



FEATURE REPORTS

Water Management

This two-part feature report focuses on water treatment in the chemical process industries (CPI).

Part 1 examines issues related to makeup-water, cooling-water, process-water and wastewater treatment that are particularly pertinent to facilities that are expanding due to the current shale-gas boom. Specifically, examples from liquefied natural gas (LNG) production will be examined, but the concerns and principles are relevant to a wide variety of CPI plants.

Part 2 focuses on a specific wastewater-treatment challenge — sludge dewatering and drying. The article provides insight into the “sticky” phenomenon of sludge handling and provides strategies to tackle the related operational issues.

Related products and services: All equipment and services related to water treatment, including for example: Filtration equipment, including micro- and ultra-filtration as well as reverse osmosis; adsorbents such as activated carbon; settling tanks for solids removal, and corrosion inhibitors. Also, equipment using treated water, such as cooling towers; steam and condensate systems. Dewatering and drying equipment, such as centrifuges and paddle dryers.

Relevant industries: Water treatment is used throughout the CPI, making these articles broadly relevant. Part 1 is particularly relevant to production facilities that are growing due to the shale-gas boom.

Pumps

Part 1 of this month's feature report will explain how mag-drive or sealless pumps are proven to be advantageous over traditional sealed models when used in the proper environment. Among the topics covered are: The fundamentals of mag-drive technology, advantages and common misconceptions; when to consider using a mag-drive pump; when to apply lined versus metal sealless designs: an overview of each technology's differences; and how to avoid common failure modes associated with mag-drive pumps, including operational practices and monitoring methods

Part 2 of the feature report focuses on the use of mechanical seals in pumps in the food and pharmaceutical industries, which are subjected to stringent hygiene and cleaning requirements. Cleaning effectiveness is influenced by the geometry of sealing components contacted by the process fluid. These issues are discussed more fully in this article.

Related equipment and services: Pumps, magnetic-drive pumps, pump seals

Relevant industries: Pumps are widely used throughout the CPI. The types of pumps and sealing methods discussed in these features are especially important in the food-and-beverage, pharmaceutical and biotech, and chemical industries (where either cleanliness and hygiene are important), or when safety from hazardous chemicals are being used.

FRACTIONATION COLUMN

This monthly column in *CE* is written by the technical director at Fractionation Research Inc., a consortium of end-users, engineering companies and distillation equipment providers that pool budgets on distillation research.

Related equipment and services: Distillation towers; trays and packings; tower-scanning equipment and services.

Relevant industries: This column addresses segments across the entire CPI

NEWSFRONT

Developments in C4 Chemical Processes

As refiners are facing larger and larger volumes of lighter feedstocks resulting from increased shale-gas processing, the traditional pathways for many four-carbon products are becoming less economically feasible. Many important product chains require these four-carbon building blocks, so companies are searching for new ways to produce them. This article will investigate new technologies and feedstocks for the on-purpose production of various four-carbon compounds, including butadiene, isobutene and succinic acid.

Related equipment and services: Engineering and construction, process technology and licensing, catalysts

Relevant industries: Petrochemicals, bio-based compounds

Send editorial material for consideration to assistant editor Mary Page Bailey (mbailey@che.com)

Bonus Distribution

Specialty Agro & Chemicals America, Sept 8-10, Charleston, SC

Turbomachinery & Pump Users' Symposia, Sept. 22-25, Houston

WEFTEC, Sept. 27-Oct. 1, New Orleans

POWTECH, Sept. 30-Oct. 1, Nuremberg, Germany



Extruders

This month's equipment newsfront will present the latest designs and innovations in extruder technology. Such devices are widely used in the plastics processing sector, as well as for processing foods, pharmaceuticals, ceramics and other materials. More recently they are also finding applications in the processing of biomass and other fuel-related products.

Related equipment and services: Extruders and associated equipment

Relevant industries: Extruders are widely used in the plastics processing sector, as well as for processing foods, catalysts, ceramics, pharmaceuticals and other products.

Send editorial material for consideration to contributing editor, Joy LePree (jlepree@che.com)

FACTS AT YOUR FINGERTIPS

Heat Transfer

Maintaining the thermal stability of heat-transfer fluids helps ensure the long-term, reliable operation of heat-exchange systems. This one-page reference will discuss best practices for safely sampling heat-transfer fluids for testing.

Related equipment and services: Heat-transfer fluids, heat exchangers, heat-transfer system components

Relevant industries: Heat exchangers are common throughout the CPI, and so heat-transfer fluids are widely used

FOCUS

Valves and Actuators

This month's focus will feature valves and actuators used in the CPI.

Related products and services: All types of valves and actuators, as

well as other valve accessories

Relevant industries: All sectors of the CPI require valves and their accessories

To submit your materials for consideration, please email sshelley@che.com with "September Focus on Valves & Actuators" in the subject line.

SHOW PREVIEWS

WEFTECH

Products and services presented at the upcoming Weftec event will be reviewed. Focusing on water quality, Weftec features both a conference and exhibition and is taking place Sept. 27 – Oct. 1 in New Orleans, La.

Related equipment and services: Water-related products and services, such as filters, membranes, bioreactors, water analysis and more

Relevant industries: This show preview is relevant to all CPI facilities

POWTECH

This show preview will present some of the new products and services being presented at Powtech 2014 (September 30 – October 2; Nuremberg, Germany) — one of the largest, most-comprehensive trade fairs for processing, analysis, and handling of powder and bulk solids.

Related equipment and services: All equipment dealing with solids, including: grinders, mills, classifiers, screens, blenders, level measurement, silos, conveyors, filters, feeders, weighing, particle analyzers, and more

Relevant industries: Powders and solids are processed and handled in all sectors of the CPI.

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

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This month's topic will cover **Water Management**. Don't miss this exclusive opportunity to introduce your products and services with a banner ad, white paper, or text ad.

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Water Management

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