

TerranearPMC Safety Share

Week of August 22, 2011 – Hazard Identification

How many of us would do something dangerous if we knew that the end result would prove to be fatal? As silly as this question may seem to be, hundreds, even thousands of us put ourselves in harms' way by simply not thinking things through before we act. A few days ago I heard some disturbing news on television about how this year, 2011, has already been a record year for fatalities at Yosemite National Park. So far there have been over twice as many deaths at this recreation area than any other year since the National Park Service has been recording such data. What is going on? As reports indicate, people do not understand that when they engage in wilderness activities, one needs to maintain a certain mind-set and understand their physical limitations and be cautious.

One incident involved a young man that decided to take a hike in flip flops on the Mist Trail that overlooks the Merced River. This trail is very steep and extremely slippery. While I may come across as a Monday morning quarterback, nevertheless, if this person would have worn hiking boots, he would have had better stability and traction and thus his tragic death would (probably) have been avoided. Another case at Yosemite occurred when three visitors decided to cross over the guard rail that was placed near Vernal Falls, so they could get some great close-up pictures. They didn't understand the power of the river's current. As a result they were swept away towards the Falls' precipice and were pulled down the Falls, landing more than 300 feet to their deaths. Just as the first incident described earlier, this event also, could have been prevented; if only they understood nature's power and stayed behind the railing – an obvious barrier to stop people from doing the very thing that these individuals did. Why did they put themselves in such jeopardy? Apparently, they wanted to get a close-up picture of the Falls.

People, for the most part, really do not want to place themselves in a situation where there is a strong possibility of losing their lives – Yet we hear about these types of stories all the time. Interviews with people (usually as told from their hospital bed) that have survived near-death experiences say that they didn't believe that they would get hurt; even though they were involved in some very high-risk behavior, such as trying to get a close up picture of a bear in the wild or walking through a herd of buffalo or climbing Yosemite's half-dome during a storm, or jumping into a lake or a river at an extreme height without knowing the depth or knowing if any sharp, protruding objects were present in the water they were about to splash into. Yet they didn't think the consequences of their actions would result in such a disaster.

According to basic accident prevention theory, the first step to protect oneself is to realize when you are about to participate in a hazardous activity. This is referred to in the field of occupational safety and health, as hazard identification. If we can recognize the hazard, we can then protect ourselves.

When it comes to nuclear power plants, the Nuclear Regulatory Commission (NRC) promulgates the rules and regulations to ensure operations are performed with the highest regard to employee safety and health. One of the requirements of the NRC is to have the steam generators replaced on a regular schedule. These devices weigh hundreds of tons, so when they are transferred from the plant, a strict rule of not having anyone positioned under them is well understood. After all, a failure in the lifting/transport systems would result in a most unfortunate outcome. This hazard is obvious and recognized by all. Thus, enforcement of this rule is not questioned, nor do workers attempt to breach this requirement. Nevertheless, there are accidents at nuclear power plants. Usually the accidents are slips, trips and falls or back/body sprains or strains from incorrect lifting or awkward movements while performing daily or routine tasks. So why do these relatively minor accidents happen while such major disasters that could very well happen during a steam generator replacement are so well controlled? The answer lies within *hazard identification*. Workers at nuclear power plants recognize the obvious consequence of a 320-ton steam generator falling on them and so they make every effort to ensure their safety, while performing normal routine work becomes second nature and therefore, is not given the same type of consideration.

When people perform their regular scheduled activities, the tasks become routine or second-nature and therefore, people do not have the time to look around and consider the potential hazards that are within their immediate work area. Yet, all it really takes to reduce one's level of risk dramatically is to take two minutes of your time and look around to note anything that is a potential hazard. This is referred to as the 2-minute drill. It is a simple, yet effective technique that we all can use, no matter what our work location is or what the specific work task may be. Prior to conducting any work task, everyone in the work crew examines the work area to identify potential hazards. These may be, a change in the work condition due to another work crew being in the area (do they use flammables while we are performing hot work?) or is there a vehicle that wasn't in the area yesterday, that now causes the team to walk a new path while carrying supplies (does this new path have uneven surfaces?), or are there other conditions that represent a circumstance that requires additional controls? Because the entire crew is involved, there are many sets of eyes examining the area – all focusing on different things. The end result is a thorough overview for hazard identification. Once the hazards are identified, the team can inform each other and then discuss ways to appropriately control them. Hazard identification – if we can't recognize a hazard, we can be setting ourselves up for an unfortunate scenario.

Safety is a state of mind - Accidents are an absence of mind