

DAMAGES TO BURIED FACILITIES

- **THEY AFFECT EVERY ONE OF US**
- **THEY SHOULDN'T HAPPEN BUT THEY DO**
- **WHY?**

Robert R. Chisholm, P. Eng.
President
Alberta One-Call Corporation
230, 6940 Fisher Road SE
Calgary, Alberta T2H 0W3
(403) 531-3700
Fax (403) 531-3703

web site www.alberta1call.com

INTRODUCTION

Damages to buried facilities occur all too frequently and affect every one of us. We have about 100 years worth of buried facilities - some live, some abandoned. It is no longer reasonable to expect to be able to undertake an excavation or ground disturbance without conflicts with buried facilities. Prevention of damage to buried facilities must be a priority with all of us.

CONSEQUENCES OF DAMAGE TO BURIED FACILITIES

The potential consequences of damage to buried facilities range from minor service disruptions to catastrophic conflagrations and include

- loss of life
- personal injury
- environmental contamination
- evacuation of residential areas
- explosion, fire, flood or toxic gas escape
- disruption of essential services
- inconvenience to the public
- third party property damage
- damage to construction equipment
- contractor down time and loss of production
- loss of product and revenue
- costs to rehabilitate injured workers
- costs to repair damaged facilities
- costs to rehabilitate environment
- costs to repair or replace construction equipment
- police, fire and ambulance costs
- lawsuits
- medical costs
- legal costs
- administration costs
- increased WCB assessments
- increased insurance premiums
- reduced credibility with public
- reduction in contractor's ability to be competitive
- fines
- jail terms

Every facility owner will experience some of these consequences every time a facility is damaged as will every excavator who damages a facility.

DAMAGE PREVENTION STAKEHOLDERS

There are more stakeholders in the prevention of damage to buried facilities than the obvious facility owners and contractors. The list of parties that have an interest in damage prevention

includes

- facility owners
- excavators
- regulatory agencies
- industry associations
- safety organizations
- locators
- one-call centres
- the general public

Each of us belongs to at least one of these groups and hence has a vested interest in the prevention of damage to buried facilities.

REGULATIONS

Virtually, all our activities are governed by regulations be they society's expectations, good manners, documented procedures or policies, the rules of a game or formal legislation. Legislation that addresses the protocols of working near buried facilities in Alberta includes

- National Energy Board Act and Pipeline Crossing Regulations Parts I and II
- Alberta Pipeline Act and Pipeline Regulation
- Alberta Gas Distribution Act
- Alberta Safety Codes Act and Alberta Electrical and Communication Utility Code
- Alberta Occupational Health and Safety Act and General Safety Regulation
- Labour Canada, Canada Occupational Safety and Health Regulations

These regulations establish obligations for excavators and facility owners in order to protect the health and safety of workers and the general public and to protect the integrity of our buried infrastructure before and during any excavation or ground disturbance.

OBLIGATIONS

Under the General Safety Regulation, those of us who are employers have several obligations which include

- identifying all known safety hazards at a work site
- bringing those hazards to the attention of any workers who may be exposed to them
- establishing safe working procedures to eliminate, control or reduce the hazards
- ensuring workers have appropriate and adequate resources, equipment and tools to undertake work activities in a safe manner
- ensuring workers are trained in the use and limitations of equipment and tools and in the established safe working procedures
- ensuring workers are aware of their responsibilities and duties

Those of us who are workers have obligations as well, under the General Safety Regulation. They

include

- taking reasonable care to protect the health and safety of ourselves and our fellow workers
- co-operating with our employers to protect the health and safety of ourselves, our fellow workers and anyone else on the work site
- refusing to carry out any work activity that we reasonably and sincerely believe will place us or any other workers in imminent danger

The presence of buried facilities at a work site is a potential safety hazard and as such requires identification, awareness and procedures.

RESPONSIBILITIES

Both the digging community and the owners of buried facilities have a responsibility to protect workers, the public, the environment and the integrity of society's essential services and to act in a prudent manner.

The digging community must recognize, accept and fulfill its responsibilities, which include

- recognizing the inherent dangers in disturbing the ground
- requesting, in a timely manner, that owners of buried facilities identify and mark the locations of their facilities before a ground disturbance takes place
- hand exposing buried facilities in conflict with a ground disturbance before using mechanical equipment within the control zone
- digging prudently to minimize the effects of ground disturbances on buried facilities and to safeguard workers and the public
- reporting any damages to the owner of the facility

The owners of buried facilities must recognize, accept and fulfill their responsibilities which include

- installing facilities in accordance with accepted practices and governing regulations
- responding, in a timely manner, to requests for locates from the digging community
- developing an awareness of and respect for the digging community's concerns and the constraints under which it does business
- generating a respect for the integrity of their facilities on the part of the digging community
- maintaining accurate and up-to-date as-built records of both active and abandoned facilities
- being proactive in damage prevention activities

These responsibilities which create a framework for a co-operative approach to damage prevention do not seem to be onerous or unreasonable.

WHY DO DAMAGES OCCUR ?

Despite the potential consequences of damages to buried facilities, despite the fact that damages to buried facilities affect each of us in the pocketbook, despite the regulations, despite our obligations, despite our responsibilities, damages to buried facilities continue to occur. Why?

- we are human
- we make mistakes
- we let our guards down
- we let our attention wander
- we assume
- we take risks
- we gamble
- we ignore or neglect or choose not to follow procedures
- we take short cuts
- we are in a hurry
- we don't do our homework or plan
- we choose not to accept responsibility for our actions and inactions
- we haven't been trained
- we are not competent
- we don't know our limitations
- sometimes we just don't think

PREVENTION OF DAMAGE TO BURIED FACILITIES

Prevention of damage to buried facilities must be a priority for any organization that owns or operates buried facilities, for any person or organization that is involved in disturbing the ground and for any consumer who purchases goods and services provided through buried facilities. That pretty well covers all of us one way or another. Just as in work site safety, we are all in damage prevention together.

The framework is there - the regulations, the obligations, the responsibilities. We as individuals and as organizations must recognize, accept and fulfill them as part of how we conduct our business on a daily basis.

Beyond that, we must be proactive in damage prevention activities. As owners and operators of buried facilities and as members of the digging community, we must consider due diligence. Have we done everything that can be reasonably expected of prudent individuals and organizations to prevent damage to buried facilities.

PROACTIVITY

For obvious reasons, no one wants to damage buried facilities. Do we, as facility owners, make it easy or difficult for the digging community to avoid our facilities? Do we, as members of the digging community, follow all appropriate procedures?

A proactive approach to damage prevention by owners of buried facilities would include at least the following components.

- a corporate philosophy that encourages co-operation with the digging community
- public awareness programs that promote concern for public safety and the integrity of buried facilities
- adequate and current signage on facility alignments
- awareness, acceptance and fulfillment of responsibilities
- minimize the red tape and hoops through which a contractor must jump
- easy access by the digging community

Registration of buried facilities with the one-call system must be part of any proactive approach to the prevention of damage to buried facilities. Registration will enhance our reputations as "good corporate citizens" and demonstrate to the digging community that we are concerned with the integrity of our facilities. Our participation in the one-call system will make it easier for the digging community to provide us with notifications of their intent to disturb the ground.

A proactive approach to damage prevention by members of the digging community would include at least the following components:

- a corporate philosophy that encourages co-operation with the owners of buried facilities.
- identification of buried facilities as a potential hazard at any excavation site
- establishment of safe working procedures for excavation near buried facilities
- arrange for buried facility locates as part of the job planning process to provide facility owners as much lead time as possible
- awareness, acceptance and fulfillment of responsibilities

Use of the one-call system must be part of any proactive approach to the prevention of damage to buried facilities. Calling before we dig, hand exposing and digging prudently to minimize the effects of our ground disturbances on buried facilities will demonstrate to the owners of buried facilities that we are trying to do the right thing and enhance our reputations as reputable members of the digging community.

Be proactive. If you are an owner or operator of buried facilities, register them with the one-call system to protect your investment and to safeguard our essential services, the environment, workers and the public. If you are a member of the digging community, "Call Before You Dig" for the same reasons.