

# State of Arizona Rail Safety & Security Resource Guide



November 2007

## **Disclaimer**

This guide is for informational purposes only and is not intended to be an all-inclusive resource. The guide is a compilation of information from many sources and entities. The information contained herein is subject to amendment and change without notice and therefore the accuracy of the contents cannot be guaranteed. Readers are cautioned not to rely solely on the guide and should do further research to ensure accuracy of the information. Legal advice should be sought as appropriate.

## **Acknowledgement of Participants**

Arizona Corporation Commission (ACC)

Arizona Department of Transportation (ADOT)

Arizona Operation Lifesaver (AZOL)

BNSF Railway (BNSF)

Department of Homeland Security (DHS)

Federal Railroad Administration (FRA-USDOT)

Federal Highway Administration (FHWA-USDOT)

Federal Motors Carrier Safety Administration (FMCSA)

Governor's Office of Highway Safety (GOHS)

METRO (Light Rail)

Transportation Safety Administration (TSA-DHS)

Union Pacific Railroad (UPRR)

## **Preface**

This plan will focus on targeted areas of railroad safety with emphasis on data driven, state specific needs identified by the “USDOT Highway-Rail Crossing Safety and Trespass Prevention Action Plan” developed by the United States Department of Transportation. Initially, the plan was developed to help guide efforts by federal and state governments, rail industry and public rail safety organizations to reduce train-vehicle collisions and trespass incidents. While the action plan does highlight specific programs and activities, it is intended to provide flexibility to the railroads, highways, public transit and communities in responding effectively to real world conditions. The action plan emphasizes a multi-modal approach for improving safety at the nation’s 277,722 highway-rail crossings, and preventing trespassing along more than 145,000 miles of track and right of way. Arizona currently has 1800 grade crossings and approximately 3,000 miles of railroad and rail transit track.

This document will be made available to government agencies, police departments, fire departments, schools, developers and businesses in order to better assist in the coordination of all areas of transportation planning, development, safety and security in Arizona.

## Table of Contents

Disclaimer .....	i
Acknowledgement of Participants .....	ii
Federal Highway Administration (FHWA-USDOT) .....	ii
Federal Motors Carrier Safety Administration (FMCSA).....	ii
Preface.....	iii
Introduction: .....	1
Exhibit 1 .....	1
Exhibit 2 .....	1
Exhibit 3 .....	2
Exhibit 4 .....	2
Mission.....	3
Vision.....	3
Goal .....	3
Roles of Federal, State, Local Agencies and Private Corporations:.....	3
Arizona Corporation Commission .....	3
Arizona Department of Transportation (ADOT).....	4
Arizona Governor's Office of Highway Safety (GOHS) .....	4
Arizona Operation Lifesaver (AZOL).....	4
Federal Highway Administration (FHWA) .....	4
Federal Motor Carrier Safety Administration (FMCSA).....	5
Federal Railroad Administration (FRA).....	5
Federal Transit Administration (FTA).....	6
National Highway Traffic Safety Administration (NHTSA).....	6
Transportation Security Administration (TSA) .....	6
Railroads within Arizona.....	7
Exhibit 5 .....	8
The Union Pacific Railroad (UP).....	9
BNSF Railway.....	11
Federal/Railroad Grade Crossing Safety Program .....	12
Community Education/Law Enforcement/Awareness .....	12
Grade Crossing Consolidation Programs.....	13
Track and Signal Inspection and Maintenance .....	13
Vegetation Control .....	13
Crossing Safety Technology and Management Processes .....	14
Operations Monitoring Programs.....	14
BNSF Crossing Closure Procedures.....	14
BNSF Public Private Partnerships.....	15
Stopping Safely at Farm-Rail Crossings: .....	21
Track Facts.....	22
Federal Highway Administration (FHWA-USDOT) - <a href="http://www.fhwa.dot.gov">www.fhwa.dot.gov</a> .....	24
Federal Motors Carrier Safety Administration (FMCSA) - <a href="http://www.fmcsa.dot.gov">www.fmcsa.dot.gov</a> .....	24
Rail Agency Contacts: .....	24
Rail Safety-Security Contacts: .....	25
Railroad Contacts:.....	26
Short Line Railroads: .....	26
Terminal / Industrial / Switching Railroads:.....	27

Passenger / Tourist Railroads / Rail Tours ..... 28  
Rail Transit Contacts: ..... 29  
Appendix I..... 30  
Criminal Trespass and Burglary ..... 30  
Criminal Damage to Property..... 30  
Traffic Signs, Signals, and Markings..... 30  
Special Stops Required..... 30

This guide is intended to provide resources, contacts and information regarding Arizona Rail Safety and Security.

## Introduction:

Each year, across the nation, thousands of train/vehicle collisions and pedestrian trespass incidents occur at our nation's highway-roadway-rail grade crossings and along railroad rights-of-way that result in hundreds of deaths and injuries. These deaths and injuries are a serious concern for the state of Arizona that ranked 6<sup>th</sup> in the nation with 20 trespass fatalities and 25<sup>th</sup> in crossing fatalities for the year 2006. During the last three years, 10 people were killed and 57 injured when they failed to comply with the state vehicle code concerning railroad warning signs and signals at crossings.

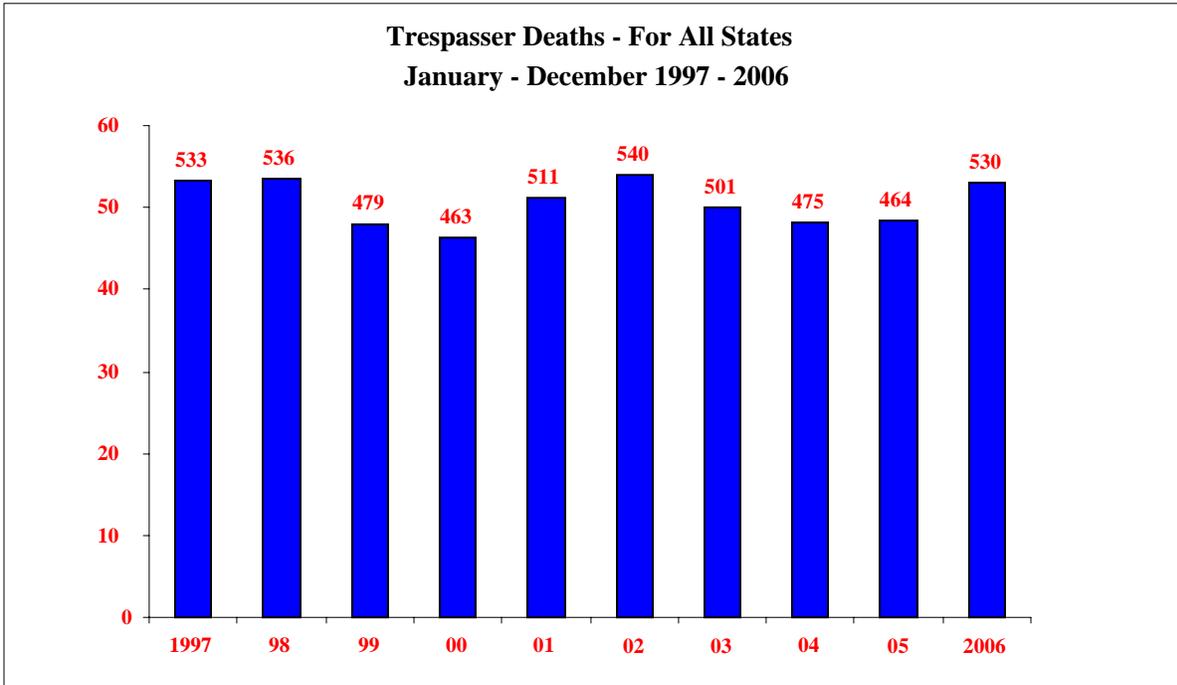


Exhibit 1

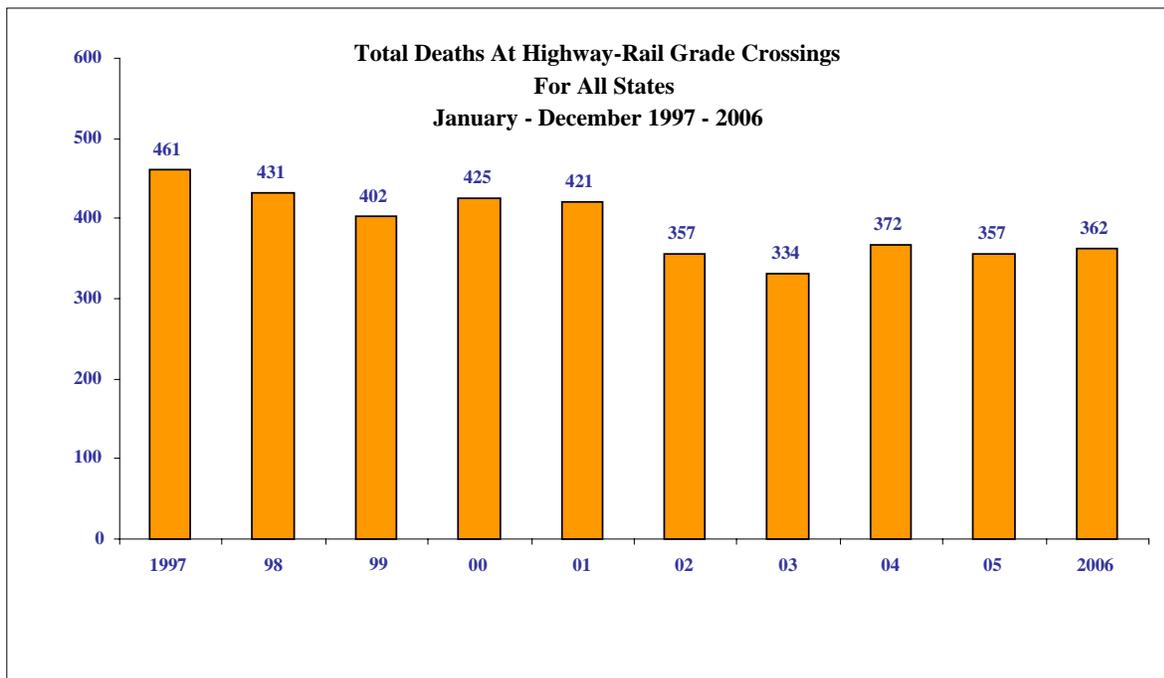
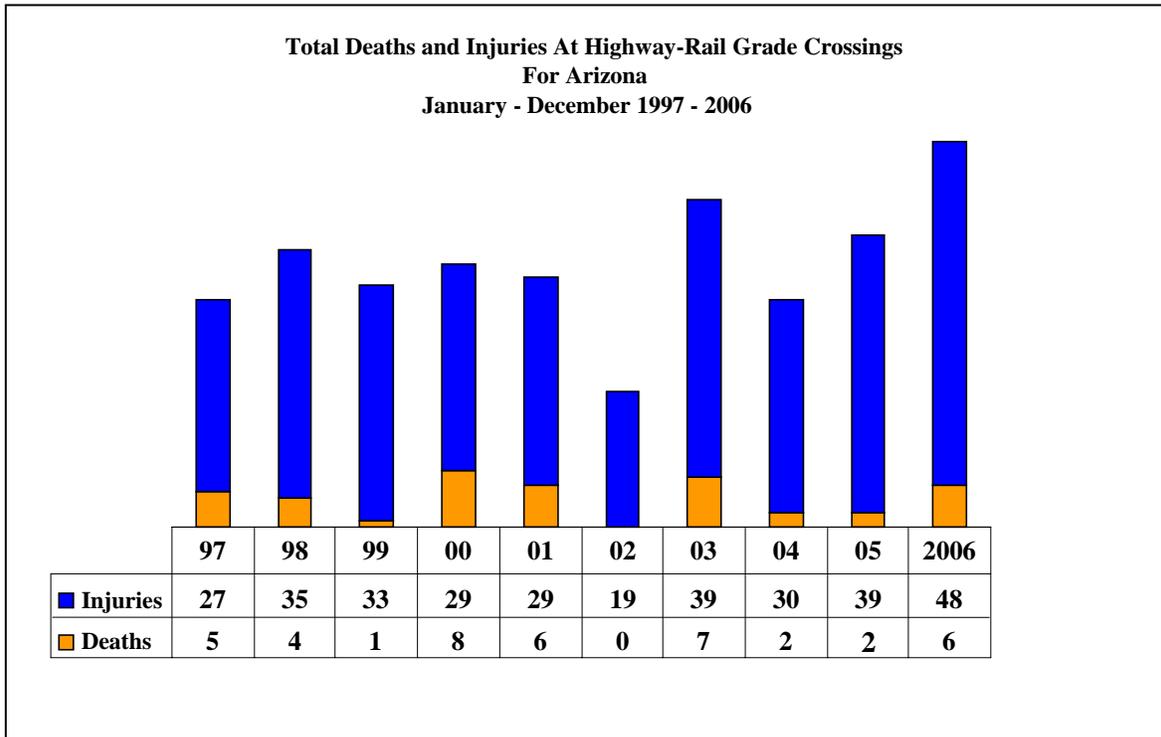
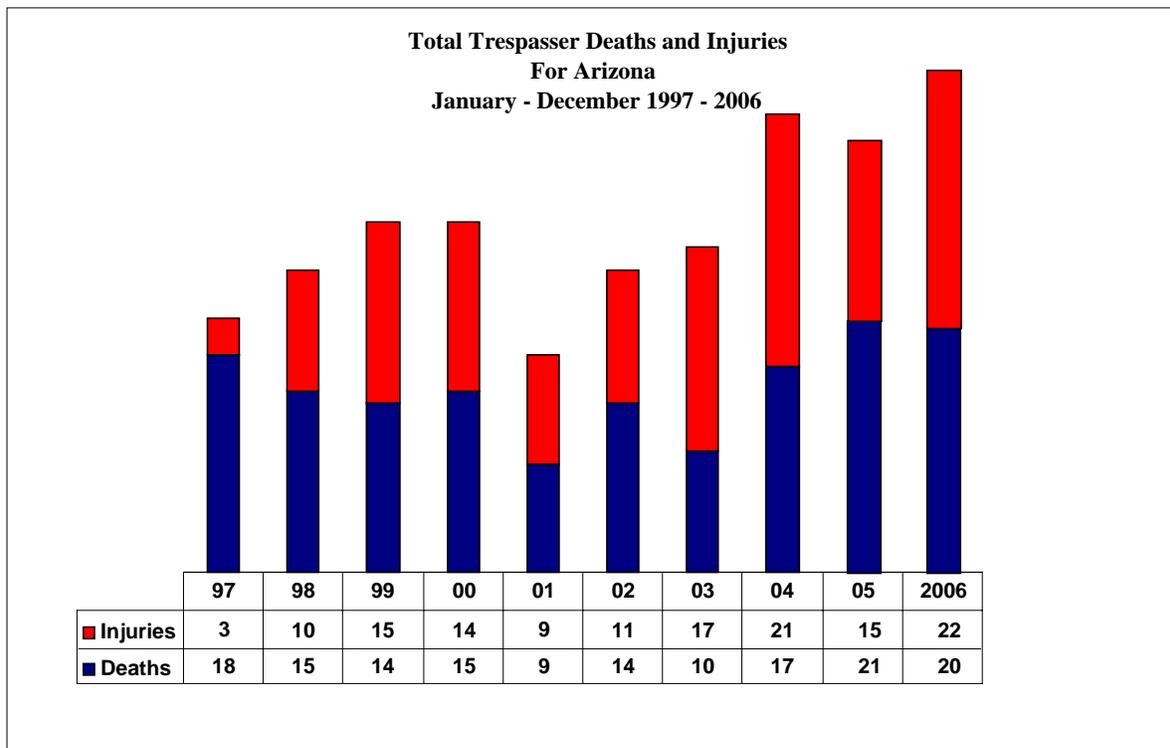


Exhibit 2

Arizona is one of the fastest growing states in the nation. This level of growth combined with an increase of rail, rail transit and vehicle traffic brings new challenges in the development of an efficient transportation infrastructure. "We know that we all share this problem. Just as we share the problem, we share the solution."



**Exhibit 3**



**Exhibit 4**

In order to address these issues, an inter-agency, private and public rail safety partnership was formed to prevent rail crossing and trespass fatalities. In the future, communities may experience additional train horns as train traffic increases and highway-rail crossings are added to accommodate population increases. Improved highway grade crossing safety and trespass prevention depends upon enhanced cooperation, communication, and education among responsible parties if incidents and fatalities are to be reduced significantly. In order to accomplish these goals, agencies must be proactive in working to reduce collisions and prevent fatalities. The USDOT in coordination with the Arizona Corporation Commission and Arizona Department of Transportation has placed the highest priority on transportation safety.

## **Mission**

To promote and implement a rail safety action plan to reduce the number of highway-rail grade crossing and trespassing incidents within the state. The plan will establish and support best practices in rail safety and security including engineering design improvements, public education and law enforcement.

## **Vision**

To establish and provide a plan that continues to allow rail transportation, within and through Arizona, to be efficient, safe and secure.

## **Goal**

The overall goal of this plan is to reduce the total number of rail and grade crossing related fatalities and injuries.

## **Roles of Federal, State, Local Agencies and Private Corporations:**

### **Arizona Corporation Commission**

[www.cc.state.az.us/](http://www.cc.state.az.us/)

Our Mission is to ensure that the citizens of Arizona, as well as railroad employees throughout the State, have a railroad system that is operated and maintained in as safe a manner as possible.

We are responsible for the inspection of:

#### **Railroad Tracks:**

Commission staff examines railroad track for proper alignment, profile and geometrical surface. Curves and spirals are measured for uniformity and proper super elevation. We also examine switches, derails and other track related structures for compliance with the federal minimum safety standards for track. Initial track inspections are done from a track-mounted highway vehicle and sometimes by walking.

#### **Locomotives and Railcars:**

Commission staff examines various components of the several braking systems on railcars and locomotives. There are also certain safety features on locomotives having to do with the very high amperage generated by them that are checked for proper operation and the required periodic inspection. Locomotives are also inspected for proper operation of the horn, sidelights, headlights, bells and for compliance with all the applicable federal regulations.

#### **Railroad Operating Practices:**

Commission staff examines the railroads for compliance with extensive federal regulations in the operating practices area. Included are such things as the proper certification of locomotive engineers and trainmen, drug and alcohol testing of them, and observation of the efficiency testing of these employees by company officers, which is done to see that employees are properly observing wayside signals when moving their trains.

### **Railroad Crossing Warning Signals, Train Control Signals and Devices:**

Commission staff examines the various electronic crossing warning devices for proper operating voltages, grounding, etc., for compliance with federal regulations. Similarly, Staff also examines train control signals for compliance with federal regulations.

### **Transportation of Hazardous Materials by Rail:**

Commission staff examines shipments of hazardous materials on the railroad for compliance with the applicable federal regulations. Inspections consist of examination of tank cars and containers on flat cars (COFC) for proper securement and placarding. Inspections are also done at shipper and receiver facilities around the state for proper compliance with the loading, unloading and securement standards.

### **Railroad Grade Crossings:**

Commission staff also examines grade crossings for proper maintenance and surface conditions. The Commission also regulates and monitors the amount of time a train can block a railroad crossing.

To report a blocked crossing, or any other railroad issue to the Commission, e-mail us at [cwatson@azcc.gov](mailto:cwatson@azcc.gov). You may also visit the Arizona Corporation Commission's web site.

For the railroad safety section go to the rules section of the page on the right hand side, click on Commission Procedural Rules, and it will take you to the railroad section.

### **Arizona Department of Transportation (ADOT)**

[www.azdot.gov](http://www.azdot.gov)

The role of **Public Transportation Division (PTD)** of the Arizona Department of Transportation is to ensure a multi-modal approach to mobility, congestion and air quality issues throughout the State. Public Transportation Division staff administers several Federal Transit Administration grant programs, provides technical assistance and expertise to local transit agencies and decision makers, coordinates and funds state transit and rail planning efforts, and sets and monitors light rail system safety standards. Through these efforts, we are dedicated to working with our partners to create better communities by identifying and providing options for safe and reliable public transportation.

### **Arizona Governor's Office of Highway Safety (GOHS)**

<http://www.agoths.gov>

GOHS is the focal point for highway safety issues in Arizona. GOHS provides leadership by developing, promoting, and coordinating programs; influencing public and private policy; and increasing public awareness of highway safety.

Through the Director of the Governor's Office of Highway Safety, a channel of communication and understanding has been developed between the Governor's Office, the Legislature, state agencies, political subdivisions, and activist groups concerning all aspects of the statewide highway safety program.

### **Arizona Operation Lifesaver (AZOL)**

<http://www.AZOL>

AZOL is a non-profit, continuing public education program established to end collisions, deaths and injuries at places where roadways cross train tracks, and on railroad rights-of-way. Operation Lifesaver programs are sponsored cooperatively by federal, state, and local government agencies; highway safety organizations, and the nation's railroads.

Operation Lifesaver (OLI) is a non-profit, international continuing public education program first established in 1972 to end collisions, deaths and injuries at places where roadways cross train tracks, and on railroad rights-of-way. Operation Lifesaver programs are sponsored cooperatively by federal, state, and local government agencies; highway safety organizations, and the nation's railroads.

### **Federal Highway Administration (FHWA)**

<http://safety.fhwa.dot.gov/facts/index.htm>

FHWA is charged with the broad responsibility of ensuring that America's roads and highways continue to be the safest and most technologically up-to-date. Although State, local, and tribal governments own most of the

Nation's highway system. Our annual budget of more than \$30 billion is funded by fuel and motor vehicle excise taxes. The budget is primarily divided between two programs. Federal-aid funding to State and local governments; and Federal Lands Highways funding for national parks, national forests, Indian lands, and other land under Federal stewardship.

Safety on our highways is FHWA's top priority. More than 42,000 people are killed annually in traffic crashes in this country. That equated to about 115 fatalities a day. We must find, and we are finding, new opportunities and developing new technologies for saving lives. FHWA is aggressively advancing the activities and projects that we already know prevent crashes and that reduce fatalities and serious injuries when crashes do happen. FHWA is focusing its safety program on addressing three crash types that relate most highly to fatalities; roadway departures, intersections (highway-rail grade crossings), and pedestrians. We also partner with others in DOT to increase the use of safety belts, as thousands of lives could be saved if every vehicle occupant would simply buckle-up.

In addition FHWA conducts safety research technology and outreach projects that contribute to multiple objectives. These include speed management to encourage wider adoption of safe travel speeds appropriate for road and travel conditions; safety management to ensure that resources are allocated to achieve the maximum returns in reducing the severity and frequency of crashes; human-centered systems to incorporate human factors into all aspects of highway design; work zone safety improvements; and a variety of safety outreach efforts. FHWA makes safety a top priority and we continue to work toward making America's highway system one of the safest in the world. For information on safety facts, visit the FHWA Web site.

### **Federal Motor Carrier Safety Administration (FMCSA)**

<http://www.fmsca.dot.gov>

FMCSA was established as a separate administration within the U.S. Department of Transportation (DT) on January 1, 2000, pursuant to the Motor Carrier Safety Improvement Act of 1999. FMCSA is headquartered in Washington, DC and employs more than 1,000 people in all 50 States and in the District of Columbia, all dedicated to improving the safety of commercial motor vehicles (CMV) and saving lives.

One of the initiatives the FMCSA is undertaking to save lives on the Nation's highways to intensify our focus on highway-rail grade crossing safety. FMCSA has launched a nationwide educational campaign to remind commercial motor vehicle drivers of the precautions they must take at highway-rail grade crossings.

In carrying out its safety mandate to reduce crashes, injuries, and fatalities involving large trucks and buses, FMCSA:

Develops and enforces data-driven regulations that balance motor carrier (truck and bus companies) safety with industry efficiency;

Harnesses safety information systems to focus on higher risk carriers in enforcing the safety regulations:

Targets educational messages to carriers, commercial drivers, and the public and partners with stakeholders including Federal, State, and local enforcement agencies, the motor carrier industry, safety groups, and organized labor on efforts to reduce bus and truck-related crashes.

### **Federal Railroad Administration (FRA)**

<http://www.fra.dot.gov/>

The FRA was created by the Department of Transportation Act of 1966 (49 U.S.C. 103, Section 3 (e) (1)). The purpose of FRA is to promulgate and enforce rail safety regulations; administer development in support of improved railroad safety and rehabilitation of Northeast Corridor rail passenger service; and consolidate government support of rail transportation activities. Today, the FRA is one of ten agencies within the U.S. Department of Transportation concerned with intermodal transportation. It operates through seven divisions under the offices of the Administrator and Deputy Administrator.

The Office of Safety promotes and regulates safety throughout the Nation's railroad industry. It employs more than 415 Federal safety inspectors, who operate out of eight regional offices nationally. FRA inspectors specialize in five safety disciplines and numerous grade crossing and trespass-prevention initiatives. Track, Signal and Train Control, Motive Power and Equipment, Operating Practices, Hazardous Materials, and Highway-Rail Grade Crossing Safety. The Office trains and certifies State safety inspectors to enforce Federal rail safety regulations. Central to the success of the rail safety effort is the ability to understand the nature of rail-related accidents and to analyze trends in railroad safety. To do this, the Office of Safety collects rail accident/incident

data from the railroads and converts this information into meaningful statistical tables, charts, and reports.

### **Federal Transit Administration (FTA)**

<http://www.fta.dot.gov>

FTA is one of 10 modal administrations within the U.S. Department of Transportation. Headed by an Administrator who is appointed by the President of the United States, FTA functions through a Washington, DC, headquarters office and 10 regional offices which assist transit agencies in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, Northern Mariana Islands, and American Samoa.

The Federal Transit Administration administers federal funding to support a variety of locally planned, constructed, and operated public transportation systems throughout the U.S., including buses, subways, light rail, commuter rail, streetcars, monorail, passenger ferry boats, inclined railways, and people movers.

The Arizona Department of Transportation was chosen by Governor Jane Dee Hull on 2001 as the State Safety Oversight agency to oversee safety and security responsibilities on FTA sponsored Fixed Rail Guideway Systems.

In response to congressional concern regarding the potential for catastrophic accidents and security incidents on rail transit systems, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) added Section 28 to the Federal Transit Act (codified at 49 CFR U.S.C. Section 5330). This section requires the Federal Transit Administration (FTA) to issue a Rule creating the first state-managed oversight program for rail transit safety and security.

FTA published "Rail Fixed Guideway Systems; State Safety Oversight" on December 27, 1995 (to be codified at 49 CFR Part 659), subsequently referred to as State Safety Oversight Rule or Part 659. Only those states with Rail Fixed Guideway Systems (RFGS) meeting the definition specified in Part 659 must comply with FTA's State Safety Oversight Rule.

In 1991, Congress required for the first time that the Federal Transit Administration (FTA) establish a program providing for the State-conducted oversight of the safety and security of rail systems not regulated by the Federal Railroad Administration (FRA).

The tasks of an SSO agency include developing system safety program standards, then reviewing, approving and monitoring rail transit agencies to so that they are compliant with the SSO. This includes all safety, security and emergency management plans.

### **National Highway Traffic Safety Administration (NHTSA)**

<http://www.nhtsa.dot.gov>

NHTSA is dedicated to achieving the highest standards of excellence in motor vehicle and highway safety. The agency strives to exceed the expectations of its customers through its core values of Integrity, Service and Leadership. NHTSA provides leadership to the motor vehicle and highway safety community through the development of innovative approaches to reducing motor vehicle crashes and injuries.

The department has developed and interagency rail-highway crossing safety action plan to address the train-motor vehicle crash problem. In response to this initiative, both NHTSA and FHWA are directing our respective field staff to advise States that Section 402 funds may be used to address significant rail-highway crossing problems. NHTSA has produced an excellent resource entitled *Rail-Highway Crossing Safety Fatal Crash and Demographic Descriptions* which should prove valuable in the problem identification phase of the States assessments.

### **Transportation Security Administration (TSA)**

<http://www.tsa.gov>

TSA protects the Nation's transportation systems to ensure freedom of movement for people and commerce. The TSA continuously sets the standard for excellence in transportation security through its people processes and technology.

Our nation's railroads, both passenger and freight, are important pieces of the transportation network. The London subway and Madrid rail bombings demonstrated the critical need for protecting trains from terrorist attack.

Our work focuses greater information sharing, increased training and public awareness, and providing greater assistance and funding for rail transit activities. Grants and awards to rail systems around the country total millions of dollars yearly.

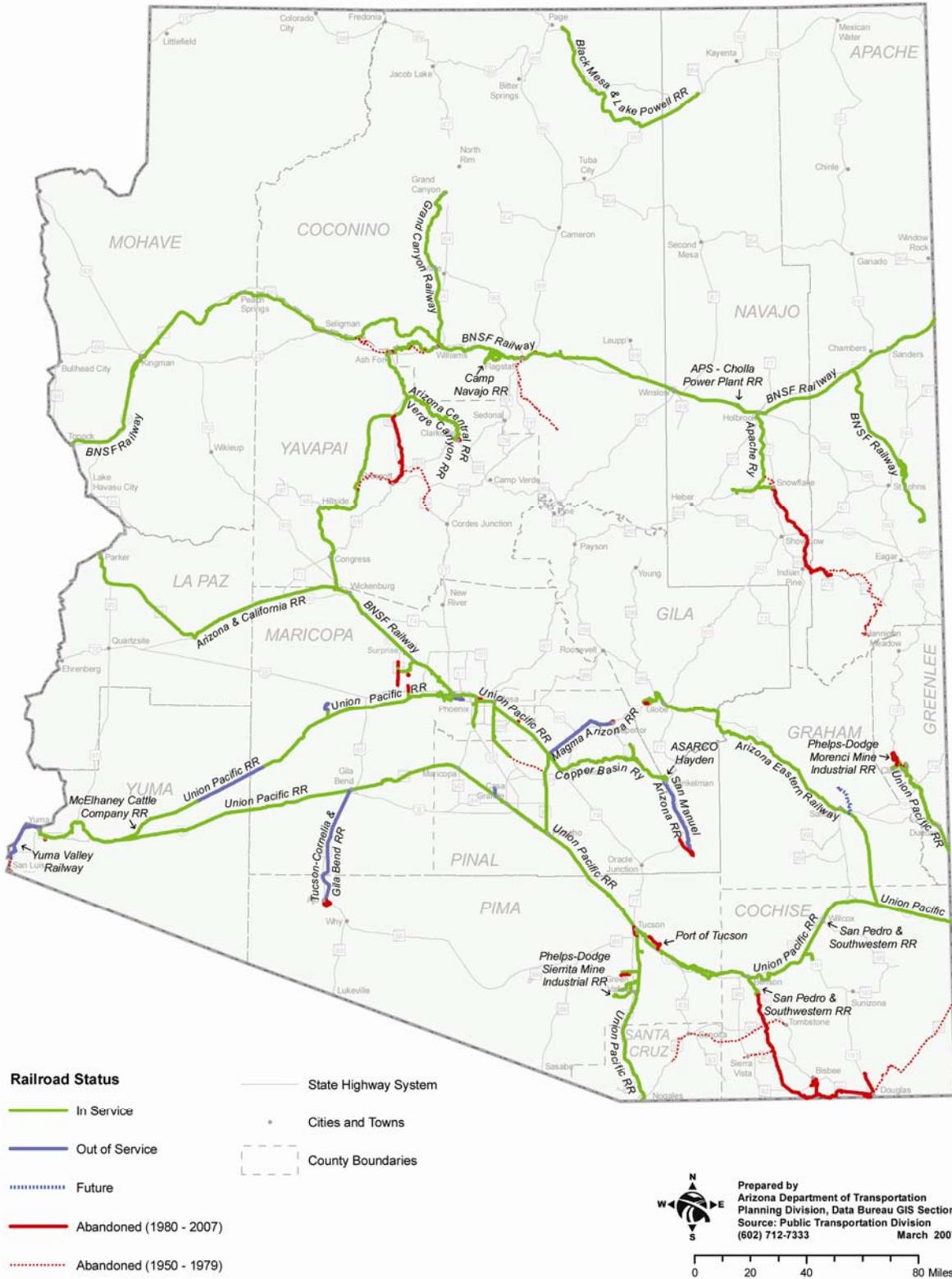
While state and local governments are primarily responsible for rail security, we have taken a number of steps to ensure the security of these crucial assets by working in concert with the Department of Homeland Security, other federal agencies, industry experts, and our local counterparts.

## **Railroads within Arizona**

Arizona's railroad network is shown in the 2007 Arizona Railroads map. The network is comprised of two Class I railroads. BNSF Railway (BNSF) and Union, and a number of short line, terminal, industrial, switching, passenger and tourist railroads. In addition, Arizona has one single-purpose coal haul railroad. The Black Mesa & Lake Powell Railroad (BLKM), which is isolated and not connected to the nationwide railroad system as every other Arizona railroad is. Currently, there are over 2,200 railroad miles in Arizona.

Arizona's railroads originate five million tons of freight railroad traffic from locations within Arizona, including glass and stone products, waste and scrap, primary metal products, chemicals and metallic ores. Arizona's freight railroads bring to Arizona and terminate within the state almost 31 million tons of freight traffic including coal lumber and wood products, glass and stone products, farm products and food products.

# Arizona Railroads (Service Status and Ownership)



**Exhibit 5**

## **The Union Pacific Railroad (UP)**

UP is the largest railroad in North America, operating in the western two-thirds of the United States. The railroad serves 23 states, linking every major West Coast and Gulf Coast port and provides service to the east through its four major gateways Chicago, St. Louis, Memphis and New Orleans. The railroad has one of the most diversified commodity mixes in the industry including chemicals, coal, food and food products, forest products, grain and grain products, intermodal, metals and minerals and automobiles and part.

### **24 hour Emergency Hotline 1-888-UPRR-COP**

"I can see somebody trying to break into one of your freight cars..." "There's a truck stalled on the tracks out here..." "Can anybody fix this crossing gate?" This and many other types of critical incident calls come in daily to UP's version of 911, the Risk Management Communications Center (RMCC). Calls are answered in an average of eight seconds and the proper response is initiated immediately. Local police departments are encouraged to call the RMSS hotline instead of the Herriman Dispatching Center.

### **Public Safety**

Union Pacific strives not only for a safe internal operation, it is also committed to public safety. To meet this commitment, UP supports an array of projects aimed at preventing highway-rail grade crossing collisions and trespasser fatalities and injuries. As a result of UP's safety policies, there have been steady decreases in highway-rail crossing incidents and drops in injuries and fatalities as compared to earlier years.

### **Public Safety Projects**

Public Education is critical to UP's efforts to promote public safety. One major educational tool is Operation Lifesaver, a nonprofit, nationwide public education program created by UP in 1972 and later embraced by the railroad industry. The program was designed to eliminate collisions, deaths and injuries at highway-rail grade crossings and trespass incidents on rail road rights-of-way. The program enlists the support of local governments, law enforcement and the news media to urge the public to "take care at crossings." Hundreds of UP employees regularly volunteer to staff Operation Lifesaver information booths, talk to school and civic groups and otherwise help spread the public safety message. For more information about Operation Lifesaver, call 1-800-537-6224.

### **Crossing Visibility**

UP's goal is to keep brush, trees and tall grasses clear from all public grade crossings in order to ensure greater visibility. Crews are constantly working to keep visibility clear near the crossing and for the width of the right-of-way in all four quadrants. If you have concerns about crossing visibility, please call the Union Pacific Crossing Desk at 1-800-848-8715.

### **Crossing Accident Reduction Enforcement (CARE)**

Too many motorists ignore warning signals at crossings, even to the point of driving around lowered gates. UP train crews see this all the time but now, through CARE, offending motorists are being stopped and ticketed, by both local police and UP special agents. Several states have given railroad special agents the same authority that police have to issue citations.

### **Near Hit Program**

This program gives train crews and other UP employees a way to report instances of vehicles that narrowly avoided being hit by a locomotive. Motorists identified through license numbers or other sources are sent letters which cite the incident and serve, hopefully, to trigger a change in driving behavior. In 1998, nearly 1200 "near hits" were reported.

### **Crossing Closure**

The safest crossing is no crossing. Therefore, UP and the Federal Railroad Administration are working with communities to identify and eliminate thousands of unneeded public private crossings.

## Employee Safety

“Safety is my responsibility” are the daily watchwords for all UP employees. At UP, these are words to “live by”. Over the last five years, on-the-job injuries at UP have steadily declined as a result of employee safety measures. UP has established various safety committees, team safety leaders, a safety hotline, safety newsletters, in-field employee feedback programs, a constant supply of safety/protective equipment and first aid kits and supplies as well as employee safety training sessions.

## Union Pacific’s Involvement in the Quiet Zone Establishment Process

Having a railroad’s safety perspective throughout the quiet zone establishment process is recommended; therefore, Union Pacific Railroad will actively participate in quiet zone projects affecting Union Pacific rail lines. Union Pacific representatives will participate in diagnostic meetings and provide the necessary railroad information required in the Final Rule.

The Final Rule outlines two types of safety improvement options for upgrading a quiet zone to meet FRA safety standards:

- Supplemental Safety Measures (SSMs) or
- Alternative Safety Measures (ASMs).

Supplemental Safety Measures include the following:

- Four-Quadrant Gate Systems
- Medians or Channelization Devices
- One-Way Streets with Gates
- Permanent Closure

Alternative Safety Measures include:

- Modified SSMs (i.e. Non-Complying Medians, Three-Quadrant Gates, etc.)
- Engineered ASMs (i.e. Geometric Improvements)
- Non-Engineered ASMs (i.e. Programmed Enforcement, Photo Enforcement, Education, etc.)

Union Pacific encourages the use of Engineered SSMs, but asks that communities postpone taking any costly or irreversible action until it has been determined which additional safety measures are warranted.

## General Costs of Safety Measures

Public authorities are responsible for the cost of preliminary engineering, construction, maintenance and replacement of active warning devices or their components, including wayside horn systems installed at crossings to meet quiet zone standards.

Public authorities will execute a [preliminary engineering agreement \(PDF File\)](#) with the railroad to reimburse the railroad for all project development and engineering design costs. This agreement requires a deposit:

- \$ 5,000 per wayside horn location
- \$10,000 per crossing signal location

Public authorities will guarantee reimbursement to the railroad for all actual costs associated with the installation and maintenance of the railroad improvements required for the quiet zone by means of a [project agreement](#) executed by the parties. This may include quiet zone warning devices, wayside horns or both.

Examples of costs as estimated by Union Pacific:

- Four-Quadrant Gate Systems - \$300,000 to \$500,000

- Basic Active Warning System\* - \$185,000 to \$400,000  
(Includes Flashing Lights and Gates, Constant Warning Time, Power Out Indicator and Cabin.)
- Basic Inter-Connect - \$5,000 to \$15,000
- Annual Maintenance - \$4,000 to \$10,000

## Contact Information

Notices of Intent, Notices of Establishment or other general communication related to quiet zones should be sent to:

Union Pacific Railroad  
Engineering Department  
Re: Quiet Zone Establishment  
1400 Douglas Street, STOP 0910  
Omaha, NE 68179-0910

Requests for diagnostic assistance should be directed to Union Pacific's [Industry and Public Projects group](#).

## BNSF Railway

For more than 150 years, BNSF Railway has been delivering cars, coal, clothing, games and nearly everything else found in homes and businesses. When the predecessors to BNSF Railway first started operations, we were building a nation by shrinking America's borders. Today our focus is on using speed, agility and resourcefulness to help expand the global marketplace for goods and services.

## Overview of BNSF's Approach to Grade Crossing Safety

BNSF is committed to highway-railroad grade crossing safety. It is an integral part of our operation and culture and involves the cooperative daily effort of many employees. Since oncoming trains cannot stop for vehicles whose drivers violate motor vehicle laws when approaching railroad tracks, each grade crossing presents possible danger to motorists and train crews. Recognizing this potential hazard, BNSF is committed to grade crossing safety on many fronts, including community education and awareness, train crew education and field operations testing to monitor rules compliance, grade crossing closure, crossing safety technology, crossing resurfacing, vegetation control, installation of warning devices, and track and signal inspection and maintenance. BNSF has one of the lowest highway-railroad grade crossing collision rates in the rail industry and, as an industry leader, will continue to work with the states and the communities we serve to further improve grade crossing safety.

## General Information

- There are over 239,500 highway-railroad grade crossings in the U.S., including just over 26,700 across BNSF's 32,000-mile network.
- BNSF's highway-railroad grade crossings include approximately 17,630 public and 9,070 private and pedestrian at-grade crossings. In addition, BNSF has about 3,400 public grade separations and 540 private and pedestrian grade separations.
- BNSF has one of the lowest highway-railroad grade crossing collision rates in the rail industry. Since BNSF's merger in 1995, the rate of grade crossing collisions has declined by 65 percent – from 5.41 per million train miles in 1995 to a rate of 1.93 in 2006.
- From 1997 to 2006 more than 47 percent of the grade crossing collisions on BNSF occurred at crossings with active warning devices (automatic gates and/or flashing light signals).
- BNSF spent more than \$91 million in 2006 on programs related to grade crossing safety. BNSF expenditures include funding the educational and program activities of 21 grade crossing safety

managers and 10 public projects managers, as well as crossing signal maintenance and vegetation control. That figure also includes the \$20 million BNSF spent in 2006 to maintain grade crossing road surfaces.

## **Federal/Railroad Grade Crossing Safety Program**

**Federal and state processes for upgrading crossing signals:** Each state determines the location and types of rail-highway grade crossing signals to be installed, under a federal program. Crossing signals are defined by the Federal Highway Administration as highway control devices, not railroad signals. Each state receives an allocation of federal safety funds and develops a priority list of crossings each year for grade crossing improvements. The formula used to generate this list varies from state to state and typically includes elements such as train speed, train volume, average daily traffic and accident history. Once a state determines which crossings are to be upgraded, it contacts the railroad to begin the “diagnostic” process. The railroad designs the circuitry for each crossing and estimates the cost. Once the state reviews and approves the estimate, the state issues an agreement to the railroad to install the specified signals. BNSF participated in more than 285 diagnostic projects in 2006.

Federal funds pay about 90 percent of the cost of a signal installation and the local government jurisdiction — city, county, etc. — pays the other 10 percent. The railroad maintains the signals from that time forward. These maintenance costs usually equal the cost of the initial installation in about 10 years. The railroad cannot, on its own, install crossing signals. It is required to get state permission.

**Interim FRA Locomotive Horn rule:** On April 27, in response to a Congressional mandate, the Federal Railroad Administration (FRA) issued a Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings. This final rule took effect June 24, 2005 at public highway-rail grade crossings. Under the new rule, local governments may establish quiet zones or continue existing quiet zones, if they are willing to take remedial steps to address risk, based on a calculation of potential risk at the crossing. In many cases, the rule makes these designations subject to FRA review, approval and ongoing oversight. These remedial steps can include crossing closure, grade separation, full-width crossing gates with an approved median divider, full-width gates and lights at crossings on a one-way street, temporary closure (for nighttime quiet zones only) or four quadrant gates. The rule also allows for an automated horn system at the crossing as a substitute for the train horn, if this provision is approved by the Federal Highway Administration. Certain Alternative Safety Measures (ASMs) are also described. Community leaders who have questions about the proposed rule or about BNSF’s role in implementing that rule should contact Mr. Lyn Hartley, Director Public Projects, who can be reached at [Lyn.Hartley@bnsf.com](mailto:Lyn.Hartley@bnsf.com).

## **Community Education/Law Enforcement/Awareness**

**Operation Lifesaver Program:** In 2006, BNSF sponsored more than 4,600 Operation Lifesaver (OL) classes on highway-railroad grade crossing safety. BNSF’s program targets the highest risk populations — new drivers, adult drivers and professional drivers. Approximately one quarter (1,100) of BNSF’s OL courses were presented at drivers’ education classes. Nearly 925 courses were conducted with truck and school bus drivers, over 900 were offered to adult drivers, and 140 were conducted with emergency response personnel. The rest were held at elementary and junior high schools. Over 300 employee and civilian volunteer presenters work on behalf of BNSF highway/rail grade crossing safety. Many of the volunteers were trained by BNSF field safety managers, who are certified by OL to teach using the OL curriculum.

**Officer on the Train:** In 2006, BNSF conducted more than 90 Officer on the Train (OOT) programs. These programs give local law enforcement the opportunity to ride a BNSF train to learn about grade crossing safety laws for motorists and pedestrians and get a sampling of compliance levels. Traffic citations or warnings are often issued as part of OOT programs.

In addition, in 2006 BNSF participated in more than a dozen positive enforcement efforts. This program places law enforcement officers near crossings to watch driver behavior. Motorists who obey grade crossing laws are stopped and thanked for their safe driving and rewarded with a small token of appreciation.

**Roll Call:** In BNSF’s “Roll Call” program, over 600 follow-up visits were conducted with patrol officers at law enforcement agencies to offer training or to reinforce prior training on the importance of enforcing grade crossing safety and trespassing laws.

**Grade Crossing Collision Investigation:** In 2006, BNSF participated in 120 Grade Crossing Collision Investigation (GCCl) courses, which are four- to sixteen-hour courses offered as standard training at law enforcement academies. This program has been endorsed and certified by the National Sheriffs' Association and the International Association of Police Chiefs through OL and is now the standard for training nationwide. In addition, BNSF has developed an on-line, computer based, interactive version of GCCl to provide officers convenient access to this program.

**Industrial truck driver education program:** In 2006, BNSF offered truck driver education programs to over 180 trucking companies located along BNSF track. Primary targets included trucking companies that are BNSF customers, as well as trucking companies that haul commodities such as aggregate and gasoline over BNSF tracks.

**Train crew education and operations testing:** BNSF train crew employees receive extensive hands-on, performance-based training that covers safety and operating rules, air brake and train handling rules, and practice on stationary and full-motion locomotive simulators. This training, provided to newly hired employees as well as current employees as part of BNSF's recertification program, includes skills essential to grade crossing safety, such as a review of train whistle procedures and proper train speeds. This training is reinforced by frequent operations testing, as BNSF supervisors regularly monitor train operations to ensure all safety and operating rules are consistently followed.

### **Grade Crossing Consolidation Programs**

**Grade crossing consolidation:** One of the best ways to address grade crossing safety is to reduce the number of at-grade crossings. BNSF's grade crossing safety program includes an aggressive initiative to close public and private grade crossings, working closely with communities and property owners. Good candidates for closure include those that are redundant (other crossings nearby allow access to the same roads or areas), are not designated emergency routes, have low traffic volumes, or are private crossings that are no longer needed or used. Since 2000, BNSF has closed more than 3,500 at-grade crossings and has a goal of closing 450 more in 2007.

**Private crossing permits review:** In 2006, about 15 percent of BNSF's grade crossing collisions occurred at private crossings. In response, BNSF is working to reduce the number of private grade crossings, especially those that are rarely used or redundant, and closely scrutinizes all requests for new private crossings. During 2006, there were about 100 requests for new private crossing permits. Only 20 new crossings were installed – and 12 of those were temporary for construction purposes.

### **Track and Signal Inspection and Maintenance**

**Track inspection programs:** Key corridors on BNSF are inspected four times a week by BNSF track inspectors, and many heavily-traveled routes are inspected daily. These inspections include a review of condition of track and right-of-way as well as whistle posts, crossbucks, and active warning devices. In addition, BNSF train crews are instructed to report any signal and crossing warning malfunctions immediately to BNSF's Network Operations Center (NOC) in Fort Worth. This program includes "power-on" lights at active warning devices that indicate a working power supply to the lights and gates.

**Grade crossing warning inspection and maintenance:** BNSF is responsible for maintenance of active warning devices and spent about \$46 million in 2006 on grade crossing signal maintenance and repair. Each of the active warning devices is thoroughly inspected monthly by BNSF signal employees. This inspection includes a review of functionality of gates and lights and of battery back-up power sources.

### **Vegetation Control**

**Vegetation treatment and brush control:** As much as practical, BNSF's goal is to reduce vegetation and other obstructions on its right-of-way that would materially interfere with motorists' ability to see approaching train traffic. In 2006, BNSF treated 33,300 acres along its right-of-way with herbicides to prevent growth of new vegetation at railroad crossings.

## Crossing Safety Technology and Management Processes

**Crossing surveillance systems:** BNSF cooperated with various cities across the system to test surveillance systems that digitally record drivers who violate highway-rail grade crossing laws. Drivers receive correspondence advising them that they were observed behaving unsafely.

**1-800 number signs:** BNSF has posted an emergency contact number at all public grade crossings for the public's use in contacting BNSF's 24-hour Resource Operations Center with concerns regarding crossings or related questions (800-832-5452). These signs allow motorists who become stalled or in any way obstruct railroad tracks to call a number and simply provide the information on the sign. This information includes the Department of Transportation (DOT) identification number that pinpoints their location for BNSF's dispatching center and allows us to warn or stop trains in the affected area.

**Other technologies:** BNSF continues to investigate new technologies that enter the marketplace related to highway-rail grade crossing safety. Examples are four quadrant gates, extended cantilever arms, median barriers, in-pavement LED lights, barrier gates, stationary horns and instantaneous reporting of active warning device failures via cellular technology.

## Operations Monitoring Programs

**Reports of unsafe motorists/trespassers:** As part of BNSF's unsafe motorist and trespasser program, train crews and other field employees submitted more than 1,300 reports in 2006 of trespassers or drivers who violated grade crossing safety laws. The information is provided to state highway department personnel for consideration in preparing their grade crossing priority index to determine the possible need for traffic control devices, as part of the Federal Highway-Rail Grade Crossing and Trespasser Prevention Program. BNSF also uses this data to identify problem areas, respond with educational training and seek assistance from local law enforcement authorities.

## BNSF Crossing Closure Procedures

BNSF is the recognized leader in the rail industry when it comes to closing crossings. Since 2000, the railroad has closed over 3,500 public and private at-grade highway rail crossings. How does BNSF average several hundred closures a year? Very simply, with commitment and teamwork.

When the closure program was started, typical annual closures were less than a third of what they are now. Public crossing closures were handled by BNSF's Public Projects team in Engineering, while private crossing closures were handled by the Field Safety team, a part of Operations. The new process would require the two teams to work together and coordinate their efforts. Both teams brought different skills to the new program and an eagerness to learn and work together.

Public Projects is responsible for public highway-rail crossings on the BNSF system. This includes the construction of new crossings and upgrading of warning devices—as directed by local or state authorities. It also includes construction of grade separations, closure and removal of grade crossings, upgrading of crossing surfaces and shepherding local authorities through the process of establishing quiet zones. There are ten Public Projects managers, two assistant directors and one director

The Field Safety team is responsible for private highway rail crossings on the BNSF system. This includes the construction of new crossings or upgrading warning devices under contract with the private crossing owner(s). It also includes closure and removal of private grade crossings. Field Safety is also responsible for grade crossing safety education, working with Operation Lifesaver® to deliver a strong safety message to educators, commercial drivers, law enforcement and the general public.

Coordinating the work of these two groups to focus on crossing closure has made for a strong, dedicated team. When the program began, the team decided to focus on crossings that were redundant or unused. Candidates for closure were submitted by division maintenance and operating personnel—who knew from experience whether a crossing was needed or not.

Once a crossing has been identified as a closure candidate, the path to closure depends on whether it's a private or public crossing. For a private crossing, Field Safety requests owner research. BNSF retains Bartlett & West to create research packages for each private crossing. This consists of copies of deeds, permits, maps and aerials— anything that determines who actually owns the crossings and what rights, if any, exist to the crossing.

The research is pulled from a variety of sources, including BNSF's own files and public records from the county courthouse or other record office. The right to a crossing can come from a variety of sources, such as a deed from the government in exchange for the railroad's right of way, by state statute, or by permit or contract. Some rights may continue through the years; others may have ceased to exist with a change of owners and/or circumstances. In each case, the Field Safety manager works closely with BNSF's Law department to verify the situation.

In most cases, a field visit to the crossings and a visit with the user are scheduled. The field visit may actually come before any research is done, as part of a corridor study or other such work in the field. In the meeting with the user and/or owner, the main subject is safety—safety for the user(s) and safety for the owner. Alternate access is discussed, ways the user can access their property, often via an adjacent road or public crossings.

Once an agreement is executed with the landowner, the crossing is temporarily barricaded to prevent unauthorized use. It remains blocked until permanently removed by BNSF's maintenance team. This usually takes less than 30 days, and is often done in just a week or two. A crossing is considered removed once the surface, approaches and warning devices are removed, and the ditchline on either side is restored to pre-crossing appearance. It usually takes a five to six man maintenance team about two hours to fully remove the crossing and restore the area.

For a public crossing, the procedure is a bit different. Public crossings exist by either local or state government authority, determining which crossings are put in or removed. Each state monitors public road crossings, tracking vehicular and train movements and determining the type of warning devices. The state or local authority decides when a crossing is no longer required, typically after a public hearing, depending on the state. In some cases, it will occur after review by an administrative law judge. Once the railroad is authorized to remove the crossing, work is begun in coordination with the state or local authorities. Again, a crossing is considered removed once the surface, approaches (to the right of way line, local authorities are responsible beyond that point) and warning devices are removed. In some cases, permanent barricades may be required to prevent trespassing on railroad property. Many public closures are part of larger transportation-related projects, such as grade separations or other road improvements.

In a given year, private closures make up 70 percent of the total closures. This is due to longer time required to close public crossings and the complexity of the negotiations with several parties. This can take sometimes up to two years. Private crossings take much less time, as most of them require a simple agreement from the owner to close. To help with the not-so-simple ones, the Crossing Closure team holds a conference call twice monthly to discuss the crossings that are being worked. Each team comments on their crossings and often asks for help in areas of difficulty. Training is done at semi-annual staff meetings, along with field training provided by the core team. As you can see, the closing of a crossing involves the effort of more than one individual. It's the team spirit fostered by the idea of a job well done and knowing that closing a crossing makes for a safer railroad environment.

## **BNSF Public Private Partnerships**

### **Public: What are public-private partnerships?**

Public-private partnerships combine the business interests with the diverse goals of the local, state and federal entities who are working in the interest of the public. Co-operation between the private and public sectors may, in many cases, allow both sides to achieve their respective goals better, faster and at lower costs.

### **How does BNSF approach public-private partnerships?**

Public-private partnerships must be voluntary on both sides. Decisions on behalf of the public interest and investment. BNSF's decision on whether to participate must protect our assets and the interests of our customers, shareholders and employees.

Coordinated state and federal transportation planning is necessary to ensure prudent public investments are made in the national rail network. BNSF works with local, state, and federal agencies to provide whatever relevant information is needed to achieve public goals.

### **Private: What factors does BNSF consider when evaluating a potential public-private partnership?**

Public-private partnerships require a fact based planning approach that that:

- Describes project scope;
- Assesses impact on current freight traffic levels and future traffic growth;
- Provides a cost-benefit analyses on an after-tax risk-adjusted basis; and
- Identifies public funding sources, timing, processes and probability of obtaining funding to meet the public's goals.

BNSF's preliminary interest in exploring the possibilities of a public-private partnership should not be construed as a real or implies commitment by BNSF to support a project or participate either operationally or financially. BNSF's official support or concurrence of a project's benefit will follow the fact-based planning process outlined above, completion of a Memorandum of Understanding (MOU) between the parties and BNSF's issuance of a formal statement of benefit and support.

**Partnerships: What factors may lead BNSF to reject a potential public-private partnership?**

Any public project cannot negatively affect BNSF's freight customers or BNSF's ability to provide them with consistent service, now or in the future.

**Will BNSF consider participating financially in a potential public-private partnership?**

BNSF recognizes public funding for rail projects should be commensurate with public benefits. BNSF's contributions to public-private partnerships will be commensurate with benefits derived by BNSF in comparison with other freight transportation projects competing for BNSF capital dollars.

Even though a project may produce some benefits for BNSF, it may not rank sufficiently high enough compared to other capital investment or timeframe thresholds. When this occurs, BNSF would still support a project but would not provide a financial participation.

**1. Proactive community involvement in railroad development:**

The highway-rail grade crossing is a unique location within our transportation system. Two distinctly different transportation modes cross each other at highway-rail intersection 24 hours a day seven days a week. Each day, an average of 328 million motor vehicles cross railroad tracks at highway-rail grade crossings in the USA. As traffic density for both modes continues to steadily increase with population and economic growth, the highway rail crossing will be a growing stress point in the transportation system. Using growth-planning processes, communities have the ability to assess and prevent potential risk of trespassing as a result of re-zoning planned construction of housing, shopping malls, schools, restaurants, parks, new roadway-arterial construction, new highway construction, proposed public transit or rail transit corridors or other points of interest that may be adjacent to existing railroad operations.

Public-private partnerships combine the business interests of companies with the diverse goals of the local, state and federal entities who are working in the interest of the public. Co-operation between the private and public sectors may, in many cases, allow both sides to achieve their respective goals better, faster, and at lower costs. Communities may use this opportunity to implement a public-private partnership to promote safety and awareness near railroad corridors.

**2. Safety guidelines for highway-rail grade crossings:**

The objective of the Railroad-Highway Grade Crossing Program is to reduce the number and severity of highway accidents by eliminating hazards to vehicles and pedestrians at existing railroad crossings. The program was authorized in Title 23, United States Code, and Section 130. Advocating and promoting the increased communication between those highway agencies, railroad companies and authorities, and government agencies involved with developing and implementing policies, rules and regulations. The Arizona Corporation Commission and the Arizona Department of Transportation jointly maintain an array-database of all of the State's grade crossings. This annually-updated database assists engineers in selecting traffic control devices or other measures at highway-rail grade crossings, which effectively promote more informed decisions.

Several programs, most notable the Highway-Rail Grade Crossings and Hazard Elimination Programs fall under the umbrella of the HSIP. These programs were established by the Highway Safety Act of 1973 to reduce the number and severity of highway-related crashes. The requirements for Highway-Rail Grade Crossings and Hazard Elimination Programs are defined in Sections 130 and 152, respectively, of Title 23, *United States Code*. Since the Intermodal Surface Transportation Efficiency Act of 1991, these highway safety programs are a part of the Surface Transportation Program (STP) and 10 percent of STP funds is set aside for carrying out Sections 130 and 152 of Title 23. The amount of funds reserved for both highway-rail grade crossings and hazard elimination projects must be at least equal to the amount that was apportioned to a State in Fiscal Year 1991. For nearly all States, the amount of funds currently apportioned exceeds the amount apportioned in FY 1991. These additional funds which are referred to

as optional safety funds, may be used for either highway-rail grade crossing or hazard elimination projects.

Projects funded under Section 130 are intended to reduce the number and severity of train collisions with vehicles and pedestrians at highway-rail grade crossings. Typical projects include active warning devices (e.g. lights and gates), signing and pavement markings illuminations, crossing surface improvements, grade separations, sight distance improvements, geometric improvements to roadway approaches, and the closing and/or consolidation of crossings. All public crossing safety improvements are eligible for funding.

The Arizona Corporation Commission (ACC) and local government make joint recommendations. The rail-grade crossing inspections are performed by a Diagnostic Team comprised of officials from ADOT, ACC, Federal Highway Administration (FHWA), the concerned railroad, and the agency having their cost. ADOT, ACC and FHWA make a final selection of projects, based upon available funding. The projects are included in the Statewide Transportation Improvement Program (STIP) which goes to FHWA for approval. U&RR monitors project development with the ACC, the railroad and the sponsoring agency. [http://safety.fhwa.dot.gov/state\\_program/hsip/hsip\\_final.htm](http://safety.fhwa.dot.gov/state_program/hsip/hsip_final.htm)

### 3. **Grade crossing consolidation and closure:**

The best way to address grade crossing safety is to reduce the number of at grade crossings. In the event a grade crossing cannot be eliminated, a Grade Separation (underpass or overpass) is the most suitable alternative option. In 1991, the Federal Railroad Administration (FRA) endorsed a goal of closing 25 percent of all highway-rail grade crossings. Nationwide, the plan will concentrate on presenting "best practices" and successful initiatives in providing technical assistance and support to the state and local government in the consolidation of at grade crossings. Efforts will center on fostering and participating in the development of tools, incentives, guidance and regulations that will help local agencies and railroad companies to facilitate the process and to communicate closure and consolidation proposals forward; where possible or prudent. For any new rail alignment to be built, the design should minimize new grade crossings; where possible or prudent.

#### **§ 646.210 Classification of projects and railroad share of the cost.**

- (a) State laws requiring railroads to share in the cost of work for the elimination of hazards at railroad-highway crossings shall not apply to Federal-aid projects.
- (b) Pursuant to 23 U.S.C. 130(b), and 49 CFR 1.48:
  - (1) Projects for grade crossing improvements are deemed to be of no ascertainable net benefit to the railroads and there shall be no required railroad share of the costs.
  - (2) Projects for the reconstruction of existing grade separations are deemed to generally be of no ascertainable net benefit to the railroad and there shall be no required railroad share of the costs, unless the railroad has a specific contractual obligation with the State or its political subdivision to share in the costs.
  - (3) On projects for the elimination of existing grade crossings at which active warning devices are in place or ordered to be installed by a State regulatory agency, the railroad share of the project costs shall be 5 percent.
  - (4) On projects for the elimination of existing grade crossings at which active warning devices are not in place and have not been ordered installed by a State regulatory agency, or on projects which do not eliminate an existing crossing, there shall be no required railroad share of the project cost.
- (c) The required railroad share of the cost under § 646.210(b) (3) shall be based on the costs for preliminary engineering, right-of-way and construction within the limits described below:
  - (1) Where a grade crossing is eliminated by grade separation, the structure and approaches required to transition to a theoretical highway profile which would have been constructed if there were no railroad present, for the number of lanes on the existing highway and in accordance with the current design standards of the State highway agency.
  - (2) Where another facility, such as a highway or waterway, requiring a bridge structure is located within the limits of a grade separation project, the estimated cost of a theoretical structure and approaches as described in §646.210(c) (1) to eliminate the railroad-highway grade crossing without considering the presence of the waterway or other highway.

(3) Where a grade crossing is eliminated by railroad or highway relocation, the actual cost of the relocation project, the estimated cost of the relocation project, or the estimated cost of a structure and approaches as described in §646.210(c)(1), whichever is less.

(d) Railroads may voluntarily contribute a greater share of project costs than is required. Also, other parties may voluntarily assume the railroad's share.

#### **4. Guidance for Safety At Private Crossings:**

Definition Private Grade Crossing: An at-grade crossing where the highway is privately owned and is intended for use by owner or by the owner's licensees and invitees. It is not intended for public use and is not maintained by public highway authority.

Private Crossing Identification:

1. A Farm Crossing – any crossing used for the movement of motor vehicles, farm machinery or livestock in connection with agricultural pursuits, forestry, or other land-productive purposes.
2. A Residential Crossing – any crossing used to provide vehicular access for occupants and their invitees to a private residence or residences.
3. A Recreational Crossing – any crossing used to provide access to otherwise isolated recreational facilities, such as parks or hunting and fishing areas.
4. An Industrial Crossing – any crossing used to provide access between industrial plant facilities or to an industrial or other commercial area.

In 2006, there were approximately 92,798 private highway-rail crossings in the United States. Private crossings are categorized as either farm, residential, recreational or industrial. However, provisions for signage, surface and other safety attributes of private crossings are largely unaddressed at many locations. Establishing criteria for traffic control devices at private crossings will benefit from guidance set fourth in the Manual on Uniform Traffic Control Devices (MUTCD) and Technical Working Group (TWG) documents.

Develop a program of safety and cooperation that will aid the railroads and state:

1. Help set standards for private grade crossing sign-design.
2. Determine upgrades needed at private crossings.
3. Develop guidelines to limit the opening of new private crossings and closing existing crossings wherever prudent.
4. Ensure that railroad coordinates with each private grade crossing owner/user.

In July 2006, the FRA announced its intent to conduct a series of open meetings throughout the United States, in cooperation with appropriate State agencies, to consider issues related to the safety of private highway-rail grade crossings. The FRA intends to solicit oral statements from private crossing owners, railroads, and other interested parties on issues related to the safety of private highway-rail grade crossings, which will include, but not be limited to: current practices concerning responsibility for safety at private grade crossings,, the adequacy of warning devices at private crossings and the relative merits or a more uniform approach to improving safety at private crossings. As an outcome of this public information the FRA will review policies, rules and regulations.

#### **5. Driver education:**

Partnerships with ADOT-Motor Vehicle Division and Arizona Operation Lifesaver as well as public safety groups, schools, public services organizations will assist in carrying this message. Work in partnership to increase public awareness about the danger at places where the roadway crosses the train tracks and on trespassing on railroad right-of-way. The program seeks to improve driver behavior at highway rail

intersections by encouraging compliance with traffic laws relating to crossing signs and signals. Joint efforts to expand educational programs for professional drivers, driver education courses and the general public would be beneficial in this area. ADOT-Public Transportation Division and METRO light rail are writing the updated Light Rail section of the State Motor Vehicle Guidebook. Expand to include bus, all vehicles, light rail, school buses, and haz-mat. Add links and laws (Arizona Revised Statutes)

Operation Lifesaver offers training modules for key groups of drivers: Student Drivers, Professional Drivers and School Bus Operators. Each module includes a safety video, a student handbook, instructor guide and quiz. The Student Drivers training module is available below. At the end of the quiz, you will have the opportunity to submit the results to your driver instructor, employer, or insurer for credit. Also below you will find excerpts from the School Bus Driver Training video for viewing, along with School Bus Driver training materials in a downloadable format.

## **6. Trespass Prevention:**

Trespassing has continued to be a difficult activity to target, despite increased public involvement programs. The cause of trespassing on railway lines varies in each community. Effective long-term solutions to trespassing problems can be realized by identifying the underlying cause of trespassing at a specific location and developing and implementing an effective tailor made response. Through Arizona Operation Lifesaver and the State and local agencies, assistance will be provided to communities in identifying and addressing the underlying causes of trespassing problems and developing an appropriate intervention for that community.

## **7. Law enforcement:**

The law enforcement community plays an important role in modifying motor vehicle operators and pedestrian behavior at highway- rail grade intersections and along railway rights of ways. Various efforts will be undertaken to educate police officers concerning highway-rail and trespassing safety issues and to recruit law enforcement support as we work to eliminate rail related injuries and fatalities.

Operation Lifesaver works closely with the law enforcement community throughout the United States – a partnership that has improved public safety.

When a collision occurs at a highway-rail intersection, law enforcement officers respond. Being familiar with railroad operations and the conditions at highway-rail grade crossings is important for law enforcement officers.

If railroad tracks run through your community, you or your officers could become involved in a specialized highway-rail grade crossing collision investigation. Grade Crossing Collision Investigation (GCCl) Courses at the Basic (4-hour), Intermediate (8-hour) and Advanced (16-hour) levels are available to help officers more effectively investigate such incidents.

This training was developed for the North American law enforcement community with the cooperation of the International Association of Chiefs of Police, the National Sheriffs Association and Operation Lifesaver, Inc.

Lastly, the TSA also recommends that the State of Arizona may utilize the Arizona Criminal Information Center (ACIC) in order to coordinate rail safety, security and law enforcement measures.

The following programs are designed to support this objective:

- Public Education through Arizona Operation Lifesaver
- Arizona Operation Lifesaver - Public Service Announcements
- Grade Crossing Collision Investigation training
- Officer on the Train enforcement initiatives
- Positive enforcement exercises
- Utilize the Arizona Criminal Information Center (ACIC) database
- First responders training (DHS / TSA Coordination)
- Outreach to Legislature
- Outreach to Judiciary
- Roll Call training

## 8. Emergency Response and Emergency Vehicle Safety Tips:

You're a dedicated emergency responder. Caught up in responding to an emergency call, it can be easy to forget that trains cannot yield to your fire engine or ambulance at a highway-rail grade crossing.

Why? Trains can't stop quickly, and they can't swerve to avoid hitting an object or vehicle on the tracks. The laws of physics mean that it can take a fully-loaded freight train traveling 55 miles an hour a mile or more to stop once emergency brakes are applied.

Studies have shown that it's difficult for drivers of emergency response vehicles to hear a train's warning horn, further complicating the situation for emergency responders.

Operation Lifesaver has developed tools that emergency responders can use to minimize driving hazards at highway-rail intersections:

- Operation Lifesaver's video, "[Emergency Response: Your Safety First](#)," is available for educating emergency responders about safety around train tracks.
- Operation Lifesaver also provides [Safety Tips for Emergency Responders](#).

In addition, a new training course, "**Rail Safety for Emergency Responders**," (RSER) is available nationwide, beginning in July 2006, for training *emergency response personnel, including fire, EMS, emergency management agencies, military and homeland security personnel*. The RSER course is designed to provide emergency responders critical information to prepare them for responding to a railroad incident, including: safe response; knowledge of railroad electrical, fuel, and air systems; hazardous materials; identifying rolling stock; pinch points; stopping a train; high/low pressure tank cars; and other on-scene dangers.

### Tips for Emergency Responders

Operating an emergency response vehicle adds an element of urgency to making decisions at highway-rail grade crossings. These places where the roadway crosses the railroad tracks are a special kind of intersection, a highway-rail intersection. Operation Lifesaver and the National Volunteer Fire Council remind emergency vehicle operators to...

### Be Proactive for Your Safety and the Safety of Your Partners

- Plan routes that allow the driver or other crew member's clear sight down the railroad tracks in both directions.
- Have emergency phone numbers for railroads at dispatch centers. Know which railroad controls the tracks, especially if more than one railroad operates in your community.
- If a train is blocking a crossing when you must get through, contact your emergency dispatcher or the local railroad office.
- Do not place emergency vehicles on tracks and expect the train to be able to stop quickly enough to avoid a collision.
- To stop a train contact the railroad. Give exact locations, using all available reference points: check signal housing for DOT crossing number, e.g., 123456E. If known, use railroad mile posts, name of road, crossroads, and town.
- If necessary to fight long-term brush or structure fires, contact the railroad to obtain clearance to move ballast and feed the hose under the tracks. This will allow safe fire fighting and safe train passage.

A 1986 study conducted by the National Transportation Safety Board concluded that a train's warning horn is effective for large commercial and emergency vehicles only if the driver stops the vehicle, idles the engine, turns off all radios, fans, wipers and other noise sources in the cab, and lowers the window.

Safe routing and access of Emergency vehicles needs to be ensured. Grade separations assist this need.

## **9. Agricultural Farm Worker Rail Safety Education and Outreach:**

Thousands of agricultural workers are commuting daily on rural country roads and operating agricultural machinery in the process of harvesting the multitude of crops throughout the United States. They are unaware of the fact that they are four times more likely to die in a crash going to and from work than on the job. Many of these fatalities are caused by train collisions.

Approximately 62% of private highway-rail crossings nationwide are located on farms. Farm machinery operators need to stay alert where field and farm access roads cross train tracks. These farm rail crossings are largely unmarked (no warning lights, bells, gates or signs), and require extra caution on the part of farm machinery operators. Too often farm workers use the tracks as a short cut to their destination. Since 1994, more than 5,000 people have been killed while trespassing on railroads and nearby property. You cannot always hear an approaching train in time to save your life.

In light of recent tragic incidents involving workers and farm equipment, the Federal Railroad Administration (FRA) is strengthening their efforts to increase railroad safety awareness within the Agricultural Community. As a result, an FRA Community Outreach Coalition (COC) worked together to develop an informational DVD available in both English and Spanish to educate farm workers about signs posted at a crossing, how to safely cross the tracks so that farming equipment does not get caught on the crossing, and the dangers of walking on tracks to get to work or between fields.

This DVD will also provide an additional safety training tool for agricultural employers. The DVD is being distributed nationally and is currently available on the FRA website.

### **Stopping Safely at Farm-Rail Crossings:**

- **Stop no closer than 15 feet from the nearest rail. Allow extra distance for front mounted buckets and chemical tanks on farm tractors.**
- **To better hear the train, open machinery cab window, turn off radios and fans and remove headphones.**
- **Make sure that farm machinery is properly lined up with farm-rail crossing to ensure safe passage over train tracks.**
- **While stopped, look carefully in each direction for approaching trains, moving head and eyes to see around obstructions such as mirrors, windshield pillars and passengers. Fog can create an additional hazard.**
- **Before resuming, make sure there is enough room on the other side of the train track or tracks to fully clear without stopping.**
- **Don't stop on the tracks to open or close gates.**
- **Make sure that any towed equipment does not become unhitched while crossing**
- **Watch that loaded materials are not dislodged onto the tracks while crossing the train tracks.**
- **Do not attempt a crossing with low-slung equipment that can become lodged on "humped" crossings.**

## Track Facts

- Railroad tracks, bridges, tunnels, yards and train equipment are private property.
- Trespassing on railroad property is against the law, and violators are subject to fines and arrest.
- Freight trains do not follow set schedules. A train can approach from ANY direction at ANY time.
- Trains CAN'T STOP QUICKLY OR TURN to avoid you. You CAN'T always hear a train coming and it CAN APPROACH WITHOUT your knowledge.
- Railroad bridges and tunnels are NOT designed for pedestrians. They typically only accommodate the width of a train and DO NOT HAVE sidewalks. Anyone caught on a bridge or in a tunnel when a train approaches MAY NOT ESCAPE in time.
- DO NOT hunt, fish, or play on railroad bridges.
- NEVER walk or climb between or over rail cars or attempt to hop aboard on a moving train.
- Cross tracks ONLY at designated any pedestrian or roadway crossings. OBSERVE AND OBEY all warning signs and symbols.
- DO NOT operate all terrain vehicles (ATVs) on or near railroad tracks.

### 10. Implementation of Quiet Zones:

Provide technical assistance and support to communities interested in establishing quiet zones. The Final Train Horn Rule became effective on June 24, 2005, and is the result of a 1994 law mandating the use of the locomotive horn at all public highway-rail grade crossings with certain exceptions. This rule will pre-empt applicable state laws and related railroad operating rules requiring locomotive horns be sounded. Communities will have the choice to consider silencing train horns at highway-rail grade crossing based on meeting safety needs, under the new regulations. Throughout Arizona, many communities are actively working with local railroads, agencies and the Federal Railroad Administration to address the implementation of new Quiet Zones.

### 11. Common Myths and Common Questions related to Rail:

#### Operation Lifesaver General Rail Safety Information

##### *Facts and safety tips:*

- Freight trains do not travel on a predictable schedule; schedules for passenger trains change. Always expect a train at every highway-rail intersection.
- Train tracks are private property, no matter which railroad owns them. Trains have the right of way 100% of the time — over ambulances, fire engines, cars, the police and pedestrians.
- If there are rails on the railroad ties, assume that the track is in use, even if there are weeds or the track looks "rusty."
- A typical locomotive weighs approximately 400,000 pounds or 200 tons. When 100 railcars are added to the locomotive, the train can weigh
- approximately 6,000 tons. The weight ratio of an automobile to a train is proportional to a soda can and an automobile.

- A train may extend three feet or more outside the steel rail, which makes the safety zone for pedestrians well beyond the rails themselves.
- Trains cannot stop quickly. It is a simple law of physics: the huge weight and size of the train and the speed of the train dictate how quickly it can stop under ideal conditions. A 100-car freight train traveling at 55 miles per hour will need more than a mile to stop — that's approximately 18 football fields — once the train is set into emergency braking.
- There are roughly 200,000 miles of railroad tracks in the United States.
- Trains can move in either direction at any time. Trains are sometimes pushed by locomotives instead of being pulled. This is especially true in commuter and light rail passenger service.
- Modern trains are quieter than ever, with no telltale "clackety-clack." Also, an approaching train will always be closer and moving faster than you think.
- Cross tracks **ONLY** at designated pedestrian or roadway crossings. Observe and obey all warning signs and signals.
- Never walk down a train track; it's illegal and it's dangerous. By the time a locomotive engineer can see a trespasser or a vehicle on the tracks, it is too late. The train cannot stop quickly enough to avoid a collision.
- Remember: Rail and recreation do not mix!

## 12. Professional Drivers - Overview of Requirements

Professional truck drivers have special responsibilities around highway-rail grade crossings. Federal and state regulations require professional drivers who operate certain vehicles to stop before crossing at-grade railroad tracks.

Below you'll find an overview of which vehicles need to stop at highway-rail intersections and when stopping is not required, as well as an update on penalties for professional drivers who violate crossing regulations.

According to [Federal Motor Carrier Safety Administration regulations](#):

- §392.10 Railroad grade crossings; stopping required.
  - (a) Except as provided in paragraph (b) of this section, the driver of a commercial motor vehicle specified in paragraphs (1) through (6) of this section shall not cross a railroad track or tracks at grade unless he/she first: Stops the commercial motor vehicle within 50 feet of, and not closer than 15 feet to, the tracks; thereafter listens and looks in each direction along the tracks for an approaching train; and ascertains that no train is approaching. When it is safe to do so, the driver may drive the commercial motor vehicle across the tracks in a gear that permits the commercial motor vehicle to complete the crossing without a change of gears. The driver must not shift gears while crossing the tracks.

**Drivers of these vehicles must stop at every highway-rail intersection:**

- Transporting chlorine, whether or not placarding is required.
- Driving any vehicle placarded for hazardous material.
- Driving a cargo tank used for hazardous materials, whether loaded or empty.
- Transporting, in a cargo tank, a Class 3 elevated temperature material.
- Transporting a hazardous material covered by a DOT exemption (shipping papers or packaging materials marked "DOT-E" followed by exemption number).

**Stopping is not required:**

- In some states, when the crossing is controlled by a standard traffic signal showing green when tracks are clear.
- At crossings marked with signs showing EXEMPT, ABANDONED, or TRACKS OUT OF SERVICE.
- At a streetcar or spur track in a business district, in some states.
- Where traffic is controlled by a flagman or police officer. (Sec. 12, 80 Stat. 931; 49 U.S.C. 1651 note; 49 U.S.C. 304, 1655; 49 CFR 1.48(b) and 301.60)

### **Changes to Commercial Driver's License (CDL) - New Penalties for Crossing Violations:**

New [Commercial Drivers License](#) changes (49 CFR Parts 350, 353, 354 & 390; specifically in 383.51) became effective September 30, 2002. Failure to observe these new laws when interacting with a railroad crossing could cost you your license!

### **Violations may occur at the Federal, State or Local level when:**

- Although the driver is not required to stop, he fails to slow down and check that the tracks are clear of an approaching train.
- Although the driver is not required to stop, he fails to stop before reaching the crossing, if the tracks are not clear.
- The driver is hauling materials that require a stop (flammable, etc.), but fails to stop at the crossing.
- The driver fails to allow sufficient space on the opposite side of the crossing and is forced to stop with part of the truck still on the crossing.
- The driver fails to obey a traffic control device or the directions of an enforcement official at the crossing.
- The driver is required to properly judge the amount of clearance needed by their undercarriage (for example at a hump crossing). (A driver who fails to negotiate a crossing and gets stuck can face these penalties.)

### **Penalties**

- On first conviction, a CDL holder will be disqualified from operating a commercial motor vehicle (CMV) for no Less than 60 Days. Large truck drivers must have this license to operate.
- Second conviction for any combination of offenses in 3 years, a CDL holder must be disqualified from operating a CMV for no less than a year.

**These penalties are severe and are a result of several tragic crossing collisions between trains and trucks or school buses.**

### **13. Contacts and Resources:**

#### **(Rail Agency, Safety-Security, Railroad and Rail Transit)**

The State of Arizona ~ Public Rail Safety & Security Action Plan was developed by and in cooperation with the following agencies and companies.

Arizona Corporation Commission (ACC) - [www.cc.state.az.us/safety/index-rr.htm](http://www.cc.state.az.us/safety/index-rr.htm)

Arizona Department of Transportation (ADOT) - [www.azdot.gov/index.asp](http://www.azdot.gov/index.asp)

Arizona Operation Lifesaver (AZOL) - [www.azol.org](http://www.azol.org)

BNSF Railway (BNSF) - [www.bnsf.com](http://www.bnsf.com)

Department of Homeland Security (DHS) - [www.dhs.gov/dhspublic](http://www.dhs.gov/dhspublic)

Federal Railroad Administration (FRA-USDOT) - [www.fra.dot.gov](http://www.fra.dot.gov)

Federal Highway Administration (FHWA-USDOT) - [www.fhwa.dot.gov](http://www.fhwa.dot.gov)

Federal Motors Carrier Safety Administration (FMCSA) - [www.fmcsa.dot.gov](http://www.fmcsa.dot.gov)

Governor's Office of Highway Safety (GOHS) - [www.azgohs.gov](http://www.azgohs.gov)

METRO (Light Rail) - [www.valleymetro.org/rail/index.html](http://www.valleymetro.org/rail/index.html)

Transportation Safety Administration (TSA-DHS) - [www.tsa.gov/index.shtm](http://www.tsa.gov/index.shtm)

Union Pacific Railroad (UPRR) - [www.up.com](http://www.up.com)

### **Rail Agency Contacts:**

#### **Arizona Corporation Commission**

#### **Railroad Safety Section**

1200 W. Washington Street

Phoenix, Arizona 85007

phone: Phoenix - 602 262-5601

phone: Tucson - 520 628-6550

24-Hour Emergency Contact - 602 542-7772

email - [railroad@azcc.gov](mailto:railroad@azcc.gov)

web site - [www.azcc.gov/divisions/safety/railroad/index.htm](http://www.azcc.gov/divisions/safety/railroad/index.htm)

**Federal Railroad Administration (Region 7)**

Federal Railroad Administration  
1120 Vermont Avenue, NW, Stop 35  
Washington, DC 20005  
phone: 202 493-6000  
Region 7 phone: 1-800 724-5997  
web site - [www.fra.dot.gov/us/home](http://www.fra.dot.gov/us/home)

**Arizona Department of Transportation  
Utilities & Railroad Engineering Section (ITD)**

205 S. 17th Avenue Mail Drop 618E  
Phoenix, AZ 85007  
phone: 602 712-8692  
web site - [www.azdot.gov/highways/utilities/index.asp](http://www.azdot.gov/highways/utilities/index.asp)

**Arizona Department of Transportation  
Public Transportation Division (PTD)**

206 S. 17th Avenue Mail Drop 340B  
Phoenix, AZ 85007  
phone: 602 712-8303  
web site - [www.azdot.gov/PTD/](http://www.azdot.gov/PTD/)

**Rail Safety-Security Contacts:**

**POLICE EMERGENCY – Dial 911**

**BNSF RAILWAY - RAILROAD POLICE – 1-800-832-5452**

**UNION PACIFIC RAILROAD - RAILROAD POLICE – 1-888-877-7267**

**Arizona Department of Homeland Security**

1700 W Washington  
Phoenix, AZ 85007  
ACTIC hotline phone: 877 2-SAVE-AZ (877-272-8329)  
phone: 602 223-2680 (ACTIC)  
phone: 602 542-7030  
web site – [www.azdohs.gov/](http://www.azdohs.gov/)

**Arizona Department of Public Safety (DPS)  
Arizona Counter Terrorism Information Center (ACTIC)**

P.O. Box 6638  
Phoenix, AZ. 85005  
ACTIC hotline phone: 877 2-SAVE-AZ (877-272-8329)  
phone: 602 223-2680 (ACTIC)  
phone: 602 223-2000 (main DPS switchboard)  
web site - [www.dps.state.az.us/default.asp](http://www.dps.state.az.us/default.asp)

**Arizona Operation Lifesaver (AZOL)**

3660 W. Suffield Lane  
Tucson, AZ. 85741  
phone: 520 403-8745 / 520 444-9443  
web site - [www.azol.org/](http://www.azol.org/)

## Railroad Contacts:

### Class-1 Railroads

#### **BNSF Railway**

P.O. Box 961056  
Fort Worth, TX 76161-0056  
phone: 1-800-795-2673  
24-Hour Emergency Contact – 1-800-832-5452 (BNSF Railway Police)  
For emergencies dial - 1  
For Crossing Gate malfunctions / Grade Crossing issues dial - 2  
web site – [www.bnsf.com](http://www.bnsf.com)

#### **Union Pacific Railroad**

##### **Company Mailing Address and Phone**

Union Pacific Railroad  
1400 Douglas Street  
Omaha, NE 68179  
UP Main Number: 402-544-5000  
UP Operator: 888-870-8777  
Reporting Unusual or Suspicious Occurrences and Environmental Hazards  
Please call 1-888-UPRR COP (877-7267) to report hazardous materials releases, personal injuries, criminal activities, illegal dumping, or other environmental incidents.  
Reporting Rough or Damaged Grade Crossings  
To report rough crossings, or crossings blocked or obscured by vegetation (non-emergency situations only) within the state of California, please call (916) 789-6114.  
To report emergency grade crossing blockages or damage, please call 1-800-848-8715.  
web site – [www.up.com](http://www.up.com)

## Short Line Railroads:

#### **The Apache Railway**

PO Box 857  
Snowflake, AZ 85937-0136  
phone: 928 536-9582  
web site – [www.abitibiconsolidated.com/aciwebsitev3.nsf/site/en/papers/newsprint/snowflake.html](http://www.abitibiconsolidated.com/aciwebsitev3.nsf/site/en/papers/newsprint/snowflake.html)

#### **Arizona & California Railroad**

1301 California Avenue  
P.O. Box 3340  
Parker, AZ 85344 USA  
phone: 928 669-6662  
web site – [www.railamerica.com/railmaps/ARZC.htm](http://www.railamerica.com/railmaps/ARZC.htm)

#### **Arizona Central Railroad**

300 North Broadway  
Clarkdale, Arizona 86324  
Phone: 928 639-0010  
web site – [www.thewesterngroup.net/rrArizonaCentral.html](http://www.thewesterngroup.net/rrArizonaCentral.html)

#### **Arizona Eastern Railway**

Operating Office  
P.O. Box 2200  
Claypool, AZ 85532  
phone: 928 473-2447  
web site – [www.arizonaeasternrailway.com](http://www.arizonaeasternrailway.com)

#### **Arizona Eastern Railway**

Permian Basin Railways Business Office  
118 South Clinton St., Suite 300  
Chicago, IL 60661  
phone: 312 466-0900  
web site – [www.permianbasinrailways.com](http://www.permianbasinrailways.com)

**Black Mesa & Lake Powell Railroad**

SRP - Navajo Generating Station  
Mail Station NGS010 - PO Box 850  
Page, AZ. 86040-0850  
phone: 928 645-6210  
web site – [www.srpnet.com/about/stations/navajo.aspx](http://www.srpnet.com/about/stations/navajo.aspx)

**Copper Basin Railway**

PO Drawer I  
Hayden, AZ. 85235  
phone: 520 356-7730  
web site – [www.asarco.com](http://www.asarco.com)

**Magma Arizona Railroad**

BHP-Billiton  
PO Box M  
San Manuel, AZ. 85631  
phone: 520 385-3456  
web site – [www.bhpbilliton.com/bb/home.jsp](http://www.bhpbilliton.com/bb/home.jsp)

**San Pedro & Southwestern Railroad**

796 East Country Club Drive  
PO Box 1420  
Benson, AZ. 85602  
phone: 520 586-2266

**San Manuel Arizona Railroad**

BHP-Billiton  
PO Box M  
San Manuel, AZ. 85631  
phone: 520 385-3456  
web site – [www.bhpbilliton.com/bb/home.jsp](http://www.bhpbilliton.com/bb/home.jsp)

**Tucson, Cornelia & Gila Bend Railroad**

Freeport-McMoRan  
One North Central Avenue  
Phoenix, AZ. 85004  
phone: 602 366-8100  
web site – [www.fcx.com](http://www.fcx.com)

**Tucson, Cornelia & Gila Bend RR**

Phelps Dodge Ajo, Inc.  
South Highway 85  
Ajo, AZ. 85321  
phone: 520 387-3219

**Terminal / Industrial / Switching Railroads:****APS Cholla Power Plant**

Arizona Public Service - Coal Handling  
PO Box 188, Mail Station 4467  
Joseph City, AZ. 86032  
phone: 520 288-1337  
web site – [www.aps.com/general\\_info/AboutAPS\\_18.html](http://www.aps.com/general_info/AboutAPS_18.html)

**ASARCO Hayden Smelter**

ASARCO Hayden  
PO Box 8  
Hayden, AZ. 85235  
phone: 520 356-7811  
web site – [www.asarco.com](http://www.asarco.com)

**Camp Navajo**

PO Box 16123  
Bellemont, AZ. 86015  
phone: 928 773-3200  
web site – [www.camp-navajo.org/industrial.php](http://www.camp-navajo.org/industrial.php)

**McElhaney Cattle Company**  
34673 East County 9<sup>th</sup> Street, Suite A  
Wellton, AZ. 85356  
phone: 928 785-3384  
**Phelps Dodge Morenci Industrial**  
4521 Highway 191  
Morenci, AZ 85540  
phone: 928 865-6481  
web site – [www.fcx.com](http://www.fcx.com)

Phoenix Corporate Headquarters  
PD / Freeport-McMoRan  
One North Central Avenue  
Phoenix, AZ. 85004  
phone: 602 366-8100

**Phelps Dodge Sierrita Mine**  
6200 West Duval Mine Rd / PO Box 527  
Green Valley, AZ 85622-0527  
phone: 520 648-8500  
web site – [www.fcx.com](http://www.fcx.com)

Phoenix Corporate Headquarters  
PD / Freeport-McMoRan  
One North Central Avenue  
Phoenix, AZ. 85004  
phone: 602 366-8100

**Port of Tucson**  
6964 East Century Park Drive  
Tucson, AZ. 85706  
phone: 520 574-1320  
web site – [www.portoftucson.net](http://www.portoftucson.net)

## Passenger / Tourist Railroads / Rail Tours

**Amtrak**  
Government Affairs  
60 Massachusetts Ave, NE  
Fourth Floor  
Washington, DC. 20002  
Phone: 202 906-3918  
Passenger Information Phone: 800-USA-RAIL (800 872-7245)  
web site – [www.amtrak.com](http://www.amtrak.com)

**Grand Canyon Railway**  
Passenger Depot  
233 North Grand Canyon Boulevard  
Williams, AZ 86046  
phone: 800-THE-TRAIN (800 843-8724)  
web site – [www.thetrain.com](http://www.thetrain.com)

**Grand Canyon Railway**  
Corporate Headquarters  
1201 West Route 66, Suite 200  
Flagstaff, AZ 86001  
phone: 928 773-1976

**Verde Canyon Railroad**  
300 North Broadway  
Clarkdale, Arizona 86324  
Phone: 800 320-0718  
web site – [www.verdecanyonrr.com](http://www.verdecanyonrr.com)

**Yuma Valley Railway**  
Yuma Valley Chapter - National Railway Historical Society  
P.O. Box 10305  
Yuma AZ 85366-8305

- Yuma Valley Railway no longer has an active phone or website.
- US Bureau of Reclamation owns the Yuma Valley Railway track and real estate.
- US Bureau of Reclamation Lower Colorado Region: Phone: 702 293-8705

**GrandLuxe Rail Journeys**  
Attn: Customer Service  
35715 US Hwy 40, Suite D302  
Evergreen, CO 80439  
phone: 800 320-4206  
web site – [www.americanorientexpress.com/Index.html](http://www.americanorientexpress.com/Index.html)

**Sierra Madre Express**

P.O. Box 26381  
Tucson, AZ 85726-6381  
phone: 800 666-0346  
web site – [www.sierramadreexpress.com](http://www.sierramadreexpress.com)

**Rail Transit Contacts:**

**Amtrak**

Government Affairs  
60 Massachusetts Ave, NE  
Fourth Floor  
Washington, DC. 20002  
Phone: 202 906-3918  
Passenger Information Phone: 800-USA-RAIL (800 872-7245)  
web site – [www.amtrak.com](http://www.amtrak.com)

**METRO light rail (metropolitan Phoenix)**

101 North First Avenue, Suite 1300  
Phoenix, AZ 85003  
phone - 602 254-RAIL  
email - [rail@valleymetro.org](mailto:rail@valleymetro.org).  
web site - [www.valleymetro.org/METRO\\_light\\_rail](http://www.valleymetro.org/METRO_light_rail)

**Regional Transportation Authority (RTA - metropolitan Tucson)**

177 N. Church Ave., Suite 405  
Tucson, AZ 85701  
phone: 520 770-9410  
web site - [www.rtamobility.com/](http://www.rtamobility.com/) (Tucson Modern Streetcar)

**Old Pueblo Trolley (Tucson)**

P.O. Box 1373  
Tucson, AZ 85702  
phone: 520 792-1802  
web site - [www.oldpueblotrolley.org/index.htm](http://www.oldpueblotrolley.org/index.htm)

## Appendix I

### AZ Statutes pertaining to Railroads (4-24-05 Notes/Comments)

#### Criminal Trespass and Burglary

13-1502..A.2 Criminal trespass in the third degree; (Trespassing on Railway property.)

#### Criminal Damage to Property

13-1602.A.3 Criminal damage; (Tampering/Defacing property of a utility.) (Ref. 28-7743)

13-3720. Dropping objects from overpass. (Includes Railroad bridges)

28-622. Failure to comply with police officer. (Lawful orders)

28-623.B.2 Obedience by public officers and employees; (Exceptions for Railroad workers.)

#### Traffic Signs, Signals, and Markings

28-644. Obedience to and required traffic control devices. ("No Trespassing" signs are not required.)

28-649. Interference with traffic control device or railroad sign or signal; (Ref. MUTCD- traffic control device)

28-726. Limitations on driving to left of roadway center. (Overtaking within 100 ft. of Railroad crossing.)

#### Special Stops Required

28-851. Approach of train; signal. (Stop > 15ft. to crossing; Horn is blowing; Gate being raised/lowered.)

28-852. Dangerous railroad grade crossing. (Stop between 15 and 50 feet)

28-853. Railroad grade crossing; stop required of certain vehicles. (School buses; HazMat)

28-854. Railroad grade crossing; moving heavy equipment. (Low Profile/Heavy vehicles)

28-855. Stop signs; yield signs. (Yield right-of-way at Crossbucks 1934 US Supreme Court ruling)

28-873. Stopping, standing or parking prohibitions. (50ft. of nearest rail; or 8 ½ ft of center of track)

28-3312. Mandatory disqualification of commercial driver license. (Railroad related citations)

28-6705. Public road and street maintenance. (Road maintenance)

28-6706. Primitive roads. (Repairs)

28-6708. Jurisdiction of streets; unincorporated town. (Defining Public Highways)

28-6711. Railroad construction along improved highway prohibited; exception. (Crossings)

28-7743. Utility crossings; definition. (Railroads as Public Utilities)

40-323. Commission rules and regulations. (Railroad services)

40-324. Power of commission to order changes in service to insure adequate service by railroad.

- 40-325. Power of commission to order physical connection between railroad companies.
- 40-326. Duty of railroad company to make connection with track of private shipper; conditions.
- 40-327. Order by commission for connection or spur; right to connect to private track.
- 40-336. Power of commission to require safety devices.
- 40-337. Power of commission over railway crossings.
- 40-337.01. Installation of automatic warning devices; agreements for sharing cost; apportionment of cost.
- 40-337.02. Allocation of funds for automatic warning signals at railway crossings.
- 40-337.03. Determination of location of automatic warning signals.
- 40-338. Accidents on property of public service corporations; (ACC Investigates)
- 40-339. Refusal of common carrier to receive or carry passenger; classification.
- 40-846. Electric headlights; violation; penalty.
- 40-847. Bells on locomotives; violation; penalties.
- 40-848. Automatic bell ringer required; violation; classification.
- 40-849. Transportation of employees; equipment required; (Transporting Railroad employees)
- 40-852. Allowing engine or car to remain upon public crossing; (Stopped > 15 minutes; unavoidable delays)
- 40-854. Failure to warn at public crossing; (1,320 to 1,500 ft. horn blowing)
- 40-855. Violation of duty by railroad officer or employee; (Criminal Negligence)
- 40-856. Railroad police; powers; qualifications; (Powers of Peace Officers with DPS appointment.)
- 40-881. Train crew requirements. (Passenger equipment)
- 40-882. Train crews; penalty for violation of full crew requirements.
- 40-883. Exceptions to full crew requirements.
- 40-884. Train dispatcher; age and experience; violation; classification.
- 42-5062. Transporting classification.
- 28-101 Def.: #56. "Vehicle" means a device in, on or by which a person or property is or may be transported or drawn on a public hwy., excluding devices moved by human power or used exclusively on stationary rails or tracks.

## **Criminal Trespass and Burglary**

### **13-1502. Criminal trespass in the third degree; classification.**

Statute text

A. A person commits criminal trespass in the third degree by:

1. Knowingly entering or remaining unlawfully on any real property after a reasonable request to leave by the owner or any other person having lawful control over such property, or reasonable notice prohibiting entry.

2. Knowingly entering or remaining unlawfully on the right-of-way for tracks, or the storage or switching yards or rolling stock of a railroad company.

B. Criminal trespass in the third degree is a class 3 misdemeanor.

## **Criminal Damage to Property**

### **13-1602. Criminal damage; classification.**

Statute text

A. A person commits criminal damage by recklessly:

1. Defacing or damaging property of another person; or
2. Tampering with property of another person so as substantially to impair its function or value; or
3. Tampering with the property of a utility.
4. Parking any vehicle in such a manner as to deprive livestock of access to the only reasonably available water.
5. Drawing or inscribing a message, slogan, sign or symbol that is made on any public or private building, structure or surface, except the ground, and that is made without permission of the owner.

B. Criminal damage is punished as follows:

1. Criminal damage is a class 4 felony if the person recklessly damages property of another in an amount of ten thousand dollars or more, or if the person recklessly causes impairment of the functioning of any utility.
2. Criminal damage is a class 5 felony if the person recklessly damages property of another in an amount of two thousand dollars or more but less than ten thousand dollars.
3. Criminal damage is a class 6 felony if the person recklessly damages property of another in an amount of more than two hundred fifty dollars but less than two thousand dollars.
4. In all other cases criminal damage is a class 2 misdemeanor.

### **13-3720. Dropping objects from overpass; classification; definition.**

Statute text

- A. A person on an overpass who with criminal negligence drops, throws, shoots or otherwise propels an object at or on the lower level street or highway or at or on a motor vehicle that is standing or being operated on the lower level street or highway is guilty of a class 1 misdemeanor.
- B. For purposes of this section, "overpass" means the upper level of a crossing, at different levels, of two streets or highways or a street or highway and a pedestrian path or railroad.

### **28-622. Failure to comply with police officer; classification.**

Statute text

- A. A person shall not willfully fail or refuse to comply with any lawful order or direction of a police officer invested by law with authority to direct, control or regulate traffic.
- B. A person who violates this section is guilty of a class 2 misdemeanor.

### **28-623. Obedience by public officers and employees; exceptions.**

Statute text

- A. Except as provided in this section and subject to specific exceptions prescribed in this chapter and chapters 4 and 5 of this title with reference to authorized emergency vehicles, the provisions of this chapter and chapters 4 and 5 of this title applicable to the drivers of vehicles on the highways apply to the drivers of all vehicles owned or operated by the United States, this state or any county, city, town, district or other political subdivision of this state
- B. Unless specifically made applicable by law, this chapter and chapters 4 and 5 of this title:
  - 1. Do not apply to persons, teams, motor vehicles and other equipment while actually engaged in work on the surface of a highway.
  - 2. Do not apply to railroad employees working on a railroad track or tracks crossing the highway.
  - 3. Apply to persons and vehicles described in this section if they are traveling to or from work on the surface of a highway or on a railroad track or tracks crossing the highway.

Utility Vehicles.

Telephone company was not liable for negligence where its vehicle had a permit from the city which entitled it to park in the right-of-way off of the paved portion of the highway during the excavation of a utility pit within the highway right-of-way easement, which was conduct exempt under this section. Beck v. Mountain States Tel. & Tel. Co., 153 Ariz. 426, 737 P.2d 402 (Ct. App. 1987).

The owner of a utility vehicle which is lawfully parked off the paved, traveled portion of the highway, has no obligation to prevent injury to a jaywalking pedestrian. Beck v. Mountain States Tel. & Tel. Co., 153 Ariz. 426, 737 P.2d 402 (Ct. App. 1987).

**Traffic Signs, Signals, and Markings**

**28-644. Obedience to and required traffic control devices.**

Statute text

- A. Unless otherwise directed by a traffic or police officer and subject to the exemptions granted the driver of an authorized emergency vehicle in this chapter, the driver of a vehicle shall:
  - 1. Obey the instructions of an official traffic control device applicable to the driver that is placed in accordance with this chapter.
  - 2. Not drive over or across or park in any part of a gore area. This paragraph does not apply to the driver of a vehicle that is disabled while on the paved or main traveled portion of a highway in a manner and to an extent that it is impossible to avoid stopping and temporarily leaving the disabled vehicle in that position. For the purposes of this paragraph, "gore area" means the area that is between a through roadway and an entrance ramp or exit ramp and that is defined by two wide solid white lines that guide traffic entering or exiting a roadway. Gore area does not include a safety zone.
- B. Any provision of this chapter that requires signs shall not be enforced against an alleged violator if at the time and place of the alleged violation an official sign is not in proper position and sufficiently legible to be seen by an ordinarily observant person. If a particular section of law does not state that signs are required, that section is effective even though no signs are erected or in place.

In General.

Motorists who approach an intersection controlled by a traffic signal are required by law to abide by the signal, and may accordingly proceed in reliance of the signal alone. Johnson v. Maricopa County, 152 Ariz. 153, 730 P.2d 862 (Ct. App. 1986).

**28-649. Interference with official traffic control device or railroad sign or signal; possession of traffic preemption emitter; classification; definition.**

Statute text

- A. A person shall not attempt without lawful authority to or in fact alter, deface, injure, knock down or remove an official traffic control device, a railroad sign or signal or an inscription, shield or insignia on any device, sign or signal or any part of the device, sign or signal.
- B. A person shall not possess a traffic preemption emitter unless the person is authorized to possess a traffic preemption emitter within the course and scope of the person's duties with a law enforcement agency, fire department, ambulance service or agency of the federal government, this state or a political subdivision of this state.
- C. A person who violates this section is guilty of a class 1 misdemeanor.
- D. For the purposes of this section, "traffic preemption emitter" means strobe, strobe light or any device that is capable of changing the display of any traffic control device used to control the movement of vehicles, bicycles or pedestrians.

**28-726. Limitations on driving to left of roadway center.**

Statute text

- A. A person shall not drive a vehicle to the left side of the roadway under the following conditions:
  - 1. When approaching the crest of a grade or on a curve in the highway where the driver's view is obstructed within such distance as to create a hazard in the event another vehicle might approach from the opposite direction.
  - 2. When approaching within one hundred feet of or traversing any intersection or railroad grade crossing or where appropriate signs or markings have been installed to define a no passing zone.
  - 3. When the view is obstructed on approaching within one hundred feet of any bridge, viaduct or tunnel.
- B. The limitations provided in this section do not apply on a one-way roadway.

Where defendant was approximately 3 feet over the imaginary center line of a smooth gravel roadway 21 feet in width, defendant's driving was a violation of statute. *Petefish ex rel. Clancy v. Dawe*, 137 Ariz. 593, 672 P.2d 937 (Ct. App. 1982), modified on other grounds, 137 Ariz. 570, 672 P.2d 914 (1983).

**Special Stops Required**

**28-851. Approach of train; signal.**

Statute text

- A. When a person driving a vehicle approaches a railroad grade crossing, the driver of the vehicle shall stop within fifty feet but not less than fifteen feet from the nearest rail of the railroad and shall not proceed until the driver can do so safely under any of the following circumstances:
  - 1. A clearly visible electric or mechanical signal device gives warning of the immediate approach of a railroad train.
  - 2. A crossing gate is lowered or a human flagman gives or continues to give a signal of the approach or passage of a railroad train.
  - 3. A railroad train approaching within approximately one thousand five hundred feet of the highway crossing emits a signal audible from such distance and the railroad train is an immediate hazard by reason of its speed or proximity to the crossing.
  - 4. An approaching railroad train is plainly visible and is in hazardous proximity to the crossing.
- B. A person shall not drive a vehicle through, around or under a crossing gate or barrier at a railroad crossing while the gate or barrier is closed or is being opened or closed.

**28-852. Dangerous railroad grade crossing.**

Statute text

The director, and local authorities with the approval of the director, may designate particularly dangerous highway grade crossings of railroads and may erect stop signs at the crossings. If the stop signs are erected, the driver of a vehicle shall stop within fifty feet but not less than fifteen feet from the nearest rail of the railroad and shall proceed only on exercising due care.

**28-853. Railroad grade crossing; stop required of certain vehicles.**

Statute text

- A. Except as otherwise provided in this article, before crossing at grade any track or tracks of a railroad, the driver of a motor vehicle carrying passengers for hire, of any school bus carrying any school child or of any vehicle carrying or returning after delivery of explosive substances or flammable liquids as a cargo or part of a cargo shall stop the vehicle within fifty feet but not less than fifteen feet from the nearest rail of the railroad, while stopped listen and look in both directions along the track for an approaching train and for signals indicating the approach of a train and not proceed until the driver can do so safely. After stopping as required by this section and on proceeding when it is safe to do so, the driver of the vehicle shall cross only in a gear of the vehicle for which there is no need to change gears while traversing the crossing and shall not shift gears while crossing the track or tracks.
- B. This section does not apply at:
  - 1. A crossing where a police officer or a traffic control signal directs traffic to proceed.
  - 2. A street railway grade crossing within a business or residence district.

**28-854. Railroad grade crossing; moving heavy equipment; exception; definition.**

Statute text

- A. A person shall not operate or move any heavy equipment on or across a track at a railroad grade crossing unless:
  - 1. Notice of the intended crossing is given to a station agent of the railroad.
  - 2. Before making the crossing, the person operating or moving the vehicle or equipment:
    - (a) Stops the vehicle or equipment at least fifteen feet but not more than fifty feet from the nearest rail of the railroad.
    - (b) While so stopped, listens and looks in both directions along the track for an approaching train and for signals indicating the approach of a train.
  - 3. Does not proceed until the crossing can be made safely.
- B. A person shall not make a crossing pursuant to this section when a warning is given by automatic signal, crossing gates or a flagman or otherwise of the immediate approach of a railroad train or car. If a flagman is provided by the railroad, movement over the crossing shall be under the flagman's direction.
- C. This section does not apply to the normal movement of farm equipment in the regular course of a farm operation.
  - D. For the purposes of this section, "heavy equipment" means any crawler type tractor, steam shovel, derrick, roller or other equipment or structure having a normal operating speed of ten miles per hour or less or a vertical body or load clearance of less than one-half inch per foot of the distance between any two adjacent axles or in any event of less than nine inches measured above the level surface of a roadway.

**28-855. Stop signs; yield signs.**

Statute text

- A. The director, with reference to state highways, and local authorities, with reference to other highways under their jurisdiction, may designate through highways and erect stop or yield signs at specified entrances to the through highways or may designate an intersection as a stop or yield intersection and erect like signs at one or more entrances to the intersection.
- B. A driver of a vehicle approaching a stop sign shall stop before entering the crosswalk on the near side of the intersection, or if there is no crosswalk, shall stop at a clearly marked stop line, or if there is no line, shall stop at the point nearest the intersecting roadway where the driver has a view of approaching traffic on the intersecting roadway before entering the intersection except when directed to proceed by a police officer.
- C. The driver of a vehicle approaching a yield sign shall slow down in obedience to the sign to a speed reasonable for the existing conditions and shall yield the right-of-way to any vehicle in the intersection or approaching on another highway so closely as to constitute an immediate hazard during the time the driver is moving across or within the intersection. If after driving past a yield sign without stopping the driver is involved in a collision with a vehicle in the intersection, the collision is prima facie evidence of the driver's failure to yield the right-of-way.

Relevance.

A motorist who has stopped at a stop sign must rely on his own observations of approaching traffic on the intersecting roadway before he may proceed; accordingly, the presence or absence of an unobstructed view at an intersection posted with stop signs is not legally irrelevant to a negligence suit against a county. *Johnson v. Maricopa County*, 152 Ariz. 153, 730 P.2d 862 (Ct. App. 1986).

**28-873. Stopping, standing or parking prohibitions.**

Statute text

Except if necessary to avoid conflict with other traffic or if in compliance with law or the directions of a police officer or traffic control device, a person shall not stop, stand or park a vehicle in any of the following places:

- 1. On a sidewalk.
- 2. In front of a public or private driveway, except that this paragraph does not apply to a vehicle or the driver of a vehicle engaged in the official delivery of the United States mail if both of the following apply:
  - (a) The driver does not leave the vehicle.
  - (b) The vehicle is stopped only momentarily.
- 3. Within an intersection.
- 4. Within fifteen feet of a fire hydrant.
- 5. On a crosswalk.
- 6. Within twenty feet of a crosswalk at an intersection.
- 7. Within thirty feet on the approach to any flashing beacon, stop sign, yield sign or traffic control signal located at the side of a roadway.
- 8. Between a safety zone and the adjacent curb or within thirty feet of points on the curb immediately opposite the ends of a safety zone, unless the director or a local authority indicates a different length by signs or markings.
- 9. Within fifty feet of the nearest rail or a railroad crossing or within eight feet six inches of the center of any railroad track, except while a motor vehicle with motive power attached is loading or unloading railroad cars.
- 10. Within twenty feet of the driveway entrance to a fire station and on the side of a street opposite the entrance to any fire station within seventy-five feet of the entrance when properly posted.

11. Alongside or opposite a street excavation or obstruction when stopping, standing or parking would obstruct traffic.
12. On the roadway side of a vehicle stopped or parked at the edge or curb of a street.
13. On a bridge or other elevated structure on a highway or within a highway tunnel.
14. At any place where official signs prohibit standing or stopping.
15. On a controlled access highway except for emergency reasons or except in areas specifically designated for parking such as rest areas.

Utility Vehicles.

Where a telephone company vehicle had a permit from the city which entitled it to park in the right-of-way off of the paved portion of the highway and next to the excavation of a utility pit within the highway right-of-way easement, which easement permits the use of right-of-way for utilities, the conduct was exempt (see § 28-623) from subsection 14 of this section, and not negligent as a matter of law. *Beck v. Mountain States Tel. & Tel. Co.*, 153 Ariz. 426, 737 P.2d 402 (Ct. App. 1987).

**28-3312. Mandatory disqualification of commercial driver license; definition.**

Statute text

A. The department shall disqualify a person from driving a commercial motor vehicle as follows:

1. Except as provided in subsection F of this section and except as otherwise provided in this subsection, for at least one year from the date a person is convicted of a first violation of any of the following:
  - (a) Driving a commercial motor vehicle under the influence of intoxicating liquor or a controlled substance or while having an alcohol concentration of 0.04 or more.
  - (b) Leaving the scene of an accident involving a motor vehicle driven by the person.
  - (c) Using a motor vehicle in the commission of a felony.
  - (d) A violation of chapter 4, article 3 of this title while operating a noncommercial motor vehicle.
2. For at least three years, if any of the violations prescribed in paragraph 1 of this subsection occurred while the person was transporting a hazardous material in the quantity and under the circumstances that require placarding of the transport vehicle under the department's safety rules pursuant to chapter 14 of this title.
3. Except as provided in subsection B of this section, for the life of the person, if the person is convicted of two or more violations of any of the offenses prescribed in paragraph 1 of this subsection or of any combination of those offenses arising from two or more separate incidents. The department shall consider only offenses committed from and after December 31, 1989 in applying this paragraph.
4. For the life of the person, if the person uses a commercial motor vehicle in the commission of a felony involving the manufacture, distribution or dispensing of a controlled substance or possession with intent to manufacture, distribute or dispense a controlled substance.
5. For at least sixty consecutive days, if the person is convicted of two serious traffic violations committed in a motor vehicle arising from separate incidents occurring within a three year period from the date of the conviction.
6. For at least one hundred twenty consecutive days, if the person is convicted of three serious traffic violations committed in a motor vehicle arising from separate incidents occurring within a three year period from the date of the conviction.

B. Except as provided in subsection C of this section, a person who is found responsible for violating an out-of-service order pursuant to section 28-5241 is disqualified from driving a commercial motor vehicle as follows:

1. For a period of ninety days if the person is found responsible for a first violation of an out-of-service order.
  2. For a period of one year if the person is found responsible for a second violation of any out-of-service order during any ten year period arising from separate incidents.
  3. For a period of three years if the person is found responsible for a third or subsequent violation of any out-of-service order during any ten year period arising from separate incidents.
- C. A person who is found responsible for violating an out-of-service order pursuant to section 28-5241 while transporting hazardous materials or while operating a commercial motor vehicle designed or used to transport sixteen or more passengers, including the driver, is disqualified from driving a commercial motor vehicle as follows:
1. For a period of one hundred eighty days if the person is found responsible for a first violation of an out-of-service order.
  2. For a period of two years if the person is found responsible for a second or subsequent violation of any out-of-service order during any ten year period arising from separate incidents.
- D. A person who is convicted of or found responsible for violating any federal, state or local railroad grade crossing law, ordinance or regulation is disqualified from driving a commercial motor vehicle as follows:
1. For a period of sixty days if a person is convicted of or found responsible for a first violation.
  2. For a period of one hundred twenty days if a person is convicted of or found responsible for a second violation during any three year period.
  3. For a period of one year if a person is convicted of or found responsible for a third or subsequent violation during any three year period.
- E. The department shall permanently disqualify a person from driving a commercial motor vehicle if the person does any of the following:
1. More than once refuses a test in violation of section 28-1321 if the refusals involve more than one incident.
  2. More than once is convicted of violating chapter 4, article 3 of this title.
  3. More than once uses a noncommercial motor vehicle in the commission of a felony.
- F. If a federal agency determines that a commercial motor vehicle licensee is driving in a manner that constitutes an imminent hazard, the department, on receipt of notification by the federal government, shall disqualify the driver for a period not to exceed one year. For the purposes of this subsection, "imminent hazard" means the existence of a condition that presents a substantial likelihood that death, serious illness, severe personal injury or a substantial endangerment to health, property or the environment may occur before the reasonably foreseeable completion date of a formal proceeding to decrease the risk of death, illness, injury or endangerment.
- G. The department shall keep records of findings of responsibility for a civil traffic violation and of conviction of any moving criminal traffic violation for a commercial driver licensee if the violations arise from a commercial motor vehicle or a noncommercial motor vehicle.
- H. A person found responsible within three years for a second violation of any of the following shall be disqualified from driving a commercial motor vehicle for a period of sixty days and for a period of one hundred twenty days for a third or subsequent violation of any of the following:
1. Driving a commercial motor vehicle when the person has not been issued a valid commercial driver license.
  2. Driving a commercial motor vehicle without a commercial driver license in the person's possession.

3. Driving a commercial motor vehicle without having a valid endorsement for the type of commercial motor vehicle or motor vehicle combination being operated.
- I. Disqualification for an offense committed by a commercial driver license holder while operating a noncommercial motor vehicle apply only if the conviction results in the revocation, cancellation or suspension of the person's commercial driver license or noncommercial driver license.
- J. The department may adopt rules establishing guidelines and conditions under which the department may reduce a disqualification for life pursuant to subsection A, paragraph 3 of this section to a disqualification of at least ten years. If a person's disqualification is reduced pursuant to rules adopted pursuant to this subsection and the person is subsequently disqualified pursuant to subsection A, paragraph 3 of this section, the person is permanently disqualified from driving a commercial vehicle and is not eligible to apply for a reduction of the disqualification pursuant to rules adopted pursuant to this subsection.
- K. For the purposes of this section, "serious traffic violation" means a conviction for any of the following:
  1. Excessive speeding involving a single offense for a speed of fifteen miles per hour or more above the posted speed limit.
  2. Reckless driving as provided by section 28-693.
  3. Aggressive driving as provided by section 28-695.
  4. Racing as defined in section 28-708.
  5. Improper or erratic traffic lane changes as provided by section 28-729.
  6. Following the vehicle ahead too closely as provided by section 28-730.
  7. A violation of this title that is connected with a fatal traffic accident.

**28-6705. Public road and street maintenance.**

Statute text

- A. The board of supervisors may spend public monies for maintenance of public roads and streets other than legally designated state and county highways located without the limits of an incorporated city or town. Before spending public monies under this section, the roads or streets shall be both:
  1. Laid out, opened and constructed without cost to the county.
  2. Completed pursuant to a plat approved pursuant to sections 11-802 and 11-806.01 and in accordance with standard engineering road specifications adopted by the board of supervisors to ensure uniform compliance.
- B. The board of supervisors may spend public monies for maintenance of public roads and streets laid out, constructed and opened before June 13, 1975 even if the roads and streets were not constructed in accordance with subsection A of this section.
- C. Maintenance of a public road or street does not include purchasing or laying cement. To reduce long-term maintenance costs for maintenance authorized by this section, the board of supervisors may spend monies to add rock products, gravel and processed materials to the base of the roads and streets. Petroleum based or nonpetroleum based products may be used in the maintenance and repair of unpaved roads, alleys and shoulders identified pursuant to section 9-500.04 or section 49-474.01.

Safety Prior to Acceptance.

The clear import of § 11-806.01 and this section is that until such time as the subdivision streets have been accepted by the county, the subdivider is responsible for their construction, maintenance, and for the safety of the members of the public who may be using them during this interim period of time; this means that the subdivider must make these streets reasonably safe for the traveling public. *West v. Sundance Dev. Co.*, 169 Ariz. 579, 821 P.2d 240 (Ct. App. 1991).

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  - 2. Completed pursuant to a plat approved pursuant to sections 11-802 and 11-806.01 and in accordance with standard engineering road specifications adopted by the board of supervisors to ensure uniform compliance.
- B. The board of supervisors may spend public monies for maintenance of public roads and streets laid out, constructed and opened before June 13, 1975 even if the roads and streets were not constructed in accordance with subsection A of this section.
- C. Maintenance of a public road or street does not include purchasing or laying cement. To reduce long-term maintenance costs for maintenance authorized by this section, the board of supervisors may spend monies to add rock products, gravel and processed materials to the base of the roads and streets. Petroleum based or nonpetroleum based products may be used in the maintenance and repair of unpaved roads, alleys and shoulders identified pursuant to section 9-500.04 or section 49-474.01.

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**28-6706. Primitive roads.**

Statute text

- A. The board of supervisors or the governing body of a city or town may designate a public road within its jurisdiction as a primitive road as prescribed in this section.
- B. Neither a county, city or town nor its employees are liable for damages or injuries resulting from the use of a primitive road designated under this section except for intentional injuries or gross negligence caused by an employee acting within the scope of the employee's employment.
- C. The board of supervisors or the governing body of a city or town shall not designate a road as a primitive road unless it was opened before June 13, 1975 and was not constructed in accordance with county standards.
- D. The county, city or town shall place signs on every road designated as a primitive road in locations adequate to warn the public. These signs shall state "primitive road, caution, and use at your own risk. This surface is not regularly maintained."
- E. A board of supervisors or the governing body of a city or town shall not designate a state or county highway as a primitive road.

**28-6707. Highway improvement within city or town limit.**

Statute text

- A. The part of a highway located in an incorporated city or town may be constructed, improved or maintained through cooperation under this article in the same manner as if it were located outside an incorporated city or town.
- B. As part of the cooperation, the board of supervisors may enter into an agreement with the governing body of a city or town for the lease of:

1. County equipment used to construct, improve or maintain highways located in the boundaries of the city or town.
2. City or town equipment used to construct, improve or maintain highways located in the boundaries of the county.

**28-6708. Jurisdiction of streets; unincorporated town.**

Statute text

The streets of an unincorporated town are considered public highways and are under the control of the board of supervisors of the county in which the town is located. The board may designate which streets in the unincorporated towns are considered public highways and may give appropriate names to them.

**28-6711. Railroad construction along improved highway prohibited; exception.**

Statute text

- A. A railroad or street railway shall not be constructed along or on any portion of a highway improved under this article, except a crossing authorized by the board of supervisors. The board of supervisors shall not grant a franchise for the construction of a railroad or street railway along or on an improved portion of the highway, except for a crossing.
- B. If such a highway or portion of a highway, after having been improved, is included in the boundaries of an incorporated city or town, the municipal authorities may grant the franchise within the boundaries of the city or town on the express condition that the grantee shall pay to the county for the benefit of the county general fund an amount equal to the cost of the improvement of that portion of the improved highway that will be occupied by the track of the railroad or street railway.

**28-7743. Utility crossings; definition.**

Statute text

- A. The operator shall include in the application a description of public utility facilities and rights-of-way anticipated to be crossed and plans for crossings or relocations of the facilities. Both the operator and each public utility whose works are to be crossed or affected shall cooperate fully with each other in planning and arranging the manner of the crossing or relocation of the facilities.
- B. A public utility possessing the powers of eminent domain may exercise these powers in connection with the moving or relocation of facilities to be crossed by the roadway or to be relocated to the extent that moving or relocation is made necessary by construction of the roadway, including construction of temporary facilities for the purpose of providing service during the period of construction.
- C. If the operator and the public utility whose facilities are to be crossed or relocated fail to agree to a plan for a crossing or any necessary relocation, either party may request the board to inquire into the need for the crossing or relocation and to decide whether the crossing or relocation should be compelled and, if so, the manner in which the crossing or relocation is to be accomplished. The board may employ department engineers to examine the location and plans for the crossing or relocation, hear any objections, consider modifications and make a recommendation to the board.
- D. For the purposes of this section, "public utility" includes railroads, pipelines and electric, sewer, water, gas and telecommunications lines.

**40-323. Commission rules and regulations to regulate time for furnishing services by railroad and telephone and telegraph companies; uniformity of demurrage charges.**

Statute text

- A. The commission may provide by rules and regulations:
  1. The time within which all railroad corporations shall furnish, after demand therefore, cars, equipment and facilities necessary for handling freight in carload and less than carload lots.

2. The time within which consignors or persons ordering cars shall load them.
  3. The time within which consignees to whom freight is consigned shall unload and discharge it and receive freight from freight rooms.
  4. Provide penalties for failure to conform to such rules.
- B. Charges for demurrage shall be uniform so that the same penalty is paid by both the shipper, consignee and railroad for an equal number of cars for each day for which demurrage is charged.
  - C. The commission may provide the time within which express packages shall be received, gathered, transported and delivered at destination, and the limits within which express packages shall be gathered and distributed, and telegraph and telephone messages delivered, without extra charge.
  - D. The commission may provide the time within which baggage shall be received, transported, delivered and stored.
  - E. The commission may enforce reasonable regulations for weighing cars and freight offered for shipment over any line of railroad, and test the weights made by a railroad and scales used in weighing freight or cars.

**40-324. Power of commission to order changes in service to insure adequate service by railroad.**

Statute text

When the commission finds that any railroad or street railroad does not run a sufficient number of trains or cars, or possess or operate sufficient motive power reasonably necessary to accommodate the traffic transported by or offered for transportation to it, or does not run its trains or cars with sufficient frequency or at reasonable or proper times having regard to safety, or does not stop the equipment at proper places, or does not run any train or cars upon a reasonable time schedule for the run, the commission may make any order reasonably necessary to accommodate and transport the traffic, passengers or freight, transported or offered for transportation.

**40-325. Power of commission to order physical connection between railroad companies.**

Statute text

When the commission finds that the public convenience and necessity will be served by having connections made between the tracks of any two or more railroad corporations so that cars may readily be transferred from one to the other, the commission may order two or more such corporations owning or operating tracks of the same gauge to make physical connections at any and all crossings, and at all points where a railroad shall begin to terminate or run near to any other railroad. After the necessary franchise or permit has been secured from the city, county, or town, the commission may likewise order such physical connection, within such city, county, or town, between two or more railroads which enter the limits thereof. The commission shall by order direct whether the expense thereof shall be borne jointly or otherwise.

**40-326. Duty of railroad company to make connection with track of private shipper; conditions.**

Statute text

- A. Every railroad corporation, upon application of a shipper or receiver or contemplated shipper or receiver of freight for a connection between the railroad of such corporation and an existing or contemplated private track or railroad of such person, shall make such connection and provide switches and tracks necessary, and deliver and receive cars thereover upon condition that the connection is reasonably practicable and can be installed and used without materially increasing the hazard of the operation of the railroad with which the connection is sought, and that the business which may reasonably be expected to be received by the railroad corporation over the connection is sufficient to justify the expense of the connection to the railroad corporation.
- B. Under the conditions set forth in subsection A, every railroad corporation, upon application of a shipper or receiver or contemplated shipper or receiver of freight, shall construct upon its right of way a spur to receive and deliver freight.

**40-327. Order by commission for connection or spur; right to connect to private track; order to company to switch cars of another corporation.**

Statute text

- A. When the commission finds that application has been made by any person to a railroad corporation for a connection or spur which the corporation has refused, and that the applicant is entitled thereto, the commission shall make an order thereto and for the maintenance and use of such connection or spur upon terms the commission prescribes.
- B. When so provided, any person may connect with the private track thereby connected with the railroad and may use the private track or spur upon payment to the party incurring the primary expense of the private track or spur a reasonable proportion of the cost thereof, to be determined by the commission after notice and hearing, if such connection and use can be made without unreasonable interference with the rights of the party incurring the primary expense.
- C. The commission may require one railroad corporation to switch to private spurs and industrial tracks upon its own railroad the cars of a connecting railroad corporation and to prescribe the terms and compensation for the service.

**40-336. Power of commission to require safety devices.**

Statute text

The commission may by order, rule or regulation, require every public service corporation to maintain and operate its line, plant, system, equipment, and premises in a manner which will promote and safeguard the health and safety of its employees, passengers, customers and the public, and may prescribe the installation, use, maintenance and operation of appropriate safety or other devices or appliances, including interlocking and other protective devices at grade crossings or junctions and block or other systems of signaling, establish uniform or other standards of equipment, and require the performance of any other act which health or safety requires.

The corporation commission has the authority to require a railroad to install safety devices; however, a public hearing first must be held, unless the parties in interest have agreed on the construction and the allocation of construction costs. *Southern P. Transp. Co. v. Arizona Corp. Comm'n*, 173 Ariz. 630, 845 P.2d 1125 (Ct. App. 1992).

**40-337. Power of commission over railway crossings.**

Statute text

- A. No public highway or street shall be constructed across the track of any railroad at grade, nor shall the track of any railroad corporation be constructed across the track of any other railroad at grade, without the permission of the commission, but this provision shall not apply to the replacement of lawfully existing tracks. The commission may refuse permission or grant it upon such terms and conditions as it prescribes.
- B. The commission shall have the exclusive power:
  - 1. To determine and prescribe the manner, including the particular point of crossing, and the terms of installation, operation, maintenance, use and protection of each of the crossings.
  - 2. To alter or abolish crossings.
  - 3. To prescribe the terms upon which and the proportions in which the expense of the alteration or abolition of the crossing shall be divided between the parties affected or in interest.
- C. When the commission finds that public convenience and necessity demands establishment, creation or construction of a crossing of a street or highway over, under or upon the tracks or lines of any public service corporation, the commission may by order require the establishment, construction or creation of the crossing, and the crossing shall thereupon become a public crossing. The commission shall have the exclusive power to prescribe the character of crossings to be constructed and maintained by railroads where their lines cross public roads or streets of a town or city.  
Authority to Establish Crossings.

Neither the Arizona constitution nor the legislature conferred authority on the Arizona corporation commission to require a public railroad company to establish and maintain a crossing where a private road used by the public

intersects railroad company's tracks. Burlington N. & Santa Fe Ry. Co. v. Arizona Corp. Comm'n, 198 Ariz. 604, 12 P.3d 1208 (Ct. App. 2000).

The jurisdiction of the Arizona corporation commission is limited to ordering the establishment of public crossings only where railroad tracks cross public roadways. Burlington N. & Santa Fe Ry. Co. v. Arizona Corp. Comm'n, 198 Ariz. 604, 12 P.3d 1208 (Ct. App. 2000).

#### **40-337.01. Installation of automatic warning devices; agreements for sharing cost; apportionment of cost.**

##### Statute text

- A. The commission may determine, after a public hearing, whether any particular crossing of a railroad and a public highway or street is sufficiently hazardous as to require the installation of automatic warning signals or devices at such crossing, provided, that a public hearing shall not be required if the parties in interest have entered into an agreement for the construction of such crossing and for the apportionment between them of the cost of acquiring and installing such automatic warning signals or devices and provided further such agreement assesses the cost at not to exceed the amounts prescribed in subsection B.
  
- B. If the commission finds that any crossing requires the installation of automatic warning signals or devices, it shall order such installation, and if the parties in interest are unable to agree upon the apportionment of the cost of acquisition and installation, then the cost shall be borne as follows:
  - 1. The railroad, fifty per cent.
  - 2. Where a city street is involved: the city, fifty per cent.
  - 3. Where a county highway is involved: the county, fifty per cent.
  - 4. When a state highway is involved: the state highway fund, fifty per cent.
  - 5. City, county or state highway funds may be used to finance the cost of installation of automatic warning signals or devices in amounts greater than those set forth in this subsection, provided that federal funds are available for and are actually reimbursed to the city, county or state highway to cover the cost of the installation
  
- C. When a railroad has installed automatic signals or warning devices pursuant to order of the commission, it shall secure reimbursement for that portion of the cost thereof which, in accordance with the agreement of the parties in interest or the provisions hereof, is to be borne by others, by filing verified claims with the appropriate fiscal officers, and such claims shall be approved and paid without reference to or limitation by the provisions of any other law. For the purpose of determining the amount of reimbursement to which the railroad is entitled, the commission shall retain jurisdiction of the matter and upon completion of the installation of the automatic signals and warning devices, shall make a determination as to the cost of installing same, including but not limited to, the cost of acquisition and expense of installation.

##### Public Hearings.

The corporation commission has the authority to require a railroad to install safety devices; however, a public hearing first must be held, unless the parties in interest have agreed on the construction and the allocation of construction costs. Southern P. Transp. Co. v. Arizona Corp. Comm'n, 173 Ariz. 630, 845 P.2d 1125 (Ct. App. 1992).

Where a railroad had entered into a written agreement with the department of transportation, on behalf of a city, for construction of a crossing and the apportionment of the cost, the railroad was bound only by that agreement, and the corporation commission was without jurisdiction to advance the completion date without first holding a public hearing, and the railroad does not have to request a hearing; rather, this section mandates that the commission conduct a public hearing absent an agreement of all interested parties. Southern P. Transp. Co. v. Arizona Corp. Comm'n, 173 Ariz. 630, 845 P.2d 1125 (Ct. App. 1992).

#### **40-337.02. Allocation of funds for automatic warning signals at railway crossings.**

Statute text

- A. In each annual budget request prepared by the corporation commission, ten per cent, but not more than two hundred thousand dollars, of the total amount approved for the same year by the federal highway administration for railroad-highway projects within this state under the provisions of the federal highway acts of 1973 and 1976, and subsequent acts, shall be set aside from the general or any other fund for the installation of automatic warning signals or devices or the upgrading of existing warning signals or devices at public railroad grade crossings. Such appropriation shall be used exclusively for the ten per cent required under the federal highway acts of 1973 and 1976, and subsequent acts, for railroad-highway projects approved for federal funding in any year under such acts.
- B. Funds appropriated pursuant to this section shall be available for allocation and expenditure without regard to fiscal years.
- C. Funds appropriated pursuant to this section shall be in addition to any funds appropriated for the purposes of section 40-337.01.
- D. The corporation commission shall in its request for such funds, provide a full report of accomplishments for the previous year and an accounting of all funds not utilized from previous appropriations.

**40-337.03. Determination of location of automatic warning signals.**

Statute text

On or before February 15 of each year, the commission shall submit to the railroad involved and the city, county and department of transportation in which jurisdiction a public railroad grade crossing is located, an array of such crossings where the installation of automatic warning signals or devices should be considered during the year, or within a reasonable time thereafter depending upon the availability of monies, materials, labor and other factors involved in such installation.

Case References.

**40-338. Accidents on property of public service corporations; investigation; report.**

Statute text

- A. The commission shall investigate the cause of all accidents upon the property of any public service corporation, or directly or indirectly arising from or connected with its maintenance or operation, resulting in loss of life or injury to persons or property, and may make such order or recommendation with respect thereto as is just and reasonable.
- B. Every public service corporation shall file with the commission a report of each accident so occurring, but the report, order and recommendation, shall not be admitted as evidence in any action for damages arising out of the accident.

**40-339. Refusal of common carrier to receive or carry passenger; classification.**

Statute text

A person, or any agent or officer of a corporation, doing business as a common carrier of passengers, who knowingly refuses, without just cause or excuse, to receive and entertain a guest, or to receive and carry a passenger, is guilty of a class 2 misdemeanor.

**40-846. Electric headlights; violation; penalty.**

Statute text

- A. Every railroad corporation, or receiver or lessee thereof, shall equip its locomotives used in the transportation of trains over the railroad, except locomotives regularly used in switching cars or trains, with electric headlights of not less than fifteen hundred candle power measured without the aid of a reflector.
- B. Any railroad company, or receiver or lessee thereof, doing business in this state, which violates the provisions of this section and is liable to the state for a penalty of not less than one hundred nor more than one thousand dollars for each offense.

- C. Action shall be brought to recover such penalty in a court of competent jurisdiction in the name of the state by the attorney general or by the county attorney of any county in or through which the railroad is operated.

**40-847. Bells on locomotives; violation; penalties.**

Statute text

- A. Each railroad corporation shall equip its locomotives with a bell weighing not less than twenty pounds.
- B. Any railroad corporation which fails to comply with subsection A of this section is liable for a penalty of one hundred dollars which shall be recovered by an action filed by the attorney general in the name of the state.
- C. The amount recovered shall be paid as follows:
  - 1. One half thereof to the informer, if there is an informer as determined by the court in which the action is filed.
  - 2. One half thereof shall be deposited, pursuant to sections 35-146 and 35-147, under direction of the court.
- D. In addition to the penalty provided by subsection B of this section, the corporation shall be liable for all damages sustained by any person for failure of the corporation to comply with subsection A of this section.
- E. A separate action may be filed for each violation of subsection A of this section.

**40-848. Automatic bell ringer required; violation; classification.**

Statute text

- A. It is unlawful for any railroad to operate on its tracks within the state an engine not equipped with an automatically operated bell ringer for ringing the bell on the engine, which will cause the bell on the engine to continue to ring after being set in motion by the engineer or fireman. The device for starting or stopping the bell ringer shall be placed in a position where it can be operated by the engineer or fireman from his usual position in the cab.
- B. A railroad violating this section is guilty of a petty offense for each day that any locomotive engine is used in violation of this section, but if any ringer becomes out of order while the engine in which it is installed is in use, the engine may complete its trip.

**40-849. Transportation of employees; equipment required; violation; classification; time to comply.**

Statute text

- A. It is unlawful for an owner or operator of a common carrier railroad to transport its employees in, or for such purpose to furnish its employees with, a rail motor car not having the following equipment:
  - 1. A transparent windshield made of safety glass or plastic and sufficient in width and height to afford reasonable protection.
  - 2. A suitable mechanically operated device that will remove rain, snow and sleet from such windshield.
  - 3. An electric head lamp of sufficient candle power to render visible under ordinary atmospheric conditions at a distance of three hundred feet any obstruction, landmark, warning sign or grade crossing on the railroad right of way.
  - 4. At least one electric red lamp on the rear of such motor car with sufficient candle power to be visible at a distance of three hundred feet under ordinary atmospheric conditions.

- B. The head and rear lights provided for in subsection A shall only be required during the hours between one-half hour before sunset and one-half hour after sunrise.
- C. A common carrier railroad which is unable, on or before July 3, 1955, to equip its rail motor cars as prescribed by subsection A may apply to the corporation commission for an extension of time to do so. Upon a showing of good cause, the commission may grant additional time, not to exceed one year from July 3, 1955, to an operator or owner of a common carrier railroad within which to equip its rail motor cars as prescribed by subsection A. When extension of time is granted, the penalty provisions of subsection D shall not be applicable to such carrier during the period of the extension.
- D. Any owner or operator of a common carrier railroad who operates for or furnishes its employees with a rail motor car which is not equipped as prescribed by subsection A shall be guilty of a petty offense. Each day or part of a day a rail motor car not so equipped is operated or furnished its employees constitutes a separate offense.

**40-852. Allowing engine or car to remain upon public crossing; classification.**

Statute text

An engineer, conductor or other employee or officer of a railroad company who permits a locomotive or cars to be or remain upon the crossing of a public highway over such railway so as to obstruct travel over the crossing for a period exceeding fifteen minutes, except in cases of unavoidable accident, is guilty of a class 2 misdemeanor.

In General.

Whether there is a reason for the train to be standing at the crossing is a circumstance which the trier of fact can consider in deciding whether the railroad breached its duty to act in a reasonably prudent manner. *Terranova v. Southern P. Transp. Co.*, 158 Ariz. 125, 761 P.2d 1029 (1988).

**40-854. Failure to warn at public crossing; classification.**

Statute text

A person in charge of a railroad locomotive who before crossing any traveled public way omits to cause the bell to ring or a whistle, siren or other sounding device to sound at a distance of at least eighty rods from a crossing and until it is reached, is guilty of a class 2 misdemeanor.

Fact Question.

Not only must the railroad give reasonable warning of the crossing and the approach of a train, but it must take precautions commensurate with the danger involved at the crossing to avoid injury to the traveling public. Hence, whether a railroad is negligent in a particular manner, such as in failing to provide automatic crossing gates, is a question of fact for the jury. *Terranova v. Southern P. Transp. Co.*, 158 Ariz. 125, 761 P.2d 1029 (1988).

**40-855. Violation of duty by railroad officer or employee; classification.**

Statute text

An officer, agent or servant of a railroad company who is guilty of any criminally negligent violation or omission of his duty as such officer, agent or servant, whereby human life or safety is endangered, the punishment of which is not otherwise prescribed, is guilty of a class 2 misdemeanor.

**40-856. Railroad police; powers; qualifications; liability of company.**

Statute text

- A. Any railroad company may appoint one or more persons to be designated by such railroad company as railroad police to aid and supplement the law enforcement agencies of this state in the protection of railroad property and the protection of the persons and property of railroad passengers and employees. While engaged in the conduct of his employment, each railroad policeman so appointed shall possess and exercise all law enforcement powers of peace officers in this state.

- B. Any person appointed by a railroad company to act as a railroad policeman under the provision of subsection A of this section shall first have the minimum qualifications established for peace officers and police officers pursuant to section 41-1822. The railroad company shall file the name of each such railroad policeman, on the date of his appointment, with the director of the department of public safety. If the proposed railroad policeman meets the minimum qualifications established under section 41-1822, the director of the department of public safety shall issue him a certificate of authority to act as a peace officer and may thereafter revoke such certificate for good cause shown.
- C. Each railroad company appointing any railroad police shall be liable for any and all acts of such railroad police within the scope of their employment. Neither the state nor any political subdivision shall be liable for any act or failure to act by any such railroad policeman.

**40-881. Train crew requirements.**

Statute text

- A. A passenger, mail or express train composed of less than six cars, when operated outside yard limits shall carry a crew consisting of not less than one engineer, one fireman, one conductor and one flagman. This subsection shall not apply to gasoline motor cars.
- B. A passenger, mail or express train composed of six or more cars, when operated outside yard limits on main line tracks, shall carry a crew consisting of not less than one engineer, one fireman, one conductor, one flagman, and one brakeman. When such train is operated outside yard limits on branch lines (including the use of main lines where necessary to reach initial or final terminals of branch lines) it shall carry a crew consisting of not less than one engineer, one fireman, one conductor, and one brakeman.

**40-882. Train crews; penalty for violation of full crew requirements.**

Statute text

- A. It is unlawful for any railroad company, or for the receiver of such company, to run upon any railroad or any part thereof within this state, any train, locomotive or engine which does not carry for use in its operation, a full crew as provided by section 40-881.
- B. Each railroad company or receiver who runs upon any railroad or any part thereof within this state, any train, locomotive or engine which does not carry in its operation a full crew as provided by section 40-881, is liable to the state for a penalty of not less than one hundred dollars for every such offense.
- C. All actions for penalties to be recovered under this section shall be brought and prosecuted to judgment in the name of the state, as plaintiff, in a court of competent jurisdiction in the county of Maricopa, or in any county in the state into or through which the defendant's railroad line is operated, and the action shall be brought and prosecuted by the attorney general or under his direction, or by the county attorney of any such county.

**40-883. Exceptions to full crew requirements.**

Statute text

- A. Nothing contained in sections 40-881 and 40-882 shall apply:
  - 1. To relief or wrecking trains when a sufficient number of persons are not immediately available to comply with those sections.
  - 2. To any railroad less than forty miles long, including all of its operated lines.
  - 3. When trains have been sent out or started at the last division point with the requisite number of employees, but, owing solely to disability or refusal of one or more of the employees to act, the train is left with less than a full crew.
- B. No baggage master shall be required in the operation of a train upon which baggage is not carried.

**40-884. Train dispatcher; age and experience; violation; classification.**

Statute text

A railroad company or corporation operating a line of railroad within this state, which employs or permits any person to act as telegraph operator for the purpose of receiving or transmitting messages, orders or other instructions governing or affecting the movement of a train unless the person is at least eighteen years of age and has had not less than one year experience as a telegraph operator, is guilty of a petty offense.

**42-5062. Transporting classification.**

Statute text

- A. The transporting classification is comprised of the business of transporting for hire persons, freight or property by motor vehicle, railroads or aircraft from one point to another point in this state. The transporting classification does not include:
1. Transporting for hire persons, freight or property by motor carriers subject to a fee prescribed in title 28, chapter 16, and article 4 or by light motor vehicles subject to a fee under title 28, chapter 15, and article 4.
  2. The business of transporting for hire persons traveling in air commerce by aircraft if taxation of the business is preempted by federal law.
  3. Ambulances or ambulance services provided under title 48 or certified pursuant to title 36, chapter 21.1 or provided by a city or town in a county with a population of less than one hundred fifty thousand persons as determined in the most recent United States decennial census.
  4. Public transportation program services for the dial-a-ride programs and special needs transportation services.
  5. Transporting freight or property for hire by a railroad operating exclusively in this state if the transportation comprises a portion of a single shipment of freight or property, involving more than one railroad, either from a point in this state to a point outside this state or from a point outside this state to a point in this state. For purposes of this paragraph, "a single shipment" means the transportation that begins at the point at which one of the railroads first takes possession of the freight or property and continues until the point at which one of the railroads relinquishes possession of the freight or property to a party other than one of the railroads.
- B. The tax base for the transporting classification is the gross proceeds of sales or gross income derived from the business, except that the following shall be deducted from the tax base:
1. The gross proceeds of sales or gross income derived from transporting for hire persons, freight or property by a railroad pursuant to a contract with another railroad that is also considered to be engaged in the businesses of transporting persons, freight or property for hire if the other railroad is liable for the tax on gross proceeds of sales or gross income attributable to the transportation.
  2. The gross proceeds of sales or gross income derived from business activity that is properly included in any other business classification under this article and that is taxable to the person engaged in that classification, but the gross proceeds of sales or gross income to be deducted shall not exceed the consideration paid to the person conducting the activity.
  3. The gross proceeds of sales or gross income derived from a business activity that is arranged by the person who is subject to tax under this section and that is not taxable to the person conducting the activity due to an exclusion, exemption or deduction under this section or section 42-5073, but the gross proceeds of sales or gross income to be deducted shall not exceed the consideration paid to the person conducting the activity.
4. The gross proceeds of sales or gross income derived from business activity that is arranged by a person who is subject to tax under this section and that is taxable to another person under this section who conducts the activity, but the gross proceeds of sales or gross income to be deducted shall not exceed the consideration paid to the person conducting the activity.

## Analysis

### Constitutionality.

Discrimination under the Railroad Revitalization and Regulatory Reform Act does not arise when exemptions are granted from a generally applicable property tax if the railroads are treated fairly in comparison to other industrial and commercial taxpayers subject to the tax. *Atchison, T. & S.F. Ry. v. Arizona*, 78 F.3d 438 (9th Cir. 1996), cert. denied, 519 U.S. 1029, 117 S. Ct. 584, 136 L. Ed. 2d 514 (1996).

Fact that revenue collected from motor carrier taxes was used to repair the roads, while the railroads had to repair trackage themselves, did not render Arizona tax scheme invalid under Railroad Revitalization and Regulatory Reform Act since the state cannot levy and collect taxes to construct and maintain trackage on privately owned railroad property and since the federal act reached only tax burdens and not tax benefits. *Atchison, T. & S.F. Ry. v. Arizona*, 78 F.3d 438 (9th Cir. 1996), cert. denied, 519 U.S. 1029, 117 S. Ct. 584, 136 L. Ed. 2d 514 (1996).

Subsection A of § 42-5062 could not constitutionally be applied to tax a railroad's gross receipts from shipping goods from Clifton, Arizona to other points in Arizona via connections in Lordsburg, New Mexico; neither Arizona statutory law nor Arizona case law provided authorization for allocating gross receipts from the transportation business between services performed within and without Arizona. *S. P. Transp. Co. v. State*, 202 Ariz. 326, 372 Ariz. Adv. Rep. 25, 44 P.3d 1006 (Ct. App. 2002).

### Federal Law

Section 11503(b)(4) of Railroad Revitalization Regulatory Reform Act was designed to encompass all discriminatory state taxes, not just discriminatory property taxes or in lieu taxes and thus was applicable to the analysis of the transaction privilege tax and use tax imposed on railroads. *Atchison, T. & S.F. Ry. v. Arizona*, 78 F.3d 438 (9th Cir. 1996), cert. denied, 519 U.S. 1029, 117 S. Ct. 584, 136 L. Ed. 2d 514 (1996).

### Receipts Taxable

Company which supplied coal to a coal-fired electric power plant was obligated to pay sales taxes on the full amount it charged the power plant for coal rather than pay tax only on the amount it paid for the coal; transportation and handling costs could not be deducted for purposes of computing sales tax. *Valencia Energy Co. v. Arizona Dep't of Revenue*, 189 Ariz. 79, 938 P.2d 474 (Ct. App. 1996), aff'd in part, vacated in part, 191 Ariz. 565, 959 P.2d 1256 (1998).

Where service, which delivered packages in Arizona, had not timely registered its vehicles as lightweight motor carriers and paid the motor carrier tax, the statutory exemption from transaction privilege tax did not apply, former § 42-1310.02. *Valencia Energy Co. v. Arizona Dep't of Revenue*, 189 Ariz. 79, 938 P.2d 474 (Ct. App. 1996), aff'd in part, vacated in part, 191 Ariz. 565, 959 P.2d 1256 (1998).