

Underground Utility Damage Prevention, Safety and Your Railroad

BACKGROUND - A number of states are considering changes to their UUDP / 811 laws as a result of The Pipeline Safety, Regulatory Certainty, and Job Creation act of 2011. The legislation states that state 811 programs which provide exemptions for state and local agencies (DOTs / Public Works Dpts.) will have their federal grand funding withheld beginning January 1, 2014. Each state's law is different as to what exemptions are allowed, how excavation is defined, the amount of tolerance zone provided, who is the enforcing agency and what penalties are applied. Any state law that currently provides an expressed or full exemption for public agencies will have to make changes in the next year.

UNDERGROUND UTILITY PLACEMENT ON RAILROADS - Universal standards for railroad engineering were developed decades ago. Railroads are network operations and the individual companies share their privately owned assets – tracks, locomotives, rail cars, facilities – to effectively deliver goods across the country. Therefore, track engineering and construction standards must be followed.

The American Railway Engineering and Maintenance-of-Way Association (AREMA) produced guidelines and standards for railroad construction, including the placement of underground facilities under and adjacent to railroad tracks. These standards are universally followed by all of the Class I, II and III railroads in the U.S.

AREMA Pipeline Specifications state:

All utility crossings under ditches and railroad trackage should have a minimum depth of cover of three (3) feet below the flow line of the ditch or ground surface and five and one half (5-1/2) feet from base of rail. In fill sections, the natural ground line at the toe of slope will be considered as ditch grade. The depth of cover shall not be less than that meeting applicable industry standards.

Each railroad, including Norfolk Southern, provides these specifications to our utility and pipeline partners who seek to cross railroad private property. The requirements are also included in the contractual agreement we sign with any company or individual that applies to place utilities under our tracks and right-of-way – longitudinally or perpendicularly.

RAILROAD INVOLVEMENT WITH UUDP / 811 - UUDP / 811 laws vary from state to state regarding railroad participation in spite of railroads operating in a multi-state network manner. Like other companies, industries and individuals, railroads to utilize 811 services to identify underground utilities in many situations when digging is needed. However, railroads need to preserve or establish an exemption for track maintenance work in order to maintain efficiency, safety and uniformity on our network.

Railroads call 811 when:

- Installing new crossing signals at grade crossings and installing new communications equipment / towers on railroad property;
- Utilizing any type of boring equipment, backhoes, plows, trenchers, or other mechanized digging equipment on railroad property;
- Constructing a new facility on railroad property.

ROUTINE TRACK MAINTINANCE - Railroad tracks are a railroad company's greatest asset and largest investment. Every freight and passenger railroad maintains its infrastructure in cycles based on train traffic, tonnage, track speed, weather and location. Routinely, track maintainers or maintenance of way workers (MoW) work sequentially along track sections removing and replacing used rails, ties, spikes, tie plates and other

pieces of railroad materials that make up the track structure. Ballast is regularly removed, cleaned, replaced and tamped down to secure and stabilize the track.

Track maintenance is performed by railroad workers and railroad contractors with a combination of hand-held and mechanized equipment. All of this work is done within the existing track structure above the subgrade of land below the railroad bed. This must be done cyclically to ensure safety to the public and the train crew.

Frequently, as a part of maintaining the integrity and safety of the rail structure, workers clear the adjacent land of limbs, debris, trash, and other items to ensure visual clearance for the train crews and vehicles, maintain effective drainage near the railroad to prevent washouts from under the tracks, and to provide railroad workers adequate walking spaces alongside the train when inspecting it. Again, all of this work is done above the subgrade of the adjacent right of way to the railroad tracks.

SAFETY - In 2003, the Common Ground Alliance created a vehicle for collecting and reporting underground damage information. The application allows users to submit incidents of utility damages due to digging and CGA compiles data based on this information and publishes an annual report. A link to the 2012 DIRT report is below. *In Exhibit 12 on page 10, statistics indicated that of the 68,365 incidences of damaged underground utilities, only 68 occurred in railroad right of ways.*

LEGISLATIVE LANGUAGE - With the understanding that it is railroad MoW activities that most need to keep an exemption from having to call 811 and that this work is contained in the area below the track structure and the subgrade, and the land adjacent to the tracks, below is suggested language developed in concert with professional railroad designers and engineers. Also included is abrogation language to protect the private agreements entered into by the utility companies and the railroads.

Exemption:

(Excavation shall not include:) Routine railroad maintenance activities conducted within the track structure and its adjacent right of way, provided this work is performed by railroad employees or railroad contractors and is carried out with reasonable care so as to protect any underground facilities placed in the railroad right-of-way by agreement with the railroad.

Abrogation Language

Nothing in this chapter shall modify or abrogate any contractual provision entered into between any railroad and any other party owning or operating an underground facility or underground utility lines within the railroad's right-of-way.

Reference Links:

- **Common Ground Alliance:** www.commongroundalliance.com/
- **Damage Information Reporting Tool (DIRT):** www.cga-dirt.com
- **Pipeline Safety Guide 2013:** www.excavationsafetyguide.com/display_issue.php
- **AREMA:** www.arema.org
- **PHMSA Damage Prevention Summary:** <http://primis.phmsa.dot.gov/comm/DamagePreventionSummary.htm>
- **PHMSA Damage Prevention Resources:** <http://primis.phmsa.dot.gov/comm/DamagePrevention.htm?nocache=1419>
- **Norfolk Southern Requirements:** <http://www.nspipeandwire.com/>

**Current work on Michigan state-owned line – between Dearborn & Kalamazoo
Routine Track Maintenance**



Installing Cross Ties



Laying Curve Rail



Surface Work

