

# HIGH ALERT:



## Workers Warn of Security Gaps on Nation's Railroads



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In the wake of 9/11 and more recent bombing attacks in Madrid and London, the nation's elected officials and law enforcement agencies are only beginning to understand the vulnerability of the nation's rail network to terrorism.

A Teamsters Rail Conference survey provides the only known worker-generated study of day-to-day security measures in place on U.S. rails. Workers' experience on the frontlines reveals that rail carriers have done little in the face of clear and present danger.

Completed by members of the Brotherhood of Locomotive Engineers and Trainmen (BLET) and the Brotherhood of Maintenance of Way Employees Division (BMWED) – the men and women who work on nation's Class I, regional, short line and commuter railroads – the workers' survey responses reveal a disturbing picture.

Rail workers evaluated safety and security measures in place on any one workday during the survey period. Members from 46 states and employed by 34 railroads (more than two-thirds of the responses regarding the nation's top four carriers) completed 4,034 surveys.

Despite warnings from the FBI that the rail network is a likely target of al Qaeda, workers' responses reveal a network where security efforts have largely been left to the discretion of rail corporations, whose primary interests appear to be guarding profit margins – not people.

Said one CSX maintenance of way worker from Ohio: "Not enough is being done with respect to terrorism on the railroad. It's just business as usual."

In the Safe Rails/Secure America Survey, part of a broader effort to strengthen safety and improve security along the nation's 230,000 miles of track, workers report:

- A disturbing lack of security along the railroad tracks and in rail yards across the country;
- Rail corporations' growing dependence on remote control technology to replace experienced engineers, the "eyes and ears" in the event of a crisis – even when freight trains are carrying hazardous materials;

**“Terrorism could happen anytime, anyplace on the railroad.”**

–IOWA BURLINGTON  
NORTHERN SANTA FE RAILROAD EMPLOYEE

- Minimal security training for employees who have been warned that they could be the target of a terrorist attack; and
- A startling disinterest by rail corporations in improving security along the rails at points of vulnerability, including locomotives, tracks, bridges and tunnels.

### **High Alert: Workers Warn of Security Gaps on the Nation's Railroads** provides basic,

common-sense requirements and more complex procedures to ensure that the employees who work on the nation's railroad and the residents who live near them are indeed safe and secure.





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A September 2002 Norfolk-Southern train wreck in Farragut, Tennessee, spilled sulphuric acid, requiring the evacuation of 3,000 people in a one-mile area around the derailment – including those in the neighborhood just across the road from the crash.

**Engineers report that there's no distress code or signal ... to alert authorities of a crisis, even as they pass through or work in rail yards close to schools, government buildings and densely populated areas.**

**I**n a period of heightened national security, marked by bombing attacks on mass transit and color-coded terrorism alerts, consider the troubling picture painted by workers of America's railroads:

On any given day, freight trains laden with cargo – sometimes with hazardous chemicals – sit along the nation's rail lines, unmanned and idling. Trespassers wander unencumbered through U.S. rail yards or along the right of way where locomotives, their cargo, and other critical pieces of equipment are free for the taking. Rarely, the workers report, are rail police visible.

Engineers usually have no backup – no other engineer on board to assist or relieve them in an emergency, or in the worst possible case, a hijacking. Those same engineers report that there's no distress code or signal on board – other than the railroad radio – to alert authorities of a crisis, even as they pass through or work in rail yards close to schools, government buildings and densely populated areas.

In short, workers say, America's rail lines appear one step shy of disaster.

"Terrorism could happen anytime, anyplace on the railroad," said a Burlington Northern Santa Fe (BNSF) railroad worker from Iowa.

As Americans debate and examine the nation's post-9/11 security, an exercise made frighteningly necessary by recent deadly attacks on Madrid's and London's passenger rail systems, serious questions regarding the safety and security of the U.S. rail system remain unanswered and serious flaws go uncorrected – leaving the American public vulnerable.

There is enormous gravity to the quest to assess rail security: Millions of tons of hazardous materials are shipped annually "by rail in the United States across the rail network, which extends through every major city as well as thousands of small communities," according to a U.S. General Accounting Office (GAO) report. Those hazardous materials, says the Department of Transportation (DOT), are potential weapons of mass destruction, and as such, are likely targets for terrorism.



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Still, experts and workers on the rail lines say there is little evidence that the rail system has undergone serious, meaningful change since 9/11.

“There has been no wake-up call for rail security,” said Fred Millar, Ph.D., homeland security consultant to the D.C. City Council, in a report on rail security for the Center for American Progress. “Except for marginal improvements in physical security, there have been no major operational changes in response to the on-going risk of terrorist attacks against major cities and our national transportation infrastructure.”

Instead, rail corporations have responded to serious security concerns with cost-cutting measures and downsizing – strategies that workers say leave the rail system more susceptible to attack.

### No Clear Picture

Forming an accurate picture of the state of security on the rails is a complicated – if not impossible – process.

Data gathered by the federal agencies responsible for oversight of the rail system – the Federal Railroad Administration (FRA), a modal administration of the DOT, and the GAO – is automatically suspect.

The FRA has fewer than 450 inspectors responsible for overseeing more than 230,000 miles of track in the U.S., according to the DOT's former Inspector General, Kenneth M. Mead. The federal government requires the rail corporations, who own the vast majority of the nation's railroad infrastructure, to report their own violations.

In essence, the corporations are responsible for policing themselves, and have earned a reputation for under- or inaccurately reporting violations and accidents, including those involving hazardous materials.

Even routine domestic statistics have proved unreliable.

“Railroads have also broken federal rules by failing to promptly report hundreds of fatal accidents, 71 of them (in 2003), denying federal authorities the

**“Money drives this railroad.  
Security costs money.  
What do you think is going on?”**

Michigan Norfolk Southern worker

chance to investigate them when evidence is fresh and still available,” reports the New York Times, in a July 11, 2004 article, part of a Pulitzer prize-winning series on rail crossing disasters. “Enforcement of these rules is so lax that federal officials said they were not even aware of the reporting problems.”

Workers suspect that the rail corporations' lax attention to safety and security is motivated by profit margins.

“Money drives this railroad,” said one Michigan Norfolk Southern worker. “Security costs money. What do you think is going on?”

“(BNSF) is not going to increase security because it would cost money,” said another worker from Illinois. “Even though they had record profits, it will not happen unless they are forced.”

### Safe Rails/Secure America Survey

A Teamsters Rail Conference survey of rail workers, the men and women who work on nation's Class I, regional, short line and commuter railroads, helps fill in the gaps in the data and provides a rare but vital glimpse into the real-life rail safety and security issues in the U.S.

The survey asked members of the Brotherhood of Locomotive Engineers and Trainmen (BLET) and the Brotherhood of Maintenance of Way Employees Division (BMWED), divisions of the International Brotherhood of Teamsters (IBT) Rail Conference, to evaluate safety and security measures in place on any one workday during the survey period.



**Virtually all officials agree that the railroads are a convenient – and potentially deadly – target.**

The result: Members from 46 states and employed by 34 railroads, completed 4,034 surveys, providing the only known worker-generated study of day-to-day security on the U.S. rail system.

The survey group was divided according to craft. The BLET is comprised of locomotive engineers, trainmen and conductors. The BMWED is made up of track workers, bridge and building employees and electric traction workers.

Surveys were completed in two separate time frames, the BLET between July 17, 2004 and January 5, 2005, and the BMWED between December 10, 2004 and June 3, 2005. While both groups answered five common questions, each group also responded to queries specific to their respective crafts.

In short, the workers' responses reveal:

- A disturbing lack of security along the railroad tracks and in rail yards across the country;
- Rail corporations' growing dependence on remote control technology to replace experienced engineers, the "eyes and ears" in the event of a crisis – even when freight trains are carrying hazardous materials;

- Minimal security training for employees who have been warned that they could be the target of a terrorist attack; and

- A startling disinterest by rail corporations in improving security along the rails at points of vulnerability, including locomotives, tracks, bridges and tunnels.

### Backdrop for Crisis

The release of the Teamsters Rail Conference survey of American rail workers takes place as the nation grapples with grave security concerns.

Four years after the 9/11 attacks on the World Trade Center and the Pentagon, and more recently, the bombings of passenger trains in Madrid and London, the American public and its elected officials continue the quest to thwart terrorism at home.

Virtually all officials agree that the railroads are a convenient – and potentially deadly – target. In the GAO's March 23, 2004 report, "Rail Security: Some Actions Taken to Enhance Passenger and Freight Rail Security, but Significant Challenges Remain," the GAO concedes: "The freight rail system's extensive infrastructure crisscrosses the nation and extends beyond our borders to move millions of tons of freight each day ... The extensiveness of the infrastructure creates an infinite number of targets for terrorists."



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Surface transportation systems were the target of more than 195 terrorist attacks from 1997 through 2000, according to data from the Mineta Transportation Institute (MTI), established by the U.S. Intermodal Surface Transportation Efficiency Act of 1991.

In its "Targets of Attacks on Public Surface Transportation Systems Worldwide," the MTI shows that 22 percent of those attacks were directed at subways and trains, 10 percent at subway and train stations, and another one percent at bridges and tunnels, a total of one-third of all attacks involving portions of the rail system.

Despite clear warning that U.S. rail lines – most often shared by passenger and freight trains – are likely targets, the federal government continues to contribute a widely disproportionate share of security funding to airline security while all but ignoring the railroad system. Since 2001, the federal government has spent nearly \$20 billion on aviation security while spending just \$250 million on the nation's rail and transit systems.

The Transportation Security Administration (TSA), to which the FRA has virtually ceded authority for rail security, has devoted 90 percent of its budget (\$4.6 billion in 2005) to airline security, leaving a total

**Since 2001, the federal government has spent nearly \$20 billion on aviation security while spending just \$250 million on the nation's rail and transit systems.**

of \$32 million for all other modes, including truck, bus, port, pipeline, transit and rail.

Instead, the government has allowed the rail carriers to chart their own course with regard to security. Though the companies assert that they have spent a significant amount to upgrade security along the nation's rail lines – the Association of American Railroads (AAR) reports \$100 million spent by railroads on security patrols, surveillance and hazardous shipment tracking – there is no way to confirm the accounting.

Ironically, Edward R. Hamberger, President and Chief Executive of the AAR, which represents the rail industry, claims revealing the industry's efforts to bolster security would somehow compromise it. In a January 12, 2005 op-ed piece in USA Today, Hamberger writes, "Indeed, far more has been done to enhance railroad-industry security since 9/11 than is generally known. And that is as it should be, since revealing all such actions would compromise those very measures."

Despite Hamberger's claims, workers, who would be charged with carrying out a rail corporation's new security policies, cannot point to any dramatic changes in railroad operations in response to heightened security concerns, according to their responses to the Safe Rails/Secure America survey.



*A deadly January 2005 crash in Graniteville, South Carolina helped focus public attention on serious rail safety and security issues, including the transportation of hazardous materials*



**“I personally observed five loaded chlorine tanks left unattended.”**

—Florida CSX worker

One might expect, however, that the industry would reveal its specific actions to the federal government, if not to the workers. But even the GAO expresses frustration in determining the true state of security on the rails.

In its March 23, 2004 report, the GAO said, “Some security challenges are common to passenger and freight rail systems, such as the funding of security improvements, the interconnectivity of the rail system, and the number of stakeholders involved ... Government agencies at the federal, state, and local levels and private companies share responsibility for rail security. The number of stakeholders involved ... can lead to communication challenges, duplication and confusion.”

### **Moved to Action**

Prompted by a growing public awareness of the rail system's vulnerability and the outrageous disparity in security spending, the nation's elected officials – at federal, state and local levels – have begun to cry “foul” and demand that rail security receive much-needed attention and funding.

The U.S. Conference of Mayors has asked railroads to notify local emergency officials of shipments of hazardous materials. The Centers for Disease Control and Prevention (CDC) recommended that hazardous rail shipments be rerouted around densely populated areas. One piece of proposed federal legislation would require shippers to retire old pressurized tank cars carrying compressed gases after 15 years. Another would require electronically monitored switches to replace non-monitored manual switches that control the path of trains along 40 percent of the nation's railroad tracks, now ominously called “dark territory.”

Each proposal, each introduction of new legislation, is prompted by a growing concern that the rail industry, deregulated in 1980, has failed to properly police itself. And in almost every case, the rail industry has balked at the recommendations citing financial concerns.

But a review of GAO reports on oversight of the rail industry since 1975 shows that there is cause for deep concern and a real need for change. GAO reports reveal 30 years of recurring themes: The FRA's flawed enforcement of safety on the rail lines; the need for improvements in the transportation of hazardous materials; a lack of accountability from rail corporations; a flawed system for reporting safety violations; and underreporting of injuries and accidents.



## Tales from the Front Line

Reports from rail workers, whom the AAR calls its “eyes and ears” in security efforts, poke gaping holes in industry claims that security has undergone improvement.

Results of the Safe Rails/Secure America survey, though not intended to provide a scientific analysis, compile 4,034 perspectives of the rail industry’s day-to-day operations and paint a troubling picture of a rail system riddled with safety and security vulnerabilities.

### Key Findings

#### ALONE AND WEARY

**Q: Was there another certified engineer available to assist or relieve you in case of emergency or hijacking?**

**A: No, 87 percent**

**Q: How many hours did you work today?**  
(Include time on train waiting to be relieved.)

**A: 10.2 average**

Results of the Safe Rails/Secure America survey show that not only are America’s rail crews working long, irregular hours, but they are doing it alone – a trend largely attributable to cost-cutting measures by the nation’s rail carriers.

“Short help due to manpower shortage,” said one CSX employee from Florida. “I continue to work with barely adequate (hours of service) rest.”

In 1985, the National Transportation Safety Board (NTSB) recognized that railroad crews endure the most unpredictable work schedules in the transportation industry. Despite nearly a century of studies, surveys and public discussion, the situation remains largely unchanged.

Locomotive engineers, trainmen and conductors, members of the BLEET, reported that they had worked an average of 10.2 hours on the day they completed their Safe Rails/Secure America surveys – within the 12-hour maximum mandated by the federal Hours of Service laws – a reflection of the protection afforded

**“Short help due to manpower shortage. I continue to work with barely adequate (hours of service) rest.”**

Florida CSX employee

workers because of their union’s advocacy for federal safety legislation.

The law also requires that the work period be followed by at least eight hours off duty. In short, the law allows that workers can complete one full 12-hour workday and begin yet another in the same 24-hour period.

And therein lays the true problem: Travel time to and from home is included in the rest period, cutting into the actual time engineers, trainmen and conductors may sleep. Further, a 1996 Supreme Court decision on ‘limbo’ time has allowed carriers to leave rail crews on trains for extended periods after they’ve exceeded their hours of service: Some crews have been left in “limbo” for 12 hours.

Said one Duluth, Missabe and Iron Range worker from Minnesota: “We all work twelve hour days every day, seven days a week, sometimes (running out of work hours) one to two hours away from the yard. Translates into 13- to 14-hour days. Too much.”

The results of such a schedule can be catastrophic.

Fatigue was the focus of the NTSB investigation into a deadly June 28, 2004 train crash in Macdona, Texas, near San Antonio, in which three people, including a train conductor, died from a chlorine gas release.

According to the NTSB, the accident occurred when a Union Pacific (UP) freight train struck a BNSF train, resulting in the derailment of four locomotives and 35 cars. A two-mile radius surrounding the crash site was evacuated, and 40 people, including the UP engineer, were treated at area hospitals. Preliminary property damage and environmental cleanup was estimated at \$7 million.

According to the Associated Press (AP), the UP train engineer had worked an exhausting schedule in the days prior to the crash.

“On the Friday before the accident, (the engineer) started work at 5:50 a.m. and was released from duty at 4:15 p.m. He started again that night at 2 a.m. and was finished at 3:30 p.m. on Saturday. Eight hours later, he was back at work, finishing up at 12:30





p.m. on Sunday, only to return at 2:45 a.m. the morning of the accident,” the AP reported.

Still, according to FRA testimony to the NTSB, the engineer was legally rested. Rail workers and their union representatives say that rail corporations hide behind the legal nuances in cases where fatigue may play a role in an accident investigation.

“I cannot understand why a locomotive engineer, or other train crew member, is permitted to work more than four times longer than an airline pilot,” said Jim Hall, former chairman of the National Transportation Safety Board, during an AAR conference in San Antonio. “They are operating trains weighing 8,000 tons which can contain any number of hazardous materials, and, of course, operating those trains past the towns, neighborhoods, and schools of our nation.”

**“While trains are in the Forsythe yard waiting for crew changes, they are left unlocked and running (and) could easily be hijacked.”**

—Montana Burlington Northern Santa Fe (BNSF) worker

### OPEN AND ACCESSIBLE

**Q: Did you see any trespassers in the yard or along the right of way today?**

**A: Yes, 24 percent**

**Q: Did you notice other running trains or equipment left unattended in a yard, siding or along the right of way?**

**A: Yes, 54 percent**

**Q: Was equipment access secure today?**

**A: No, 90 percent**

**Q: Was your train or equipment delayed or left unattended for an extended period of time prior to or during your tour of duty?**

**A: Yes, 63 percent AND**

**Q: If yes, were there hazardous materials on board?**

**A: Yes, 55 percent**

**Q: Can you secure the cab against unauthorized access while occupied?**

**A: No, 56 percent;**

**Q: While unoccupied?**

**A: No, 89 percent**

One terrorist and one train hauling one pressurized tank car of chlorine could cause a catastrophe in any major metropolitan area. But over the course of the Safe Rails/Secure America survey period, workers reported seeing trespassers on 984 occasions – 984 opportunities for disaster.

The number of trespassers reported by workers is no anomaly. Their reports are supported by FRA data that indicates 2,981 trespassers on rail property were killed or injured between 2002 and 2005. No one can guess how many trespassers go unnoticed.

“There are a lot of illegals riding the trains,” said one UP maintenance of way employee in Arizona. “They get on and off at sidings, crossings and control points.”

Rail employees say the process for reporting trespassers is often an exercise in futility. “Reporting trespassers to officials goes nowhere,” said one UP worker from Nevada: “Good plan, no response.”

Further, they say that the railroad’s increasing use of subcontractors make it difficult to identify those who belong in the nation’s rail yards and those who have gained access with ulterior motives: “There are so many contractors on (the) property I can’t tell who belongs and who doesn’t,” said a UP worker from Texas.

The potential for danger from trespassers grows exponentially in light of easy access to running trains or equipment all along the rails. Rail workers reported seeing 2,155 running trains or equipment left unattended in rail yards, sidings or along the right of way over the one-year period. The majority of engineers and trainmen report that locomotive cabs cannot be secured, whether occupied or unoccupied, raising fears of hijack or theft.



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Some locomotives are left running for viable reasons: Shutdowns at each and every stop would interfere with the trains' airbrake and generator systems.

Rail corporations say running, unattended trains in rail yards or sidings are not uncommon – or cause for concern – though some workers believe they invite trouble: “While trains are in the Forsythe yard waiting for crew changes, they are left unlocked and running (and) could easily be hijacked,” said one BNSF worker in Montana.

But trains left unattended and idling along the right of way raise significant security concerns and can be tied to rail corporations' downsizing and reliance on a reduced workforce. Too often, unattended, running locomotives are the result of a delay between the termination of a rail crew's hours of service and the arrival of a relief crew.

“On most locomotives used in our company, the operating instructions are posted on the control panel,” said a CSX engineer. “Smart!”

“It is not unusual for a train crew to “die” (finish the maximum hours of service) on the mainline,” said one DM & IR worker from Minnesota. “The crew will be retrieved and the engine left running, waiting for a relieving crew.”

Though federal safety officials and rail corporations rightly assert that stealing a freight train is not as simple as turning a key and pressing a gas pedal, some workers say rail corporations provide a how-to guide to any trespasser: “On most locomotives used in our company, the operating instructions are posted on the control panel,” said a CSX engineer. “Smart!”

More than half the workers surveyed who saw running, unattended locomotives, 55 percent, said the trains were hauling hazardous materials – deadly agents like chlorine that, if released, could kill people as far as 15 miles away, according to the pamphlet “Estimating the Area Affected by a Chlorine Release,” issued by the Chlorine Institute.

Furthermore, hazardous materials can sit unattended for up to 48 hours, according to DOT regulations, providing a wide window of



opportunity for those with ill intent.

Workers' reports regarding unattended trains and equipment access are sometimes chilling, and expose freight trains' extreme vulnerability to attack or hijack:

- “With trains stopped everywhere, it would be easy for someone to walk up to the train with all open ranges and miles of track,” reported a UP worker from Arizona.
- “Unlocked cabs on running locomotives,” reported an Iowa, BNSF worker. “Controls left in cab.”
- “I worked 23 hours straight and (saw) locomotives by the (right of way) running and no one in them the whole time,” reported a Maryland, CSX worker.
- “Not only did we observe running, unmanned engines, two of the three were unlocked on mainline sidings,” reported one Norfolk Southern worker from Tennessee.
- “On the eve(ning) of September 9, 2004, I personally observed five loaded chlorine tanks left unattended on a rattle snake spur,” reported one CSX engineer from Florida.
- “Coal trains are being left open for days at a time in north Topeka before crews are called for them,” said a Union Pacific engineer from Kansas.



Freight and commuter railroads often share or run on parallel track, posing serious concerns for passengers. In a fatal January 2005 accident in Glendale, California, a Metrolink commuter train struck a vehicle, derailed and sideswiped a freight train.

**“Anyone can enter. The yard has a lot of crime take place in it. I assume a terrorist wouldn’t have any problems here.”**

—New Jersey Amtrak worker

Though the rail industry and federal safety and security officials say the practice of leaving unattended trains running on the right of way is common, others question its safety at a time of heightened sensitivity to potential terrorist attacks.

Two days after the July 7 bombings on the London underground, while San Diego police were on heightened alert for possible terrorist activity, officers discovered a 44-car BNSF freight train parked in the middle of the city, according to the San Diego Union-Tribune.

Police Sgt. Kerry Tom told the Union-Tribune that the train’s crew had left a note: “We’ve worked our maximum allotted hours and we took a taxicab home.”

“It’s common practice to leave trains idling,” Steve Kulm, a spokesman for the FRA told the Union-Tribune, explaining that rail workers must stop working after 12 hours. “There is no federal requirement that crews must stay until they are replaced,” the Union-Tribune reported, though federal law does prescribe specific steps for securing unattended trains.

Railroad spokeswoman Lena Kent discounted the concerns of law enforcement in her comments to the Union-Tribune, saying that no one would have been interested in the story had the London bombings not occurred two days prior.



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“(I) have not seen a railroad cop in a month.”

—Pennsylvania Conrail worker

#### RAIL POLICE? WHAT RAIL POLICE?

**Q:** Was there a visible rail police presence in the yard today?

**A:** No, 96 percent

**Q:** Was today a heightened terrorist alert day?

**A:** Did not know, 55 percent;  
Yes, 6 percent

**Q:** If yes, were there additional security personnel on duty in the yard or on locomotive?

**A:** No, 93 percent

Throughout the nation's rail system, workers report a virtual absence of rail police – in rail yards, at sidings, and along the right of way, even when hazardous materials are present.

Often, rail workers say, rail police are based many miles away – too far to help in a crisis. Further, they report that one officer is forced to cover an untenable, unrealistic amount of territory.

Norfolk Southern Police Department's website says corporate downsizing has led to the decrease in rail police staffing, leaving fewer than 2,300 police officers in North America – just one railroad police officer to patrol roughly each 100 miles of track. AAR reports to the GAO suggest the numbers at “over 1,000 police officers,” suggesting that railroad police may be required to patrol even more.

The Norfolk Southern Police Department website suggests that the reduction in railroad police is a positive development: “Corporate streamlining has resulted in more efficient rail operations, which has led to the downsizing of employee populations of railway companies, thus reducing the number of railroad police officers.”

Workers, however, see the reduction as a threat to public safety.

“Hunter Yard is not protected,” said an Amtrak



Rail workers say the infrastructure of the rail network is vulnerable, providing opportunity to terrorists. Rail crossings, some say, are particularly susceptible to attack, citing a frightening number of deadly crashes. In May 2003, a truck driver was killed and an Amtrak engineer critically injured when the train collided with a lumber truck in Hinesville, Georgia. The train carried 150 passengers and 14 crew members.

employee from New Jersey. Amtrak lines are often shared or run parallel to the nation's freight lines. “Anyone can enter. The yard has a lot of crime take place in it. I assume a terrorist wouldn't have any problems here.”

“Amtrak police are based out of (New York City), 76 miles away. They send one car, per shift, to cover the 76 miles,” added another Amtrak worker from New Jersey. “Anyone can access our railroad almost anywhere they want and do whatever they want.”

In many cases, un- or loosely-guarded hazardous materials in rail yards leaves workers deeply troubled for their own and others' well-being. “Niagara Falls has the most hazmat in yards on the CSX system, yet no security,” said one CSX worker.

“Allentown (Pennsylvania) yard is a hump yard with a lot of hazmat,” said a Norfolk Southern worker from Pennsylvania. “Trespassers on property and only one Norfolk Southern police officer.”



“(I) have not seen a railroad cop in a month,” said a Conrail worker from Pennsylvania.

## INFRASTRUCTURE

**Q: Has your railroad increased the frequency of inspections at critical infrastructure points (i.e. tracks, bridges, tunnels, diamonds) designed to detect and prevent acts of terrorism?**

**A: No, 42 percent; Did not know, 51 percent**

**Q: Have special security measures been instituted at movable railroad bridges on your territory to protect against unauthorized entry or operation?**

**A: Did not know, 66 percent; No, 30 percent**

**Q: Do bridge tenders on movable bridges have a distress signal to alert authorities of security threats?**

**A: Did not know, 82 percent; No, 15 percent**

**Q: Are you “qualified” under the railroad operating rules (Book of Rules)?**

**A: Yes, 97 percent**

**Q: Are you “qualified” to inspect track under FRA Track Safety Standards?**

**A: Yes, 71 percent**

In April 2003, the GAO reported that “while the Transportation Security Administration has begun work on an overall intermodal transportation system security plan, it has not yet developed specific plans to address the security of individual surface transportation modes, including rail, and does not have time frames established for completing such an effort.” In March 2004, the Department of Homeland Security told the GAO that such a plan was in progress.

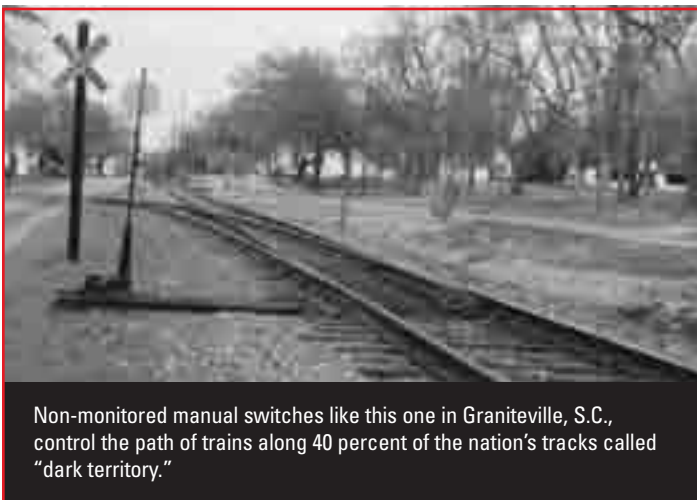
But by July 2005, the Safe Rails/Secure America survey revealed serious questions about alleged improvements in rail security from the very workers who are the frontline in rail inspections, maintenance and improvements.

Throughout the U.S., in fact, rail workers express concern that critical rail infrastructure is exposed and vulnerable to attack. The majority of workers – 71 percent qualified to conduct track inspections under FRA regulations and 97 percent qualified under the carriers’ “Book of Operating Rules” – say that if their employer has taken steps to ensure that it is secure, they are unaware of them.

“If the majority of rail workers have no knowledge of what security measures have been taken,” said homeland security consultant Fred Millar, who also serves as a consultant to the Teamsters Rail Conference, “That’s a strong indication that not much is happening.”

During the survey period, workers described movable bridges that were unmanned for months at a time, bridges over rail yards – filled with hazardous materials tank cars and fuel tanks – that could be terrorist targets, Amtrak tunnels that were wide open to trespassers, and rail yards with open access at the gates.

“Trestles and bridges and underpasses are unattended and easily accessible,” said a Norfolk Southern worker from Georgia. “I work a lot in a U.S. steel plant to maintain the track, and even though the terrorist alert is elevated, I do not see a lot of security,” said an Elgin Joliet & Eastern worker from Indiana.



Non-monitored manual switches like this one in Graniteville, S.C., control the path of trains along 40 percent of the nation's tracks called “dark territory.”



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Federal regulations require that most mainline track be inspected twice a week. But only a small percentage of workers – seven percent – said their railroad had increased inspections of critical infrastructure, calling into question GAO reports that “passenger and freight rail providers have implemented new security measures or increased the frequency or intensity of existing activities,” in its March 23, 2004 report on rail security.

“Track inspectors would know if they’ve been asked or instructed to inspect more frequently than the federal minimum,” said Rick Inclima, Director of Education and Safety for the BMWED. “Workers say they have not.”

In addition, workers identified movable bridges as particularly susceptible targets – made even more vulnerable because railroads are progressively leaving the bridges unmanned. “Bridges can only be secure by having personnel operate them,” said one CSX worker from North Carolina. “(They are) cutting off jobs, leaving bridges unattended, unsafe,” said a North Carolina CSX employee.

**TRAINING**

**Q: Have you received any, or additional, training related to terrorism prevention and response in the last 12 months?**

**A: No, 84 percent**

**Q: Have track and bridge inspectors received security-related training relative to the inspection of critical infrastructure along the right of way?**

**A: Yes, 3 percent; Did not know, 68 percent**

**Q: Have you received specific training related to the monitoring of nuclear waste shipments?**

**A: No, 99 percent**

**Q: Have you been trained by the railroad in the DOT’s hazardous materials placard system?**

**A: No, 37 percent**

**Q: Have you been trained regarding your role in the railroad’s Emergency Action Plan or Emergency Response Plan?**

**A: No, 62 percent**



Throughout the country, railroad employees say their employers have provided little, if any, specific training regarding security or terrorism prevention – even for those workers who regularly work with or

**“Trestles and bridges and underpasses are unattended and easily accessible,”**

*–Georgia Norfolk Southern worker*

near hazardous materials (including locomotive engineers, conductors and trainmen who routinely transport hazmat tank cars) whom the government requires to be trained.

“We need to know what to look for or how to recognize terrorist activity,” said a BNSF worker from Texas. “We also need response training to terrorist activity.”

And, though the DOT also requires hazmat employees to be trained in its Hazardous Materials Regulations (HMRs), more than one-third of rail workers say they have not yet received such training from their employers.

There is continued debate as to whether maintenance of way employees, who routinely work around hazardous materials in transportation and are likely to witness or discover a hazardous materials release (the CDC reports 4,300 rail shipments of hazardous materials each and every day) fall under federal DOT requirements for hazmat training. Rail carriers have taken full advantage of the ambiguity, providing hazardous materials training to only a small percentage of their maintenance of way employees.



The lack of training should be of critical interest to those who live or work near any stretch of main-line track or rail yard: These are the workers who would likely be first on the scene of any derailment, accident or attack involving a hazardous materials shipment.

“In my area, we all need more action on this, not a six-question test,” said a Norfolk Southern worker from Georgia. “We don’t really know what we should.”

Some workers say the totality of their security training was watching a short video or reading a pamphlet about trespassers, a minimal effort by the rail companies that could, indeed, satisfy ambiguous federal requirements.

“The terrorism training was nothing but a short film on trespassers and how to deal with them,” said a Florida, CSX worker. “The railroad sent us a pamphlet on what to do if we meet a terrorist on the right of way,” said one UP employee from Arkansas.

Workers’ comments reflect a weakness in federal regulations for rail corporations’ approaches to security training, says Rick Inclima, of the BMWED.

“There are no specific protocols for training.

Every railroad does it differently,” he said. “In a lot of cases, the employees say, “‘Oh, that was it?’ If somebody gets training and they don’t even know it, it’s not comprehensive training.”

In the absence of adequate training by railroad employers, the BLET and BMWED have developed, in cooperation with five other rail unions, their own intensive five-day hazardous materials training course, funded by a National Institute for Environmental Health Sciences grant.

Workers say they’ve also been left in the dark with regard to Emergency Action Plans and/or Emergency Response Plans required by the Occupational Safety and Health Administration (OSHA). Nearly two-thirds of rail workers surveyed say rail corporations have not trained them in evacuation plans in the event of fires, explosions, hurricanes, tornadoes, or other emergencies, nor have they been trained in the appropriate protocols to respond to emergencies involving hazardous materials.

“I don’t know of any plan in case of security problems,” said a UP worker from Kansas. “(We) don’t even have a tornado shelter.”



**“I don’t know of any plan in case of security problems,” said a UP worker from Kansas. “(We) don’t even have a tornado shelter.”**

–Kansas Union Pacific (UP) worker



**REMOTE CONTROL**

**Q:** Was the switching of rail equipment performed by remote control locomotives in the yard today?

**A:** Yes, 65 percent AND If yes, were those cars carrying hazardous materials? Yes, 88 percent

**Q:** Were remote control devices kept in a secure area today?

**A:** No, 74 percent

In 2000, the nation's rail corporations began a cost-cutting campaign with potentially dangerous consequences: The operation of locomotives by remote control – without trained, skilled engineers aboard to be on alert for hazards, accidents, or breaches of security.

“First and foremost, the decision creates serious safety concerns for railroad employees and the general public,” said Don Hahs, President of the Teamsters Rail Conference. “Trains carrying nuclear waste and other hazardous materials will now be operated – at least in terminal operations – by employees who have as little as 80 hours of training.”

The threat of terrorist attack on the nation's rail system serves to deepen fears regarding the use of remote control technology, particularly when it is used to switch rail cars carrying hazardous materials.

Congressman Mike Capuano, (D-Massachusetts) spoke out about the dangers during a House Transportation & Infrastructure Committee meeting in March 2004.

“What is clear ... is that in light of recent terrorist acts and the vulnerability of our rail system to potential attacks, the use of Remote Control Locomotives (RCLs) must be considered in a whole new light,” Congressman Capuano said.

Some elected officials have pushed the issue further. Congressman Gene Green, (D-Texas) has proposed federal legislation co-sponsored by nine fellow House members that prohibits remote control use while handling hazardous material rail cars.

Despite deep misgivings by the public regarding the safety of remote control operations, rail corporations, seeking to improve their bottom line, are increasingly relying on the technology – a low-cost



**“Trains carrying nuclear waste and other hazardous materials will now be operated – at least in terminal operations – by employees who have as little as 80 hours of training.”**

**–Don Hahs, President of the Teamsters Rail Conference**

substitute for experienced engineers.

The resulting series of reported accidents, derailments and chemical spills has substantiated workers' fears.

“(A) remote operator was looking at another engine while he was running his engine,” reported a CSX employee from Florida. “He thought his engine was not working – because he was looking at the wrong engine. His engine tore up several things as it was moving.”

In the FRA's April 2005 report titled “Human Factors Root Cause Analysis of Accidents/Incidents Involving Remote Control Locomotives,” the FRA reported a total of 67 remote control accidents/incidents between May and October 2004.

In studies of six of those accidents, the FRA found four common causes: “Loss of remote control operator (RCO) situation awareness; insufficient training; inadequate staffing and pairing of inexperienced crewmembers; and inadequate practices and procedures governing (remote control) operations and the use of (remote control) technology.”

A steady stream of news reports regarding remote control accidents has led 42 communities and 19 counties across the United States to call for a ban on remote control use and to demand that the FRA strictly regulate the use of remote control technology.





In his comments to the House Transportation and Infrastructure Committee, Capuano said that the lack of federal oversight has allowed remote control trains to become a safety risk. His comments suggested that rail corporations had taken advantage of weak regulation.

“I am informed that the Federal Railroad Administration has issued ‘guidelines’ for using remote control devices, but they have turned out to be exactly that -- guidelines -- that in some cases have been loosely interpreted and in other cases completely ignored,” Capuano said. “I am told that these guidelines do not actually require carriers to adopt all the necessary safety procedures and in general do not go far enough to ensure that this technology is implemented and utilized safely.”

## Hazardous Materials: The Crux of the Matter

**Q: Did trains carrying hazardous materials pass your work area today?**

**A: Yes, 59 percent**

**Q: Is rail yard in close proximity to schools, government buildings, densely populated areas or other likely terrorist targets?**

**A: Yes, 86 percent**

The Federal Bureau of Investigation’s 2002 warning about potential terrorist attacks on the nation’s railroads should have made clear that there is no room for error, no plausible reason to cut costs or corners in the effort to protect the nation’s railroad system from attack.

The FBI’s words were chilling: al Qaeda cells could be targeting trains carrying hazardous materials. The Bureau had captured al Qaeda photographs of railroad engines, cars and crossings, and officials said that terrorists could choose a number of strategies, “such as destroying key rail bridges and sections of track to cause derailments or targeting hazardous material containers.”

Workers say the warning appears to have fallen on the rail corporations’ deaf ears:

- “CSX has done virtually nothing with regard to security measures since 9/11,” says a CSX employee from California.

“Even though the terrorist alert is elevated, I do not see a lot of security.”

—Indiana Elgin Joliet & Eastern worker

- “We don’t know if there is a (heightened terror) alert,” said a CSX worker from Indiana.

- “Even though the terrorist alert is elevated,” said an Elgin Joliet & Eastern worker from Indiana, “I do not see a lot of security.”



In January 2005, a Norfolk Southern train carrying chlorine gas struck a parked train near Graniteville, South Carolina, releasing a cloud of toxic fumes, killing nine people and causing a mass evacuation of the town and surrounding area.



## HIGH ALERT:

### Workers Warn of Security Gaps on Nation's Railroads

**“These materials frequently are transported over, through, and under areas that are densely populated by schools, hospitals or nursing homes.”**

January 28, 2005 CDC report



Members of the Aiken County, South Carolina, Hazmat team documented the January 2005 Graniteville crash in a DVD, including a frame that captures the cloudy aftermath of the collision.

- “On 9/11, we were expected to carry on as if nothing had happened,” said a BNSF worker from Nebraska, “Even on that same day!”
- “Why no warning system or protection?” asked a Norfolk Southern employee from New York.

Rail workers immediately recognized the potential for catastrophe from a terrorist attack. Shipments of ammonia, chlorine, propane, styrene, ammonium nitrate, and radioactive waste – some considered by the DOT to be potential weapons of mass destruction – crisscross the United States on a daily basis, often passing within yards of homes, schools and other heavily populated areas.

Weapons of mass destruction, the workers knew, had become part of their daily lives.

More than 83 million tons of hazardous materials were shipped via freight rail in 2001, “across the rail

network, which extends through every major city as well as thousands of small communities,” according to an April 2003 GAO report. Nearly 85 percent of the world’s chlorine, for example, is shipped by rail, according to the International Labour Organization (ILO).

“These materials frequently are transported over, through, and under areas that are densely populated by schools, hospitals, or nursing homes, where the consequences of an acute release could result in environmental damage, severe injury, or death,” says the CDC report, “Public Health Consequences from Hazardous Substances Acutely Released During Rail Transit,” dated January 28, 2005.

In Graniteville, South Carolina, the deadly release of 11,500 gallons of chlorine occurred on a railroad siding near an operational mill in a rural area about 10 miles north of Augusta, Georgia.

By the time the green, gaseous cloud had passed over Graniteville on January 6, 2005, nine people were dead – including BLET Engineer Chris Seeling.



Thousands of people were evacuated from their homes. Hundreds were injured. The full extent of environmental damage is still unknown.

The Graniteville accident had nothing to do with terrorism; it occurred in dark territory, on a stretch of track where rail corporations suggest it would be too expensive to install electronic signals.

But the fatal crash helped prompt communities throughout the U.S. to consider the deadly substances routinely passing through their center cities – including the U.S. Capitol – and to review the rail network for flaws and weaknesses that might be exploited by a terrorist bent on mass destruction.

Rural communities took notice of dark territory, questioning the railroad's ability to balance its books against the value of human life.

Residents were reminded that half the nation's 60,000 pressurized tank cars didn't meet current industry standards, "leaving them susceptible to rupture," reported the New York Times in its article "Deadly Leak Underscores Concerns about Rail Safety." The New York Times warned: "Because these cars may remain in service for up to 50 years, some older ones could still be hauling hazardous materials until 2039."

The Chlorine Institute released frightening information that a 90-ton tank car, if targeted by an explosive device, could create a toxic cloud 40 miles long and 10 miles wide. Such a toxic plume, the U.S. Naval Research Lab reported, could kill 100,000 people in 30 minutes in a major metropolitan area.

Community concerns were bolstered by already published reports that meticulously documented the

vulnerability of the nation's rail system: Four times a day – without intervention of terrorists – rail cars carrying hazardous materials are involved in accidents, according to FRA data, caused by derailment, by a leaking valve, or from a hole formed in the side of a rusted car through a collision.

Because rail lines are built near populated areas, the FRA says, 20 times as many people are likely to live in a quarter-mile radius around a rail accident as around any other form of transportation.

In the midst of a national effort to bolster the nation's rail network and protect the lives of the millions who live, work, play and study near it, the railroad industry claimed to have done the best it could do and laid responsibility at the feet of elected officials.

"Despite reporting that they had implemented enhanced security measures, railroad industry representatives told us that it is not possible to eliminate all vulnerabilities and, without government assistance, the industry lacks the resources to counter a significant terrorist attack," the GAO said in April 2003.

The Safe Rails/Secure America survey of rail workers exposes a rail system frighteningly susceptible to attack. Their survey responses paint a picture of a network comprised of wealthy rail corporations whose first priority appears to be protecting their financial interests, leaving the safety and security of workers and U.S. citizens as, at best, an afterthought.

Says one CSX maintenance of way worker from Ohio: "Not enough is being done with respect to terrorism on the railroad.

"It's just business as usual."





## Recommendations

In the five years since 9/11, the nation's rail carriers have, by virtually all accounts, failed to provide significant, measurable safety and security improvements to deter or respond to a terrorist attack on the U.S. rail network.

Rail workers, who spend their days on the front lines of the rail system, are intimately familiar with the system's vulnerabilities, its day-to-day operations, and the vital components of an effective security plan. It is critical that these workers and their representatives play a key role in establishing a viable security plan to be approved and enforced by the Transportation Safety Administration.

### **Such a program, administered by the TSA, would address key issues including:**

- Securing the rail infrastructure at points of vulnerability, i.e., bridges, tunnels, yards, etc.;
- Increasing minimum requirements for inspections of critical infrastructure, i.e., tracks, bridges, tunnels, track diamonds, signal systems, etc.;
- Manning and securing the nation's movable railroad bridges;
- Establish strict compliance standards and comprehensive reporting requirements;
- Assessing penalties for carriers' compliance or reporting violations;
- Improving storage of hazardous materials in transportation (i.e., in yards, rather than along rights of way); and
- Securing equipment including, but not limited to, remote control devices.

### **Further, the Safe Rails/Secure America survey points to other equally necessary measures to protect rail employees and U.S. residents who live near rail yards and lines. Among them:**

- Require rail corporations to provide backup for engineers.

- Provide distress codes or signal system – other than railroad radio – to alert law enforcement officials of hijack, attack, or other emergency.
- Provide adequate railroad or public security presence to prevent security breaches and to ensure timely response to emergencies.
- Secure yards from trespassers.
- Establish a system to notify rail workers of the railroad industry's national or local threat level.
- Train all rail employees relative to the carriers' security plan, including the employees' specific roles and responsibilities related to such a security plan.
- Provide distress signals for bridge tenders on movable bridges to alert authorities of security threats.
- Restrict remote control use to non-hazmat shipments.
- Penalize rail corporations who have failed to adequately train workers in security/terrorism prevention; inspections of infrastructure; hazardous materials (including nuclear waste); and OSHA's Emergency Action Plans and/or Emergency Response Plans.
- Establish standard protocols for training that all rail corporations must provide.
- Require all railroad subcontractors and their employees to receive standardized training and to undergo the same background, skills, and "fitness for duty" checks required of rail corporation employees.



# 2004 Safe Rails Secure America Survey

Total responses: 673

| Question   | Yes                        | %    | No  | %   | Did not know | %   | Total | No response | %   |
|--|----------------------------|------|-----|-----|--------------|-----|-------|-------------|-----|
| 1. Was the rail yard access secure today?  | 40                         | 6%   | 629 | 94% |              |     | 669   |             |     |
| 2. Was there a visible rail police presence in yard today?   | 29                         | 4%   | 638 | 96% |              |     | 667   |             |     |
| 3. Was equipment access secure today?  | 64                         | 10%  | 573 | 90% |              |     | 637   |             |     |
| 4. Was your train or equipment delayed or left unattended for an extended period of time prior to or during your tour of duty?   | 417                        | 63%  | 244 | 37% |              |     | 661   |             |     |
| 4a. If yes, were there hazardous materials on board?   | 224                        | 55%  | 180 | 45% |              |     | 404   |             |     |
| 5. Did you notice other trains or equipment left unattended in yard sightings, or along right-of-way?                            | 548                        | 84%  | 103 | 16% |              |     | 651   |             |     |
| 6. Did you see any trespassers in the yard today?  | 209                        | 32%  | 449 | 68% |              |     | 658   |             |     |
| 7. How many hours did you work today? (include time on train waiting to be relieved)   | Average Hours Worked: 10.2 |      |     |     |              |     |       |             |     |
| 8. Was there another certified engineer available to assist or relieve you in case of emergency or hijacking?                    | 84                         | 13%  | 566 | 87% |              |     | 650   |             |     |
| 9. Was today a heightened terrorist alert day?   | 99                         | 15%  | 149 | 23% | 409          | 62% | 657   |             |     |
| 9a. If yes, were there additional security personnel on duty in the yard or on locomotive?                                       | 0                          | 0%   | 98  | 99% |              |     | 99    | 1           | 1%  |
| 10. Were remote control devices kept in secure area today?   | 76                         | 26%  | 221 | 74% |              |     | 297   |             |     |
| 11. Was switching of rail equipment performed by remote control locomotives in the yard today?                                   | 236                        | 65%  | 127 | 35% |              |     | 363   |             |     |
| 11a. If yes, were those cars carrying hazardous materials?   | 207                        | 88%  | 16  | 7%  |              |     | 236   | 13          | 5%  |
| 12. Can you secure the cab against unauthorized access while occupied?   | 291                        | 44%  | 363 | 56% |              |     | 654   |             |     |
| 12a. Can you secure the cab against unauthorized access while unoccupied?  | 71                         | 11%  | 559 | 89% |              |     | 630   |             |     |
| 13. Is there a duress code or signal on board, other than the railroad radio, in case of terrorist emergency or hijacking?       | 23                         | 3%   | 644 | 97% |              |     | 667   |             |     |
| 14. Have you received any, or additional, training related to terrorism prevention and response in the last 12 months?           | 82                         | 12%  | 579 | 88% |              |     | 661   |             |     |
| 15. Have you received specific training related to the monitoring of nuclear waste shipments?                                    | 8                          | 1%   | 646 | 99% |              |     | 654   |             |     |
| 15a. If yes, do feel it was adequate?  | 4                          | 50%  | 3   | 38% |              |     | 8     | 1           | 12% |
| 16. Is rail yard in close proximity to schools, government buildings, densely populated areas or other likely terrorist targets? | 567                        | 86%  | 90  | 14% |              |     | 657   |             |     |
| 17. Have you reported security concerns to railroad supervisor?  | 302                        | 48 % | 332 | 52% |              |     | 634   |             |     |

# 2005 Safe Rails Secure America Survey

Total responses: 3361

| Question   | Yes  | %   | No   | %   | Did not know | %   | Total |
|--|------|-----|------|-----|--------------|-----|-------|
| 1. Did you observe and/or report trespassers in a rail yard or along the right of way?   | 775  | 23% | 2553 | 77% |              |     | 3328  |
| 2. Did you notice any running locomotives or trains left unmanned in a yard, siding or along the right of way today?   | 773  | 31% | 1744 | 69% |              |     | 2517  |
| 3. Were Remote Control Operations (RCO's) used on locomotives where you worked today?  | 633  | 19% | 1942 | 58% | 774          | 23% | 3349  |
| 4. Was today a heightened terrorist alert day?   | 134  | 4%  | 1415 | 42% | 1800         | 54% | 3349  |
| 4a. If yes, were there additional security personnel on duty in the yard or right-of-way?  | 14   | 10% | 118  | 88% |              |     | 132   |
| 5. Are you "qualified" under the railroad operating rules (Book of Rules)?   | 3235 | 97% | 113  | 3%  |              |     | 3348  |
| 6. Are you "qualified" to inspect track under FRA Track Safety Standards?  | 2364 | 71% | 986  | 29% |              |     | 3350  |
| 7. Did you work by yourself today (i.e. as a "Lone Worker")?   | 755  | 23% | 2578 | 77% |              |     | 3333  |
| 8. Did trains carrying hazardous materials pass your work area today?  | 1977 | 59% | 435  | 13% | 941          | 28% | 3353  |
| 9. Have you been trained by the railroad in the DOT's hazardous materials placard system?  | 2094 | 63% | 1240 | 37% |              |     | 3334  |
| 10. Have you been trained regarding your role in the railroad's Emergency Action Plan or Emergency Response Plan?  | 1269 | 38% | 2082 | 62% |              |     | 3351  |
| 11. Have you received any, or additional, training related to terrorism prevention and response in the past 12 months?   | 569  | 17% | 2787 | 83% |              |     | 3356  |
| 12. Has your railroad increased the frequency of inspections at critical infrastructure points (i.e. tracks, bridges, tunnels, diamonds) designed to detect and prevent acts of terrorist? | 227  | 7%  | 1426 | 42% | 1704         | 51% | 3357  |
| 13. Have special security measures been instituted at movable railroad bridges on your territory to protect against unauthorized entry or operations?                                      | 93   | 4%  | 651  | 30% | 1418         | 66% | 2152  |
| 14. Do bridge tenders on movable bridges have a distress signal to alert authorities of security threats?  | 53   | 3%  | 303  | 15% | 1659         | 82% | 2015  |
| 15. Have track and bridge inspectors received security-related training to the inspection of critical infrastructure along the right-of-way?   | 126  | 3%  | 958  | 29% | 2253         | 68% | 3337  |