



Engineering • Construction • EH&S • Energy
Waste • Facility Services • Laboratory

In the Works

Volume 17, Issue 12, December 2016

In The Works is a monthly newsletter providing Environment, Health and Safety (EH&S) news and regulatory updates. The newsletter is provided by Loureiro Engineering Associates, Inc. of Plainville, Connecticut. In this Issue you will find links to the following articles:

NATIONAL

For the First Time in 40 Years EPA to Put in Place a Process to Evaluate Chemicals that May Pose Risk

New chemical law requires the agency to look at chemicals that were grandfathered in under old

The Environmental Protection Agency (EPA) is moving swiftly to propose how it will prioritize and evaluate chemicals, given that the final processes must be in place within the first year of the new law's enactment, or before June 22, 2017. "[These] award winners demonstrate how CHP can save money and reduce pollution; a real win-win for the bottom line and the environment," said Janet McCabe, acting assistant administrator for EPA's Office of Air and Radiation. "Onsite power generation, like CHP, can also strengthen our nation's electrical infrastructure."

"After 40 years we can finally address chemicals currently in the marketplace," said Jim Jones, EPA's Assistant Administrator for the Office of Chemical Safety and Pollution Prevention. "Today's action will set into motion a process to quickly evaluate chemicals and meet deadlines required under, and essential to, implementing the new law."

When the Toxic Substances Control Act (TSCA) was enacted in 1976, it grandfathered in thousands of unevaluated chemicals that were in commerce at the time. The old law failed to provide EPA with the tools to evaluate chemicals and to require companies to generate and provide data on chemicals they produced.

Inventory rule

There are currently over 85,000 chemicals on EPA's Inventory, many of these are no longer actively produced. The rule will require manufacturers, including importers, to notify EPA and the public on the number of chemicals still being produced.

Prioritization rule

This will establish how EPA will prioritize chemicals for evaluation. EPA will use a risk-based screening process and criteria to identify whether a particular chemical is either high or low priority. A chemical designated as high-priority must undergo evaluation. Chemicals designated as low-priority are not required to undergo evaluation.

Risk Evaluation rule

This will establish how EPA will evaluate the risk of existing chemicals. The agency will identify steps for the risk evaluation process, including publishing the scope of the assessment. Chemical hazards and exposures will be assessed along with characterizing and determining risks. This rule also outlines how the agency intends to seek public comment on chemical evaluations.

These three rules incorporate comments received from a series of public meetings held in August 2016.

If the EPA identifies unreasonable risk in the evaluation, it is required to eliminate that risk through regulations. Under TSCA the agency must have at least 20 ongoing risk evaluations by the end of 2019.

Comments on the proposed rules must be received 60 days after date of publication in the Federal Register. At that time, go to the dockets at: <https://www.regulations.gov/> and search for: HQ-OPPT-2016-0426 for the inventory rule; HQ-OPPT-2016-0636 for the prioritization rule; and HQ-OPPT-2016-0654 for the risk evaluation rule.

Learn more about the Frank R. Lautenberg Chemical Safety for the 21st Century Act. <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/frank-r-lautenberg-chemical-safety-21st-century-act>

New Climate Change and Health Document includes Effects on Workers

The potential health effects of climate change on workers is now available in a new report just released by the U.S. Global Change Research Program. The report, U.S. Global Change Research Program Climate and Health Assessment provides a comprehensive overview of the potential health effects of climate change across the US. Included in the report is a section on populations of concern, including outdoor workers and workers who may be exposed to other extreme weather environments. Worker health issues are also included in other sections of the report as part of broader discussions regarding the public health impact of climate change.

According to the new report, climate change may increase the severity and prevalence of known occupational hazards, as well as the development of new hazards. Most at risk are outdoor workers, which includes agriculture workers, commercial fishermen, construction workers, transportation workers, and first responders. Workers in hot indoor environments such as warehouses and factories are also at risk.

The risk workers face from climate change includes working in hotter temperatures and the possibility of longer spans of hot days for outdoor work. These kinds of exposures can cause heat

related illnesses, as well as stress and fatigue which can put workers at risk for injury. Workers may also have less control over their exposures to climate change related risks than the general public.

In addition to heat exposures, the authors note that changes in climate patterns can cause increasingly frequent and severe weather extremes such as storms, flooding, and drought. Warmer and dryer conditions have also increased the duration of the wildland fire season. This may result in an increased need for emergency response resources, further straining the nation's responders both physically and psychologically.

The full report is available at: <https://health2016.globalchange.gov>

NIOSH is the federal agency that conducts research and makes recommendations for preventing work-related injuries, illnesses, and deaths. For more information about NIOSH visit www.cdc.gov/niosh/.

CONNECTICUT

Valley Hospital Getting Complete Energy Efficiency Makeover with Guaranteed Savings on Energy Bills to Pay Finance Costs Investment at Middletown campus will modernize buildings, reduce energy costs, yield savings

A comprehensive energy efficiency upgrade was launched today at Connecticut Valley Hospital (CVH) – a project that will largely pay for itself through reduced energy costs and result in modernized buildings, reduced energy use, and real savings in operating and maintenance costs.

At a ceremony at CVH, the Commissioners of three state agencies – the Department of Mental Health and Addiction Services (DMHAS), which operates the campus; the Department of Energy and Environmental Protection (DEEP), which is spearheading an initiative to reduce energy use at state facilities; and the Department of Administrative Services (DAS), which oversees state buildings – celebrated the start of work on the 30-month construction project which has guaranteed savings of \$31.9 million over the 15-year performance period.

Energy Savings Performance Contracts – Paying for Projects through Cost Savings

The project at CVH is the first of several planned at state facilities using an Energy Savings Performance Contract (ESPC). This contracting approach enables agencies to use future energy savings to finance upgrades to aging facilities and replace inefficient and failing equipment – reducing operating costs.

Use of such a contract repurposes dollars that would otherwise be spent on wasted energy and instead uses the money on deferred maintenance improvements that conserve energy resources and reduce air pollutants and harmful greenhouse gas emissions – while lowering the ongoing operations and maintenance costs.

The CVH work includes replacement of a failing underground steam pipe, upgraded high efficiency LED lighting, a cogeneration plant that will convert discarded heat from electricity

generation into useable steam and electricity, a solar-powered electric vehicle charging station, and many other upgrades to address systems that are beyond their useful life and failing.

The investments in upgrades in heating, cooling, lighting, and power will continue to produce energy cost savings after the project's 15-year payback period ends.

The Commissioners' Comments:

"Energy efficiency is an investment that makes sense on so many levels," said DEEP Commissioner Robert Klee. "It not only pays for itself and reduces harmful emissions, but it is also an investment in jobs and supports the development of cutting edge energy technology, an economic driver that has unlimited potential in Connecticut."

"This financing mechanism of an energy savings performance contract enables state agencies to invest in energy savings and realize a guaranteed return on that investment," said Commissioner Klee.

Through this project we will reduce energy costs and operate CVH more efficiently," said DMHAS Commissioner Miriam Delphin-Rittmon. "The upgrades being made will also increase the comfort and surroundings for our patients and hospital staff."

"The performance contracting process is a great example of multiple state agencies working together to cost-effectively improve state government infrastructure," said DAS Commissioner Melody Currey. "We plan to put this common-sense and money saving approach to use in upgrading other state facilities in the near future."

The energy savings performance contracting program is managed by the State Department of Energy and Environmental Protection, in collaboration with the Office of the Treasurer, Department of Administrative Services, Office of Policy and Management, Attorney General's Office, and the Connecticut Green Bank. Eversource Energy and the EnergizeCT initiative have also provided support to the project.

About CVH

Connecticut Valley Hospital (CVH) in Middletown is situated on over 100 acres and includes buildings that are designated on the National Register of Historic Places. In addition to patient care buildings, the campus contains many smaller cottages used for programming and administrative offices, a power plant, reservoirs that supply water to the campus and a water treatment facility. There are a total of 29 inpatient units and a transitional residential cottage with the capacity to serve 615 patients on two campuses in Middletown and Hartford.

About EnergizeCT

Energize Connecticut helps residents and businesses save money and use clean energy. It is an initiative of the Energy Efficiency Fund, the Connecticut Green Bank, the Connecticut Department of Energy and Environmental Protection, and Connecticut's local electric and gas utilities. To learn more, visit EnergizeCT.com.