Risk Management Fund

Worksite Safety

The workplace can be a dangerous place. The table shown below contains over a thousand claims experienced by members of the TWCARMF. The list includes first aid only claims, minor medical claims, catastrophic burn injuries, and a fatality. They can all be attributed to the worksite, which in the world of water districts, can be just about anywhere in Texas.

TWCARMF Workers' Compensation Claims 2017 - 2021			
Year	Total Incurred	Frequency	Severity
2017	$1,709,098.13	239	$7,151.04
2018	$772,345.30	211	$3,660.40
2019	$1,040,526.42	199	$5,228.78
2020	$3,837,384.80	215	$17,848.30
2021	$3,030,707.99	157	$19,303.87

(TWCARMF Workers' Compensation Claim History valued as of July 1, 2021. The average claim for the five-year period is $10,176.36 and includes the two catastrophic burn and fatality claims)

The following list of claim descriptions is from one week in April 2020 pulled at random from the loss run:

- Left eye. Capping well that has heavy plant growth around site. When cutting back weeds & sticker bushes it was flying everywhere due to high winds. Sharp pain to left eye. Abrasion and small hole in left eye cornea.
- Employee slipped on ice outside front door and hit her head on concrete, hitting her left eyebrow/lid
- Pulled up on boom handle and felt pain in lower back
- Employee picked up dry tree branch causing injury to back, neck, and head
- Employee states hernia was developed from lifting bags of sand.
- Standing by belt press and the shaft for the conveyor pulled me into the equipment causing cuts and skin rashes to stomach and right hand
- Right 5th metacarpal fracture - The claimant's right hand was hung up in the handrail next to the door of a trackhoe

(TWCARMF Workers' Compensation Claim History as of July 1, 2021.)

Two of these claims resulted in no cost because they were reported as incident only or were treated with first aid. One was almost $8,000 and the others averaged about $2,500. All of them represent claims and tasks common to water districts. The next to last example represents a potential fatality had the employee been pulled farther into the belt press by the in-running nip. To further emphasize the seriousness of catastrophic claims, which seem to occur almost every year, the burn claim mentioned in the first paragraph is currently reserved at $2,420,935 and the fatality at $3,030,322. (Reserves are set by the

claims adjuster based on their best estimate of what the eventual medical and indemnity cost of the claim will be. The reserves may change significantly through the life of the claims as additional medical information or return to work become apparent.)

What are the factors that cause the worksite to be so potentially dangerous? There are several factors that relate to the job being performed, where it is, and the tasks it takes to get the job completed. A significant common element is the complexity of the worksite. Even the simplest repair of a leaking pipe can involve excavation, heavy equipment, welding, several workers, hot or cold weather, mud, and hard physical exertion. Replacing an electric motor in a pump station requires use of an overhead crane, lock-out/tag-out of powerful electrical sources, and skilled operators who know how to connect and calibrate the new motor. This work is usually being done in a noisy, hot, and congested space that has to remain operational while the work is being done. The shop is another complex environment with hand tools, grinders, welding apparatus, oxygen and acetylene bottles, and the repair of tools, valves, and other parts of the operating system.

Another element contributing to the complexity and safety of a worksite is housekeeping. Risk Control Consultants look at housekeeping as a leading indicator of a district or river authority's safety culture. Poor housekeeping usually indicates a laxity about safety that puts the job ahead of the safety of the employee. Poor housekeeping also creates its own hazards where workers can trip, fall, bump against something, be cut, scratched, or endangered by operating equipment. Good housekeeping gets things out of the way and makes movement through the space easier and safer. This is true whether in a shop, a trench, or a pump station.

Factors contributing to complexity or disorganization include:

- The difficulty of the job
- Poor planning
- Lack of training
- Improper tools or equipment
- Weather and ground conditions at the jobsite
- Availability of personal protective equipment

There are also hazards inherent in the job itself. These include lifting, repetitive motion, working at height, falling objects, improper use of hand tools, and operation of heavy equipment. In the two large claims mentioned earlier, both involved heavy equipment. The fatality occurred when a heavy object being moved with a crane broke loose and crushed the crane operator as he tried to avoid the falling object. The severe burn occurred when a backhoe operator raised his bucket high enough to contact power lines that set the backhoe on fire.

So, what can be done to make water district and river authority worksites safer? The most important factor is top management's commitment to safety overall and the safety of the places where employees work. This means a commitment to policies and procedures that govern the work like confined space, trench safety, lock-out/tag-out, and policies written and designed to prevent catastrophic or minor injuries. This commitment also entails

safety policy and safety training, especially for new employees, and those needing refresher courses.

Planning and staging the job is also an important element. Good planning usually means that the progress of the job is more efficient with less need to rush work or contribute to disorder on the job site. Daily planning is also important for consideration of material delivery, extreme weather, adequate personnel to do the work, and having the necessary equipment where and when it's needed. Engineers and managers should be involved as the work progresses to make sure the work is being done to design and specifications. Having and using the proper personal protective equipment is also required to help prevent injuries to eyes, hearing, hands, feet, and respiration. Having other safety equipment such as confined space entry tripods, hoists, and oxygen meters and trench boxes are also effective preventive equipment. First aid kits are also on this list.

Contractors involved in various jobs should also be supervised so they abide by district safety policy. If the contractor is totally in charge of a job site, then their safety program should be followed by the district so their responsibility for safety is maintained and not diluted by district lack of adherence.

A common slogan in the world of safety is "Safety is everyone's responsibility." It's true, but the stronger the commitment from the top of the organization, usually the stronger the individual workers feel about safety. This is how the inherent hazards involved in use of chain saws, welding, lifting heavy objects, climbing ladders, working in trenches, vaults, or around heavy equipment are best controlled. The individual's understanding of safety makes each person safer in doing their work.

The Fund's risk control consultants will work with any district or authority that wants help in improving safety. They do this through on-site visits, telephone consultations, accident investigations, claim analysis, and safety training. They want your job sites to be safe to help prevent the harm to your employees, their families, and the district that comes from an on-the-job injury.