



## BURIED PLANT PRECAUTIONS

### 1. GENERAL

**1.001** This addendum supplements Section 629-100-010, Issue 7. The attached pages must be inserted in the section in accordance with the filing instructions above.

**1.002** This addendum is issued to change 5.07(d).

### 5. PLOWING AND TRENCHING

The following change applies to Part 5 of this section.

(a) 5.07(d)—revised

#### Attached:

Page 3, dated January 1973, revised

Page 4, dated January 1973, reissued

cable path. When at a depth below the electrically tested depth of the cables, carefully dig toward cables to expose them.

(d) **DO NOT HANDLE** exposed power cables except as outlined in Section 629-020-102.

**5.08** A trencher or plow train should never be placed in operation without an approved signal system with which all of the employees on the job are familiar.

**5.09** While the trencher or plow is in motion or the engine is running, no attempt should be made to remove roots, vines, or other foreign matter entangled with the equipment.

**5.10** As a general rule, do not ride on or walk close to trail-type plows because of the danger of the plow tipping when a large obstacle is struck.

**5.11** Do not walk between the units of the train when the equipment is in motion.

**5.12** Shear pins are usually fitted to plows to limit the maximum force to which the unit is subjected. Since shear pins are sometimes ejected with considerable force after shearing, care should be taken to replace the caps used to restrict the travel of the pins. If the plow is not equipped with retaining caps, keep clear of the possible line of flight of the pin.

**5.13** When winching the train and in other winching operations, stay clear of the path of the rope or winch line.

**5.14** Craftsmen or other persons must not rest their hands on a moving winch line or permit the moving winch line to pass through the hands. This is especially important near a block or sheave.

**5.15** The side walls of excavations, in which craftsmen are required to work, that exceed 5 feet in depth must be supported by shoring in accordance with the provisions covered in Section 622-020-020.

## **6. PROPERTY OF OTHER COMPANIES**

**6.01** Before starting burying operations, locate the portion of foreign plant that may interfere

with the proposed telephone route. Make every effort to avoid exposing or making contact with the underground or buried plant belonging to other utilities, municipalities, etc.

**6.02** Other companies who have buried or underground facilities should be requested to establish the location of these facilities and to expose, identify, and suitably protect their interest while work is in progress.

**6.03** The *pipe locators* covered in the 634 Division of the Bell System Practices may be used to locate *metallic* facilities such as gas pipe, water pipe, cable, etc. The *pipe locator* should be used ahead of trenching, plowing, and pipe pushing operation in urban areas.

**6.04** To prevent damage in areas where other companies' buried or underground facilities are plastic, such as gas pipe, water pipe, etc, these facilities must be located, exposed, and protected while work is in progress. ***There is no test equipment available to locate plastic pipe.***

**6.05** When foreign objects are encountered while digging, plowing, trenching, or pipe pushing, stop operations immediately. Expose and investigate them with caution. Do not cut, chop through, or break off underground obstructions without first determining if they serve a useful purpose. Under no circumstances should underground electrical plant or pipe line (gas or other) be disturbed.

### **6.06 *If a gas line should be broken or damaged:***

- (a) Leave the hole open to allow gas to dissipate into atmosphere.
- (b) Warn residents and the public in the vicinity.
- (c) Notify local fire department.
- (d) Notify local gas company.
- (e) Keep the public clear of the area until condition is cleared.
- (f) Notify your supervisor.

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### **6.07** *If an electric line should be broken or damaged:*

- (a) Barricade location until condition has been cleared.
- (b) Notify the local electric company.
- (c) Keep the public clear of the area.
- (d) Notify your supervisor.

### **6.08** *If a pipe line other than gas should be broken or damaged:*

- (a) If a liquid is noticed which appears to be volatile, such as gasoline, follow instructions in 6.06.
- (b) Notify the appropriate utility, municipality, etc.
- (c) Notify your supervisor.

## **7. DAMAGE TO CABLE AND WIRE—HANDLING REELS**

**7.01** The coverings surrounding the sheath are provided for corrosion and mechanical protection. Puncturing or damaging the coverings will nullify this protection. It is important, therefore, to avoid damaging the cable and wire in transit from the storage area to the job, and on the job.

**7.02** When loading or unloading reels, keep all persons away from the rear of the trailer to avoid possible injury in case unexpected movement of the reel occurs. No one should be permitted on the trailer platform during the loading and unloading operations. In handling reel spindle locks, make sure the tractor winch operator signals approval before latching or unlatching. The latch must be handled only when there is no movement of the spindle.

**7.03** When reels are delivered to the job, they should be securely blocked to prevent rolling if the cable is not to be immediately placed. Reels should be stored where they will not inconvenience the public or obstruct the view of drivers, particularly at intersections. If possible, they should be left on side streets in preference to main thoroughfares. Reels should not be left at locations where there is a possibility of grass fires or near other fire

hazards. Reels should not be left on grades if it can be avoided. When it is necessary to leave a reel on a grade, block it so it cannot roll.

**7.04** On steep hills move reels by power equipment. Do not detach trailer slings before the reel is effectively blocked.

**7.05** Since a full reel of cable of maximum size weighs as much as 9 tons, exercise careful control of its movement. Do not permit a heavy reel to tilt. When uneven ground conditions are encountered, provide a substantial runway of heavy planks leveled by blocking so tilting of the reel will not occur. If practical, use power equipment for moving.

**7.06** In turning reels, do not press against the cable or wire with bars. Reels should not be dropped since the flanges are likely to sink into the ground with the result that the cable may be crushed between the ground and the drum of the reel.

**7.07** When it is necessary to roll the reels over soft ground, use planks to prevent the flanges from sinking. Do not roll reels over rocks or other projecting objects that are likely to damage the cable.

## **8. DAMAGE TO CABLE AND WIRE—PLOWING**

**8.01** Excessive strains should not be placed on cable or wire. Excessive strain at the start of plowing operations can be eliminated by starting the plow slowly and without jerks. If the free end of the cable or wire is anchored to a pole or tree, the use of a spring or spring scale with a spring rate of approximately 100 pounds per inch is recommended between the cable and the pole or tree to cushion the shock loads. Grease or otherwise lubricate the reel and spindle so the reel turns freely.

**8.02** Where it is necessary to pull the cable over the ground or in the trench, avoid dragging it over rocks, tree trunks, stumps, etc, that might injure the outer sheath. When pulling cable along the route under road pavements, across pipelines, etc, the setup should be such that undue strain will not be placed on the sheath or its protective coverings. A cable reel pressure alarm is available for attaching to the reel end of the cable to give an audible alarm warning of any sheath damage