

The "C-Change" Initiative:

1. Change behaviors.
2. Challenge ourselves to re-think how we work.
3. Certify the results on a daily basis.



Toolbox Talk

Week of August 22nd 2011

Respiratory Protection

This week we will talk about supplied air respirators which are commonly referred to as fresh air masks. In certain situations workers are required to wear supplied air respirators to perform their work, such as installing or removing blinds in refinery piping systems. Supplied air respirators work differently from air purifying respirators, in that they provide clean air, rather than filtering out the contaminants from the outside air. This toolbox talk will cover when they should be used, their capabilities, and their limitations. Prior to wearing any respirator each employee is required to be medically evaluated and trained in its usage. The two types of supplied air respirators are airline respirators, which are connected to a series of grade D breathing quality air tanks, and SCBA (Self contained breathing apparatus) which have tanks that the workers strap to their backs with a 45 to 60 minute supply of air. Supplied air respirators are required for use in oxygen deficient atmospheres or where high levels of toxic chemicals in the air are above IDLH levels (Immediately dangerous to life or health). All airline respirators require a small escape bottle which contains 5 to 7 minutes of air giving the wearer enough time to move out of danger. The escape cylinder can only be used for escape, and never be used for entering an IDLH atmosphere. The pressure in the primary cylinders must be checked prior to use and a minimum pressure of 1500 psi is required. Prior to staging of the bottles the job location and the wind direction must be considered to allow for 50 feet of clearance and to be placed upwind from the work area. All cylinders must be properly secured in the upright position and should be placed outside of the restricted zone. The air manifold used must be tested prior to use to ensure the low level alarm bell is working properly. Likewise all hoses and masks should be checked to make sure they are working properly without damage or leaks. For airline respirator use the hose length per employee must not exceed 300 feet. The person

who is assigned “bottle watch” duties can only perform that function and never leave the bottles unattended. The bottle watch needs some form of communication whether verbal, radio, or horn to notify the work crew of an emergency. While working on scaffolds or elevated areas, two means of egress are required for emergency evacuation. When using SCBA respirators they should not be used in situations where barrel ladders are present because they limit one’s ability to safely descend the ladder. Please check with your site safety department if you have any questions and for any additional requirements.