

HIGHLIGHTS



CE Voices: Improving Plastics Recyclability

COVID-19

PDF

VIRUS COUNTERMEASURES DRIVE WORKER SAFETY

By Scott Jenkins | August 1, 2020

Print Mode OFF

Pages: 1 2 3

0

The COVID-19 threat has increased the urgency for implementing contagion-prevention strategies and controls for workers at industrial sites

Chemical process industries (CPI) companies are used to managing a range of worker health risks related to chemical exposure, extreme temperatures and noise, among others, but the global coronavirus pandemic has forced CPI facilities to elevate a broad set of infectious disease considerations to prominence among other process safety priorities. To reduce infection risk in industrial workspaces, companies are enhancing disinfection protocols, increasing use of respiratory personal protective equipment (PPE), implementing physical distancing at jobsites, relying on remote work, and other strategies. Industry consultants have provided some guidance for companies to use as they operate in the midst of a

pandemic. Meanwhile, vendors and equipment providers have responded by introducing products to help reduce contagion risk in various scenarios.



Theresa McCollom, a certified industrial hygienist and environmental, health and safety consultant at the U.S. headquarters of Antea Group (St. Paul, Minn.; us.anteagroup.com) says that while the pandemic has impacted the chemical process industries unevenly — petroleum refining has seen reduced demand, for example, while chemical plants making ingredients for disinfectant formulations have seen a surge in demand — most companies and plant sites are taking whatever actions they can when it comes to preventing workplace infections. “Most employers in the industrial space are doing some sort of health screening, either asking questions for workers to self-report, or using thermal thermometers,” McCollom says, and “most sites are doing some sort of workplace reconfiguration, where it is possible, such as putting up barriers, as well as cleaning high-touch areas.”

Eastman Chemical Co. (Kingsport, Tenn.; www.eastman.com) senior vice president and chief manufacturing, engineering and supply chain officer Mark Cox confirms that there has been a sudden emergence of safety efforts focused on COVID-19 prevention at Eastman facilities. “We work with a zero-incident mindset in everything that we do, and this pandemic has been no different. We are doing all we can to keep our teams safe and healthy while still continuing to produce the critical products our customers need — many of which have been important in the battle against this virus.”

To help companies protect workers in the face of public health threats, there are many new product offerings available from simple to complex, and targeting a variety of public health risks. McCollom says many of her clients are looking for evaluations of new products. “They are asking: Is this ‘snake oil?’; Will this be effective?” she says. “Although there are many products that can help reduce public health risks, there are not really any ‘miracle widgets’ that can make the risks go away,” McCollom says. “If product claims appear too good to be true, they most likely are.”

HAZARD EXPOSURE TOOLS

For CPI sites, pandemic-related risks must be placed into a wider context of risk management. American Industrial Hygiene Association (AIHA; Fairfax, Va.; www.aiha.org) board member Nancy McClellan, the CEO of Occupational Health Management PLLC (Detroit, Mich.; www.oh-management.org), says “whether the hazard is chemical, physical or biological, hazard exposure and control banding (HECB) can assist organizations in wrapping their arms around the challenges of the hazard by identifying the highest risks and prioritizing the most appropriate solutions.” HECB tools can also provide key performance indices to measure an organization’s progress in mitigating the hazards, she notes.

To explain HECB in the context of COVID-19, McClellan says “In the case of a biological hazard, one needs to identify all of the relevant factors involved in risk. Since risk equals the likelihood of incidence multiplied by the severity of the hazard, we need to drill down to all of the factors influencing ‘likelihood’ and ‘severity.’” Likelihood of exposure to COVID-19 can include social distancing practices, building operations and cleaning practices. Severity of the hazard depends on factors that can include age and comorbidities of the individuals, she continues. “Once these factors are identified, assigned a risk level and mathematically weighted, risk scores can then be calculated. The risk score then directs the HECB tool user toward potential solutions or controls for mitigating the hazard.”

As an organization’s risk scores are reduced with proven solutions, the tracking of the scores from year to year can clearly illustrate progress in risk mitigation, she adds.

At industrial plants, there is now “more of a three-way conversation among industrial health and safety officers, engineers and ‘C-suite’ leaders about how to allocate resources to where they will have the largest impact,” McClellan says.

AIHA is among a number of industry associations and consulting firms that have issued guidance that is relevant to operating in chemical manufacturing plants with an added focus on public health safety. The AIHA has compiled a series of industry-specific plans for making workplaces as safe as possible. Other organizations that have come out with industrial workplace guidance include PPE supplier Protective

Industrial Products Inc. (Latham, N.Y.; www.pipglobal.com), which has released the “PIP Essentials Safety Book,” and business consulting giant McKinsey & Co. (New York, N.Y.; www.mckinsey.com), which published the article “Managing a Manufacturing Plant through the Coronavirus” online.

WORKPLACE RECONFIGURATION

One main pillar in the fight against COVID-19, in all settings, is maintaining physical separation among workers to reduce exposure to infectious particles. There are multiple strategies to achieve this including altering team structures and working methods to limit contact across the workforce. The McKinsey guidance states: “Minimizing the potential future impact of infections will require companies to alter team structures and working methods in order to limit contact across the workforce. One way this can be done is by establishing ‘pods’ for all on-site personnel, organized for self-contained teams with clearly defined tasks and workspaces that can be physically and socially separated from each other as much as possible.”

Print Mode OFF
Pages: [1](#) [2](#) [3](#)

Related Content

MILLIKEN INVESTS TO INCREASE PRODUCTION OF ADVANCED PPE FABRICS

Milliken & Co. (Spartanburg, S.C.) has invested significant resources to increase domestic production of its Milliken Perimeter advanced medical fabrics....

ARCHROMA STARTS HAND SANITIZER PRODUCTION IN PAKISTAN

Archroma, a global leader in color and specialty chemicals, has started bulk production of a new range of hand sanitizers...

SADARA AND SIPCHEM TEAM UP FOR ETHANOL PRODUCTION IN SAUDI ARABIA

Sadara Chemical Co. (Jubail, Saudi Arabia) and Sahara International Petrochemical Co. (Sipchem) have partnered to supply high-quality ethanol required for...

KURARAY TO EXPAND PRODUCTION OF MELTBLOWN MATERIALS FOR FACE MASKS

Kuraray Co. (Tokyo) plans to modify the production lineup of its meltblown nonwoven-fabric production facility, which is located on the...

ENDRESS+HAUSER LAUNCHES VISUAL SUPPORT TO ASSIST MAINTENANCE PERSONNEL REMOTELY

Extraordinary times require extraordinary measures: For this reason, Endress+Hauser AG (Reinach, Switzerland) has released the Visual Support service application ahead...



MINIMIZING PARTICLE BREAKAGE AND MOTHER LIQUOR RESIDUE IN TECHNICAL SALTS PRODUCTION

Technical salts and crystallization products have found a broad spectrum of different applications in the industrial sector in the past decades. One of the most frequently used salts is sodium chloride...

[Read more ...](#)

BREAKTHROUGH TECHNOLOGIES

MAKING CO-RICH SYNGAS WHILE AVOIDING CARBON FORMATION

COMMERCIAL PLANT WILL RECOVER SALTS FROM INCINERATOR FLYASH

SIGNIFICANTLY REDUCE CYANIDE CONSUMPTION IN REFRACTORY GOLD-ORE TREATMENT

ITALIAN INDUSTRY-ACADEMIC COLLABORATION YIELDS PROTOTYPE MACHINE FOR MAKING NEW MASKS

NEW METHOD MAKES NANOCELLULOSE COMPOSITES INDUSTRIALLY VIABLE

A STEP TOWARD SUPERCRITICAL-CARBON-DIOXIDE POWER GENERATION

STAINLESS-STEEL ALLOY FOR ADDITIVE MANUFACTURING

TURNING PLASTIC WASTE INTO HIGH-QUALITY WINTER DIESEL FUEL

CHEMENTATOR BRIEFS-AUG 2020

Chemical Engineering publishes **FREE** eletters that bring our original content to our readers in an easily accessible email format about once a week.

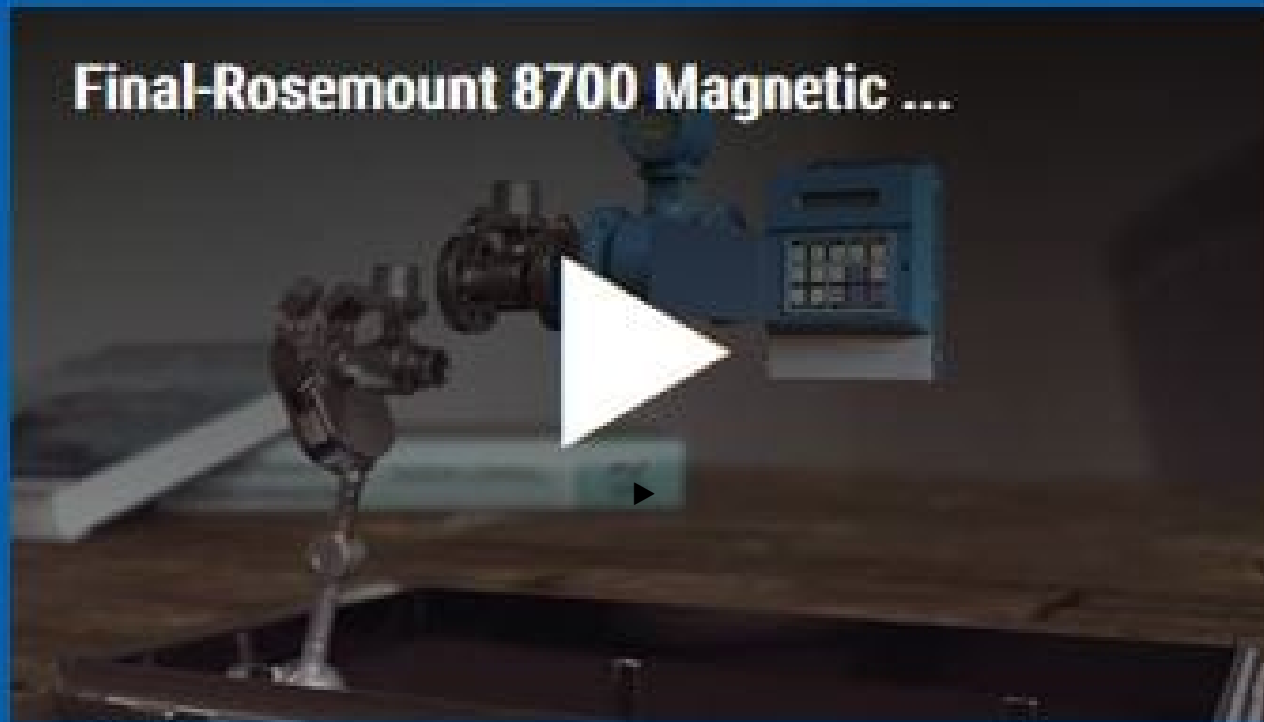
[Subscribe Now](#)



Explore the Potential of Jet Pumps- GEA

(<https://www.chemengonline.com/videos/explore-the-potential-of-jet-pumps-gea/>)

More from Emerson → (</videos/?tag=emerson>)



Emerson's Rosemount 8700 Series of Magnetic Flow Meters

Emerson's Rosemount 8700 Series of Magnetic Flow Meters

(<https://www.chemengonline.com/videos/emersons-rosemount-8700-series-of-magnetic-flow-meters/>)

[View All Videos » \(/videos/\)](#)

JOB LISTINGS

0 Comments [Chemical Engineering](#) [Disqus' Privacy Policy](#)

[Login](#)

[Recommend](#) [Tweet](#) [Share](#)

[Sort by Best](#)



Start the discussion...

LOG IN WITH

OR SIGN UP WITH DISQUS [?](#)

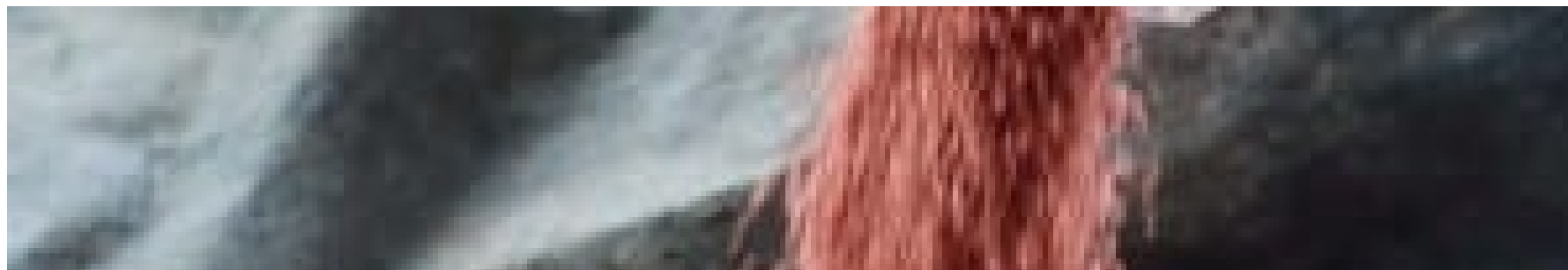
Name

Be the first to comment.

[Subscribe](#) [Add Disqus to your site](#) [Add DisqusAdd](#) [Do Not Sell My Data](#)

SEARCH...

Andritz



Search for Jobs

[View Jobs](#) | [Search Jobs](#) | [Post Resume](#)

ASSOCIATE / DIRECTOR, DRUG PRODUCT, MANUFACTURING SCIENCE AND TECHNOLOGY (MS&T) - MODERNA THERAPEUTICS - NORWOOD,

PROCESS ENGINEER OPERATION PROFESSIONAL - PFIZER - MCPHERSON, KS

PROCESS ENGINEER - OPERATION PROFESSIONAL- NIGHT SHIFT - PFIZER - MCPHERSON, KS

PROCESS ENGINEER-IDM - ELI LILLY - INDIANAPOLIS, IN

PROCESS ENGINEER OPERATION PROFESSIONAL - PFIZER - MCPHERSON, KS

[What is this?](#)

AMS Asset Monitor



Easy Installation of the AMS Asset Monitor (<https://www.chemengonline.com/videos/easy-installation-of-the-ams-asset-monitor/>)

Partner Videos

More from GEA → (</videos/?tag=gea>)

Minimizing particle breakage and mother liquor residue in technical salts production

Expectations are shifting: How measurement solutions can help overcome chemical industry challenges

CoriolisMaster: The SmartSensor solution

ABB in Chemical Industry

6 benefits to expect from a measurement partner

[View More](#)

Home

Magazine
Account
Subscribe
Jobs
Sitemap
Buyers' Guide
Archives
Upcoming Show Previews

Connect

Webinars
Sponsored Content
Events & Announcements
White Papers
Advertising & Media Kit
Networking & Discussion Groups
Career Tools
Editorial Submissions and Upcomings

About

About Us
Awards
Privacy Policy
FAQs
Contact
Editor's Comments
Copyright Policy & Permissions

This publication contains text, graphics, images, and other content (collectively "Content"), which are for informational purposes only. Certain articles contain the author's personal recommendations only.

RELIANCE ON ANY INFORMATION SUPPLIED IN THIS PUBLICATION IS SOLELY AT YOUR OWN RISK.

© 2020 Access Intelligence, LLC. - All Rights Reserved. Privacy Policy