

THE MOST TRUSTED MEDIA FOR THE CPI

SEPTEMBER | AD CLOSE: AUGUST 9 | MATERIAL DUE: AUGUST 1

BONUS DISTRIBUTION:

Turbomachinery & Pump Symposia (September 18-20, Houston, Texas)
 WEFTEC (September 29 – October 3, New Orleans, La.)

FOCUS ON E-NEWSLETTER:

This monthly e-newsletter is sent to a targeted database determined by the subject matter of each technical report. This month's e-newsletter will cover Water Management and deploy September 13.

Topic: Acid Handling

FEATURE REPORTS

Summary: Acids are used for adjusting the pH of a process, as well as serving as either a reactant or a catalyst for many types of chemical reactions. They are used widely used throughout many sectors of the chemical process industries (CPI), in volumes ranging from a few milliliters in laboratory and R&D operations up to thousands of gallons per day in the production of bulk and commodity chemicals. This Feature Report will present practical guidelines for the proper handling of acids, in terms of the materials of construction used, as well as the operation and maintenance of acid-production plants.

Related equipment and services: Materials of construction (plastics and polymers, glass and graphite, specialty steels and alloys and so on), equipment and components for handling acids (pumps, valves, piping and tubing, liners and so on).

Relevant industries: All sectors of the CPI may handle acids

Topic: Water & Wastewater Treatment

FEATURE REPORTS

Summary: Boiler feedwater and cooling-tower water are essential inputs to many industrial chemical processes, and both require special considerations for proper water treatment. Part 1 of this Feature Report explores water treatment strategies for boiler feedwater, and Part 2 covers the control of microbial growth in industrial cooling-tower water.

Related equipment and services: Water treatment techniques, water-treatment chemicals, ultraviolet water-treatment systems, cooling towers and related equipment, industrial boilers and related equipment

Relevant industries: Steam-generation systems and cooling towers are widespread throughout the CPI, including petroleum refining, petrochemicals, specialty chemicals, food and beverage and others

Topic: Chemicals for Oil-and-Gas Production

NEWSFRONTS

Summary: Chemical products are crucial to enhance operations in all areas of oil-and-gas production. From corrosion inhibitors to water treatment to emulsion breakers, CPI companies are consistently contributing innovative products to enable more efficient operations for companies in the oil-and-gas sector. This article looks at some recent developments and trends in this area.

Related equipment and services: All types of chemicals used in oil-and-gas production

Relevant industries: Specialty chemicals, water treatment, petroleum refining, oil-and-gas production

Editorial material for consideration should be sent to associate editor Mary Page Bailey (mbailey@chemengonline.com).

Topic: Pumps

NEWSFRONTS

Summary: Pumps are used throughout the CPI for moving fluids. This month's Equipment Newsfront will present the latest trends and new innovations in pump technologies. One aspect of this is the growing "smartness" of pumps, with the introduction of new and more sophisticated sensors and software that monitor a pump's behavior and predict if and when a problem may occur.

Related equipment and services: All types of pumps, monitoring sensors and systems and other associated components, such as motors, seals, lubricants and more.

Relevant industries: All sectors of the CPI use pumps.

Editorial material for consideration should be sent to contributing editor Joy LePree (joylepree@gmail.com).

Topic: Weighing

FACTS AT YOUR FINGERTIPS

Summary: Accurately measuring the mass of materials is a critical element of many process schemes. This one-page reference will provide information about the calibration and operation of instruments and equipment for determining the mass of substances in laboratory and process settings.

Related equipment and services: Laboratory scales, industrial weighing instruments, load cells, packaging equipment, loss-in-weight solids-handling systems, gain-in-weight systems and more

Relevant industries: R&D operations across all industry sectors, food, pharmaceuticals, chemicals, specialty chemicals, agriculture and others use weighing equipment.

Topic: Acetaldehyde Production

TECHNOLOGY PROFILE

Summary: Acetaldehyde (CH₃CHO) can be used to make acetic acid, and is an important precursor to pyridine derivatives, pentaerythritol and crotonaldehyde. Also, it can be combined with urea to give a useful resin, and be reacted with acetic anhydride to yield ethylidene diacetate, a precursor to vinyl acetate, the monomer for polyvinyl acetate. This one-page process description covers the production of acetaldehyde from acetylene.

Related equipment and services: A wide range of equipment are relevant to this process

Relevant industries: Petrochemicals, chemicals, polymers and others

Topic: Flow Measurement & Control

FOCUS

Summary: Along with temperature, pressure and level, flowrate is a key process parameter that must be measured and controlled. This month's Focus will present the latest products and services in flow measurement and control.

Related equipment and services: All types of flow sensors and transmitters, pumps and valves, control systems

Relevant industries: All sectors of the CPI are concerned with measuring and controlling flow.

Editorial material for consideration should be sent to senior editor Gerald Ondrey (gondrey@chemengonline.com).

TOPIC: GAS DETECTION AS A RISK MITIGATION TECHNIQUE

ENVIRONMENTAL MANAGER

Summary: Gas detectors monitor the presence of toxic or combustible gases in production processes. These devices can be installed as life-safety devices in hazardous-area safety systems. Life-safety gas systems require not only the ability to detect risk — for instance, leaking gas — but also the ability to mitigate risk through action. Mitigation techniques range from alarm notification and ventilation actuation to equipment shutdown and evacuation notification. This article details the requirements for configuring life-safety gas detectors and ensuring their capability to properly mitigate risk.

Related equipment and services: All types of gas-detectors, sensors and monitors

Relevant industries: All sectors of the CPI use gas-detection devices

TOPIC: CO-LOCATED INDUSTRIAL FACILITIES: UNTANGLING ENVIRONMENTAL

COMPLIANCE AND LIABILITY

ENVIRONMENTAL MANAGER

Summary: The obligations facing facilities throughout the CPI related to state and federal environmental laws, regulations and permits continue to be both complex and significant. This complexity is compounded for facilities that have multiple owners, operators and third-party service providers all operating different parts of the overall operation within a single fence-line. Such scenarios can give rise to some of the most challenging issues that exist under environmental law. CPI companies that have multiple entities operating at their facilities must carefully consider different potential environmental scenarios that could arise. This article provides guidance and several useful examples for how co-located parties can strengthen their regulatory planning and reduce risk.

Related equipment and services: All type of CPI plant equipment; software tools used for design and planning

Relevant industries: All CPI sectors face this potential scenario

EVENT: WEFTEC

SHOW PREVIEW

Summary: Focusing on all aspects of water quality, Weftec features both a conference and exhibition, and is taking place Sept. 29–Oct. 3 in New Orleans, La. Selected products and services presented at the upcoming Weftec event will be highlighted in this Show Preview.

Related equipment and services: All types of equipment and services used for water treatment; equipment used for controlling water-treatment processes

Relevant industries: Water treatment is relevant to all sectors of the CPI.

Editorial material for consideration should be sent to associate editor Mary Page Bailey (mbailey@chemengonline.com).

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