BNSF Contractor Orientation Course
www.ContractorOrientation.com

Updated: 01/04/10

(Key content updates are underlined.)
This course can be duplicated for student handouts.

BNSF Engineering contractor employees are required to carry a current copy of the course completion card from www.contractororientation.com **website.**

Additionally, in most cases, BNSF Engineering contractor employees will also be required through contract language to complete a security awareness program and background check through e-RAILSAFE, which will result in the issuance of an ID badge which is to be worn when on-site. The BNSF Resource Protection Team has oversight of the e-RAILSAFE program.

Section One

General Information

BNSF Engineering contractors are to complete a Safety Action Plan. The Safety Action Plan Form is available from the Safety Action Plan Section of this website. This plan includes the following information:

- Identification of the BNSF project representative*
- recent accident history and
  areas of concern; e.g., hand tool use, material handling related injuries, equipment operations
- plans to address areas of concern
- employee training summary
- emergency preparedness plans
- fire prevention plans
- job safety briefings
- on-site safety assessments
- safety committees

* A BNSF project representative is the BNSF employee who coordinates a contractor's work activities or is the BNSF interface for the contractor, while the contractor is on-site, e.g. construction engineer, roadmaster, Structures supervisor or Signal supervisor.

A copy of your completed safety action plan form is to be submitted electronically to the web-master of this site. A hard copy of your completed safety action plan form is to be provided to your BNSF Project Representative. Additional hard copies are maintained with your work groups.

Emergency preparedness plans need to be developed by the contractor and communicated to the contractor's/subcontractor's employees. In some cases contractors will need to interface with

BNSF project representatives to obtain specific addresses, the names of local, responsible fire/medical/police agencies.
Included in what workers need to know are answers to the following:

Who is CPR qualified?
Who is first aid qualified?
What are the emergency numbers for outside emergency services and estimated response times?
Is there cellular, radio and/or land-line contact?
If no, where does one need to go to establish this contact and who will be sent?
Can I competently give emergency services personnel directions to my location?

Note: In yard areas, consider that access routes may, at times, be blocked by trains.

Contractors are to conduct work practice / facility assessments (audits) of their operations at BNSF. The frequency of these assessments and participants are to be determined by contractor management/supervision and stated in the Safety Action Plan submitted to BNSF. Assessment findings need to be documented and available for inspection by BNSF assessment groups, upon request.

BNSF personnel - safety assessment teams, Safety & Rules personnel, Industrial Hygiene personnel, Environmental personnel, BNSF Project Representatives - may conduct unscheduled assessments of contractor operations.

On-site contractor supervision will be notified of audit findings. The contractor will be required to provide a written response as to planned or completed corrective actions. In the most severe cases, for example, where very serious discrepancies are found, a contractor may be asked to discontinue work and/or be removed from consideration of future work at BNSF.

BNSF Safety & Rules, Industrial Hygiene, Environmental personnel and BNSF project representatives are authorized to stop contractor operations where there is imminent jeopardy to the safety/health of personnel, or where damage to equipment, property, or the environment seems highly probable.

As stated in contract language, BNSF Engineering contractor personnel need to have knowledge of, and comply with, applicable FRA and OSHA regulations, EPA or equivalent state environmental regulations, and local fire and building codes.

Again, this orientation is not intended to address all the regulations that contractors need to be aware of, and comply with when working on BNSF property.

Reporting of Injuries/Illnesses/Property and Equipment Damage

Contractors need to promptly advise their BNSF project representative of **all** work-related injuries/illnesses. The BNSF project representative needs to, in turn, complete the BNSF Non-Employee Personal Injury form, and submit this form to the BNSF Accident Reporting Center. The BNSF Accident Reporting Center determines FRA reportability and submits the required

information to the FRA, as appropriate. Remember that contractors are responsible for meeting applicable OSHA reporting and recordkeeping requirements.

As is the case with work-related injuries/illnesses, all damage to railroad property needs to be promptly reported to the responsible BNSF project representative. BNSF vehicles, equipment and tools are not to be operated/used by contractors without specific authorization from the responsible BNSF project representative. BNSF employees are not to use/operate contractor vehicles, equipment, and tools, unless specifically directed by the BNSF project representative to do so, and only when the BNSF employee feels qualified to safely operate the vehicle/equipment/tool.

General Requirements

Horseplay will not be tolerated. Remember that personnel witnessing such actions have the responsibility to intervene.

The use of pocket knives as tools is prohibited. Personnel need to be challenged to find the right tool/procedure for the specific job.

The possession of drugs, alcohol and weapons is prohibited.

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.

Workers are not to wear/use items that impair hearing or vision. Listening to personal radios, nanos, mp3 players, CD players, or tape players is prohibited while on-site.

Do not walk, step, sit or stand on the rail. This is one of the very basic safety requirements at BNSF. Also, some rails are conductors of electrical current and are, therefore, an integral part of the railroad's operating system. Devices that could shunt current are not to be laid across rails. No hand or portable power tools are to be left against the rails. Use a wooden lath to provide separation when taking measurements adjacent to rails.

Maintain adequate clearance around on-track railroad equipment. Do not cross between railcars/locomotives, or do not attempt to climb underneath railcars to reach the other side of the track. With the exception of properly secured tool cars, where authorized, there should be no reason for contractor personnel to enter railcars. When passing in front of standing on-track railroad equipment, allow 25 feet of clearance.

Crossing immediately in front of moving equipment is prohibited. Do not make any movement towards an on-coming train or make any equipment moves in a manner that may lead the train engineer to think that you are about to foul the track.

Do not attempt to grab onto and ride moving railroad equipment.
Maintain 25 feet of clearance from switches and do not operate switches, unless specifically directed otherwise by the responsible BNSF Project Representative.

Maintain 25 feet clearance from centerline of track unless your work requires you to enter this area and you have specific instructions from the responsible BNSF project representative. (See section 3 for Roadway Worker Protection information).

Emergencies

The violent movement of arms would be taken as an indication by train engineers and the operators of other on-track equipment to ***STOP.***

When giving a **STOP** signal of this type to an operator of rubber-tired equipment, make sure that it will not be mistakenly interpreted by the engineer/operator of an approaching train/on-track equipment as an indication to him to stop.

Should an emergency situation arise and your assessment indicates a need to stop the movement of trains and other on-track equipment, immediately attempt to contact the **BNSF emergency number: 800- 832-5452.**

Where you have identified an emergency need to stop trains/on-track equipment, you can accomplish this by violently waving your arms or swinging your hard hat in a circular motion. Remember that it may take a train a distance of up to 1.5 miles to come to a stop. Be sure that you have a clear emergency when taking this serious action, as there are risks of personal injury to train crew members and expensive mechanical repairs following a train going into an emergency.

Job Safety Briefings

Well thought-out job briefings can positively affect the safety, quality and productivity of projects.

To develop your work plan, as communicated through your job safety briefing:

- review the job tasks to be accomplished;
- inspect the job location/work area;
- break each task into a step-by-step procedure addressing existing and potential hazards of each task and list precautionary measures that are to be implemented;
- determine tool, equipment and material needs; and,
- determine applicable safety rules and procedures.

Consider existing / potential hazards (not all inclusive):

- weather conditions;
- tools, equipment and materials to be used;
- train, vehicular and pedestrian traffic;
- overhead/underground hazards; and,
- slip/trip/fall hazards.

Establish a safety zone (“circle of safety”) around mobile construction equipment and tool operations. Other personnel are not to enter the circle of safety without first communicating with the operator/person using the tool.

Consideration: When weather conditions start to deteriorate (for example a heavy snow storm) and suspension of the job is being considered, the responsible supervisor needs to factor in that the on-site employees will need adequate time to safely reach their home or lodging.

Consider how work assignments are to be made.

group assignments;
individual assignments; and,
consider abilities and experience of individual workers

Example 1: After attending the main job-safety briefing for the group, Tom and Terry are going to manually lift and carry, as a team, a piece of construction material. Tom and Terry as a team need to have an additional job-safety briefing which would advise of such concerns as: sharp edges, tripping hazards in the path of travel, and emphasize that anyone who begins to lose their grip shouts a warning. These types of operations requiring additional safety- briefings for small groups of workers are not uncommon.

Example 2: Tom shows up to work today and is feeling "a little under the weather", he should to have a good enough relationship with his supervisor that he could comfortably bring this to the attention of his supervisor. His supervisor would then be able to consider Tom's illness when assigning job tasks for that day.

Carefully explain job tasks to workers.

- what is to be done
- why it is to be done
- where it is to be done
- how it is to be done
- who is to do what tasks/portions of tasks
- what safety precautions are necessary

When conducting a job safety briefing discuss **existing or potential hazards** and ways to eliminate them or protect against them.

Clearly define work assignments.

Make sure employees understand their assigned duties.

Solicit questions of the “how” and “why” type to determine the level of understanding.

Where jobs are somewhat complex consider briefing only a portion of the job at a time. Conduct additional briefings as the job progresses.

During the course of a job, should it become necessary to change plans or procedures, brief workers on these changes.

Examples of Changes:

- changes in personnel*
- changes in weather conditions
- assignment changes
- changes of equipment

* When a person approaches your job-site, a representative from your work group needs to meet the person before he enters the immediate job-site. Determine the person's reasons for visiting the job-site and conduct a job safety briefing with the visitor(s). Visitors need to be referred to the employee-in-charge to receive track authority information, as applicable.

Follow-up activities need to be conducted in support of a job safety briefing. The follow-up is conducted to:

verify compliance with plans;
verify correct work methods are being used;
verify assigned responsibilities are being carried out; and,
identify and address new hazards.

All employees are responsible to see that the work plan is being carried out in accordance with the job safety briefing, and that the plan is modified when conditions change.

Job De-Briefings

review what went well;
review opportunities for improvement;
prepare workers mentally for the trip home or back to headquarters;
identify slip/trip/fall hazards that may be encountered when leaving the job-site;
emphasize safe driving; and,
advise of local hazards; e.g. boat trailers in recreational areas and hay carts in farming areas that may not have adequate taillights, etc.

Personal Protective Equipment (PPE)

Various items of personal protective equipment (PPE) need to be worn when on BNSF property.

Hardhats need to be worn at all times except when in office areas - performing office related activities, when in highway vehicles, or when in the enclosed cabs (doors and windows closed) of equipment. ANSI Z89. 1 is to be shown on a decal inside of approved hardhats. "Cowboy hat" type hardhats are not to be used on-site.

Safety shoes meeting the requirements of the applicable ASTM standards need to be worn at all times except when in office areas performing office related tasks. Safety shoes need to be above-the-ankle, lace-up boots with a well defined heel, and safety toe. The safety toe may be steel or composite material.

Eye protection needs to be worn at all times except when in office areas performing office tasks or when in highway vehicles on paved roads or with windows up. The marking ANSI Z87.1 appears on one of the temple bars of items of approved safety eyewear. An engraved monogram at the top center of safety glasses lenses, plain or prescription indicates that the lenses are in fact safety lenses.

Safety glasses are available in three materials glass, plastic and polycarbonate. Polycarbonate is the strongest of the materials. Polycarbonate is a high index material; therefore, polycarbonate

lenses are lighter than glass or plastic lenses of like prescription. Glass has the best scratch resistance qualities.

Safety glasses are to have permanently affixed sideshields. The reason for this is to help ensure that a quality sideshield is used, and to make sure that the sideshields are in-place, when needed. Yellow lenses tints are not acceptable as they may affect the ability to distinguish colors. **Reflective/mirrored lenses are also not to be worn when on-site!**

Your eyesight is precious, always wear protective eyewear in all required areas and upgrade your protection to goggles, or face shield and goggles when faced with more severe exposures! Contractors need to have guidelines in place as to what tasks/conditions require the upgrading of eye protection from safety glasses to goggles or, in more severe eye hazard situations, to goggles under a faceshield. Workers also need to receive training/counseling to help them to make good decisions in this regard.

ANSI Level II or III **orange**, retro-reflective workwear needs to be worn by Engineering contractor personnel or employees working in right-of-way areas (including within 25 feet of track centerline), when working within 50 feet of operating vehicles or construction equipment and when highway flagging.

Notes:

1. ANSI III garments are to be worn when performing highway flagging activities at roads with posted speeds at or in excess of 50 MPH. Personnel contracted to perform highway flagging operations are to have the appropriate certification, and perform flagging activities in accordance with the applicable requirements of the Manual of Uniform Traffic Control Devices (MUTCD), and applicable State requirements.

2. The contractor is responsible for verifying that the material of garment construction is appropriate for the work to be performed.

Orange/retro-reflective vests are specified for use when working at intermodal facilities. Check with your responsible BNSF project representative, in advance, to ensure that you are meeting the BNSF local division or work group requirements for orange, retro-reflective work wear.

Hearing and respiratory protection need to be worn as designated by signage in BNSF areas, and otherwise, in accordance with OSHA requirements. A contractor's Safety Action Plan needs to document that personnel who will be wearing items of hearing or respiratory protection have successfully completed required training, fit-testing (respirators), and medical surveillance programs.

Appropriate cold weather gear needs to be provided and worn, as necessary. Training in relation to cold weather safety as well as heat related disorders and precautions needs to be completed where appropriate.

Appropriate hand protection is required to be worn when actively engaged in work activities, except:

- 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; or,
- 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.

Note: Do not wear jewelry, wrist watches, long watch or key chains, 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.

Contractors do not need to use the same PPE manufacturers or suppliers as BNSF, or follow the same program parameters, beyond what is stated above. There are OSHA requirements to provide training in the selection and use of PPE.

Electrical Work

Contractors performing electrical work are to comply with the procedural, personal protective equipment (PPE), and workwear requirements of NFPA 70E, Standard for Electrical Safety Requirements for Employee Workplaces. It is the contractor's responsibility to verify that their personnel involved in electrical-related work activities have the required training and qualifications to safely perform this work.

Housekeeping/Materials Staging and Storage

Good housekeeping is critical to the prevention of many slip, trip and fall, and struck-on injuries. Contractors need to maintain clean work areas. Proposed storage locations need to be approved by the BNSF project representative. This approval is particularly important when proposing storage within 25 feet of track centerline. Obviously material and equipment needs to be stored where it will not be struck by a train or on-track equipment, or where it will obstruct the view of railroad crossings.

Further on housekeeping, keep walkways clean, and free of slip hazards such as spilled liquids, or materials that may lead to trips and falls. Post appropriate warning signs to identify workplace hazards.

Vehicles and Job-Site Access

The license plate numbers of contractor highway vehicles are to be registered through this website www.contractororientation.com for safety and security reasons. The confirmation registration sign indicating the company name/number associated with the vehicle will be conspicuously displayed on the dashboard of the appropriate vehicle that has been registered. This requirement does not apply to rental vehicles or work equipment.

Use established routes of travel. For emergency preparedness purposes, two means of egress should be available from right-of-way work areas. Should you see a need to establish a new or another route of entry/egress, to a work-site, be sure to obtain specific approval from the responsible BNSF Project Representative.

Remember that areas adjacent to our rights-of-way may be private property, or wetland or watershed areas.

To protect against unauthorized access and/or use, unattended equipment needs to be shut-off, and left in-gear, with brakes set. Remove keys, and lock cabs, where so equipped. Buckets and blades need to be lowered to the ground.

Provide a lockable master battery disconnect switch. Verify that the master battery disconnect switch is left in the off or disconnect position and padlocked, when equipment is left unattended.

Consider, where equipment has an enclosed cab, the installation of a lockable hasp on cab access doors. Padlock equipment when left unattended. This will prevent the use of easily obtainable universal keys to access equipment cabs.

Do not leave unattended equipment within 25 feet of track centerline, unless obtaining specific approval from the responsible BNSF Project Representative. Under no circumstances is equipment to be left where it is within 8' 6" of track centerline, or otherwise could be struck by a train, or materials on a train, or on-track equipment.

On and off track equipment, trains, or cars are not to be parked or stored within 250 feet of a crossing, where it may interfere with the sight distance of vehicle operators approaching a crossing.

Do no parking in areas of high grass or brush for fire reasons. Hot vehicle undercarriages can initiate a wild fire.

Come to a complete stop and verify clearance in both directions before driving across internal maintenance crossings that do not have automatic warning devices. Keep in mind that the angle of vehicle approach, door post design and width, trees, and structures can affect your ability to clearly spot on-track traffic at a glance. Carefully look both ways then look both ways again. Avoid shifting gears when crossing tracks. Railroad vehicles have the right-of-way.

Contractors need specific authorization to operate hy-rail vehicles on BNSF track. Where authorization is granted, a BNSF Maintenance of Way Rules Qualified employee will accompany the contractor operator. Remember to factor in grade, field of vision, track condition, and weather conditions when estimating stopping distance.

Personnel who are passengers on on-track work equipment must have specific authorization from the equipment operator, and must:

- be safely seated where specified by the operator; and
- not hang their feet over the sides or ends; and
- remain alert, orderly and quiet.

Personnel must not ride on push cars except those designed for that purpose.

Note: Comply with RSAC requirements for on-track equipment/vehicle operation and maintenance.

Hand and Power Tools

Hand and portable power tools need to be maintained and inspected in accordance with manufacturers' instructions. Defective tools need to be immediately removed from service, and labeled "out-of-service", or the equivalent, so that others will not inadvertently use them. Workers need to receive appropriate/required training in the inspection, maintenance and use of hand and portable power tools that they work with.

The use of ground-fault circuit interrupters, or the equivalent, where appropriate, needs to be in place at job-sites.

Pressurized hydraulic lines are not to be directly handled with bare or gloved hands.

Longitudinal Positioning of Continuous Welded Rail (CWR)

1.) Conduct a pre-job risk assessment which includes consideration of the following:

-track geometry;
-length of rail to be pulled;
-length of pull;
-equipment available for positioning rail;
-accessibility of work area;
-identification of safe zones; and,
-experience of personnel – particularly operators of machines used to position rail

Risk assessment findings are communicated during job safety briefings.

2.) Safe Zones

- Rail Relay Gangs - When Replacement Rail Is Located in Center of Track
    - Ground personnel are to be a minimum of 15 feet from rail being positioned
    - Personnel may remain on machines, in designated riding positions
- Other Rail Positioning Operations – Curve
    - All personnel are to be beyond the ends of the pull; or on the high side of track, a minimum of 15 feet from the rail being positioned.

      Exception: Where highway flaggers need to be located at grade crossings in curves, a flagger on the low side must be at least 25 feet from the rail being positioned. Where practical, at crossings with anchored signal apparatus, a highway flagger on the low side is to establish a flagging position that is also protected from unexpected rail movement by the apparatus.

- Other Rail Positioning Operations – Tangent

- All personnel are to be beyond the ends of the pull, or 15 feet from the rail being positioned.

Notes:

- When establishing safe zones based on distance from rail being positioned, consider hazards associated with high fill locations and the crossing of tracks. In all cases, when tracks must be crossed to reach a safe zone, expect movement at any time, on any track, in either direction.

- *Expect movement of unsecured CWR at any time*.

3.) Rail Positioning Operations

Before beginning to position rail, ensure the following steps have been taken:

- All personnel need to be in the designated safe zone.

- Clear and direct communications must be established and used. A ground person must be at the equipment positioning the rail in order to direct the movements of the operator.

C*ommunication is essential.*

- The operator of equipment positioning rail is to be facing the operation, where practical.

- Inspect and use chains, cables, pulling blocks, and other rail handling accessories that are designed and engineered for rail positioning operations.

- Rail tongs are *not* to be used for rail pulling operations.

- Use chains or cables of a sufficient capacity and length – minimum of 4 feet – so as to minimize the elevating of rail to be positioned.

- A "circle of safety" is to be established at each end of a rail positioning operation. No one is to enter the "circle of safety" without first communicating with the equipment operator. When establishing the diameter of the "circle of safety," considerations include:
  - § boom/arm swing;
  - § unexpected equipment or rail movement; and,
  - § rigging failure.

The diameter of the "circle of safety" must be communicated to all personnel involved in the operation.

Hazards Communications/Hazardous Materials

Material Safety Data Sheets (MSDSs) are developed and provided by chemical manufacturers, distributors and importers. These documents provide important information about chemical products, including: hazardous ingredients, recommendations for storage/handling/use, health hazards, PPE recommendations and fire and spill information.

Copies of MSDSs need to be maintained with your work groups.

BNSF project representatives are to advise contractors of precautionary measures to be taken where there will be exposure to hazardous materials being used by BNSF employees. Any questions regarding hazardous materials being used in BNSF operations need to be directed, through your BNSF project representative, to the responsible BNSF supervisor. The responsible BNSF supervisor will provide you with the requested MSDSs.

In addition to maintaining MSDSs on-site, contractors need to verify that all chemical containers are labeled with the chemical name and appropriate hazard warning. Many safety equipment suppliers carry a large line of chemical labels and hazard warning decals.

Contractors using hazardous materials on-site need to document in their BNSF Engineering Safety Action Plan that their employees have completed Hazards Communication Training. Affected contractors need to comply with applicable DOT regulations when transporting hazardous materials.

Included in a Hazards Communication Program is a review of the types of information provided on a MSDS, requirements for container labeling, and specific discussion of the hazards of hazardous materials worked with or around.

When performing work in occupied areas take adequate precautions to keep BNSF personnel and other contractors from being exposed to noise, air contaminants, and/or eye hazards from operations such as saw cutting, cutting/welding, powder actuated tools, and the application of paints, sealants and adhesives.

Weedspray applicators need to have advance, *live communication* with responsible roadmasters prior to initiating spray application. The exchange of voicemail messages regarding the intent to spray is not acceptable. The responsible roadmaster is responsible for communicating weedspray plans to affected BNSF and contractor workgroups!

Contractors will be held responsible for the costs of work interruptions occurring as a result of their negligence.

Asbestos containing materials (ACM) are not to be used in the construction or maintenance of BNSF facilities. Contractor personnel are to immediately stop work activities and notify their responsible BNSF Project Representative upon encountering any materials suspected of containing asbestos.

Notices are posted in affected BNSF structures to advise which materials in a building are known to contain asbestos, how much ACM is present, and where it is located.

The Safety Action Plan of contractors involved in asbestos abatement activities will need to document that affected workers have current status in asbestos related training, as required by applicable governmental regulations.

Contractor's involved in asbestos removal activities need to work with their responsible BNSF project representative to ensure that personnel in adjacent work areas are fully aware of on-going activities and precautions that have been put in place.

Contractors are to refrain from using lead-based products; e.g., lead-based containing paints. When performing hot work on lead-containing work materials, develop and implement work policies and practices that comply with the OSHA Lead Standard.

Compressed gas cylinders of fuel gas and oxygen, whether full or “empty”, need to be separated in storage by a distance of 20 feet or by a barrier having a fire-resistance rating of at least one-half hour. Cylinders are to be secured in the upright position.

Note: Have a labeling system in place to distinguish full and in-use from empty cylinders.

Exception: Some acetylene systems are designed to operate with the cylinders secured in a horizontal position. It would seem unlikely, however, that BNSF contractors would be utilizing these types of systems on-site.

Fire Prevention/Suppression

Open fires are prohibited on BNSF property, except in limited situations where specific permits have been obtained. Open fires are not to be left unattended.

Contractor personnel who may operate portable fire extinguishers or other fire suppression equipment need to receive appropriate, annual training. Portable fire extinguishers are to be visually inspected monthly, with an annual formal inspection. Other portable fire protection systems need to be inspected prior to the start of shift, with formal inspections as required by applicable regulatory requirements.

Your job planning activities and job safety briefings need to clearly define your fire prevention strategies and procedures (e.g.; spark shields, pre-wetting), availability and staging of on-site fire prevention and suppression equipment. During job planning meetings and job briefings be sure to address basic issues such as: no smoking in right-of-way areas in proximity to combustible vegetation; and no parking vehicles over dry vegetation.

Develop and use a right-a-way fire assessment form when performing hot work activities in BNSF right-of-way areas. This form will be a check list of dos and don'ts and require contact information with local fire agencies to determine response times and whether any fire restrictions are in place.

Flammables and combustibles need to be stored, handled and used in accordance with local fire codes. Grounding and bonding procedures need to be followed when dispensing flammables. **Metal** safety cans are to be used for the storage of flammable liquids. DOT rated cans are to be used where required by regulation.

Blasting Operations

Handheld radios and other communications equipment that may interfere with blasting operations are not to be used within 250 feet of such operations. Special permits may be required for blasting operations.

Lockout/Tagout

BNSF applies OSHA lockout/tagout regulations to construction activities and work equipment related repair/service activities, as well as, to fixed facilities systems. Lockout/tagout procedures are used during the maintenance, repair or service of equipment or systems which could unexpectedly start-up, energize or release stored energy.

Lockout/tagout operations, where BNSF personnel and/or operations are affected, need to be coordinated with the responsible BNSF Project Representative and other, affected BNSF personnel.

Tunnel Safety

There are several key safety and health considerations when completing construction activities in tunnels:

ventilation (exhaust from work equipment)
scrubbers/catalytic converters on equipment (required)
industrial hygiene air monitoring
for carbon monoxide (CO levels)
and possibly other airborne contaminants (required)
on-track safety (train traffic)
access/egress

Note: California OSHA Tunnel Safety regulations are one source for guidelines for tunnel safety.

Crane Safety

Maintain the displayed minimum clearances from high voltage lines. The most conservative distance, 45 feet, needs to be maintained when line voltage is unknown.

Do not stage or store materials in proximity to overhead lines, so as to place other personnel - other contractors or BNSF employees - in a potentially hazardous situation during future material handling operations. Reference Chart Below

Power Line	Distance from Power Line
50 KV or below	10 feet
50 KV - 200 KV	15 feet
200 KV - 350 KV	20 feet
350 KV - 500 KV	25 feet
500 KV - 750 KV	35 feet
750 KV - 1000 KV	45 feet

In addition to electrical lines, overhead signal and telecommunications lines are present in BNSF yards and rights-of-way. Be sure to address overhead clearance issues during job safety briefings for projects involving cranes. Use a signalman during crane operations when operating within "one boom length" of the identified clearance distance.

Note: Similar concerns with overhead lines exist when operating equipment such as dump trucks, and using equipment such as ladders and poles.

Have procedures in place to remind personnel to properly stow booms and outriggers when preparing to travel.
All crane operators are to be appropriately trained in the operation of their equipment. Training needs to include familiarity with the load capacity chart specific to the equipment that they are operating. Outriggers are to be deployed as specified in the load chart.
Be sure to identify and address any potential underground hazards that may affect the safe operation of cranes and other heavy equipment.

Material Handling Accessories

Use only below-the-hook lifting devices that are certified by a qualified individual or manufacturer. Certified below-the-hook lifting devices will have a permanent nameplate or marking stating the following information:

- manufacturer’s name
- serial number
- weight of lifting device (when over 100 lbs.)
- rated load (capacity)

Contractor's are to have a program in place for the inspection/maintenance of below-the-hook lifting devices, slings and lifting chains.

Use taglines, or equivalent, to guide suspended loads as appropriate.

Section Two

This course can be duplicated for student handouts.

Environmental Issues

BNSF is committed to operate in a manner which will protect and enhance the environment.

BNSF will work to minimize hazardous material releases to the air, land and water.

- Take action to protect the environment, in general.
- Protect wetlands and watersheds.
- Protect government, railroad and private property. *****
- Protect overhead and underground utilities from sustaining damage.

* It is suggested that prior to initiating work activities in right-of-way areas, contractors should consider taking photographs or careful notes to document any existing damaged fence lines or out-buildings on adjacent properties.

Where applicable, a contractor's Safety Action Plan needs to document that personnel have successfully completed required training relating to the handling of hazardous waste.

BNSF Engineering personnel work closely with the Corps of Engineers. The guidelines shown relate to Corps of Engineer concerns.

Do not encroach on areas that could be considered wetland or watershed areas without proper authority.

Do not place any materials in or immediately alongside waterways where materials may wash into waterways.

Initiate appropriate erosion control to protect wetlands from storm run-off.

Local jurisdictions may have specific regulations relating to:

1. burning
2. erosion control
3. material storage
4. extensive hauling
5. general work permits

Below are some actions that can be taken to protect the environment.

- conduct a daily clean-up of the work area
- provide for the proper handling of hazardous wastes
- do not dump, bury or burn waste material on BNSF property
- label all containers as to content and hazards
- provide a means to capture fluids leaking from parked equipment
- establish adequate dust control
- wash work equipment only in areas where wastewater and contaminants can be contained; specific authorization from the BNSF Project Representative needs to be obtained prior to the washing of any work equipment on BNSF property

Below are some actions that can be taken to protect the property of others.

- keep vehicles off landlords' property

- keep gates closed at all times
- obtain access permission in writing
- protect all utilities

Regarding the response to releases of hazardous materials:

Secure the Area!

Protect yourself, stay upwind!

Attempt to determine the hazard level

Low-level hazard: Report the spill/release to the BNSF service interruption desk (800/832-5452) and clean-up as directed by the product MSDS.

High hazard: Report the spill/release to the BNSF Service interruption desk, (800/832-5452) and keep the area secured
until responders arrive.

Be prepared to provide the following information:

spill/release location

material and amount of spill/release

time spill/release discovered

estimate distance to the nearest public waters

any actions taken to contain spill/release

Be sure to notify your BNSF Project Representative as soon as the spill or release situation is stabilized. This applies even in situations where a spill or release did not result out of your work activities.

Contractor personnel are required to participate in any evacuation drills scheduled and conducted at BNSF facilities by BNSF personnel.

Fall Protection for Railroad Bridges

FRA Bridge Worker Safety Standards were published in late 1992. With limited exceptions, fall protection equipment is to be worn when on railroad bridges where the distance to the top of the deck to the ground or water surface below is 12 feet or more. The height threshold in Canada is 2.4 meters/7'9".
Exemptions are:

- o when walking or working between the rails performing inspections completing minor repairs;
- o where walkways are present, and no deck openings exist through which a worker can fall;
- o when the installation/use of a fall protection system poses a greater exposure to risk than the work to be performed e.g. some bridge inspection activities, complete thorough risk assessments.

NOTES:

1. Waist belts are not to be used for fall arrest at BNSF.
2. The use of nets for fall protection purposes requires the specific approval of the responsible BNSF project representative.
3. Be sure to have procedures in place to address fall concerns below threshold heights.

Affected contractor personnel will need to have training in the inspection, maintenance and use of fall arrest/restraint equipment. This training is to be documented in the Safety Action Plan submitted by affected contractors, and is to include applicable requirements of United States or Canadian bridge worker safety requirements.

Workers need to maintain a minimum of 6 foot clearance from longitudinal openings in the deck through which a worker could fall and the edge of the deck. Whenever possible such openings need to be covered.

Challenge yourself and your co-workers to find ways to work within the requirements without always looking for loopholes.

Do not limit your concern to falls from elevations above height thresholds established by governmental agencies. Consider potential for falls from all elevations. Also include in your risk assessments the potential for slip/tip and falls on rip-rap, or steep slopes along the track structure and trips over old materials, tree roots in right-or-way areas, etc.

All items of fall arrest equipment need to be inspected prior to use. This includes personal fall arrest equipment such as full-body harnesses and lanyards, as well as, items such as vertical and horizontal lifelines. It is critical that any horizontal lifeline systems be inspected after absences from the job-site, as unauthorized personnel may have tampered with the equipment. ***Inspections of fall protection equipment need to be documented. This is a BNSF requirement that the FRA may audit.***

Documenting an inspection protects workers in the event of a conflict with assessment personnel, as documentation helps to verify that an inspection was, in fact,

conducted. When equipment is shared, inspections and documentation become more critical.

Inspections are conducted in accordance with the guidelines of equipment manufacturers. Equipment found to be defective is to be immediately removed from service. “Out of Service”, tags or the equivalent, need to be used to prevent defective equipment from inadvertently being used.

Where fall arrest equipment is in use on railroad bridges, plans need to be developed for prompt rescue. Specialized rescue equipment, and related training, is necessary, for example, where horizontal lifelines are in use. A worker tied-off to a horizontal lifeline may be left suspended several feet below the bridge deck following the arrest of a fall. Frequently, anchor point and lanyard arrangements can be employed so as to restrain a worker from reaching the edge of a bridge deck, where a fall from elevation can occur. In such cases, specialized rescue equipment would not be necessary; however, general emergency preparedness plans still need to be in place and communicated.

After a fall, even where an injury has not been sustained, all involved fall arrest equipment is to be immediately removed from service. Depending on the situation, equipment may be able to be returned to service after thorough inspection by the manufacturer. In other situations, equipment may have to be set aside and maintained for potential legal proceedings, or simply retired from service.

The responsible BNSF Project Representative is to be immediately notified of any falls from railroad bridges.

Life vests need to be worn when working over or adjacent to water four feet or more in depth, or where the danger of drowning is otherwise determined to exist.
Exemptions are:

- when walking or working between the rails performing inspections completing minor repairs;
- where walkways are present, and no deck openings exist through which a worker can fall ; and
- where wearing of life vests poses a greater exposure to risk e.g. when climbing the structure to perform bridge inspection activities.

Life vests are not required to be worn when wearing fall arrest equipment.

Where personnel are wearing life vests, ring buoys with 90 feet of line need to be readily available (spaced at 200’ intervals) and a small boat (skiff) needs to be available. A risk assessment needs to be completed to determine whether the skiff needs to be manned and in the water, or standing by.

Flotation equipment needs to be inspected in the same manner as fall protection equipment.

The FRA Bridge Worker Safety Standards specify that safety shoes, eye protection and head protection be worn at all times when on railroad bridges .

The FRA can assess monetary penalties against a railroad or railroad contractor for failure to comply with the requirements of the Bridge Worker Safety Standards. **An individual worker may be assessed a monetary penalty for a willful violation of these standards.**

Again, remember that the FRA Bridge Worker Safety Standards apply only to work activities on railroad bridges. OSHA General Industry or Construction fall protection regulations - or the equivalent regulations in Canada - are to be applied to other activities and situations, including roofing work, where personnel are exposed to falls from elevation. *The OSHA Standards - General and Construction - have effective thresholds that are significantly less than the 12 foot FRA threshold.*

There are also OSHA standards that specifically address activities such as the construction and maintenance of telecommunication towers. These standards need to be complied with at all times.

Again, contractors are to ensure that their personnel receive fall protection training that is appropriate to the tasks that they will be performing and the equipment they will be using. Completion of fall protection training is to be documented on the contractor's BNSF Engineering Safety Action Plan.

Confined Space Safety

Contractor personnel involved in confined space activities need to be appropriately trained and qualified. This training needs to be documented in your Safety Action Plan.

The BNSF accepted definition of a person qualified for confined space work is:
a worker who has been trained in the proper use of air monitoring and rescue/retrieval equipment and in anticipation, recognition, and evaluation of personnel exposure to hazardous materials and other potential adverse conditions of a confined space.

A confined space is defined by OSHA as a space that:

- is large enough and so configured that an employee can bodily enter and perform assigned work;
- has limited or restricted means for entry or exit;
- is not designed or intended for continuous occupancy by personnel.

A sub-set of confined spaces are permit-required confined spaces. A ***permit-required confined space***:

- contains or has the potential to contain a hazardous atmosphere;
- contains a material that has the potential for engulfing an entrant;
- has an internal configuration such that an entrant could be trapped or asphyxiated by inward converging walls or by a floor that slopes downward and slopes to a smaller cross-section; or
- contains any other recognized serious health hazard.

A hazardous atmosphere exposes personnel to a risk of death, incapacitation, impairment of the ability to self-rescue, injury, or acute illness.
Most confined space related illnesses *I* injuries and fatalities are caused by atmospheric hazards.

Some common examples of Permit-Required Confined Spaces on BNSF property include:

Sanitary and storm sewer systems
Fuel Tanks
Sand Towers (manhole entry points)
Underground utility vaults
Boilers
Pipe/utility tunnels
Covered hopper cars
Ventilation and exhaust ducts
Pits
Some culverts (requires field assessment)
Some excavations*

When excavating on railroad property, the potential exists for disturbing soil where hazardous materials may have been spilled in the past. Such excavations, therefore, need to be considered, at least initially, as permit-required confined spaces.

OSHA standards allow for the downgrading of hazard level. Downgrading results in a reduced level of precautionary measures that would need to be in-place.

Alternate-Permit Required:
Identified or recognized potential for a hazardous atmosphere which can be positively controlled by ventilation, and - no other identified safety or health hazards

Non-Permit Required:

no recognized potential for hazardous atmosphere development; and
no other identified safety or health hazards

At BNSF we do not allow the downgrading of the following permit requires confined spaces:

permit-required spaces associated with environmental treatment systems, including sanitary sewer systems

permit-required confined spaces that are entered vertically with workers subsequently moving significant distances horizontally, in a direction away from the entry point, for example below grade pipe tunnels

Other BNSF Pre-Entry/ Entry Requirements:

In addition to the Pre-Entry/Entry Requirements specifically required by applicable OSHA standards, BNSF has the below - listed specific requirements.

Contractors need to:

obtain from the responsible BNSF project representative a *Confined Space Identification Form* specific to each permit-required confined space that is to be entered during the course of a project. This form lists the known or suspected hazards of the permit-required confined space;

use a confined space entry permit system;

coordinate entry operations with affected BNSF personnel, where appropriate.

provide and use their own air monitoring and rescue equipment;

determine that outside emergency responders are available and equipped to handle rescues that may require entry into a confined space;.

- provide the responsible BNSF project representative with copies of closed-out permits; and,
- advise the responsible BNSF Project Representative of any hazards encountered or created that were not listed on the space specific *Confined Space Identification Form*.

Remember, an attendant is *not* to enter a confined space to perform rescue activities.

Those contractors involved in facility design work need to challenge themselves to develop designs that eliminate the need for maintenance personnel to enter permit-required confined spaces. Consider items such as locating pumps above grade, and minimizing exposures to maintenance personnel by reducing the distance between manhole entry points in pipe tunnel designs.

Excavation Work

Excavation work is one of the more hazardous of construction activities. The major hazards encountered when performing excavation work are:

cave-ins

- exposure to underground utilities
- material and equipment falling into excavations

A competent person is to be present at excavation sites. The BNSF accepted definition of a competent person for excavation work is a worker who:

- is capable of identifying existing and predictable hazards and unsafe conditions; and,
- has the authority to take prompt corrective measures to eliminate hazards and unsafe conditions.

The competent person is also responsible for conducting inspections at the beginning of the shift and as needed during the course of the work shift.

The Safety Action Plan of affected contractors needs to document that competent person level training has been completed.

Protective systems need to be in place for trenches five feet or more in depth, or less than five feet in depth where the competent person determines that the soil is unstable.

Note: Some state OSHA regulations may be more restrictive on the above requirement. Be familiar with the regulations that apply in your job area and comply.

All excavations regardless of depth are to have protective systems in place where there is a danger to personnel or the track structure.

Protective Systems

sloping*

benching

shield systems

support systems

* Contractors need to be careful to not undermine the track structure when sloping excavations in right-of-way areas.

Tabulated data for protective systems needs to be maintained on-site. Where items such as trench boxes and shoring are rented, suppliers need to provide copies of the tab data.

Many excavations on BNSF property will be in previously disturbed soil. Vibration concerns need to be factored in when making soil type determinations, as well as, protective systems decisions, at excavation sites adjacent to track. All soil on BNSF property is to be considered as Type C unless determined otherwise by a competent person who is qualified in soil analysis techniques. Be familiar with any state-specific OSHA requirements regarding soil analysis and classification.

Obtain the specific approval of the responsible BNSF project representative prior to excavating.

Unless specified otherwise in contract language, it is the contractor's responsibility to contact a one-call service and provide appropriate notification to other companies who may have underground utilities in an area to be excavated. Coordinate with your responsible BNSF project representative to verify that responsibilities in this area are clear.

The BNSF project representative is to work with the contractor to verify that appropriate personnel, including BNSF Signal, Telecommunications, Structures System Electrical employees are contacted to determine whether there are any underground communication lines, electrical lines, or pipes in an area to be excavated. The form entitled *Underground Cable Location & Acknowledgement* needs to be completed by the contractor prior to initiating excavation work. (This form can be found on the Reference Section of this website).

*Work is **NOT** to proceed where there is doubt regarding the location of underground obstructions, including utilities.*

Should an underground line, pipe, or other obstruction be unexpectedly encountered, immediately discontinue excavation activities and contact the responsible BNSF project representative. Where the obstruction is a utility, and the owner of the utility is known, then the owner of the utility is to be immediately notified, as well.

Excavations are not to be left uncovered or unprotected overnight. Excavations on or adjacent to public roads are to be physically protected, with locations highlighted through the use of highway barriers equipped with flashing lights and/or traffic cones, in accordance with applicable governmental regulations or guidelines.

BNSF Contractor Orientation Course
Section Three

Roadway Worker Protection/On-Track Safety

The FRA Roadway Worker Protection Standards became effective for Class I railroads and their contractors on March *15,* 1997.

BNSF published corresponding on-track safety requirements that became effective at BNSF, including BNSF contractor operations, on August 1, 1996.

To be pro-active, BNSF elected to implement an on-track safety program in advance of the final publication of the FRA Roadway Worker Protection Standards.

The BNSF On-Track Safety requirements are listed in BNSF Maintenance of Way Operating Rules 11 and 12. Contractors with personnel working within 25 feet of track center-line need to obtain a copy of this material from their BNSF project representative. The review of applicable portions of this document are to be included in on-track safety training activities conducted by or through the contractor.

Notes:

1. The terms On-Track Safety and Roadway Worker Protection are used interchangeably.

2. Some contractors may have their own FRA approved Roadway Worker Protection program. In such cases contractor needs to verify if their program requirements do not conflict with BNSF Maintenance of Way Operating Rules 11 and 12.

3. For the purpose of these requirements, all "contractors" working with BNSF Engineering work groups, who will be within the 25 foot from track centerline zone, are being considered as Roadway Workers. This is a conservative measure.

4. The responsible may set supplemental requirements.

The FRA Roadway Worker Protection Standards were developed to prevent accidents and injuries as a result of personnel being struck by trains and other on-track equipment.

Unless specified otherwise in contract language, affected contractors working at BNSF are responsible for developing and implementing an on-track safety program. Implementation would include providing on-track safety training for their affected employees on an annual basis.

The safety action plan of affected contractors needs to document that they have an on-track safety program or have elected to adopt the BNSF program. The safety action plan of affected contractors also needs to indicate that affected employees have received on-track safety training.

Affected contractors need to be provided with a copy of their company's on-track safety program, or BNSF Engineering Maintenance of Way Operating Rules 11 and 12, where the BNSF On-track Safety Program has been adopted. A copy of the on-track safety program needs to be maintained with work groups working within 25 feet of track centerline.

Key distances:

Workers or equipment are **foul of the track** when closer then **4 feet** to the nearest rail of a main track/controlled siding/other track.

Contractors need **specific authorization** from their BNSF project representative to work within **25 feet** of track centerline.

Contractors working within 25 feet of track centerline:

have specific authorization from the BNSF project representative to be in this work zone;

develop and implement an on-track safety program;

provide annual on-track safety training to affected personnel;

wear the ANZI Level II or III orange and retro-reflective workwear; and,

work with the responsible BNSF Project Representative to develop a project specific strategy for addressing on-track safety (examples of options upcoming)

Notes:

The use of hardhats, armbands, belts, or gloves with orange backing alone to meet the high visibility retro-reflective requirements is not acceptable.

- Though the FRA Roadway Worker Protection Standards would allow the use of bright green as a high visibility workwear color, orange workwear is specified for use at BNSF.
- Promply replace high visibility workwear when it becomes faded or damaged.

Trains and engines are required to sound the whistle and ring the bell when approaching roadway workers - as identified by orange, retro-reflective workwear - who are on or near the track.

On-Track Safety Strategy Options
Working Under Authority

Where contractor personnel or equipment may foul the track, and individual train detection is not appropriate a BNSF flagger will be present. Track authority will be obtained through the flagger.

Examples of other contractor operations that will require a flagger:

horizontal boring below the track structure, as an operation failure could result in
humping of the track;

use of cranes, pile drivers, telescoping lift trucks, or similar equipment, where

boom swing or tipping of equipment would result in fouling the track;

material handling operations such as some pole line removal operations, where
material could fall and foul track

When a work group has a form of authority in place, train crews are aware of the work group's presence and location. The train crew needs to contact the BNSF employee-in-charge and receive permission to pass through the section of track covered by the authority.

There may be other situations where a BNSF project representative **may** require a BNSF flagger include:

large numbers of contractor personnel working within the 25 foot from track centerline zone, though not required to work foul of track

a large concentration of contractor rubber-tired equipment working within the 25 foot from track centerline zone, though not required to work foul of track;

the responsible BNSF Project Representative has minimal or no previous work experience with the contractor working within the 25 foot from track centerline zone;

concerns with high track speeds and/or limited sight distance;

Notes:

1. In some cases a flagger may be required or otherwise used for a portion of a project with other options for on-track safety selected for the balance of a project.
2. BNSF flaggers are responsible for the on-track safety aspects of the work, as opposed to the overall operation.

The Flagger

obtains track authority* or provides protection;
establishes the warning method to notify personnel of the need to clear for trains/on-track equipment;
notifies personnel when to occupy, clear and re-occupy the track and adjacent work area;
identifies the place(s) of safety where personnel are to go to when clearing the
track for traffic; and,
conducts job safety briefings to cover the aforementioned information.

Unless specified otherwise in contract language, BNSF personnel are used to perform flagger duties, as they are BNSF Maintenance of Way Rules - Qualified, current in on-track safety training, and have access to BNSF timetables and General Orders.

Types of Authority

Some forms of authority are more commonly used than others, some are rarely used. Track Bulletin Form B is the form of authority most commonly used in conjunction with projects involving contractors.

Restricted Limits
Block Register Territory
Track Permit
Track and Time
Train Location Lineup
Track-Car Operator Lineup
Track Warrant
Track Bulletin Form B
Occupancy Control System

To be discussed in the job safety briefing conducted by the flagger, as applicable:

designation of employee-in-charge
method of on-track safety*
limits of authority (time duration, milepost-milepost) *
tracks that may be fouled
control of movements on adjacent tracks
procedure for on-track safety on adjacent tracks
means of providing a warning to clear the track and adjacent work area
identification *of* the place(s) of safety
designated work zones around machines
distances to be maintained between machines when working and traveling

* record this information and carry on-person

Work equipment spacing as listed in the above referenced Maintenance of Way Operating Rules:

300 feet when traveling
50 feet when working *
50 feet when bunched at crossings *

* This distance may be reduced when having a good reason, and as covered in your job safety briefing. This exemption is not to be used on a routine basis.

The work zone extends 15 feet longitudinally to the front and rear of on-track work equipment. The safe working zone to the sides of on-track work equipment varies based on movements of machine parts. A job safety briefing needs to be conducted with the machine operator prior to entering this work zone.

Remember, that in addition to on-track safety issues, job safety briefings need to cover other aspects of the work being performed and emergency preparedness issues.

Follow-up job safety briefings need to be conducted when conditions or procedures change, or the method of on-track safety is changed, extended, or to be released.

Individual Train Detection

Individual train detection may be used when:

performing routine inspections or minor work when: the work does not affect the movement of trains - create the potential for derail; **and**
trains can be visually detected moving at maximum timetable speed; **and**
the ability to see is not impaired; **and**
the ability to hear is not impaired *

* When using individual train detection, power tools may be used on other than main track.

Train crews are not aware of work group locations when individual train detection is used.

A. Lookouts

During the job safety briefing the BNSF Maintenance of Way Rules - Qualified lookout, who is qualified in judging distances and has current status in on-track safety training and is equipped with a radio:

Identifies the place of safety
communicates to workers the method of warning
devotes full attention to the detection of trains; and,
completes the Statement of On-Track Safety, which is maintained by the lookout on-person.

The warning method used by a lookout needs to be:

distinctive, clear**;**
non-visual **(**A light or flag that is being waved; for example, would not be seen by personnel who may be turned and working or walking in the opposite direction.);
distinguishable above background noise; and,
identified in the job safety briefing

Unless specified in contract language, contractor employees will not serve as lookouts.

B. Lone Worker

A BNSF Maintenance of Way Rules - Qualified employee who is qualified in judging distances and has current status in on-track safety training and equipped with a radio:

Identifies the place of safety

completes the Statement of On-Track Safety, which is maintained by the lookout on-person.

Unless specified in contract language, contractor employees will not serve as lone workers.

Statement of On-Track Safety:
completed by the lookout prior to the work group fouling the track;
the lookout obtains the appropriate timetable and General Order information to complete the *Statement of On-Track Safety*;
a copy of the completed *Statement of On-Track Safety* is maintained with the lookout.
Notes:

1. The timetables list the maximum allowable track speed. General Orders provide up-to-date information of conditions that affect train movement.

2. Workers need to be in their place of safety **prior** to a train reaching the site distance specified on the form.

Track Protection

Switches are:
- lined against movement, properly tagged, spiked, clamped, or locked;
- have a red flag/ light with a derail in place.

This is performed by a BNSF Maintenance of Way Rules - Qualified employee, unless specified otherwise in contract language.

Options When Not Working Foul of Track

Where contractor employees are working in the 25 foot from centerline zone, yet will not be fouling the track, BNSF Project Representatives have some additional options including:

Install a construction fence, or the equivalent, to serve as a reminder to contractor personnel not to foul the track. The fence needs to be installed far enough from track that is will not be struck by trains or on-track equipment.

Designate a contractor employee to serve as a lookout to keep his co-workers in the immediate work area and not allow them to approach foul of track. This is not a lookout as defined in the FRA Roadway Worker Protection Standards.

Obtain a commitment from the contractor that the work group will specify in their job safety briefing the need to stay in the immediate work area and not approach foul of track.

The FRA's "foul of track" zone has no vertical limit. When involved in the construction of an overpass, for example, and when working above the immediate track area, the same requirements apply as if working "foul of track" at ground/track level. Common sense dictates, however, that when an overpass is complete except for minor tasks, and there is no potential for material, equipment or personnel fouling the track, it is not necessary for workers, upon notification of the approach of a train, to leave the overpass area above the "foul of track" zone and move to a place of safety. The BNSF Project Representative or flagger needs to concur with such a plan, and expectations need to be clearly communicated during the job safety briefings.

Other Information

While contractors may offer suggestions regarding on-track safety strategies, the BNSF Project Representative has the absolute final decision. Different BNSF Project Representatives will not necessarily select the same on-track safety strategy option in like situations.

As information, when workers are crossing the track for example: to go from a job-site to a BNSF building or to their vehicle, the FRA Roadway Worker Protection Standards do not apply. It is critical, however, that workers look both ways and ensure that the track is clear in both directions. ***Expect movement on any track, at any time, and in either direction!***

Workers crossing the track are not to be carrying heavy and/or awkwardly shaped work materials, equipment, or objects which, hinder their smooth movement across the track, or where - should they drop the item, it would foul the track and create a hazard for trains and on-track equipment.

The FRA Roadway Worker Protection Standards require that operators of on-track equipment be:

Trained and certified as competent to operate on-track equipment.
Operators are to be familiar with the information in a machine's operating manual; manuals are carried on items of work equipment.

Notes:

Contractors need to have a program in-place to establish competency in work equipment operators.

This training, when applicable is listed in a contractor's safety action plan.

These same requirements need to be applied to rubber-tired work equipment.