

Conrail Contractor Orientation Course
Contractor Safety

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A Message to Our Contractors

As an approved contractor on Conrail, you are responsible to ensure that anyone you require to enter Conrail's property or work on Conrail's equipment understands and complies with all safety rules that apply to their work. That includes your employees, foremen and supervisors, managers, and subcontractors, as well as any other individuals that you might require to inspect or participate in your work.

You must have a safety plan in place that ensures the safety of everyone under your control, which reflects and complies with your safety rules, Conrail's safety and operating rules, and the rules of all regulatory agencies.

This web site is designed as a service to you, to provide you and your employees with information about Conrail's rules and policies. It is designed as a basic review of Conrail's safety rules and requirements, and those of the regulatory agencies.

It is *your* responsibility to ensure that every one of your employees successfully completes this program, understands the requirements thoroughly, and complies with the rules at all times while working on Conrail property.

You may choose to have your employees take this course on the computer, or you may want to print it out and conduct it in a group session. Either way, it is your responsibility to ensure that every person understands how to work safely prior to beginning his or her work

Upon successful completion of the course, each employee must pass a written exercise. A copy of the form and related information will be transmitted to Conrail to confirm their qualifications to work on the property.

This course provides only an overview of the rules and regulations. In addition, prior to beginning work, someone from your company must read and study the sections of the Conrail documents that apply to your work, and ensure that the requirements are communicated to and understood by your employees. Copies of most of those documents are found on this web site. Click next to the appropriate document to download a copy in .pdf format.

- Conrail Safety Rules and General Responsibilities for All Employees S-7. A copy should be secured from the office of the Chief Safety and Environmental Officer and reviewed prior to beginning work on the project.
- Conrail On-Track Safety Manual R-3 [Click here.](#)
- Conrail Job Briefing Guidelines Cards [Click here.](#)

Conrail and federal On-Track Safety rules and regulations govern your employees or others working along the right-of-way.

You must assign an employee-in-charge for every work gang, who is thoroughly knowledgeable of the rules and ensures that every employee receives training in the procedures they need to stay safe. The information on this web site is not sufficient for that employee, who must read and understand the Conrail On-Track Safety Manual prior to accepting that responsibility.

Conrail's Operating Department management will monitor your work and safety practices. Failure to adhere to our rules and policies may result in your project being shut down until you can exhibit compliance. Flagrant, continuous or willful violations may result in termination of your contract.

If you have any questions regarding Conrail's rules or project requirements, please contact the following individuals.

- For immediate problems or questions, contact the Conrail Operating Department management for your work location.
- For questions or guidance about safety or operating rules or training, contact Neil P. Ferrone, Chief Safety Officer, Mt. Laurel, NJ. (856) 231-2007

Authority to Work on Conrail Property

Before beginning work on Conrail property, a contractor must:

- Have a valid right-of-entry agreement from Conrail.
- Notify the Conrail Operating Department management representative at least 48 hours prior to commencing work on Conrail property, and at least 24 hours prior to commencing work that will require any person or equipment (including boom extensions) to be closer than 25 feet to any track.
- Have in place an On Track Safety program and safety procedures, and provide copies of them to Conrail.
- Train all employees in, and be sure they thoroughly understand, the operating and safety requirements for the work to be performed.
- Have trained supervision and procedures in place to continually monitor the work site, to identify hazards that could result in injury or incident, to monitor the safe and efficient work of all employees, and to take immediate action in case any situation may jeopardize safety.
- Have an employee-in-charge on site that is thoroughly knowledgeable about Conrail Roadway Worker Safety and government regulations; and that continuously ensures that protection briefings and training are provided to all roadway workers at the site.

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Conrail Contractor Safety Training

Part One – General Requirements

A Message from Conrail's Chief Safety and Environmental Officer

At Conrail, the health and safety of every one of our employees, of our contractors' employees, and of communities we serve is our first priority. We believe that all accidents are preventable through individual effort and by creating an environment that promotes a culture of safety.

Our company policies, and governmental regulations, require that every person who works on our property be thoroughly trained in all safety requirements. As a contractor to Conrail, it is the responsibility of your employer to ensure that you are properly trained. Conrail is providing this program as a service to you. The course covers the *minimum* safety requirements that you must follow. In cases where your company's safety rules are different than Conrail's, you must always follow the more restrictive rule.

It is your *personal responsibility* to know and comply with all applicable safety rules at all times while on our property.

On Conrail, safety takes priority over all other considerations. Production, deadlines, quality or service may never be used as an excuse to shortcut safety. If at any time during you feel that any task you are required to perform may cause potential harm to yourself, to another person, or to the environment, please think twice before performing that task and ask for help from your supervisor. Remember, *only you* can ensure that we all stay safe and healthy.

Neil P. Ferrone, Chief Safety and Environmental Officer, Conrail

Conrail Seven Point Safety Message

1. Safety is the first priority
2. Do not perform work that cannot be safely accomplished
3. Make a safe move, not a fast move
4. Do not take shortcuts
5. Work the safest way possible, and use the safest methods
6. Wear your protective equipment; it can save you pain and misery
7. There are three ways to handle hazards – avoid, eliminate, compensate

Job Safety Briefings

At Conrail, every employee, contractor, and visitor must participate in job safety briefings prior to and during their work shift. These job briefings are an integral part of our safety program.

You must participate in a job safety briefing at the following times during the day:

- Prior to beginning your shift
- As the work changes during the day
- As conditions change, for example weather or traffic
- Whenever a new person joins the work site

It is *your* responsibility to be sure that you participate in a safety briefing at those times; that you receive all the information you need to work safely; and that you thoroughly understand the information. If for any reason you are asked to begin work without receiving a job briefing, or you feel that changes to the work or conditions warrant a new briefing, you must ask for a briefing to be conducted, and should not begin or continue work until you are satisfied you have the necessary information.

A copy of the Conrail Job Briefing Guidelines Card is found on this web site. If you are responsible to conduct job briefings, you should download and become familiar with those cards, which outline the process to be followed to develop and deliver the job safety briefing.

To download a .pdf version of the Conrail Job Briefing Guidelines Card,

Job Safety Briefing Guidelines

Before beginning any task, be sure that a complete job safety briefing is conducted with all individuals involved in the task. The principles of a job safety briefing are as follows:

What

A communication tool used by professionals to make sure that every team member knows what is to be done and how it is to be done safely, and that every team member is alert and focused on the job.

Why

To ensure that the job is done right the first time – no injuries, no damage, and up to Conrail standards.

When

At the beginning of the job and at any time during the job as conditions change or new tasks are started.

Where

On the job, at the work site, in the locker room, or wherever else the whole crew can get together.

How

Plan the job. What needs to be done?

- What steps will be taken? How will each step go?
- What tools, equipment, and materials will be used?
- What are the conditions of the job location?
- What are the existing and potential hazards? (Beyond the job, location, and tools, these include but are not limited to weather, traffic, time of day, Personal Protective Equipment.)
- How will work assignments be made? (Group? Individual? According to individual ability and experience?)

Talk it through. Use “how” and why questions to communicate specifically who does what, when, where, why and how.

- What safety precautions are necessary?
- How to guard against existing hazards?
- What to do if a hazard emerges?
- How are special tools, materials, equipment, and methods to be used?
- What special precautions need to be taken? What if a hazard emerges?
- How to make sure that everyone on the crew stays mentally alert?

Make room for special conditions. If the job is complex enough, brief it in portions.

- What portions work best?
- What changes in job conditions require a re-briefing?

Follow-up. The person in charge must check frequently to see that the briefed plans and methods are being used, that each person is carrying out assigned responsibilities, and that any hidden hazards are identified and addressed.

Overview of On-Track Protection

On-track protection is the system of steps that every railroad takes to protect workers from being injured along the roadway, and specifically to keep them from being struck by moving trains, locomotives, cars, or other on-track work equipment.

On-track protection is provided by the operating and safety rules that govern track occupancy by people, trains, and on-track equipment. The minimum requirements for On-Track Protection are set forth in FRA Regulations.

Conrail's rules and procedures are in the **Conrail On-Track Safety Manual R3**, which is available format on this web site. Contractor management is responsible to read this manual and ensure that all employees working along the roadway (also known as Roadway Workers) are thoroughly knowledgeable of the safety requirements and procedures. To get a copy of the Conrail On-Track Safety Manual R3,

Job briefings must be provided to every roadway worker prior to beginning work, as specified in this manual. In addition to Conrail policy, this is also required by FRA regulations.

Types of Roadway Workers

The following are types of roadway workers covered by Conrail's rules and FRA regulations:

- **Roadway Workers** are people whose duties include inspection, construction, maintenance or repair of track, bridges, roadway, signal and communication systems, or other equipment or machinery on or near the track, with the potential of fouling a track.
- **Employee in Charge** is the *single* person who is responsible for the safety, instruction, performance, and on-track protection of all roadway workers under his or her jurisdiction. Even when two or more gangs are working together, still a single person must be designated as employee in charge. This is usually the senior foreman.
- **Watchmen and Advance Watchmen** watch for trains and warn employees to clear tracks. These employees must be *specifically* trained to perform this function, according to Conrail's procedures and FRA requirements.
- **Lone Workers** are employees working alone who must provide their own on-track procedures, and must be *specifically* trained to do so according to Conrail's procedures.

Conrail General Safety Requirements

Conrail safety rules are spelled out in the book Conrail Safety Rules and General Responsibilities for All Employees. Contractor management must get a copy of that book from the Chief Safety and Environmental Officer, and ensure that all Conrail rules are followed throughout the project.

Below is a brief summary of those rules, to be provided to every contractor employee.

Alert and Attentive

Report to work each day well rested, and in good condition to work safely.

If you are distracted or your duties are interfered with, stop work immediately.

Drugs, Alcohol or Intoxicants

Possession or use of drugs, intoxicants or alcoholic beverages, while on duty or while on company property, is prohibited.

Employees must not have any measurable alcohol on their breath or in their bodily fluids, or any prohibited substances in their bodily fluids, when reporting for duty, while on duty, or while on company property.

Any contractor employee under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from the immediate job-site and subsequently released to the custody of a representative of contractor management. Future access to the property will be denied.

The use or possession of intoxicants, over-the-counter or prescription drugs, narcotics, controlled substances, or medication that may adversely affect safe performance is prohibited while on duty or on company property, except if the below are followed:

- Medication that is prescribed by a medical practitioner, and used as prescribed
- AND company management has been advised of its use and has approved
- AND does not in any way compromise the safety of the employee or others

Horseplay

Horseplay will not be tolerated at any time on company property or company equipment.

Weapons

Employees or contractor employees may not bring firearms, pocketknives with blades longer than 3 inches, or any other deadly weapons onto Conrail property.

An employee may possess such a weapon ONLY if he or she is required to use it to perform their duties (for example police or security officers) AND has been authorized to do so by Conrail's Chief Safety Officer.

Housekeeping

A neat and orderly work area is essential to safety. Good housekeeping is essential to preventing many injuries, including slips, trips and falls, and to preventing fires; and to allowing access and egress in case of emergency.

To provide the safest possible work environment, every contractor employee must pitch in to practice good housekeeping.

- Store tools and materials in their correct place
- Keep walkways clear and free of slipping hazards or spills
- Keep entry and access areas and doorways clear
- Store materials where they cannot be struck by passing trains or on-track equipment
- Dispose of trash, greasy rags, absorbents, flammable hazardous or infectious materials in their appropriate receptacles, and according to Conrail and contractor rules and regulatory requirements

Accidents, Injuries, and Defects

Report immediately to your supervisor or, if he or she is not available, to another member of contractor or Conrail management by the first means of communication possible any:

- Accident
- Personal injury
- Derailment, or defects in tracks, bridges, or signals
- Any unusual condition that may affect the safe and efficient operation of the railroad, or the conduct of your work

Where required, furnish a written report promptly after reporting the incident.

Clothing

Employees must be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet.

Wear clothing that gives ample body, arm and leg protection, including waist length shirts with sleeves, and trousers that cover the entire leg.

Wear footwear that covers the ankle and has a defined heel.

Do not wear boots (other than work boots), sandals, canvas -type shoes, or other shoes that have thin soles or heels that are higher than normal.

Do not wear loose or ragged clothing that may impact your safety.

Wear appropriate clothing to protect from wind chill.

Do not wear jewelry, wristwatches, long watch or key chains, key rings, or other suspended jewelry when they present a hazard around machinery or electrical lines and equipment. Finger rings may not be worn on-site except in office areas when performing office tasks.

Driving Safety

Operate all vehicles in accordance with safety regulations

Obey all speed limits

Wear seat belts when operating cars or other machinery equipped with them

Watch carefully before backing up

Take extra care in areas with pedestrian and equipment traffic

Impaired Vision or Hearing

Workers are not to wear or use items that impair their hearing or vision.

Listening to personal radios, CD players, or tape players is prohibited while on-site.

Cell phone use on duty is permitted only for company business (never for personal or outside use), and only in a safe location away from traffic and work hazards.

Personal Protective Equipment

Hardhats must be worn at all times except when in office areas, when in highway vehicles, or when in the enclosed cabs of locomotives. Select hardhats with six-point suspension. Do not wear “cowboy hat” type hardhats on-site. Hardhats must comply with ANSI safety standards, and be kept clean and free from cracks or defects.

Safety footwear must be worn at all times, and must meet the requirements of the Conrail and ANSI standards. Safety shoes must be Class 75, above the ankle, lace-up boots with a well-defined heel, and safety toe. For contractors the safety toe may be steel (unless you have potential to come into contact with electrical current in your work) or composite material.

Additional foot protection must be worn as needed to protect from falling or rolling objects that could injure your feet, or where objects could pierce the soles of your feet.

Approved safety eye protection must be worn at all times while on duty, except when in office areas performing office tasks, when on parking lots or when in vehicles on paved roads, and must meet ANSI standards. Safety glasses must have permanently affixed side shields, or detachable side protectors that meet the ANSI standards.

Where necessary to protect against additional risks, wear goggles, face shields and other approved protective

equipment. Contractors are responsible to identify such situations and to ensure the appropriate protective equipment is available.

Wear a **high visibility vest** or work wear at all times when working:

- On or about the track structure, within 25 feet of track centerline
- At or near a grade crossing
- At any other time when there is potential danger from passing trains, on-track equipment, construction equipment, or vehicle traffic

Respiratory protection must be worn as designated by signage in Conrail areas, and otherwise, in accordance with OSHA requirements. The contractor must ensure that personnel who will be wearing respiratory protection have successfully completed required training, fit testing, and medical surveillance programs.

Respirators with paper/fabric face pieces are not approved for use at Conrail. This restriction is in place, as the completion of fit-tests is more difficult with the paper/fabric face pieces, and respirators of these materials do not always maintain their shape, which affects fit. Cartridge type respirators are to be used.

Ear protection **must be worn if you are exposed to high noise levels, or in areas designated by Conrail as “Hearing Protection Required” areas.** The contractor must ensure that personnel who will be wearing items of hearing or respiratory protection have successfully completed required training and fit testing.

Whenever ear protection may impair your hearing, keep a sharp lookout for hazards in all directions.

Appropriate cold weather gear must be worn to protect against the wind chill factor.

Hand protection must be worn when actively engaged in work activities, to protect your hands from injury and to provide protection from the cold.

Hand protection should not be worn:

- When performing office activities
- When operating highway vehicles
- Where manual dexterity is required, and there is no potential for exposure to energized electrical systems, sharp projections, hot surfaces, or corrosive chemicals
- When working in close proximity to machines, where there is the possibility of gloves becoming entangled in moving parts.

Remember that no one glove type or material is good across the board for all work activities. Be careful to select the right glove for the job.

Working with Tools and Equipment

Hand and portable power tools must maintained and inspected in accordance with manufacturers’ instructions.

All tools must be inspected before each shift to identify potential defects or hazards that could affect their safe performance.

Workers must be trained in the safe and proper use of tools prior to using them. If you are not trained to use a tool properly, do not use it.

Use the proper tool for the job. Do not use a knife, pry bar, screwdriver, or other tool in a manner for which it was not intended.

Remove defective tools from service immediately. Label them “out-of-service”, so that others will not inadvertently use them.

Hazard Communications

Federal regulations require that every employee be notified of the chemicals around which they work and their potential hazards, and that the employer must have a written program to train employees and control and manage chemicals and other hazardous materials. Conrail's written program is available through the Chief Safety and Environmental Officer.

As a minimum, the contractor must meet the following requirements as spelled out in the regulations.

- Every employee must be trained annually
- A complete inventory must be maintained of chemicals on site
- Containers and storage areas must be labeled according to regulations
- MSDS sheets must be available to employees

Electrical Safety

Keep clear of electrical current.

Keep your body and any objects at least 25 feet away from overhead wires or a dangling wire.

Take care when working with cranes and booms, dump trucks, ladders and other equipment to maintain adequate clearance from electrical lines and overhead signal and telecommunications lines.

Be aware of standing liquids or puddles that may transmit electrical current and present a hazard.

Be aware and stay clear of any rail (for example, third rail on electrified roadway) that may present a hazard.

When working around electrical apparatus, follow all manufacturer's safety regulations, and Conrail and contractor rules for using the equipment.

Do not use equipment with three prong plugs with other than sockets or extension cords that provide suitable ground protection. Do not defeat grounding plugs by removing bending or damaging the grounding prong.

Lockout / Tagout

Follow appropriate lockout / tagout procedures to assure that all equipment is de-energized prior to working on it, and remains so throughout the entire time. This includes not only electrical equipment, but any that may be accidentally energized and provide a potential hazard.

Fire Prevention

Precautions must be taken at all times to ensure against fire. This includes maintaining all work areas in a neat and safe manner, and storing combustible and flammable materials according to all safety requirements.

Procedures to be followed in case of fire or other emergency must be covered in the job safety briefing.

Walking Safely

Be alert for tripping and slipping hazards

Do not run

Keep your hands out of your pockets while walking

Keep walkways free of obstructions and hazards

Do not jump over or straddle excavations, holes, or open pits

When vision is restricted, take extra care

When carrying objects, do not allow them to restrict your vision

Avoid walking on slippery surfaces, or if you must, take extra care

Getting on and Off Equipment

Use steps or a ladder to get on or off equipment, platforms, or other elevated places

DO NOT JUMP

When ascending or descending equipment with a ladder or steps with railing, maintain three points of contact at all times (for example, both hands and one foot while stepping up.)

If you must descend without steps or a ladder:

- Observe the condition of the ground or floor
- Maintain a hand hold on a stationary object, and sit with your legs hanging over the edge
- Slowly lower yourself so both feet touch the ground at the same time

Reporting Incidents or Injuries

All incidents or injuries to contractor employees must be reported to the contractor immediately. The contractor is responsible to meet all applicable OSHA reporting and recordkeeping requirements.

Contractors must immediately report to Conrail the following types of incidents:

- Any work-related injury to a contractor employee must be reported to Conrail Operating Department management. They in turn will report the injury to the Conrail Safety Department, who will determine whether the injury is reportable and submit the required information to the FRA as appropriate.
- Any injury involving a non-employee (trespasser, contractor employee, customer, etc.) must be reported to Conrail's Movement Office or Police Emergency Dispatch Center immediately. If further assistance such as police or an ambulance is needed, advise the dispatcher or the Police Dispatch Center.
- Any incident involving property loss or damage, or potential environmental impact (theft, vandalism, company vehicle incidents, fires, unintentional releases of hazardous material, etc.) must be reported to Conrail Operating Department management.
- Any incident involving any on-track equipment (collisions, derailments, rail-highway grade crossing incidents, fires, explosions, or other events) must be reported to Conrail Operating Department management.

In case of injury, do everything possible to care for the person. Do not move an injured person except to remove him or her from an area of immediate danger. In this situation, be extremely careful to avoid causing further injuries.

Treat minor cuts, abrasions, and injuries to avoid complications.

Accident Investigation and Inspection

If an accident results in personal injury or death, all tools, machinery, and other equipment involved, including the accident site, must be inspected promptly by the foreman, another person in charge of the work, or other competent inspectors. All facilities and equipment should be kept in the condition as of the time of the incident until instructed by Conrail management.

The inspector must promptly forward to his manager a report of the inspection. The report must include the condition of the equipment and the names of those making the inspection. If requested by Conrail, the equipment inspected must be marked for identification and placed in custody of the responsible manager or employee.

Working Around the Right – of - Way

Some Definitions You Should Know

- **Adjacent Tracks** - Two or more tracks with track centers spaced less than 25 feet apart
- **Close clearances** – Where the distance between a fixed structure (such as a building, pole, or fence), and a train or on track equipment moving past that structure, may be close enough to cause a hazard of someone between them being injured or crushed; this is a fairly common occurrence on the railroad
- **Fouling a Track** – Placing yourself, equipment or anything else in proximity to the track so that it could be struck by a moving train or on track equipment

To avoid fouling a track, the *minimum* distance is at least four feet away from the field side of the near running rail

Stay alert

When you are working around the right-of-way, you must be alert for trains, engines, cars, and other equipment to move on any track in either direction at any time. Do not rely on others to warn you of approaching equipment. Be alert and take responsibility for your own safety.

Moving around tracks

Look in both directions for approaching equipment before crossing tracks or stepping from between equipment.

Do not cross tracks immediately in front of moving equipment unless you can reach a place of safety on the opposite side at least 15 seconds before the equipment arrives.

If at all possible, avoid being trapped between trains on **adjacent** tracks. Do not assume there is sufficient clearance between tracks to ensure your safety.

When you must cross tracks, walk directly across the tracks, taking the shortest route. Do not cut diagonally across tracks. Once across, move directly to a position where you do not **foul** the track.

Never stand on the track in front of an approaching engine, car, or other moving equipment.

Before crossing behind standing equipment, be sure you are at least **25 feet** from any standing equipment.

If crossing between standing equipment, be sure there are at least **50 feet** separating the equipment.

Watch for structures or obstructions that may result in **close clearances** when trains and equipment pass. If you are trapped between a piece of equipment and a structure, you may not have enough room to get out of the way; this may result in your being seriously or fatally injured. Close clearances are, unfortunately, not infrequently the cause of fatal injuries on the railroads.

Do not cross between standing coupled cars, unless on a platform or safety appliances meant for such access. **Never** crawl over or under couplings, or over cars or sills, of standing coupled cars.

Never walk on or sit on rails, ends of ties, bridge railings, or any part of the track structure.

Do not stand between or **foul** tracks except when required to perform your duties.

Do not foul an adjacent track with any part of the equipment, unless protection has been provided.

Never walk, sit, or step on rails, frogs, switches, guardrails, interlocking machinery, or movable connections.

Do not walk between the rails of a track, except on a bridge that does not have walkways.

Do not lie down or cross under cars for protection or convenience.

Maintain Safe Distance

Move to a safe place when moving equipment approaches on the track where you are working or on an **adjacent** track.

Keep a safe distance from passing cars and trains to avoid being struck by falling or protruding objects – if possible, 30 feet from the track.

Before crossing between standing equipment, be sure you are at least 25 feet from any standing equipment. If crossing between standing equipment, be sure there are at least 50 feet separating the equipment.

When coupling equipment, adjusting couplers or installing removing or adjusting end-of-train devices, before you approach either end of the coupling, be sure that:

- Locomotive and cars are separated by at least 50 feet unless blue signal protection is in place
- Three step protection has been requested and given
- Know whether an engineer is present and ensure he knows your position at all times
- Ensure that no cars or other equipment are moving along the track
- The only exception to this procedure is when blue signal protection has been provided

Operating On-Track Equipment

Operate track car or on-track equipment at a safe distance behind a moving train or engine on the same track

When you are operating on-track equipment and a train is approaching on an adjacent main track:

- Stop the equipment
- Secure the equipment against movement
- Exit the equipment
- Make sure all employees are clear of tracks
- **IMPORTANT:** Do not operate on-track equipment while a train is passing on an adjacent track
- Do not work while a train is passing.

EXCEPTIONS: The following exceptions apply to operators of car top material handlers, tower cars, and self-propelled cranes:

- You may remain in or on the machine while a train is passing on an adjacent main track.
- You may move the machine while the train is passing, but only if you are moving to or between work locations, and booms or other wings are secured for traveling.

Basic Information About Track Structure

Here are some track basics that you should know!	
Part	Definition
Ballast	Crushed rock placed on a roadbed used to: <ul style="list-style-type: none">➤ Keep cross ties in place.➤ Distribute the weight of the train.➤ Promote drainage away from the track.
Cross Ties	Length of creosote-treated wood or concrete, generally 8 feet long, used to provide a foundation for rails and tie plates that helps maintain track gauge.
Rails	Steel T-shaped bars laid in parallel on top of cross ties to form a track for moving trains.
Spikes	Fasteners that join rail and tie plates to cross ties.
Tie Plates	Flat steel devices placed between rail and cross ties to distribute weight at base of rail.

Identify the following track parts in the photos at the right.

Ballast

Cross Ties

Rail

Spikes

Tie Plate

You need to be familiar with this vocabulary.

Conrail Contractor Safety Training Part Two – On-Track Protection for Roadway Workers

Overview of On-Track Protection

On-track protection is the system of steps that every railroad takes to protect workers from being injured along the roadway, and specifically to keep them from being struck by moving trains, locomotives, cars, or other on-track work equipment.

On-track protection is provided by the operating and safety rules that govern track occupancy by people, trains, and on-track equipment. The minimum requirements for On-Track Protection are in FRA Regulations.

Conrail's rules and procedures are in the **Conrail On-Track Safety Manual R3**, which is available in .pdf format on this web site. Contractor management is responsible to read this manual and ensure that all employees working along the roadway (also known as Roadway Workers) are thoroughly knowledgeable of the safety requirements and procedures.

To get a copy of the Conrail On-Track Safety Manual R3,

Who Are Roadway Workers?

Roadway Workers are people whose duties include inspection, construction, maintenance or repair of track, bridges, roadway, signal and communication systems, or other equipment or machinery on or near the track, with the potential of fouling a track.

Guidelines for all Roadway Workers are provided in this section.

Employee in Charge is the *single* person who is responsible for the safety, instruction, performance, and on-track protection of all roadway workers under his or her jurisdiction. Even when two or more gangs are working together, still a single person must be designated as employee in charge. This is usually the senior foreman.

The employee-in-charge is responsible to arrange for the proper protection, to communicate to the necessary people to ensure it is continuously provided, and to brief every roadway worker about the protection procedures.

Guidelines for Employees in Charge are provided in part 3.

Lone Worker is an employee working alone who is not being afforded on-track protection by another employee, is not a member of a gang, and is not engaged in a common task with another employee. Every Lone Worker must provide his or her own on-track procedures, and must be *specifically* trained to do so according to Conrail's procedures.

Guidelines for Lone Workers are provided in part 3.

Roadway Work Groups (or Gangs) are two or more employees working together on a common task.

Watchmen and Advance Watchmen watch for trains and warn employees to clear tracks. These employees must be *specifically* trained to perform this function, according to Conrail's procedures and FRA requirements.

Guidelines for Watchmen and Advance Watchmen are provided in part 3.

Flagman is an employee who is designated by the employee-in-charge to direct or assigned to restrict the movement of trains or other on-track equipment to provide protection for roadway workers. This person may not perform any other duties while flagging.

Guidelines for Flagmen are provided in part 3.

Your Responsibilities As a Roadway Worker

Your safety is ultimately your responsibility, and the responsibility of every one of your co-workers.

You must know what type of track protection you are being provided, because each type of protection has its own specific conditions and requirements. This information will be provided to you during the job safety briefing by the employee-in-charge.

Regardless of the type of track protection, the best rule to remember is to be cautious and expect movement on any track in either direction at any time.

Trains are required to sound their whistles and bells when approaching roadway workers. When you hear them, be sure to clear the area as covered in the job safety briefing.

If you are a roadway worker, you have the following responsibilities.

- Comply with all rules and regulations in the Conrail On-Track Safety Manual, and other safety rules, as explained to you by your supervisors during the job briefings
- Do not foul tracks except when necessary to perform your duties

- Before you foul or occupy any track
 1. Verify that proper on-track protection is being provided
 2. Acknowledge that you understand the on-track procedures being used
 3. Know the name of the employee who is responsible for on-track protection
- Do not perform any work that will interfere with the safe passage of trains
- Wear a high visibility vest or other garment approved by Conrail when on or about the track, or working near a highway grade crossing where you are near traffic.

Roadway Worker Job Briefings

Job briefings must be provided to every worker, as discussed in part one of this training, according to Conrail policy. FRA regulations also state that job briefings must be conducted for every roadway worker prior to their beginning work.

Initial Briefings must be conducted by the employee responsible for on-track protection with all roadway workers before they foul any track, covering all information related to on-track safety. The job briefing is complete only when each roadway worker has acknowledged his understanding of the on-track safety procedures and instructions.

For roadway workers, job briefings must also cover the additional topics covered below, as a minimum, as required by FRA regulations.

- Name of the employee in charge
- Name of watchman (if applicable)
- Type of track authority
- Track limits
- Time limits
- Protection, if any, on adjacent tracks
- Track(s) that may be fouled
- Method of notification for the approach of trains
- Location to clear to if a train approaches
- Required personal protective equipment
- Procedure to arrange for on-track safety on other tracks, if necessary

Follow-Up Briefings must be conducted by the employee responsible for on-track protection with all roadway workers whenever:

- The working conditions or procedures change
- Other workers enter the working limits
- Track authority is changed, extended, or about to be released.

Challenging Roadway Protection

You have the right to challenge, in good faith, any directive that would violate an on-track safety or operating rule. If you are given such a directive:

- Inform the employee in charge that the directive or on-track safety protection to be applied does not comply with the On-Track Safety Manual
- Remain clear of the track until the conflict is resolved.

Specific steps to resolve such challenges are outlined later.

How Does Roadway Protection Work?

All roadway protection procedures work in one of two ways.

Method 1. Keeps trains away from roadway workers

- Working limits

Method 2. Keeps roadway workers away from trains

- Individual train detection
- Train approach warning and clearing the track

Methods of Roadway Protection - Working Limits

Working Limits establish definite boundaries for a section of track for a specified period of time.

The employee-in-charge establishes the working limits, and then has control of that section of track for a specified period of time.

Any qualified Conrail employee-in-charge of on-track safety can establish Working Limits.

During that time, trains, engines and other equipment may enter and move through these boundaries only as authorized by the employee-in-charge who has been granted the Working Limits.

It is the *only form of track protection appropriate when work equipment is being used.*

The following are methods of establishing working limits. See the Conrail On-Track Safety Manual for more detail about these, and for explanations of how to secure them.

- Exclusive Use of Track – movement authority is withheld or restricted by the dispatcher or operator, or the working limits are protected by flagmen
- Foul Time – dispatcher or operator withholds access to the track using blocking devices to restrict operation of a switch or signal
- Inaccessible Track – access is prevented to the working limits
- Train Coordination – control exercised by a roadway worker as outlined in the Conrail On-Track Safety Manual

Methods of Roadway Protection

Methods of Roadway Protection – Individual Train Detection (ITD)

Individual Train Detection (ITD) allows an individual working alone (“Lone Worker”) to gain temporary access to tracks where Working Limits have not been established. In that situation, the worker *must be trained according to Conrail’s policies and federal regulations* to provide his or her own protection. Certain other requirements must be met, and discussed during the job briefing.

ITD **cannot** be used when work equipment is being used.

Methods of Roadway Protection – Train Approach Warning with Watchman

Train Approach Warning is a way for a group of roadway workers to gain temporary access to tracks that do not have Working Limits established.

It does not keep trains away from roadway workers. Rather, it focuses on keeping workers safely away from trains.

Specifically, there must be a qualified watchman who *must be trained according to Conrail’s policies and federal regulations*. Certain other requirements must be met, and discussed during the job briefing.

Train Approach Warning with Watchman protection **cannot** be used when work equipment is being used.

Basics of Railroads and Train Movement Controls

Term	Description
Controlled Track	All movements must be authorized by a Train Dispatcher or Operator
Non-Controlled Track	Trains are permitted by rules or special instructions to move without receiving authorization from a Train Dispatcher or Operator
Interlocking Limits	The tracks between the opposing home signals of an interlocking
Railroad Crossing-at-Grade	Where one railroad-at-grade track crosses another railroad track at the same grade
Highway Crossing-at-Grade	Where railroad track and a highway cross each other at the same grade
Hump Classification Yard	A facility providing automated freight car classification where cars can roll freely on tracks, including all the tracks in the facility
Mileposts	Markers placed approximately 1 mile apart along the roadway, indicating the number of miles from that point to a designated location. The mileposts are numbered according to key in the railroad timetable.
Switch	A switch connects two lines of track and permits cars or trains to pass from one track to another. (See drawing below of a switch facing point and a switch trailing point.)

Safety Rules and Procedures for Roadway Workers

Clearing Track for Approaching Trains

When you are notified or become aware of an approaching train, stop all work and clear the track.

Clear the track *at least 15 seconds* before the train arrives at your location.

Report to the location designated by the employee in charge during the job briefing.

Clear to at least 30 feet away, if possible.

Do not clear onto another track unless working limits have been established on that track.

Stay clear of the track while the train is passing.

Do not leave tools, material, objects, or equipment where they could be struck by the passing train.

Stop all equipment and vehicles on the right-of-way while the train is passing.

When trains on adjacent tracks are restricted to 30 MPH or less, the employee in charge may allow roadway workers to remain on equipment. ????

Face the direction from which the train is approaching. Be alert for projecting, dragging, or falling objects.

Inspect all passing trains. If you detect a defect or a dangerous condition, notify the train crew using any available means. If the train does not stop, notify the train dispatcher.

Stay clear of the track until you are notified that it is safe to return to work.

Working on or Around Self-Propelled Equipment

If you will be operating or riding on self-propelled equipment, understand the duties each roadway worker will perform.

Use the proper procedures for getting on, riding on, and getting off equipment.

Do not get on or off moving equipment.

If your duties require you to be around working equipment, keep at least 25 feet from the equipment if possible.

If your duties require you to be within 25 feet of the equipment, communicate with the operator before performing your duties. Make sure you understand the following:

- Normal equipment operating procedures
- Location of other workers around the equipment
- Operator's blind spots
- Signal that will warn of moving equipment

Responding to Engine Whistle and Engine Bell

Engines are required to sound the following signals when approaching locations where roadway workers are or will be working:

- Engine whistle of two longs, one short, one long (— — o—) and
- Engine bell

If an engineer fails to sound the engine whistle and engine bell, report this to the Employee in Charge or a CONRAIL Supervisor.

Challenges to On-Track Safety Procedures

A roadway worker may, at any time, challenge the on-track safety procedures used at the work site, if the worker has an honest concern about whether the procedures are in compliance with Conrail's rules. The worker's position must be such that a reasonable person under the same circumstances would also have such a concern.

An employee may not be subject to any retribution or punishment for making a good faith challenge to on-track safety protection. Good faith challenges to on-track safety procedures will be resolved in the following manner.

Step 1

Employee must immediately inform the employee in charge of all safety concerns. Together, they must try to clarify any misunderstandings and resolve any differences of opinion that may exist. If the worker considers the challenge resolved, he returns to work.

Step 2

If, following this discussion, the worker does not consider the challenge resolved, he will:

- Notify any other roadway workers of the potential danger
- Remain clear of the track
- Complete the On -Track Protection Good Faith Challenge Form and submit it to the appropriate employee-in-charge. The form will include the names of the worker and the employee in charge, the exact work location (mile post, track number, etc.), a full description of the on-track safety procedures applied and lacking, a list of the rules that are not being complied with, an explanation of the worker's reason for initiating this challenge, and the names of other workers whose knowledge of the situation is relevant to the challenge.

The employee in charge will promptly notify his immediate supervisor of the situation.

Step 3

The immediate supervisor or designee will review the Challenge Form and other available information for completeness and accuracy. He will then determine whether the on-track safety protection at the work location complies with Conrail's rules and procedures.

If the procedures comply with the rules, the worker will be notified that no changes will be made.

If the procedures are inadequate, the supervisor will advise the employee-in-charge to change the procedures to comply with the rules.

The supervisor will enter his determination on the Challenge Form and forward it to the Conrail Operating Department manager in charge of the project, and to the Chief Safety and Environmental Officer.

If the worker considers the challenge resolved, he returns to work.

Step 4.

If the worker still does not consider the challenge resolved, he must provide to Conrail's Chief Safety and Environmental Officer a written explanation of why he considers the situation to be unresolved. The Chief Safety and Environmental Officer will then work with Operating Department management to review the challenge.

If the procedures are in compliance with the rules, the roadway worker will be advised why his challenge is not valid and he will be required to foul the track. If the procedures are inadequate, the worker will be advised that his challenge was valid and the employee in charge will be advised to change the procedures so they comply with the rules.

In that case, if the employee still refuses to perform his assigned duty, disciplinary procedures may be initiated.

**Conrail Contractor Safety Training
Part Three – On-Track Protection Requirements for
Lone Workers, Watchmen, Flagmen,
Roadway Maintenance Machine Operators, and Employees in Charge**

Review - Who Are Roadway Workers?

- **Roadway Workers** are people whose duties include inspection, construction, maintenance or repair of track, bridges, roadway, signal and communication systems, or other equipment or machinery on or near the track, with the potential of fouling a track.

General guidelines for Roadway Workers were provided in the previous section.

- **Employee in Charge** is the *single* person who is responsible for the safety, instruction, performance, and on-track protection of all roadway workers under his or her jurisdiction. Even when two or more gangs are working together, still a single person must be designated as employee in charge. This is usually the senior foreman.

The employee-in-charge is responsible to arrange for the proper protection, to communicate to the necessary people to ensure it is continuously provided, and to brief every roadway worker about the protection procedures.

Guidelines for Employees in Charge are provided in this section.

- **Lone Worker is an** employee working alone who is not being afforded on-track protection by another employee, is not a member of a gang, and is not engaged in a common task with another employee. Every Lone Worker must provide his or her own on-track procedures, and must be *specifically* trained to do so according to Conrail's procedures.

Guidelines for Lone Workers are provided in this section.

- **Roadway Work Groups (or Gangs)** are two or more employees working together on a common task.
- **Watchmen and Advance Watchmen** watch for trains and warn employees to clear tracks. These employees must be *specifically* trained to perform this function, according to Conrail's procedures and FRA requirements.

Guidelines for Watchmen and Advance Watchmen are provided in this section.

- **Flagman** is an employee who is designated by the employee-in-charge to direct or assigned to restrict the movement of trains or other on-track equipment to provide protection for roadway workers. This person may not perform any other duties while flagging.

Guidelines for Flagmen are provided in this section.

Your Responsibilities As a Lone Worker

A Lone Worker is an employee working alone who is not being afforded on-track protection by another employee, is not a member of a gang, and is not engaged in a common task with another employee. A Lone Worker must provide his or her own on-track protection.

As a Lone Worker, you will provide your own on-track protection by watching for trains yourself (Individual Train Detection), or by another means only if specified by the employee in charge.

You may use Individual Train Detection (watch for trains yourself) **only** if :

- √ You are trained and qualified to do so according to Conrail's procedures and regulatory requirements
- √ You are not within an interlocking or a remotely controlled hump classification yard
- √ You are able to visually detect the approach of a train moving at the maximum speed authorized for that track and move to a previously determined place of safety at least 15 seconds before the train reaches you
The place of safety may not be on or foul of another track unless Working Limits are established on that track
- √ There are no power operated tools, roadway maintenance machines, in use within your range of hearing, or anything else that may impair your ability to hear oncoming equipment
- √ Your ability to see and hear approaching trains or other equipment is not impaired by background noise, lights, fog, precipitation, passing or standing trains, or other physical conditions
- √ You may not occupy a position or engage in any activity that would interfere with your ability to maintain a vigilant lookout for, and detect the approach of, a train moving in either direction

Responsibilities of a Lone Worker

- Participate in a job safety briefing with the your supervisor, or his or her designee (such as the Dispatcher or Operator), prior to beginning work, and whenever conditions, procedures or people change throughout the day
- Include in the briefing your planned itinerary, **and** the on-track protection your plan to use, **and** your communications plan, including the frequency with which you will communicate during the day
- Ensure that everyone fully understands the procedures, safety rules and protection methods
- Complete a statement of On-Track Safety (Form MW-301)
 - √ Only one statement can be in effect at a time
 - √ Obtain the form from your supervisor, or the Conrail Operating Department
- If you are working on non-controlled industrial and yard tracks
 - √ The place of safety cannot be on a track that is not shown on your Statement of On-Track Safety, unless Working Limits are established on that track
 - √ You must always be prepared to clear all tracks if necessary
- Stay in contact with the supervisor periodically during the day, as established during the job briefing
- When finished with your work, communicate with the supervisor immediately
- **Do not** leave the work area without letting the supervisor know

Your Equipment

As a lone worker, you must be provided with the appropriate equipment to perform your duties.

Check the equipment at the beginning of each shift to assure it is in good condition and ready for use.

Before you perform your duties as a lone worker, you must have:

- √ High visibility orange vest
- √ Lone Worker rules
- √ Radio or other appropriate communications device

Your Responsibilities As a Watchman or Advance Watchman

A watchman is an employee who is assigned by the employee in charge to watch for approaching trains, engines or on-track equipment, and to warn roadway workers of the approaching equipment in ample time to permit the employees to safely clear the track before the train, engine or equipment reaches the work site.

An advance watchman is responsible to watch for approaching trains and signal the watchman when a train is approaching.

Watchmen and advance watchmen are used where Working Limits are not established.

Watchmen and advance watchmen must be properly equipped, and specifically trained in Conrail's procedures and the regulatory requirements, before assuming those responsibilities.

Trained and qualified watchmen must carry their qualification cards at all times when on duty.

Responsibilities of Watchman

- Participate in a job safety briefing with the employee in charge, or his or her designee, prior to beginning work or whenever conditions, procedures or people change throughout the day; and ensure that everyone fully understands the procedures, safety rules and protection methods
- Identify a place of safety where you and the employees you are protecting are to go when a train or equipment approaches, and communicate that place of safety to all the other employees before the track is fouled or occupied
This should be done during every job briefing. The employee in charge may do it, but you must make sure that both you and the employees receive and understand this information before fouling or occupying the track.
- You must be stationed so as to:
 - √ Remain clear of all tracks
 - √ Be able to see approaching trains or equipment from both directions
 - √ Be close enough to the gang so they can hear your warning horn or whistle clearly
 - √ Be far enough from the gang to prevent being distracted by the work

The only time you may stand not clear of tracks is where you are protecting only one employee who is performing work where advance watchmen are not required

- Wear a high vis ibility vest
- Watch for trains or other equipment to approach from either direction, and give this your full attention
- Do not perform other duties, even momentarily
- Assume that equipment will be moving at the maximum authorized timetable speed for that track

- When you see an approaching train, locomotive or on-track equipment, sound the warning whistle or horn as discussed in the job briefing to warn employees in sufficient time for them to clear the track and reach the place of safety **at least 15 seconds** before the train or equipment reaches the point of work

Use a method to warn employees that is distinctive, clear, and unquestionable; does not require employees to be looking in any particular direction; and can be detected by employees regardless of noise or work distractions

- √ Sound a warning whistle or horn
 - √ Hold the white disc at arm's length above your head
 - √ Hold the white disc horizontally at arm's length toward the place designated in the job briefing where employees are to go to clear the tracks
- When an advance watchman signals the approach of a train, or signals that a train is clear, repeat the signal to the advance watchman and then signal the gang
- Give additional warnings around noisy operations until you are certain that all employees have heard the warning and cleared the track
- When it is safe to resume work, give the agreed upon signal with the warning whistle or horn as discussed in the job briefing to allow roadway workers to return to work
 - √ Hold the white disc horizontally at arm's length toward the work site
- Also, signal employees to clear the tracks if either:
 - √ You do not have sufficient sight distance to detect approaching equipment and clear the track at least 15 seconds before the train reaches the point of work, **or**
 - √ You cannot give full attention to your duties as watchman
- Do not leave your assigned station until:
 - √ The employee in charge tells you that the gang is no longer fouling the track and watchmen are no longer needed, **or**
 - √ The employee in charge has assigned another watchman who is in position and is watching for trains

Responsibilities of Advance Watchman

Advance watchmen are responsible to watch for approaching trains and signal the watchman when a train is approaching. The watchman then acknowledges the signal by repeating it back to the advance watchman.

- Participate in a job safety briefing with the employee in charge, or his or her designee, prior to beginning work or whenever conditions, procedures or people change throughout the day; and ensure that everyone fully understands the procedures, safety rules and protection methods
- Signal the watchman of an approaching train
 - √ Sound a warning whistle or horn, and hold the white disc at arm's length above your hear
- Signal the watchman that it is safe to resume work
 - √ Hold the white disc horizontally at arm's length toward the work site
- If your signal is not acknowledged by the watchman, signal the train to stop

Your Equipment

As a watchman, you must be provided with the appropriate equipment to perform your duties.

Check the equipment at the beginning of each shift to assure it is in good condition and ready for use.

Before you perform your duties as a watchman, you must have:

- √ Watchman rules
- √ Warning whistle or horn
- √ Standard white disc
- √ Red flag (advance watchman)
- √ High visibility orange vest

When there is poor visibility (for example, in a tunnel or at night), you must have:

- √ Suitable white light (to signal, instead of white disc)
- √ Two red fusees (advance watchman – instead of red flag)

Your Responsibilities As a Flagman

A Flagman is an employee who is designated by the employee in charge to provide protection for work locations of railroad construction or private contractors whose operation may affect the safe movement of trains or other equipment.

Flagmen protect roadway workers by directing or restricting the movement of trains, locomotives or other on-track equipment.

Flagmen must be qualified in all applicable operating and safety rules.

Responsibilities of Flagmen

- Participate in a job safety briefing with the employee in charge, or his or her designee, prior to beginning work or whenever conditions, procedures or people change throughout the day; and ensure that everyone fully understands the procedures, safety rules and protection methods
- At the beginning of each shift, or when you are assigned new or different flagging duties, determine who is the employee in charge
- Secure proper flagging equipment, as directed by the employee in charge, to stop trains or other operating equipment
- Inspect all equipment to ensure it is in good condition and adequate for the job
- Wear a high visibility vest
- Determine the procedures required to protect the roadway workers, who else is assigned to protect workers as flagmen, and how you will communicate with those employees, with the roadway workers, and with the employee in charge
- Ensure that you and all employees working in your area have received appropriate an appropriate job safety briefing, that everyone understands:

- √ The procedures you will be following and their responsibilities
 - √ The warning method you will use to notify personnel of the need to clear for trains and other equipment
 - √ Not to foul any railroad track at any time without your permission
 - √ When and how to clear track, where to clear to, how to clear people as well as equipment, and how they will know when it is safe to re-occupy the track
- Perform flagging duties as instructed by the employee in charge
 -
 - Expect that trains or equipment could approach from either direction
 - Do not perform any other duties while flagging
 - Pay full attention to the task at all times
 - If at any time you cannot pay full attention to the flagging duties, you must notify the employee in charge, and remain in position until another qualified individual relieves you.
 - Do not allow employees to foul any track without first receiving permission
 - When workers request permission to foul a track, communicate with the employee in charge and secure permission
 - If workers, equipment operators, or anyone else fails to comply with your instructions, immediately report that to the employee in charge
 - If an event occurs that would interfere with the safe passage of trains, you must take immediate action to stop trains by radio communication to trains and the Dispatcher. If you cannot immediately ensure protection, or communications fail, immediately provide flag protection

Your Equipment

As a flagman, you must be provided with the appropriate equipment to perform your duties.

Check the equipment at the beginning of each shift to assure it is in good condition and ready for use.

Before you perform your duties as a flagman, you must have:

- √ Flagman rules
- √ Red flag
- √ High visibility orange vest

When there is poor visibility (for example, in a tunnel or at night), you must have:

- √ Two red fusees (instead of red flag)

Your Responsibilities As a Roadway Maintenance Machine Operator

As a roadway maintenance machine operator on Conrail, you must:

- Be trained on applicable Conrail safety rules and On-Track Safety rules
- Be trained at least annually on the equipment
- Be proficient on the machine
- Be qualified to operate it, or be qualifying under the supervision of a qualified employee
- Operate the equipment in a safe and responsible manner at all times
- Carry your qualification card at all times while on duty

Responsibilities of a Roadway Maintenance Machine Operator

- Participate in a job safety briefing with the employee in charge, or his or her designee, prior to beginning work or whenever conditions, procedures or people change throughout the day; and ensure that everyone fully understands the procedures, safety rules and protection methods
- Keep the equipment Operator's Manual available on the equipment so you can refer to safe operating procedures as needed
- Before beginning work, communicate with the employee in charge of roadway worker protection to:
 - √ Understand the duties and protection procedures of all roadway workers in the area
 - √ Communicate your work plan to the employee in charge
 - √ Coordinate your efforts
- Communicate with any employee(s) who are near the equipment regarding:
 - √ Normal equipment operating procedures
 - √ Location of worker(s) working around or observing the equipment
 - √ Operator's blind spots
 - √ Signals warning that equipment will move

Confirm that this information is communicated to the roadway workers during their job briefing

- Do not get closer than 25 feet to employee(s) working on the track in front of or behind your equipment unless:
 - √ The operation requires employees to be closer, **and**
 - √ You have communicated with all affected employees
- Keep at least 50 feet between standing or working equipment to avoid collisions and protect workers. Increase the distance between machines when:
 - √ Working in territory where grades or curves limit the sight distance, **or**
 - √ The rail is wet, icy or oily

When the operation requires, this distance may only be reduced after communicating and arranging with the employee in charge and all affected employees

- Consider the following factors when determining a working speed for the equipment
 - √ Location of employees required to be in the track in the area
 - √ Operator visibility
 - √ Braking distances
 - √ Speed required to do the job
 - √ Physical characteristics of the track
 - √ Environmental conditions
- **Do not foul an adjacent track with any part of the equipment unless you have confirmed with the employee in charge that**
 - √ The adjacent track is a controlled track and exclusive use or foul time has been established on the track,
or
 - √ The adjacent track is a non-controlled track and the track has been made inaccessible
- Test the brakes immediately after starting to travel, and frequently during the shift
- When employees are getting on, getting off, or between self-propelled equipment:
 - √ Stop the equipment
 - √ Disengage the clutch or gears
 - √ Set the brakes to hold
- Do not allow anyone to distract you with your duties; if this happens, stop all movement
- Use the proper procedures for getting on, riding on, and getting off equipment
- Do not get on or off moving equipment

Your Responsibilities As the Employee in Charge

When roadway workers work as a gang, or when two or more gangs work together, **one single** person must be designated the employee in charge.

Even when two or more gangs are working together, still a single person must be designated as employee in charge. This is usually the senior foreman.

The employee in charge is responsible for the safety, instruction, performance, and protection of all employees under his jurisdiction.

The employee-in-charge is responsible to arrange for the proper protection, to communicate to the necessary people to ensure it is continuously provided, to brief every roadway worker about the protection procedures, to ensure that everyone understands the procedures, and to monitor and control the situation throughout the shift to ensure that the protection is not compromised and that all persons remain safe .

Responsibilities of the Employee in Charge

Understand all Conrail procedures and policies for protecting roadway workers, as set forth in Conrail On-Track Safety Manual, and all regulatory requirements.

- Keep a copy of Conrail's manual with you at all times on the job. To download a copy of Conrail's manual in .pdf format,
- √ Work closely with Conrail Operating Department and Safety personnel to ensure that Conrail, contractor, and other personnel remain safe.
- √ Know which Conrail employee has been designated as the Employee Responsible for On-Track Protection, and work closely with that person throughout the project to ensure appropriate safety is maintained for all personnel. The Employee Responsible for On-Track Protection is a Conrail employee who is knowledgeable of all appropriate Conrail personnel, policies and procedures, operating and safety rules, and is qualified on the physical characteristics of the territory.

Ensure that the appropriate methods of on-track protection have been requested and established with Conrail personnel, and that everyone involved in that process understands and has complied with those requirements.

Provide a job briefing before employees begin work, and periodically as required during the day, to prepare roadway workers for their job assignments. For a copy of Conrail's Job Briefings Guidelines Card, which outlines the minimum considerations to prepare for a job briefing,

- Hold briefings in a safe place
- Inform employees of the general plan and procedure that the work will follow and the on-track protection measures that will be used
- Make definite work assignments
- Inform employees where they must go if it is necessary to clear for trains
- Get feedback to ensure that every employee understands every point
- Do not consider the briefing complete until every employee acknowledges understanding of the safety procedures, and the on-track protection being used

Understand the tools and equipment being used by employees, ensure that they are in good condition, and that assigned employees are trained and qualified to operate them.

Arrange for personal protective equipment as required.

- Ensure that every employee follows Conrail's minimum requirements for personal protective equipment, including high visibility vests, as outlined in part 2.

Assign watchmen, flagmen, and other individuals as required to provide adequate protection. Ensure they are trained and qualified, and that they and other employees are properly briefed and understand their procedures and responsibilities.

Identify any employees with special protection requirements, such as Lone Workers and Roadway Worker Maintenance Machine Operators, and ensure that such individuals are properly qualified, briefed, and supervised throughout the work shift.

Wear a warning whistle when on or about the track.

Ensure that employees comply with all applicable rules.

Continuously inspect the work area for hazards and risks that could lead to incidents and injuries, and address them immediately.

- Ensure that no work is performed that will interfere with the safe passage of trains.
- Pay particular attention to changes to the work environment, and to instances where employees may cause equipment or persons to foul adjacent tracks without protection.

Personally and continuously supervise any work involving hazards and discuss specific procedures to protect against such hazards.

If protection changes or is no longer in effect, immediately warn employees to clear the track, and conduct an additional briefing

Promptly advise the proper authority if any employee does not comply with your instructions or does not improve his unsafe work habits.

Promptly advise the proper Conrail authority of any accidents, injuries, or violations of safe practices by Conrail employees or non-contractor employees.

Follow correct procedures to handle challenges to any directive that an employee feels would violate on-track protection or a safety or operating rule. Procedures are found in the Conrail manual, p. 51.

Steps You Must Follow

Conrail's manual outlines the steps you must follow on p. 2

1. Know the responsibilities of all employees under your jurisdiction regarding roadway worker protection, and provide that information to ensure that every employee understands their responsibilities
2. Determine the type of track on and around which you will be working, and the protection requirements:
 - Controlled track
 - Non-controlled track
 - Interlocking limits
 - Hump classification yard
 - Other
3. Determine who needs protection – roadway workers, lone workers, contractor Conrail and other personnel
4. Determine the protection available (see On-Track Protection Matrix, manual p. 19)
5. Working closely with Conrail Operating Department management, establish the appropriate protection, and understand the requirements for that protection
 - Exclusive use of track
 - Foul time
 - Inaccessible track
 - Train coordination
 - Individual train detection
 - Watchmen
6. Perform and supervise the work, and clear the track

Assigning Watchmen

Watchmen establish on-track protection by warning employees of the approach of trains in ample time for them to move or to remain at a place of safety in accordance with the Watchman Rules.

Assign watchmen and advance watchmen when needed to protect employee(s) in your charge.

1. When a gang fouls a track outside the work limits, assign one or more watchmen to give employees warning of approaching trains, engines, and on-track equipment.
2. Assign only trained and qualified watchmen who have received a qualification card.

NOTE: Trained and qualified watchmen must carry their qualification cards at all times when on duty.

3. If employees may have trouble hearing the watchman's warning whistle or horn (due to noisy machinery, the size of the gang, or any other reason), assign additional watchmen as necessary.

4. If the watchman does not have sufficient sight distance to clear the gang at least 15 seconds before the train or engines reach the work site, assign advance watchmen. See the table in the Conrail manual for applicable sight distances.

Station watchmen and advance watchmen as follows:

1. Station watchmen so that they are:
 - a. Clear of all tracks

EXCEPTION: A watchman assigned to protect only one employee who is performing work where advance watchmen are not required does not need to stand clear of all tracks

- b. Able to see approaching trains from both directions
 - c. Close enough to the gang to allow employees to hear the warning whistle or horn clearly
 - d. Far enough from the gang to prevent being distracted by the work
2. When employees are working near noisy equipment that will interfere with the watchman's ability to communicate with the employees, station an employee at the equipment's shutoff valve.
NOTE: This employee watches the watchman and, at the watchman's signal, shuts off the equipment so the other employees can hear the watchman's signals.
3. Station advance watchmen far enough from the gang that they can clear the gang at least 15 seconds before the train reaches the point of work.
4. Employees in charge who provide on-track protection in a hump classification yard must be specifically qualified in that yard.

Conrail Contractor Safety Training
Part Four – Environmental Requirements

A Message to Our Contractors

As a responsible corporate citizen, Conrail takes seriously its obligations to take all necessary steps to protect the environment while fulfilling our mission. We expect that all contractors do the same. That means you must not do anything that harms the environment while fulfilling your contractual obligations with Conrail, either on our property or elsewhere.

We require that the management of every Conrail contractor do the following:

- √ While you are on our property, perform all work with the utmost of care so as not to harm the environment.
- √ Do not dump or abandon material, or otherwise do anything that may harm the environment elsewhere, or permit any of your employees to do so.
- √ Read and explain Conrail’s Environmental Policy (below) to every employee working on your project.
- √ Read Conrail’s Corporate Policies and Guidelines booklet (available below); install procedures to ensure that these policies are followed throughout the project; and continually supervise your employees to ensure they are followed.
- √ For your help, a video about Conrail’s environmental policies and procedures is available from the Safety and Environmental Department, “One Person Really Can Make a Difference.”

To that end, Conrail has published a handbook for its employees and contractors.

For a copy of Conrail Environmental Policies and Guidelines,

Conrail’s Environmental Policy

As a responsible corporate citizen and a leader in transportation, Conrail will provide superior transportation services in a safe and environmentally responsible manner.

The protection of human health and the environment is a fundamental principle as well as the responsibility of each Conrail employee [and contractor’s employee].

Each of us will conduct all operations in an environmentally sound manner, continually striving for full compliance with all applicable laws, regulations and internal corporate policies and procedures.

As part of this responsibility, Conrail will explore new and innovative means to achieve continuous quality improvements in all areas of environmental concern.

Five Environmental Principles You Must Follow

1. One Person Really Can Make a Difference

√ Accept your responsibility to protect the environment

2. Prevent releases to the ground, water and air

3. Control releases and report environmental problems immediately

4. Minimize waste

5. When in doubt, call for help

Stay Safe

While observing these principles, and the policies and procedures in this section, do not do anything that may jeopardize your safety or the safety of others. For example, do not try to take steps to control a leak unless you have been trained to do so, and you are sure you can do so safely.

Address any questions or issues that arise, and report any problems you may encounter, to Conrail's Operating Department management, who will assist you to resolve the problem.

If you cannot do so in a timely manner, contact the Safety and Environmental Department in Mt. Laurel, NJ.

Some General Steps You Can Take to Protect the Environment

Practice good housekeeping

Conduct a daily cleanup of every work area, and dispose of wastes properly and correctly

Watch for trespassers or others who may harm the environment, and report them to Conrail Operating Department immediately

Provide for the proper handling of hazardous wastes

Label all containers as to content and hazards

Provide a means to capture fluids leaking from parked equipment

Provide adequate dust control

Wash equipment only in areas where wastewater and contaminants can be contained

Do not attempt to approach unknown releases to the air, water or land; consider that every such release may be hazardous materials

If you suspect that hazardous materials may have been released:

√ Report to Conrail Operating Department immediately

√ Secure the area

√ Try to determine the content of materials that were released, from paperwork or labels and without unnecessarily approaching the material

- √ Keep all personnel safely away from and upwind of the materials
- √ Do not attempt to control the release yourself unless you have been properly trained and qualified to do so

Working Around Asbestos

Conrail's Asbestos Policy, Which You Must Follow

Conrail avoids use of asbestos-containing materials whenever possible. We take whatever actions are necessary to prevent exposing employees, contractors or others to airborne asbestos. Contact Conrail's Safety and Environmental Department and consult with them prior to undertaking any demolition or renovation activities, or any use, storage, or disposal of asbestos-containing materials.

What This Means to You

Until 1978, asbestos was widely used in buildings, until it was determined that breathing asbestos dust may be hazardous to your health. After that time, use and maintenance of asbestos-containing materials has been restricted.

There were many common uses of asbestos-containing materials around the railroad. Steps have been taken to remove or control any potential hazards. However, to work safely you must be aware of the potential hazards, and take steps to protect yourself and others while working around such materials.

Some common uses around the railroad were:

- √ In insulation around pipes, boilers and ducts
- √ Ceiling and flooring tiles
- √ Wall board
- √ Fire doors

Check with the Conrail Operating Department before beginning work to identify any buildings or areas that may contain asbestos materials.

Avoid any areas with warning signs that asbestos may be in the area.

Do not attempt to disturb or remove any materials that you suspect may contain asbestos that may be released into the air.

Report any suspicious materials immediately to your supervisor, who will contact Conrail.

Contractors who are charged to renovate, demolish or maintain any buildings that may contain asbestos, or to remove asbestos, must be fully trained and qualified, and follow all governmental regulations and company policies.

Battery Management

Conrail's Battery Management Policy, Which You Must Follow

Conrail has established a network of collection points to facilitate the recycling of batteries produced system-wide. Battery users are responsible for ensuring that all used batteries are disposed of using this established recycling system.

What This Means to You

In the course of routine business, Conrail and its contractors use various types of batteries, which contain materials that the Environmental Protection Agency (EPA) has identified as hazardous wastes. As such, the EPA requires that most batteries be handled as hazardous wastes, and stored, transported and recycled through qualified vendors.

Conrail follows procedures to recycle all batteries, except ordinary lantern batteries. This includes but is not limited to lead acid, nickel cadmium, mercury and alkaline batteries. Also included are locomotive and vehicle batteries and signal batteries.

Recycling sheds are located around the system. Specially licensed and qualified contractors manage the sheds for the company. Conrail Operating Department can identify their location for you.

Ordinary lantern batteries may be disposed of in the regular trash receptacles located around the property. All other Conrail batteries must be disposed of through the recycling sheds.

You must dispose of all batteries according to EPA requirements and local regulations. This may be done through Conrail's Battery Management network (with prior approval and arrangements with the Operating Department), or through your own recycling contractor. However, you must follow this policy while working on Conrail projects.

Drum and Container Management

Conrail's Drum and Container Management Policy, Which You Must Follow

Conrail employees and contractors handling waste containers shall do so in accordance with federal, state and local laws and regulations. The proper handling of containers of waste material minimizes the possibility that these wastes will reach the environment, and thereby minimizes Conrail's liability while protecting the public from exposure to these wastes.

What This Means to You

Federal hazardous waste regulations impose detailed requirements on the labeling, storage, accumulation time and handling of hazardous waste containers.

The regulations apply to all types of hazardous waste containers, such as drums, totes, portable tanks, etc. In general, the rules are designed to ensure that hazardous wastes are properly identified and stored in such a manner as to protect from leaks, to allow emergency response personnel access to the containers, and to ensure that hazardous waste is promptly taken off-site for proper disposal and not allowed to accumulate on-site.

Manage all containers properly to ensure they are properly stored, identified and disposed of. Work with Conrail Operating Department to identify appropriate storage areas, and continuously monitor and supervise those areas to ensure that all regulations and policies are followed.

Do not mix any materials within a container. If you do so, the entire contents must be treated as hazardous waste.

Store all containers properly, within designated storage areas. Control access. Keep containers sealed with bungs closed at all times when not in use. Store containers on impervious pads off the ground to prevent corrosion and leaks. Do not permit drips onto the ground. Ensure proper containment is provided in case of release. Provide a cover to keep out weather, and do not stack drums. Separate incompatible substances.

Practice good housekeeping in drum storage areas. Maintain at least two foot clear aisles between drums.

Post "no smoking" signs around potential ignitable materials.

Ensure that all containers are marked and labeled as required by law.

Do not store hazardous wastes on-site for more than 90 days.

Arrange for removal of hazardous wastes by qualified vendors. Do not remove or dump any such materials.
Follow all documentation, inventory control and manifest regulations.

Hazardous Waste Management

Conrail's Hazardous Waste Management Policy, Which You Must Follow

Employees and contractors should be careful to avoid the creation of hazardous wastes wherever possible. IN the event that such wastes are created, these wastes must be segregated,. Stored, and managed and disposed of off-site in strict compliance with all law and regulations. Hazardous wastes must not be mixed with non-hazardous wastes. On-site disposal, burial, burning or discarding of hazardous waste is strictly prohibited on Conrail.

What This Means to You

Waste is considered hazardous because it presents a more serious threat to human health or the environment than other types of waste. Wastes fall into this category based on government defined characteristics. Although a minimal amount of hazardous waste is created through railroad operations, certain maintenance and construction operations may result in creation of hazardous wastes.

Utmost care must be exercised in the handling of hazardous waste to ensure compliance with all federal, state and local regulations.

When you create a waste, determine immediately whether it is considered hazardous waste. If so, take steps to handle it according to all policies and regulations.

A list of hazardous wastes commonly found on the railroad is found in the Conrail Environmental Policies and Guidelines.

Any waste generated that is not on the listing, but which contains an acutely toxic substance such as lead, cadmium, mercury, etc., should be considered and handled as hazardous waste.

Any waste generated that is ignitable, corrosive, reactive or toxic may be hazardous waste, and should be handled as such.

If there is any question as to whether a waste is hazardous, contact the Conrail Operating Department or the Safety and Environmental Department.

Store hazardous materials according to all regulations. Maintained all required records and documentation. Do not store hazardous wastes on-site for more than 90 days.

Arrange for removal of hazardous wastes by qualified vendors, according to regulations. Arrange for all appropriate paperwork and manifests. Do not remove or dump any such materials.

Follow all documentation, inventory control and manifest regulations.

Follow all policies as outlined in Conrail Environmental Policies and Guidelines

Non-Hazardous Waste Management

Conrail's Non-Hazardous Waste Management Policy, Which You Must Follow

All waste generated on Conrail must be properly managed in accordance with federal, state and local regulations. Non-hazardous wastes must not be intentionally mixed with hazardous wastes. The preferred disposition of any non-hazardous material is to recycle it. Recycling provides the best result by minimizing waste and, in many cases, earning revenue or avoiding disposal costs. As stated in Conrail's Waste Minimization Policy, recycling is encouraged and source reduction is the preferred means of waste reduction.

What This Means to You

Most of the waste or surplus material from railroad operations and construction is non-hazardous. In addition to office and shop trash, scrap metal, used oil, used cross ties, used vehicle and equipment parts, used track material and rail, and yard sweepings, many other types of materials may be classified as waste or can be recycled or reclaimed.

Land Disposal

Do not abandon, bury or dump any wastes on Conrail property or elsewhere.

Dispose of wastes only at an approved and licensed disposal facility.

It is illegal to put hazardous waste, petroleum waste, or other regulated waste in a dumpster or other receptacle to be disposed of with routine non-hazardous trash in a non-hazardous waste landfill.

Liquid wastes must never be poured or emptied onto the ground, or into a storm sewer or grate leading to a waste water treatment facility. Hazardous or other regulated liquid wastes must not be poured down drains. These wastes must be drummed for future disposal at an approved waste disposal facility.

Solid non-hazardous, non-recyclable, non-liquid waste should be placed in dumpsters provided for that purpose.

Incineration

Open burning of solid waste is prohibited. Incineration may occur only at licensed facilities. There are no such facilities on Conrail.

Used Oil Filters

Drain as much liquid as possible before disposal, into a proper receptacle. Dispose of the solid elements in an approved industrial landfill.

Track Sweepings

Ballast and other materials from between and along tracks may be contaminated with oil and other contaminants. Arrange for the materials to be tested prior to disposal, and dispose of according to applicable policies and regulations.

Used Cross Ties

Ties must be disposed of at a facility approved to accept such wastes. They may not be burned, abandoned, or included with non-hazardous ordinary waste.

Recycling

Glass, cans, paper, metal and other materials should be recycled wherever possible.

PCB Transformer Management

Conrail's PCN Transformer Management Policy, Which You Must Follow

Conrail's goal is to remove all PCB-containing materials from its property through proper disposal, and thereby eliminate any associated risk to employees, the general public and the environment. Until this goal is accomplished, employees and contractors must adhere to these management guidelines to ensure the proper and safe handling of PCB-containing materials.

What This Means to You

PCB's are chemical compounds that were commonly used prior to 1978 in electrical equipment to resist heat. The EPA ordered their use in newly manufactured equipment discontinued in 1978, due to potential health effects. However, older equipment containing PCB's may still be found on the Conrail system.

The most frequent use of PCB's was as an oil additive in electrical transformers. Other uses included capacitors and fluorescent light ballasts.

Many of the PCB containing items of equipment on Conrail have been inventoried and labeled, and Conrail is monitoring their use and removal. If you encounter such tagged equipment, take care to avoid releasing any materials to the environment, and report immediately any leaks or releases you observe. Labels follow this code:

- √ "Non-PCB" (Blue)
- √ "PCB Contaminated" (Green)
- √ "PCB" (Yellow)

If you encounter electrical equipment that is not labeled, and appears to be leaking or releasing contents to the environment, report it immediately to Conrail Operating Department, who will arrange for its testing and appropriate handling.

In any case, if you encounter any leaking electrical equipment that you suspect may contain PCB's, do not attempt to handle it unless you have been properly trained and qualified to do so.

Waste Minimization

Conrail's Waste Minimization Policy, Which You Must Follow

It is Conrail's policy to establish a long term downward trend in the amount of waste generated by the company and, in so doing, to prioritize the reduction of those wastes that protect the environment and the health and safety of Conrail's employees, contractors and the public. While recycling is encouraged, source reduction is the preferred means to achieve this goal.

What This Means to You

We can all help to protect the environment by working wisely to reduce the amount of waste generated during the course of business. This reduces the need for landfill space, recycling costs, and the potential for releases to the environment that require clean-up.

Follow the following guidelines every day.

- √ Order only what you need
- √ Use only the amount needed to get the job done
- √ Use a product until it is used up
- √ Recycle empty containers such as paint cans; scraps such as scrap metal; and other products that have outlived their usefulness
- √ Reuse materials such as paint thinners and grit blast whenever possible
- √ Use products that will not become hazardous or special wastes on disposal, whenever possible
- √ Keep track of your waste reduction practices, and report them to Conrail

Wastewater Management

Conrail's Wastewater Management Policy, Which You Must Follow

It is Conrail's policy to ensure that the discharge of wastewater from Conrail's facilities complies with environmental laws and regulations governing water quality and the performance of our wastewater treatment facilities complies with applicable discharge permits.

It is Conrail's goal to achieve an ongoing reduction in the amount of wastewater being generated by its operations and released into the environment. Every railroad employee can help with the operation of the wastewater treatment facility by becoming more environmentally conscientious. Attention to fuel spillage prevention, keeping unwanted fluids out of the treatment plant, conservative use of soaps when cleaning parts or surfaces and water conservation will help considerably in the prevention of discharge violations, operational costs, and potential damage to the environment.

What This Means to You

Take care not to spill onto the ground when fueling equipment. Act quickly to control any spills and prevent damage to the environment. Report any spills to Conrail Operating Department.

Every wastewater treatment plant is engineered to handle only a certain combination of materials, such as diesel fuel or soapy water from cleaning operations. Introducing anything else into such a system could render it useless and potentially damage the environment. Take care not to introduce anything into a wastewater treatment plant that doesn't belong there.

Likewise, putting chemicals or other materials into sanitary or storm sewers could damage the environment, and should not be done.

Do not pour any waste liquids or solids into any grate or storm sewer, whether or not they lead to a wastewater treatment plant. Dispose of all such materials according to Conrail policies and procedures.

Avoid spills or excess wastes by using only the minimum amount needed of any material.

Watch fueling operations carefully to avoid overfills and spilling.

Report any spills immediately, and arrange for the necessary steps to control the damage to the environment.

It is the goal of Conrail to have every contractor go home at the end of the day safe and to their family. This course will hopefully help you gain a better understanding of safety while on Conrail property.

This course should be used as an adjunct to your current internal safety training. Your internal training should cover any specific tasks that your company does not only for Conrail but any job. Your internal supplemental training should include but is not limited to:

- **Right to know**
- **Confined spaces**
- **Rigging and hoisting**
- **Asbestos**
- **Pits and excavations (Veryimportant!)**
- **Elevated places / fall protection (other than bridge safety)**
- **Ladders, scaffolds and platforms**
- **Vehicle safety**
- **Handling materials / ergonomics / back safety**
- **Welding and cutting**