

## **EDUCATIONAL SESSIONS**

### **CI'S GOALS FOR HEALTH, ENVIRONMENT, SAFETY AND SECURITY**

Today's society is placing ever more focus on industry with the expectation that business must conduct safe and sustainable operations. It can be reasonably said that the chlor-alkali industry is at the center of this focus. The Chlorine Institute and its membership must continue to rise to this challenge with the goal of successfully operating with zero injuries and no environmental harm. Staff will review on-going Institute activities focused on assisting the CI membership achieve zero releases, injuries and process safety incidents. This will include a review of the Institute's primary benchmarking metrics.

### **REGULATORY UPDATE**

This session will review and discuss recent regulatory changes relevant to packagers and bleachers. It will also provide an opportunity for the audience to raise regulatory or compliance questions.

### **RAIL SECURITY – PANEL DISCUSSION**

A panel consisting of a producer, packager, emergency response contractor and a representative from the Transportation Safety Administration (TSA) will discuss information that can be used when approaching a release scene. In addition the panel will address security activities and initiatives both on the part of TSA and producers/packagers.

### **OXIDATION REDUCTION POTENTIAL (ORP) ELECTRODES**

The reaction of chlorine and caustic soda that results in the manufacture of sodium hypochlorite must be controlled so that the end product is of the desired quality or level of safety. The preferred method to monitor the reaction is by Oxidation Reduction Potential (ORP). Whether the application is for continuous or batch bleach manufacturing or for monitoring excess caustic levels in scrubber systems, the presentation covers the proper ORP electrode installation, operation, and maintenance that is necessary to ensure a safe and reliable system.

### **CI PAMPHLET UPDATE: CHANGES AFFECTING CHLORINE BULK TRANSFER AND CYLINDER PACKAGING**

Recent updates to CI pamphlets will be discussed, with a specific focus on changes affecting cylinder valve fusible plugs (Pamphlet 17) and tank car break-away couplings (Pamphlet 57).

## WET CHLORINE

This session will cover the concerns and issues of having moisture in dry chlorine systems. In simple, straight-forward terms it will include: What is wet chlorine? What is dry chlorine? Where does the water come from? Why is water in chlorine important? What can I do to help keep the chlorine in my system dry?

## LESSONS LEARNED – CHLORINE RELEASE AT TON CONTAINER FILLING STATION

This presentation will review a 2007 incident at a chlorine packaging facility that resulted in a release of approximately 900 pounds of chlorine from a ton container being loaded, a local evacuation, and approximately 20 individuals being sent to local hospitals. The presentation will review the incident investigation findings regarding procedures, practices and design to prevent similar future incidents. It will also review the local outside emergency response, including possible improvements.

## **WORKSHOPS**

### WORKSHOP A: EMERGENCY RESPONSE

The moderators will present a variety of emergency scenarios in the workshop. Attendees will work in small groups, develop a response and present their approach. Participants will be encouraged to role-play different personnel in the mock responses and share their own responses. The lively exchange always results in new ideas to improve your company's emergency response protocols.

### WORKSHOP B: PLANT OPS - PACKAGING

The moderators will lead participants through various aspects of the chlorine packaging operation, facilitating the sharing of best practices, safety information and real life experiences. Topics include railcar unloading, cylinder and ton container preparation/filling and maintenance. The workshop will include a special emphasis on process safety management and in particular mechanical integrity.

### WORKSHOP C: PLANT OPS - BLEACH

The moderators will lead participants through various aspects of the sodium hypochlorite manufacturing operation, helping participants compare and exchange ideas and best practices, while also sharing real life experiences. Emphasis will be on those operational aspects directly impacting health, safety and the environment as well as the production of high quality bleach.

#### WORKSHOP D: A, B & C EMERGENCY KITS

Under the direction of an experienced trio of instructors, attendees will be given the opportunity to discuss and practice the hands-on application of the Chlorine Institute's Emergency A, B and C Kits. In addition, attendees will have the opportunity to discuss what their company should include in its corporate emergency response training program.

#### **OLIN PLANT TOUR**

Situated in Henderson, NV near Las Vegas and the Hoover Dam, the Olin Henderson plant consists of 130 dedicated employees and spreads across 300 acres of land. Operations began in 1942 and was then upgraded and rebuilt in 1976. Formerly part of Pioneer companies, Henderson became part of the Olin family in August 2007. Henderson is part of an industrial complex shared with other manufacturing companies. Chlorine, caustic soda, bleach, hydrogen and hydrochloric acid are all produced on Henderson grounds. Olin Henderson also has zero wastewater discharge.