



## Crush Zones Involved with Removing Manhole Covers – Tool Box Talk

DEPARTMENT: \_\_\_\_\_ DATE PRESENTED: \_\_\_\_/\_\_\_\_/2009



Manhole covers can be used to close holes leading from the street level down to a sewer or other utility connection. The covers allow for cars and other vehicles to travel across the roadway without falling into the hole. Of course, before such holes can be entered their covers must be removed. Such covers are often made of cast iron and tend to be very difficult to maneuver because of their size and weight. For example, manhole covers can weigh anywhere between 75-400 pounds. A 2003 report from the Liberty Mutual Research Institute for Safety found that "opening manhole covers was the biggest cause of accidents in the utility industry."

The dangerous process of removing and replacing manhole covers is a major cause of back injuries and worker compensation claims in the telecommunications, utility and sewer industries. What are your crews using now to remove manhole covers - a hook or crowbars which require lifting and putting tremendous strain on the back? How many times have you heard about toes or fingers getting caught or crushed when pulling a cover or when trying to free a frozen or tarred-over cover with a hammer? The cover and the rim are a **CRUSH ZONE!**



### ***Talk about the lifting devices you use.***

Recently an employee was injured when his middle finger was caught under a manhole cover. He was taken to the emergency room and underwent surgery. He was in a cast to his elbow for two weeks. Where possible you should of course use adequate manhole keys but many of the older covers do not facilitate lifting keys and other methods have to be adopted, this can lead to a risk of trapped fingers and toes, old covers and frames rust and fuse together and require some persuasion with a large hammer again PPE such as goggles, gloves and boots should be worn to prevent injury.

### ***Discuss your cover lifting procedure!***

**Never place your hand in the opening to grasp a cover. Get help if necessary and use a mechanical assist tool if available.**



Once the cover has been lifted the area should be isolated using a suitable barrier system and signs, if the cover is hinged a wedge or break should be installed to prevent accidental closing and when the cover is replaced ensure it is seated properly and does not present a trip hazard.