HAZARDS OF NITROGEN/INERT GAS CREATING AN OXYGEN-DEFICIENT ATMOSPHERE

At the request of the U.S. Chemical Safety and Hazard Investigation Board (CSB), CGA has issued this safety alert to address nitrogen/inert gas hazards in confined spaces.

On November 5, 2005, two workers died at a refinery when overcome by an oxygen-deficient atmosphere. The first worker either slipped into the vessel or was overcome at the vessel opening when attempting to retrieve a piece of equipment that had fallen into the vessel. The second worker attempted to rescue the first worker and he also was overcome by the oxygen-deficient atmosphere. A nitrogen purge had created an oxygen-deficient atmosphere in and around the confined space. For more information on the incident, see the CSB website at www.csb.gov.

An oxygen-deficient atmosphere can bring about unconsciousness without warning. In merely two breaths, an individual’s life can be endangered by low oxygen intake. Oxygen-deficient atmospheres might not be limited to only confined spaces. They also can exist outside of a confined space opening. See CGA SB-2, Oxygen-Deficient Atmospheres, for recommendations that are critical to working in oxygen-deficient atmospheres [1].

Reference

Unless otherwise specified, the latest edition shall apply.