the trains can be more than a nuisance. It's often the unknown that is the greatest threat. Packed inside the trains, cargo that is regularly hauled across the United States has the potential to spill out danger or even death, should an accident ever happen.

The problem: It's hard to say exactly what each train carries as it passes through. Though the train cars are marked with placards, there's really no way for city officials or emergency personnel to track what travels on the tracks. The reality: It's common for hazardous material, including flammable gases and liquids, to be hauled by train along Fort Collins streets.

Some of the most common chemicals shipped by train include chlorine and anhydrous ammonia, which are classified as toxic or poison inhalation hazards.

"Hazardous materials are always a serious concern," said Mike Gavin, emergency manager for Fort Collins and battalion chief with Poudre Valley Fire Authority. "It's out there. It's not like a tornado where you have to wait for the weather to be just right. The material is there, you just have to wait for an accident to occur. Right now, because of the track record and safety, that risk is not a high risk. It's a good thing."

This issue, though, is something that has weighed on the minds of many Fort Collins residents for a while. Last August, the issue was one of several discussed by a resident task-force group formed by Fort Collins city government. Because trains are regulated by federal law and have the right of way, local government can do little. The study ultimately concluded the trains are here to stay.

However, a new rule recently passed by the U.S. Department of Transportation is requiring railroad companies to give a closer look at hazardous materials and the ways in which they are transported.

"I'm pleased the federal government and the railroads are looking at these issues, because with the tracks running right through the center of Fort Collins, it's always a concern," said Mayor Doug Hutchinson. "I will be interested to hear what they find. Their findings should give a good idea of the extent of the problem and what needs to be done."

The new measure, which went into effect June 1, requires railroads "to conduct a comprehensive safety and security risk analysis of its primary route and any practicable alternative routes over which it has authority to operate." The analysis will look at 27 risk factors, which include trip length, volume and type of hazardous materials being moved, population density, and existing safety measures. The Federal Railroad Administration will begin enforcing the new rule July 1 and will require the railroads to complete initial risk and route assessments by September 2009.

Warren Flatau, FRA's spokesperson, said the administration will review the risk analyses and has

regulatory authority to direct the railroads to use an alternative route if needed. He added that many of the railroads are already doing such analysis on their own. In some cases, no alternative routes exist.

According to FRA, railroads carry more than 1.7 million shipments of hazardous materials annually, including millions of tons of explosive, poisonous, corrosive, flammable and radioactive materials. While most of these materials are transported safely, past accidents were a driving factor behind the new rule.

One of the most disastrous accidents occurred in Graniteville, S.C., in 2005 when a Norfolk Southern train collided with a parked train, causing both locomotives to derail and a tank car loaded with chlorine to rupture, killing nine people.

The FRA and the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration devised a comprehensive review of design and operational factors and developed the rule to improve survivability of such accidents.

While some people argue that trains should be rerouted out of all urban areas, Flatau said that isn't practical. It doesn't take into account where the commercial or manufacturing industries are located.

Steve Forsberg, Burlington Northern Santa Fe Railway spokesperson, said no matter what the routing option is, there are inevitably going to be hazardous products traveling through cities. For this reason, railroad companies look for the safest options available, he said. Transporting sensitive material is a necessity and happens whether by train, truck or plane.

"I'm not aware of a rail line in the world that doesn't run through a community," he said. "Railroads are far safer means of moving any product than by highways. There are far fewer accidents."

According to Forsberg, derailments and collisions have decreased by 70 percent since 1980. Beyond that, federal law requires railroad companies to transport certain materials, and for this reason, railroad companies have pushed industries to explore safer options to replace the use of hazardous chemicals.

"The other issue that people are not aware of is only three-tenths of 1 percent of the products railroads haul are hazardous materials of the greatest concern," Forsberg said.

In other words, most cargo is not a hazard.

In addition, he pointed out that several everyday household products like batteries, paint or perfumes are marked as hazardous when transported by train because of the bulk quantities.

Though it is too early for him to predict any specific outcomes of the security risk analysis, he said the track from Denver to Cheyenne—which runs through Fort Collins—is one of the least traveled BNSF rail routes.

"In terms of safety and security, obviously we want the most secure routes possible," he said.

When Fort Collins conducted the train study last year, the main issues were noise, frequency and speed of trains, times and length of time when intersections were blocked The task force also studied the hazardous materials component.

At times, rail cars that contained hazardous materials have sat on the tracks for an extended period, Gavin said. Because of the ethanol plant in Windsor, Great Western cars that carry ethanol would periodically park on Riverside Avenue. He said this issue has since been addressed.

The other major challenge PFA faces is not knowing what comes through the city on a day-to-day basis. Gavin said Burlington Northern has worked with PFA, and has provided tools and training on how to assist in the event of a hazardous spill. Each railroad company has its own hazmat team, which local agencies would assist in an emergency.

"On the prevention side, we do as much as we can to understand what's being transported," he said.

However, if an emergency occurred, the fire department would likely not know what chemicals were involved until arriving on scene. Each train is required to carry documentation about its cargo.

Gavin said emergency responders try to take note of what passes through by reading the placards, but they do not do this on a daily basis. He said he hopes the new guidelines will help make information more readily available.

Flatau said this is something that is already improving. He said elected officials can now request a list of the top 25 hazardous materials that pass through the community on an annual basis. He also mentioned a pilot program where chemicals are tracked real time on an electronic system, which emergency management would be able to access. At this point, Fort Collins does not have access to a system like this.

For now, Gavin said he tries to be proactive and consider methods of prevention. The idea of relocating the tracks so they do not pass through the center of the city is still a pie-in-the-sky dream for those who see the trains as a problem.

"In reality, we are likely to see exactly what's going on continue," he said. "It would cost millions and millions of dollars (to relocate the tracks). I just don't see it occurring. The only thing we can do is make sure the preparedness side is in place."

Mayor Hutchinson said the city has looked at the possibility of relocation, but that it is a \$1.5 billion problem, and one that isn't feasible. After all, the trains were here long before much of the city. Fort Collins' first growth spurts came about because of the railroads.

The first railroad reached Fort Collins in 1877, when the Colorado Central railroad decided to extend its lines north of Longmont to a connection with the Union Pacific mainline west of Cheyenne.

The Fort Collins Board of Trustees wanted to be sure the railroad would not bypass the town. In June of that year, they gave the railroad a right-of-way north-south along Mason Street. The rails came in September of that year, prompting a growth spurt in the town. As growth continued though, the railroads became more of a hindrance, leading to thoughts of relocation.

And the idea of relocating train tracks isn't new or specific to Fort Collins. In fact, the Colorado Department of Transportation conducted an arduous public benefits and costs study in 2005 that looked at the possibility of relocating the railroads to the Eastern Plains. In mid-April, the Colorado Department of Transportation announced the Colorado Rail Relocation Implementation Study, which is an extension of the first study.

Bob Wilson, CDOT spokesman, said the focus is to identify what steps would be needed and how the cost would be shared between the public and private industry. The area being studied includes Denver to Pueblo along the Front Range corridor, but does not extend up to Fort Collins. Wilson said a project of this magnitude is years in the making but could eventually lead to similar projects.

To Hutchinson, any awareness or additional studies are steps in the right direction. For this reason, he was glad to hear about the new FRA rule.

"If there is a well-defined problem, this could be a step toward us asking the federal government for help," he said. "It's something I will be looking at closely. I don't have great hope that it would happen, but anything can happen when the federal government is involved."

## **Rail Risk Analysis Factors**

Minimum criteria that must be considered by rail carriers when conducting safety and security risk analysis.

- 1. Volume of hazardous material transported
- 2. Rail traffic density
- 3. Trip length for route
- 4. Presence and characteristics of rail facilities
- 5. Track type, class and maintenance schedule
- 6. Track grade and curvature
- 7. Presence or absence of signals and train control systems along the route
- 8. Presence or absence of wayside hazard detectors
- 9. Number and types of grade crossings
- 10. Single versus double track territory
- 11. Frequency and location of track turnouts
- 12. Proximity to iconic targets
- 13. Environmentally-sensitive or significant areas
- 14. Population density along the route
- 15. Venues along the route (stations, events, places of congregation)
- 16. Emergency response capability along the route
- 17. Areas of high consequence along the route
- 18. Presence of passenger traffic along route (shared track)
- 19. Speed of train operations
- 20. Proximity to en-route storage or repair facilities
- 21. Known threats, including any non-public threat scenarios provided by the Department of Homeland Security or
- the Department of Transportation for carrier use in the development of the route assessment
- 22. Measures in place to address apparent safety and security risks
- 23. Availability of practicable alternative routes
- 24. Past incidents
- 25. Overall times in transit
- 26. Training and skill level of crews
- 27. Impact on rail network traffic and congestion

Source: Federal Railroad Administration