OSHA Issues Enforcement Policy for Respiratory Hazards Not Covered by PELs

Last month, OSHA issued a memorandum to clarify the agency’s enforcement policy for developing citations for respiratory hazards from exposure to air contaminants that are not covered by permissible exposure limits. According to OSHA, the following elements must be established in order for the agency to prove a violation of the general duty clause, Section 5(a)(1) of the Occupational Safety and Health Act: the employer failed to keep the workplace free of a hazard to which employees of that employer were exposed; the hazard was recognized; the hazard was causing or was likely to cause death or serious physical harm; and there was a feasible and useful method to correct the hazard.

OSHA’s memo states that when these elements are applied to respiratory hazards, general duty clause citations should not be “based solely on evidence that a measured exposure exceeded a recommended occupational exposure limit.” Citations should also not be based on the fact that there is a documented exposure to a recognized carcinogen. In cases where evidence does not prove all four of the previously mentioned elements, the memo directs OSHA area offices to issue a hazard alert letter, or HAL, rather than a citation. HALs advise employers of workers’ exposure to a potentially serious respiratory hazard from a chemical that exceeded an OEL and provide suggestions for recommended exposure controls.

Expostats: A Bayesian Toolkit to Aid the Interpretation of Occupational Exposure Measurements

Introduction
Interpretation of exposure measurements has evolved into a framework based on the lognormal distribution. Most available practical tools are based on traditional frequentist statistical procedures that do not satisfactorily account for censored data and are not amenable to simple probabilistic risk statements. Bayesian methods offer promising solutions to these challenges. Such methods have been proposed in the literature but are not widely and freely available to practitioners.

Methods
A set of computer applications were developed aimed at answering typical inferential questions that are important to occupational health practitioners: Is a group of workers compliant with an occupational exposure limit? Are some individuals within this group likely to experience substantially higher exposure than its average member? How does an intervention influence the distribution of exposures? These questions were addressed using Bayesian models, simultaneously accounting for left, right, and interval-censored data with multiple censoring points. The models are estimated using the JAGS Gibbs sampler called through the R statistical package.

Read more:
Occupational Exposure to Gaseous and Particulate Contaminants Originating From Additive Manufacturing of Liquid, Powdered and Filament Plastic Materials and Related Post-Processes

The aim of this study was to measure the concentrations of gaseous and particulate contaminants originated from additive manufacturing operations and post-processes in an occupational setting when plastics were used as feedstock materials. Secondary aims were to evaluate the concentration levels based on proposed exposure limits and target values and to propose means to reduce exposure to contaminants released in additive manufacturing processes. Volatile organic compounds were sampled with Tenax® TA adsorption tubes and analyzed with thermo desorption gas chromatography-mass spectrometry instrument. Carbonyl compounds were sampled with DNPH-Silica cartridges and analyzed with high-performance liquid chromatography device. Particles were measured with P-Trak instrument and indoor air quality was sampled with IAQ-Calc instrument. Dust mass concentrations were measured simultaneously with DustTrak DRX instrument and IOM-samplers. Particle concentrations were at highest (2070-81 890 #/cm3 mean) during manufacturing with methods where plastics were thermally processed. Total volatile organic compounds concentrations, in contrast, were low (113-317 µg/m3 mean) during manufacturing with such methods, and vat photopolymerization method. However, total volatile organic compounds concentrations of material jetting and multi jet fusion methods were higher (1114-2496 µg/m3 mean), perhaps because of material and binder spraying, where part of the spray can become aerosolized. Chemical treatment of manufactured objects was found to be a severe volatile organic compounds source as well. Formaldehyde was detected in low concentrations (3-40 µg/m3) in all methods except for material jetting method, in addition to several other carbonyl compounds. Notable dust concentrations (1.4-9.1 mg/m3) were detected only during post-processing of powder bed fusion and multi jet fusion manufactured objects. Indoor air quality parameters were not found to be notably impacted by manufacturing operations. Only low concentrations (below 2 ppm) of CO were detected during several manufacturing processes. All studied additive manufacturing operations emitted potentially harmful contaminants into their environments, which should be considered in occupational additive manufacturing and workplace design. According to the measured contaminant levels it is possible that adverse additive manufacturing related health effects may occur amongst exposed workers.

Read more: Journal of Occupational and Environmental Hygiene, Accepted author
Workplace Exposure to Pesticides and Metals Linked to Heightened Heart Disease Risk

Workplace exposure to metals and pesticides is linked to a heightened risk of heart disease in Hispanic and Latino workers, reveals research published online in the journal Heart.

Language barriers and low levels of education, coupled with fears about job security and immigration status, may make this rapidly growing ethnic group especially vulnerable, say the researchers. They base their findings on survey responses and medical test results for 7404 Hispanic/Latino workers aged 18 to 74 from Miami, Chicago, San Diego, and New York City.

Read more: https://www.sciencedaily.com/releases/2018/12/181211190008.htm

Pilot Study on the Efficiency of Water-Only Decontamination for Firefighters’ Turnout Gear

Objectives of the study were to measure firefighters are exposed to toxic environments upon entering burning structures. Many structures contain synthetic materials which release toxic chemicals when on fire. These chemicals can enter the body through multiple routes of exposure, including inhalation and skin absorption. Thus, according to the fire departments included in this study, firefighters now conduct on-site decontamination procedures to remove hazardous chemicals, including polycyclic aromatic hydrocarbons from the surface of firefighter turnout gear. Several methods
are being practiced at the local level, including decontamination with soap and water, and decontamination with water alone. The water-only decontamination method requires less time and supplies yet has not been investigated as a suitable method for removing polycyclic aromatic hydrocarbons from turnout gear. Therefore, we evaluated the efficiency of this method by measuring polycyclic aromatic hydrocarbon (PAH) concentration levels before and after water-only decontamination. The calculated efficiency displays the percentage of PAHs removed (or not removed) at post-decontamination in relation to the initial sample collected at pre-decontamination. The turnout gear was sampled after live residential structure fires. Firefighter turnout gear was worn throughout Attack, Overhaul Search and Rescue, and Rescue from Fire operations. All firefighters came to a central location for sampling after completing their job responsibilities. Water only decontamination did not appear to be effective, resulting in an overall 42% increase in PAH contamination. The unexpected increase may have been due to disparate pre- and post-decontamination sampling sites on turnout gear.

Read more: Journal of Occupational and Environmental Hygiene, Accepted author version posted online: 28 Nov 2018 (Available with AIHA membership)

Skin Sensitization to Fluorescein Isothiocyanate Is Enhanced by Butyl Paraben in a Mouse Model

Contact hypersensitivity (CHS) to preservatives is receiving increased attention. Parabens are widely used in foods, pharmaceutics and cosmetics as preservatives. The skin sensitizing activity of parabens remains controversial but a few investigations have been made as to whether parabens could facilitate sensitization to other chemicals. We have shown that di-n-butyl phthalate (DBP), a phthalate ester, has an adjuvant effect in a fluorescein isothiocyanate (FITC)-induced CHS mouse model. We have also demonstrated that DBP activates transient receptor potential ankyrin 1 (TRPA1) cation channels expressed on sensory neurons. Comparative studies of phthalate esters revealed that TRPA1 agonistic activity and the adjuvant effect on FITC-CHS coincide.

Read more: https://www.jstage.jst.go.jp/article/bpb/41/12/41_b18-00584/_article/-char/en
New Technique Offers Rapid Assessment of Radiation Exposure

Researchers from North Carolina State University have developed a new technique that allows them to assess radiation exposure in about an hour using an insulator material found in most modern electronics. The technique can be used to triage medical cases in the event of a radiological disaster.


Operators’ Radiation Exposure in the Cath Lab Directly Tied to Patient BMI

Beyond the obvious effects on a patient’s own health, obesity might harm the well-being of some treating physicians—new data show that the amount of radiation to which interventional cardiologists are exposed during coronary angiography correlates with patient body mass index (BMI).

There was a stepwise increase in operators’ radiation exposure across categories of rising patient BMI, with sevenfold greater exposure when patients had a BMI of 40 kg/m2 or higher versus less than 25 kg/m2, researchers led by Ryan Madder, MD (Spectrum Health, Grand Rapids, MI), report in a study published online January 2, 2019, in Circulation: Cardiovascular Interventions.

Ventilation

Think Twice Before Wet or Dry Cleaning Your Dust Collector Filters

Paying to have a premium cartridge filter wet or dry cleaned may seem like a bargain, but is it really? Let’s take a look.

The cost to have a filter cleaned is quite a bit less than the cost of buying a new filter, but the savings are quickly lost when you consider the resulting shorter filter life and lower efficiency caused by the cleaning. Typically a cleaned filter tends to last approximately half as long as new filters before they plug again. As a consequence, cleaned filters need to be replaced more frequently, and that means more change outs, more downtime, and more cleaning charges.

Scanning Electron Microscope (SEM) images below (see Figure 1) show the true difference between new premium efficiency media and media after it has been wet cleaned or dry cleaned.


PPE

Report Examines Potential for Use of Elastomeric Respirators in Healthcare

A new report published by the National Academies of Sciences, Engineering, and Medicine concludes that half-facepiece reusable elastomeric respirators are an effective, viable option for protecting healthcare workers during both routine work and in public health emergencies. According to the report, reusable respirators are the standard respiratory protection devices used in many industries, but they are not used widely in healthcare. Researchers identified only two health institutions in the U.S. that use reusable elastomeric respirators either exclusively or primarily. The study, which was requested by the NIOSH National Personal Protective Technology Laboratory and CDC’s National Center for Immunization and Respiratory Diseases, describes the advantages of using elastomeric respirators in healthcare.
A notice published by NIOSH last month explains the agency’s position regarding respirator-sealing surfaces and facial hair, and clarifies the NIOSH definition of respirator-sealing surfaces, including the primary seal, and facial stubble. The notice applies to all primary seals of tight-fitting full- and half-facepiece respirators and to tight-fitting respirator designs that rely on a neck dam seal.

According to NIOSH, facial hair that lies along the sealing area of a respirator—beards, sideburns, moustaches, or stubble—should not be permitted on employees who are required to wear respirators that rely on tight facepiece fit. The revised notice clarifies that the agency is referring to more than one day or 24 hours’ growth of stubble. The language in the preceding notice referred to “a few days’ growth of stubble.”

Read more:
Hearing Loss Announced by Protein Boom in Blood

Blood levels of a special protein found only in the inner ear spike after exposure to loud noise, UConn Health researchers report. The findings point the way to blood tests that could warn people at risk of hearing loss before they suffer serious damage.

Hearing loss can sneak up on people, slowly muffling the world, but only noticeable once the damage is done. Chronic exposure to loud noises can cause it, as can certain medications. Cisplatin, a cancer drug used to treat solid tumors, and gentamicin, an antibiotic effective against a wide range of bacterial infections, are both known to damage hearing as a side effect. But not all patients treated with them will develop hearing loss, and both of these drugs and others known to damage hearing are still prescribed when their potential benefits outweigh the risk. They are discontinued if hearing loss occurs.


DNA Study Shows Stethoscopes Loaded With Bacteria, Including Staphylococcus

Stethoscopes carried by health care practitioners are loaded with diverse bacteria, including some that can cause healthcare-associated infections, according to a study. The research also reviewed the effectiveness of cleaning methods, finding a standardized approach to be superior for removing bacteria compared with various approaches employed by health care practitioners.

Read more: https://www.sciencedaily.com/releases/2018/12/181212135044.htm
Disneyland Tower Likely Source of 22 Cases of Legionnaires’ Disease, Official Testifies

A health official testified that a cooling tower that provides mist to make Disneyland visitors comfortable was the likely source for 22 cases in a Legionnaires’ disease outbreak last year near the theme park. Dr. Matthew Zahn with the Orange County Health Care Agency testified Tuesday before an appeals board judge at the California Occupational Safety and Health Administration.

The Los Angeles Times reports Zahn said tests around the time of the outbreak showed high levels of Legionella bacteria in two Disneyland cooling towers. He said contaminated droplets likely spread to people in the park and beyond.


Excess Body Weight Responsible For Nearly 4 Percent of Cancers Worldwide

More than 1 in 3 U.S. adults are considered to have obesity.

Policies, economic systems, and marketing practices that promote the consumption of energy-dense, nutrient-poor food, changing behavioral patterns that couple high total energy intake with insufficient physical activity, and human-built environments that amplify these factors are driving a worldwide rise in excess body weight, according to a new report. The report, appearing early online in CA: A Cancer Journal for Clinicians, a peer-reviewed journal of the American Cancer Society, says excess body weight accounted for approximately 3.9% of all cancers worldwide in 2012, a figure that will undoubtedly rise in the coming decades given current trends.

Read more: https://www.sciencedaily.com/releases/2018/12/181212200746.htm
Umbilical Cord Blood Metal Levels In Newborns

New findings from a team of Marshall University Joan C. Edwards School of Medicine researchers reveal urban and rural differences in prenatal exposure to essential and toxic elements. The team’s finding were published Nov. 22 in The Journal of Toxicology and Environmental Health.

The research team of Jesse N. Cottrell, M.D., D'Andrea S. Thomas, M.S., Brenda L. Mitchell, M.D., Jason E. Childress, M.D., Diane M. Dawley, M.D., Lawrence E. Harbrecht, M.D., David C. Jude, M.D., and Monica A. Valentovic, Ph.D., conducted a comparative, cross-sectional study on 172 pregnant women -- 79 who were considered rural and 93 considered urban as determined by U.S. Census Rural-Urban Commuting Area Codes. Umbilical cord blood was collected at the time of delivery and analyzed for 20 inorganic elements.

Read more: https://www.sciencedaily.com/releases/2018/12/181212144620.htm

Are You Stressed? Your Eyes May Provide a Window into Your Mental Workload

With nearly breakneck speed, the demands of work productivity in today's society seem to have increased tenfold. Enter multitasking as a way to cope with the insistence that tasks be completed almost immediately. Previous studies on workload and productivity include physical aspects, such as how much a person walks or carries, but they do not take into account a person's state of mind. Now, researchers have discovered a person's eyes may offer a solution.

Read more: https://www.sciencedaily.com/releases/2018/12/181211150639.htm
Suitability of Gridded Climate Datasets for Use in Environmental Epidemiology

Epidemiologic analyses of the health effects of meteorological exposures typically rely on observations from the nearest weather station to assess exposure for geographically diverse populations. Gridded climate datasets (GCD) provide spatially resolved weather data that may offer improved exposure estimates, but have not been systematically validated for use in epidemiologic evaluations. As a validation, we linearly regressed daily weather estimates from two GCDs, PRISM and Daymet, to observations from a sample of weather stations across the conterminous United States and compared spatially resolved, population-weighted county average temperatures and heat indices from PRISM to single-pixel PRISM values at the weather stations to identify differences. We found that both Daymet and PRISM accurately estimate ambient temperature and mean heat index at sampled weather stations, but PRISM outperforms Daymet for assessments of humidity and maximum daily heat index. Moreover, spatially-resolved exposure estimates differ from point-based assessments, but with substantial inter-county heterogeneity. We conclude that GCDs offer a potentially useful approach to exposure assessment of meteorological variables that may, in some locations, reduce exposure measurement error, as well as permit assessment of populations distributed far from weather stations.

Read more: https://www.nature.com/articles/s41370-018-0105-2
A Framework for Estimating the US Mortality Burden of Fine Particulate Matter Exposure Attributable to Indoor and Outdoor Microenvironments

Exposure to fine particulate matter (PM2.5) is associated with increased mortality. Although epidemiology studies typically use outdoor PM2.5 concentrations as surrogates for exposure, the majority of PM2.5 exposure in the US occurs in microenvironments other than outdoors. We develop a framework for estimating the total US mortality burden attributable to exposure to PM2.5 of both indoor and outdoor origin in the primary non-smoking microenvironments in which people spend most of their time.

The framework utilizes an exposure-response function combined with adjusted mortality effect estimates that account for underlying exposures to PM2.5 of outdoor origin that likely occurred in the original epidemiology populations from which effect estimates are derived.

Read more: https://www.nature.com/articles/s41370-018-0103-4

Does Soil Track-in Contribute to House Dust Concentrations of Perfluoroalkyl Acids (PFAAS) in Areas Affected by Soil or Water Contamination?

The Minnesota Department of Health measured levels of perfluoroalkyl acids (PFAAs) in house dust at homes in communities impacted by PFAA-contaminated soil and drinking water to determine whether PFAAs in soil outside the home are associated with concentrations in dust. House dust samples from both interior living spaces and entryways to the yard were collected and analyzed separately based on the presumption that PFAAs in entryway dust may better reflect “track-in” of PFAAs into the home from contaminated soil or lawns irrigated with contaminated water. PFAA detections and concentrations in living rooms were significantly higher compared to entryways; and concentrations in both
sampling locations were higher than corresponding soil concentrations, suggesting that interior sources were the main contributors to PFAAs in house dust.

Read more: https://www.nature.com/articles/s41370-018-0101-6

Ergonomics

22 Ergonomics Industry Statistics and Trends

In 2000, OSHA estimated that every $1 out of every $3 that was spent on workers’ compensation claims were from an ergonomic issue which affected them at work. The direct cost of musculoskeletal disorders caused by a lack of ergonomics were listed at $20 billion, with total annual costs rising to $54 billion.

Rules were drafted in 1992, with the first standards published in 1995, to create a greater emphasis on workplace ergonomics. Those standards were enforced beginning in 2001 for a total of two months. President George W. Bush repealed them as one of his first acts in office.

Read more: https://brandongaille.com/22-ergonomics-industry-statistics-and-trends/

Safety

Key Protections for Arc Welders

BLS has reported 404,800 U.S. workers were employed1 during 2016 as welders, cutters, solderers, and brazers, and that they had one of the highest rates of injuries and illnesses among all occupations. They may work outdoors, often in bad weather, or indoors, even underwater, and sometimes work in confined spaces. They may be working in awkward positions, on scaffolds, and may be exposed to very hot materials, toxic fumes, noise, fire hazards, electrical hazards, arc radiation, and more.
Hazard Assessment and the Hierarchy of Controls

Controlling these risks adequately starts with a hazard assessment that looks at the physical work environment, equipment and materials being used, and how the work tasks will be performed. Hazard identification may involve a walk-through assessment of the workplace; talking with workers about how the job is being carried out, inspecting the materials and equipment before work begins; reading product labels, manufacturers’ instruction manuals, and safety data sheets; and reviewing incident and injury reports.

Read more: https://ohsonline.com/articles/2018/12/01/key-protections-for-arc-welders.aspx?admgarea=ht.PPE

Environmental Probiotics: Creating Healthy Indoor Workspaces

Indoor environments have been shown to have a significant impact on human health and productivity. As employers strive to create healthier environments for their workers, the demand for green cleaning services is creating a culture of sustainability in the commercial office cleaning industry, with increased awareness of the benefits driving buying decisions. An accompanying surge in environmentally desirable products and services is impacting the way that facilities managers are thinking about and approaching the cleaning and maintenance of their buildings.


Marijuana and Workplace Safety

Sixty-two percent of America’s states and the District of Columbia, Puerto Rico and Guam have legalized medical marijuana use, and the number of people using marijuana in the United States is rising rapidly. As a Schedule I narcotic under the federal Controlled Substances Act, marijuana is still illegal, but its widespread use by workers and potential employees poses significant legal and practical issues for employers.
In addition to increased use and acceptance of marijuana, the drug is now more potent (almost double the active ingredient THC, or tetrahydrocannabinol) and has greater impact, lasting a longer time. No reliable metric is available for determining when a particular level of THC impairs the user and for how long, but studies show that it stays in the body much longer than alcohol; the duration of impairment could be more than 24 hours.

*Read more: https://www.recyclingtoday.com/article/marijuana-and-recycling-workplace-safety/*

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**Reduce Construction Workplace Injuries with Wearable Technology**

The American Society of Safety Professionals (ASSP) Foundation released a fatigue research report that shows the value of wearable technology in the workplace, encouraging employers to make a New Year’s resolution to monitor the fatigue levels of its workers to reduce injuries and increase productivity. The three-year study was led by Dr. Lora Cavuoto at the University at Buffalo and Dr. Fadel Megahed at the Farmer School of Business at Miami University of Ohio. The project also involved researchers from Auburn University and the University of Dayton.


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**Exposure to Powdered Toner Doesn’t Significantly Impact Lung Health: Study**

Long-term exposure to powdered toner or toner-using machines has no significant impact on lung health, concludes a recent study of copier industry workers by researchers at Japan’s Showa University.

The researchers measured fibrotic changes in the lungs of 694 workers responsible for the manufacturing, maintenance or
recycling of powdered toner or toner-using machines with X-rays, spirometry measurements, and serum and urine biomarkers. Testing occurred annually from 2003 to 2013.


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**Emergency Preparedness**

**How Is the Shutdown Affecting America? Let Us Count the Ways**

The U.S. government has been operating under a partial shutdown since Dec. 22. The shutdown, driven by a political battle over President Trump’s demand that Congress approve funds for a wall along the border with Mexico, is touching the lives of Americans in myriad ways.

Nine federal departments (and some smaller agencies like NASA) are affected, at least in part, by the lapse in funding: Agriculture, Commerce, Justice, Homeland Security, Housing and Urban Development, Interior, State, Transportation and the Treasury. Approximately 800,000 federal workers have been furloughed or are being required to work without pay.

Read more: https://www.wabe.org/how-is-the-shutdown-affecting-america-let-us-count-the-ways/

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**Deployment Health**

**Pre-Deployment Insomnia Linked to Increased Risk of PTSD for Soldiers**

Soldiers who have insomnia before deployment may be more likely to develop post-traumatic stress disorder (PTSD) or experience suicidal thoughts than service members who don’t struggle to sleep before they deploy, a U.S. study suggests. For the study, researchers surveyed U.S. Army soldiers one to two months before they deployed to Afghanistan in 2012, right
after they returned from deployment, and again three months and nine months later.

Read more: https://www.reuters.com/article/us-health-sleep-military/pre-deployment-insomnia-linked-to-increased-risk-of-ptsd-for-soldiers-idUSKCN1OJ2BZ

Nanotechnology

Size, Composition, Morphology and Health Implications of Airborne Incidental Metal-Containing Nanoparticles

There is great concern in the adverse health implications of engineered nanoparticles. However, there are many circumstances where the production of incidental nanoparticles, i.e., nanoparticles unintentionally generated as a side product of some anthropogenic process, is of even greater concern. In this study, metal-based incidental nanoparticles were measured in two occupational settings: a machining center and a foundry. On-site characterization of substrate-deposited incidental nanoparticles using a field-portable X-ray fluorescence provided some insights into the chemical characteristics of these metal-containing particles. The same substrates were then used to carry out further off-site analysis including single particle analysis using scanning electron microscopy and energy-dispersive X-ray spectroscopy. Between the two sites, there were similarities in the size and composition of the incidental nanoparticles as well as in the agglomeration and coagulation behavior of nanoparticles. In particular, incidental nanoparticles were identified in two forms: sub-micrometer fractal-like agglomerates from activities such as welding and super-micrometer particles with incidental nanoparticles coagulated to their surface, herein referenced as nanoparticle collectors. These agglomerates will affect deposition and transport inside the respiratory system of the respirable incidental nanoparticles and the corresponding health implications. The studies of incidental nanoparticles generated in occupational settings lay the groundwork on which occupational health and safety protocols should be built.

Read more: Journal of Occupational and Environmental Hygiene, Accepted author version posted online: 20 Dec 2018 (Available with AIHA membership)
OSHA Proposes Revisions to General Industry Beryllium Standard

OSHA issued a proposed rule Dec. 10 to revise the beryllium standard for general industry. The proposed changes would clarify the standard and simplify or improve standard compliance, according to the agency.

The proposed rule would revise selected paragraphs of the standard, including Definitions, Methods of Compliance, and Personal Protective Clothing and Equipment. Appendix A, which currently lists suggested controls, would be removed and replaced with a new Appendix A, Operations for Establishing Beryllium Work Areas.


NIOSH Develops Tools to Identify Dampness, Mold in Buildings

NIOSH has developed new tools to help employers identify and assess areas of dampness and mold in general buildings and in schools. The agency’s new Dampness and Mold Assessment Tool, which guides users through assessing all rooms in a building, provides a checklist and instructions for assessing and recording any damage related to dampness or mold and for tracking conditions through time. According to NIOSH, causes of moisture and dampness problems in office buildings, schools, and other nonindustrial buildings may include roof and window leaks, high indoor humidity, and flooding events. Health effects associated with exposure to building dampness and mold include respiratory
symptoms, development or worsening of asthma, respiratory infections, bronchitis, and eczema.


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Final Hazardous Waste Pharmaceutical Rule Issued by EPA

Signed by the EPA Administrator on December 11, 2018, EPA announced on December 13 that it is issuing the long-awaited final rule to manage hazardous waste pharmaceuticals generated by healthcare facilities (including hospitals, clinics, and retail stores with pharmacies) and reverse distributors.

Three years after it was proposed, the final rule, now entitled “Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P0875 Listing for Nicotine” will likely be published in the Federal Register (FR) by the end of this month and go into effect 6 months after its publication in the FR.

2018 in Review: CDC Looks Back at the Year’s Most Pressing Health Threats

From the opioid overdose epidemic to foodborne disease outbreaks and antimicrobial resistance to the Ebola virus outbreak in the Democratic Republic of Congo (DRC), CDC worked around the clock – and around the globe – to protect Americans from health threats in 2018.

“CDC has a long history of using the best available science and data to make public health decisions,” said CDC Director Robert R. Redfield, M.D. “My vision for CDC and public health here and around the world is to get people to see the possible. We have to be bold and innovative to eliminate disease, protect Americans from health threats, and improve the human condition.” Here’s a closer look at some of the biggest health issues that CDC tackled in 2018.

Webinar/Online Meeting Etiquette
Tips for the Webinar Attendees

- Test the link well before the webinar starts. Most webinars provide an email with the URL to join. You won’t be able to join the conference, but you should get an idea of whether you are missing software or need IT assistance.
- Please arrive at least 5 minutes early. This will allow you the proper time to mute your phone properly. Not only is this a professional thing to do, but it helps us run on time and does not interrupt the flow of conversation.
- Identify yourself when you first enter the webinar and when you speak. We try to keep a hand written record of attendance in case you forget to claim your certificate.
- Mute your phone (use “*” when you are not speaking). It’s amazing how much background noise comes through and ruins someone’s experience.
- Never put the call on “hold”. The participants will hear your on-hold music or the leader will not know that you have stepped away and may continue to address you while you’re gone.
- Save questions/comments until the end. Feel free to use the chat box so that you can remember your question. It is a great place to also put additional resources you may have on the topic.
- Mute your speakerphone. If you are using a speakerphone, until you need to answer/ask a question or participate. Speakerphones pick up background noise and conversation.
- Don’t put your phone on “hold” during the webinar. The other attendees don’t like hearing your “hold” recording or music during the presentation and it dominates the audio so that participants cannot hear the speaker.
- Be respectful of others. You’re seldom the only one on the call. We always record our webinars.

ARMY IH WEBINAR DAY
ONE CALL ATTENDS THEM ALL!
FEBRUARY 27, 2019

0900-1000ET Manage Your IH Monster (Field Op Manual)
1000-1100ET IH LEADERS (Knox- Noise Control Case Study)
1100-1200ET Ask The SME (Ergonomics)

You will need to be on BOTH the DIAL IN CALL and the WEBINAR LINK to see and hear this presentation.

TO JOIN THE CONFERENCE (FOR VISUAL): Use the link below to join the webinar. Select your email certificate when prompted. The DCS conference window will open for participants 15 minutes prior to the scheduled webinar time. Select your email certificate when prompted. https://conference.apx.mil/webcast/ManageYourMonster

TO JOIN THE CALL (FOR AUDIO): Commercial: (210) 249-0234 DSN 421-3272, (312) for Overseas DSN
Conference ID: 3472# Pin Code: 0768799

Instructions: Press “*6” to toggle the audio bridge mute function on and off. You will be provided audible confirmation after each action. For technical assistance during your active call, hang up and dial 210-215-3200 Option 1. The Bridge Tech will address any of your questions.
Industrial Work Environments: Firefighting (1.5hrs)

NOW AVAILABLE ONLINE at https://aihph-dohs.ellic_learn.army.mil

This course is self-enrollment and self-paced. The lecture has embedded multiple attempt knowledge checks. Passing score is 70%.

The purpose of this course is to provide a basic awareness of the different welding processes. Occupational Health and Safety Professionals might encounter when inspecting/surveying work areas. Lessons provide explanations of basic welding terms, descriptions of different welding and cutting processes, a summary of hazards, illustrations of control measures, lists of applicable OSHA and other standards, and descriptions of sampling methods.

After completing this training, the student will be able to:

1. Demonstrate knowledge of stressors by recognizing common types of firefighting processes and equipment.

2. Demonstrate knowledge of stressors by recognizing hazards associated with firefighting processes.

3. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Basic Characterization Step by recognizing community found controls.

4. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Basic Characterization Step by stating the applicable OSHA and other standards.

5. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Characterize Exposures Step by describing typical evaluations techniques (sampling and workplace monitoring plans).

6. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Reporting/Recording Step by describing typical findings and recommendations (controls and medical surveillance).

7. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Reporting/Recording Step by describing how this data is entered/tracked using DOEHS-III.

Industrial Work Environments: Welding Processes (2hrs)

NOW AVAILABLE ONLINE at https://aihph-dohs.ellic_learn.army.mil

This course is self-enrollment and self-paced. The lecture has embedded multiple attempt knowledge checks. Passing score is 70%.

The purpose of this course is to provide a basic awareness of the different welding processes. Occupational Health and Safety Professionals might encounter when inspecting/surveying work areas. Lessons provide explanations of basic welding terms, descriptions of different welding and cutting processes, a summary of hazards, illustrations of control measures, lists of applicable OSHA and other standards, and descriptions of sampling methods.

Terminal Learning Objectives:

1.01. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model to evaluate workplace environments for potential occupational health hazards. Stressors include but are not limited to: confined space entry, spray painting, fume ranges, medical treatment facilities, welding, metal-arc welding, foundries and general indoor environmental issues.

1.02. Demonstrate knowledge of stressors to include but are not limited to: confined space entry, spray painting, fume ranges, medical treatment facilities, welding, metal-arc welding, foundries and general indoor environmental issues.

After completing this training, the student will be able to:

1. Demonstrate knowledge of stressors by recognizing common types of welding processes and equipment.

2. Demonstrate knowledge of stressors by recognizing hazards associated with welding processes.

3. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Basic Characterization Step by recognizing common found controls.

4. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Basic Characterization Step by stating the applicable OSHA and other standards.

5. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Characterize Exposures Step by describing typical evaluations techniques (sampling and workplace monitoring plans).

6. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Reporting/Recording Step by describing typical findings and recommendations (controls and medical surveillance).

7. Demonstrate knowledge of how to use the DoD 8-Step Exposure Assessment Model Reporting/Recording Step by describing how this data is entered/tracked using DOEHS-III.
Respiratory Protection (8hrs)
NOW AVAILABLE ONLINE at https://aiph-dohs.elc.learn.army.mil
This course is self enrollment and self paced. The lecture has embedded multiple attempt knowledge checks.

The purpose of this course is to provide awareness of the Respiratory Protection that Occupational Health and Safety Professionals might encounter when inspecting/surveying worksites. This course consists of 6.5 hours of lecture with embedded knowledge checks. There are 9 lessons that follow each part of the OSHA standard. Certificates are awarded to participants who complete all 9 lessons with a minimum grade for each lesson of 70%.
1. What we need to know about PPE
2. General Respiratory Protection
3. Respiratory Protection Program
4. Types of Respiratory Protection
5. Filters/Cartridges
6. Protection Factors/Maximum Use Concentration
7. Fit Tests & Seal Checks
8. Recordkeeping
9. References

IH Ethics (2hrs)
NOW AVAILABLE ONLINE at https://aiph-dohs.elc.learn.army.mil

This course is self enrollment and self paced. There is no exam. The lesson does not have knowledge checks. Certificates are issued for participation.

Occupational Health and Safety Professionals can use the certificate from this lesson to satisfy professional certification and credentialing exam 2 contact hour requirements. This course consists of 1.5 hours of lecture with interactive student polls and examples from both OSHA and Army Industrial Hygiene.
**Pesticide Toxicology (1.5hrs)**

NOW AVAILABLE ONLINE at [https://aihp.dohs.ellc.learn.army.mil](https://aihp.dohs.ellc.learn.army.mil)

This course is self enrollment and self paced. The lecture has embedded multiple attempt knowledge checks. Passing criteria is 70%.

The purpose of this course is to provide knowledge of occupational illnesses including signs and symptoms; knowledge of the principles of toxicology including symptomatology, pharmacokinetics, mode of action, additive, synergistic, and antagonistic effects, routes of entry, absorption, metabolism, excretion, target organs, toxicity testing protocols, aerosol deposition, clearance in the respiratory tract, carcinogenic, mutagenic, tear atogenic, and reproductive hazards to assign risk to potential exposures. Participants will be able to:

1. Describe details of pests, history of pests, and associated diseases
2. Define pesticide toxicology related terms
3. Provide specific examples of pesticides (organophosphate, carbamate, pyrethroid, organochlorine), herbicides, fungicides and rodenticides
4. Describe the mode of action for various pesticides

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**Ventilation: Review for DOEHS Users (1.0hrs)**

NOW AVAILABLE ONLINE at [https://aihp.dohs.ellc.learn.army.mil](https://aihp.dohs.ellc.learn.army.mil)

This course is designed as a refresher for Army IH staff that have previously completed the “Army IH DOEHS-IH Initial Course”. This course does not replace the requirement to complete the “Army IH DOEHS-IH Initial Course” prior to using the DoD system of record.

The course is self enrollment and self paced. The lecture has embedded multiple attempt knowledge checks. Passing criteria is 70%.

The purpose of this lesson is to describe and demonstrate Army Business Practice for Ventilation Systems, Components, and Ventilation Surveys in DOEHS-IH. Instructors will:

Describe how to add, name, and search for Ventilation Systems and Components; add, name, and schedule a Ventilation Survey; and complete a Ventilation Survey.

After viewing this lesson, participants will be able to: Demonstrate how to enter and name ventilation systems, components, and surveys.
Professional Development and Career Programs

For Army Industrial Hygienists and Industrial Hygiene Technicians, Professional Development is through the Army Safety and Occupational Health (SOH) Career Program, known as Career Program 12 (CP-12).

Career Programs were established to ensure there is an adequate base of qualified and trained professional, technical, and administrative personnel to meet the Army’s current and future needs.

Planned training and development are essential elements to building a successful career.

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