United Association



Safety Nevys Dedicated to ensuring the safest and bealthiest working environment for our members

Spring 2021 | Issue 21

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Our Vision

The United Association and its local unions will apply its best practices and resources to build the best educated and safest workforce in all sectors of the piping industry.

Message from Cheryl Ambrose Health, Safety and Environmental Administrator



Spring brings a sense of hope and renewal, especially in 2021 following one of the most difficult periods in our memory. COVID-19 required we change how we approached many things including safety and health, testing the resil-

ience of the UA and our nation. We had to change how we meet, train, and communicate. While there does appear to be light at the end of this tunnel, we must proceed with caution, keep the forward momentum while always focusing on the safety and health of everyone.

This spring, as in years past, the construction industry focuses on safety and health initiatives including the National Stand-Down to Prevent Falls in Construction and Construction Safety Week. As the industry spotlights continued improvement of safety and health for workers across construction, on April 28th, Worker Memorial Day, we remember and honor those workers killed on the job. Links to resources and ideas how to participate are included in this issue.

The pandemic has certainly increased the focus on health in many ways, and it is important to keep up with those regular check-ups that may have been delayed in recent months. BTMED is an extremely important program and one way our members who have worked on Department of Energy sites can get early-detection and often lifesaving diagnostic tests. Hear what some of our UA members have to say about how the program has played a critical role in their health.

In this issue

Looking ahead, we see technology moving at a lightening pace. The nanotechnology team at CPWR, in an article to help raise awareness, highlights the potential impact of nanomaterials and nanoparticles on the construction industry and specifically UA members. Through our continued partnership with CPWR, training opportunities are being developed to spotlight nanotechnology in construction.

This issue also highlights a few changes to the OSHA Outreach Training program and upcoming virtual OSHA courses that will be held just prior to the 2021 Instructor Training Program as well as the virtual lineup for Instructor Training Program. The OSHA courses continue to be some of the most requested courses and spaces are limited.

The UA's resilience in training has been evidenced in many areas including through the effort made to get virtual OSHA classes up and running. We are proud to say that since July 2020 when the OSHA Directorate of Training and Education gave the green light to begin virtual OSHA trainer classes, we have held a record number of courses to address the backlog and pent-up demand in the wake of the pandemic. This could not have been accomplished without the dedication of our entire OSHA team of master instructors and the support of the ITF Registar's office. Thank you all for your efforts and support.

We keep striving for improvements in health and safety for UA members in the workplace and hope for continued and lasting good health for all our members and their families!



www.ua.org



Engineered Nanomaterials in Construction – What UA Members Should Know

Submitted by: CPWR Nano Team Gavin West MPH, Director of Nanomaterials Research Bruce Lippy PhD, CIH, CSP Bill Kojola MS Sara Brooks MPH

Workers were exposed to silica and asbestos for many years before steps were taken to protect them. At that point, it was too late for too many who had already developed serious diseases due to the work they performed. The U.S. government has taken a more proactive and precautionary approach with nanotechnology, which is applied in many industries, including construction. Although health risks posed by engineered nanomaterials are not fully understood, exposures to workers who manufacture these materials are being tightly controlled. Downstream users of building products that contain engineered nanomaterials, like UA members – plumbers, pipefitters, steamfitters, welders, sprinkler fitters, and HVACR service techs, may be less aware of their presence in the work environment. With Center for Disease Control and Prevention (CDC) funding, CPWR – The Center

for Construction Research and Training is identifying how engineered nanomaterials are used in construction, researching exposures and controls, and developing trade-specific awareness training. Despite some unknowns, enough is already known to say that taking simple steps to limit exposures to engineered nanomaterials on the

job is a good practice to protect the health of UA members.

Nanotechnology and nanomaterials are bringing remarkable improvements across many sectors of American society. Nanomedicines can deliver anti-cancer drugs to tumors more precisely. Sensors that can be injected into the body are being developed to detect potential heart attacks and send warnings to a cell phone. Graphene is a two-dimensional sheet of carbon that is 100 times stronger than steel and electrically conductive. It can strengthen road surfaces and could one day charge electric cars at traffic lights and parking lots. Graphene is also being used in masks during the COVID response, however on April 3rd the Canadian government began advising people not to wear these masks because research suggests graphene causes lung problems in test animals. This is a good example of the dilemma with nanotechnology: it promises exciting breakthroughs but not without risks.

CPWR is dedicated to ensuring these risks do not fall disproportionately on construction workers because this sector is also seeing an increase of nano-enabled products. Some products may *reduce* risks. Self-cleaning windows will mean less chance for fatal falls among window washers. Many

"CPWR is dedicated to ensuring these risks do not fall disproportionately on construction workers because this sector is also seeing an increase of nano-enabled products." construction products are becoming lighter and stronger thanks to the addition of nanomaterials. Many are better for the environment like self-darkening windows that cool buildings, coatings that break down

smog, and wood-based products that can be made transparent to replace heavier glass.

CPWR maintains eLCOSH Nano, a database of commercially

available construction products that claim to contain nanomaterials. This resource is free, available to the public, and updated regularly. The inven-

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tory provides information about nano-enabled products that UA members might use or encounter on the job, like welding electrodes, metal alloys for tooling or threading, lubricants, pipe coatings, adhesives, insulation, and epoxies.

> Workers are right to be concerned about risks to their health when they work with nano-enabled construction materials. Some diseases take many years to develop, and human health studies linking exposures to diseases are difficult to conduct. Most engineered nanomaterials have not been thoroughly tested, and much of what

we know about potential health effects comes from laboratory studies. For example, nano-sized titanium dioxide and carbon nanotubes can scar the lungs and cause cancer in



Welding generates fumes containing nano-sized particles that can be deposited deep in the lungs. Image shows nanoparticles in welding fumes. Photo: Journal of Immunotoxicology article https://doi.org/10.3109/154769 1X.2011.652783

rodents. Based on these types of studies, NIOSH has set recommended exposure limits for several nanomaterials, but OSHA has issued no permissible exposure limits.

UA members are fortunate that the controls traditionally used in the construction industry

Spring 2021 | Issue 21

2



will also work for nanoparticles. Welding and brazing produce fumes that contain particles in the nano size range. These are called incidental nanoparticles because they are not created for a specific purpose. These tiny particles are instead potentially harmful by-products that we know we can control with welding fume extractors. HEPA filters, including those found in respirators, effectively capture nanoparticles. Wet methods to control dust will also reduce exposures to



engineered nanomaterials. The good news is that most studies, including CPWR and NIOSH research, show that exposure controls work well and that engineered nanomaterials are rarely released as individual particles after being added to construction materials. One task CPWR flagged as requiring special consideration and probably respiratory protection is spraying of coatings and paints

containing metal oxide nanoparticles. Additional research will examine different tasks and materials to ensure that these new materials do not cause unexpected health problems.

The UA, through our partnership with CPWR, is working on developing flexible training opportunities around this topic. CPWR has developed a train-the-trainer program to raise awareness about the use of engineered nanomaterials in construction. It is designed to help trainers make construction workers aware of the increasing use of nano-enabled materials in construction, the associated exposures risks, and ways to protect workers. The program includes core elements that cut across all construction trades but will be tailored to the tasks and materials of the UA trades. The core training program will include a PowerPoint presentation with detailed instructor's notes, a student manual, and group exercises, and can be used in apprenticeship schools, journeyperson upgrading, and refresher training. Other resources developed by CPWR on this topic include a hazard alert card and toolbox talks.

If you have questions or are interested in receiving training on nanomaterials that UA trades might use or encounter on the job, please contact Cheryl Ambrose, UA Health, Safety and Environmental Administrator (<u>cambrose@uanet.org</u>).

OSHA Outreach Training Update

DEADLINE EXTENDED for OSHA 10- and 30hour Virtual Exception to December 31, 2021

NRC/CPWR

On September 23, 2020, OSHA Outreach Training and Education (OTE) announced that exception requests to deliver **OSHA Outreach 10- and 30-hour courses** via alternate training methods (live synchronous video conferencing) will be considered through July 31, 2021. The deadline for the training requests has been extended through December 31, 2021.

As a reminder, to be approved to conduct the OSHA 10- and 30-hour courses virtually, trainers are required to submit a written training request using an alternate method per the OSHA Outreach Program Requirements.

Please contact Cheryl Ambrose (<u>cambrose@uanet.org</u>) with questions or for assistance in completing a request.

UPCOMING OUTREACH TRAINER COURSES

Important Note

Due to OSHA's virtual exception approval deadline of July 31, 2021, OSHA courses will be held **PRIOR** to the 2021 Virtual Instructor Training Program.

OSHA 510

OSHA Standards for the Construction Industry (prerequisite for OSHA 500)

June 21 - 25, 202110:00 AM - 4:30 PM (Eastern)

OSHA 500

Trainer Course for the Construction Industry

July 12 - 16, 202110:00 AM - 4:30 PM (Eastern)

OSHA 502

Update for Construction Industry Outreach Trainers July 26 – 29, 202110:00 AM – 4:30 PM (Eastern)

Registration is OPEN and spaces are LIMITED. Reserve today!



Safety News

2021 Instructor Training Program Virtual Safety Courses

UA 2154 Safe Bolting Practices

"I've been doing this for 20 years. What can they teach me about bolting?" A common question asked about the Safe Bolting Practices course. So why is it necessary? Because the industry is demanding it. Participants will gain the knowl-

edge and skills to safely and properly inspect, assemble, and tighten bolted joints using industry-required controlled bolting procedures in accordance with ASME PCC-1 *Guidelines for Pressure Boundary Bolted Flange Joint Assembly*, as well as the proper use and safe handling of controlled bolting equipment. Instruction will include bolted joint assembly best practices, terminology, tooling, safety, quality and the fundamentals of how a bolted joint works.

UA 2159 Trenching and Excavation Competent Person Trainer

This course examines OSHA's trenching standards and industry safe practices for working in trenches and excavations. Newly-developed technology resources such as interactive e-learn-

ing modules, jobsite mobile apps, complete trainer guide, and 2D and 3D VR simulations will be utilized. The course involves theory, hands-on, and interactive learning opportunities. At the end of the course, participants will be able to deliver competent person level and basic level trenching training courses for their members.

UA 2161 Safety Culture for Front-Line Leaders

Developed around the UA Standard for Safety, this course is designed to train attendees on how to instruct front-line leaders and workers on establishing and maintaining a trusting and collaborative safety culture where all employees feel free to raise concerns. Through a combination of lecture, demonstration, case study, exercise, facilitated discussion, and teach-backs with instructor evaluation, the course prepares the attendees to instruct an eight-hour course for front-line leaders at their local training centers. This course is presented in a collaborative effort with the Department of Energy National Training Center.

UA 2163 NFPA 70E Electrical Safety in the Workplace

This course will help UA instructors promote electrical safety on the job site by preparing them to deliver a 1-Day NFPA®



70E[®] Class to local members. This NFPA[®] 70E[®] Train-the-Trainer course uses activities, exercises, videos, job aids, and hands-on exercises to help UA instructors be confident and competent in training on electrical safety topics and relevant policies and procedures as well as compliance with OSHA 1910 Subpart S and OSHA 1926 Subpart K. Upon successful completion of the course, attendees will be able to teach the 1-Day NFPA[®] 70E[®] Class to include how NFPA[®] 70E[®] standards and OSHA requirements promote electrical safety, establishing an electrically safe working condition, justifica-

> tion of energized work, and proper use of personal protective equipment and testing equipment for energized work.

UA 2170 Opioids in the Workplace: Prevention and Response

Opioids and substance use disorder is impacting the construction industry six times greater than other industries. This course is designed to prepare attendees to instruct and facilitate the National Institute of Environmental Health Sciences (NIEHS) Opioids and the Workplace: Prevention and Response training at the local level. Upon completion, participants will be able to discuss the scope and severity of the opioid crisis, summarize the relationship between workplace injuries and illnesses, working con-

ditions, substance and opioid use disorder, identify risks of occupational exposure and potential steps for prevention and response, and identify, inspire, and motivate actions to prevent and respond to substance use, misuse, addiction, in addition to addressing suicide prevention. The course materials are designed to be presented as a stand-alone training or integrated into other training programs.



4





Remembering those killed or injured on the job and renewing the stand for safer and healthier workplaces.



APRIL 28







Former Savannah River Site Worker Stays Fortunate by Keeping on Top of **His Health**

Andrew "Andy" Johnson of Pipefitters Local 150 takes advantage of free medical screenings for former DOE construction workers

Submitted by: Patricia Quinn – CPWR Director Energy/ **Employees' Programs**

Andrew Johnson describes his life as blessed. He was able to raise four children while working for twenty years as a pipefitter at the Department of Energy (DOE) Savannah River Site, a job that paid better and felt more honest than his previous work selling insurance. But after being exposed to hazards like radiation and asbestos from his work at the cold-war era nu-

clear facility, Andrew knows that living a fortunate life means accepting the support of others, like the free medical screen-

ing program for former DOE workers that he visits every three years.

The Building Trades National Medical Screening Program (BTMed) screens workers like Andrew for illnesses that may arise from the hazards that workers



Andrew "Andy" Johnson, UA Local 150, Savannah River Site

The sprawling site, built to help in the nuclear weapons production effort during the cold war, has had its share of documented hazards. Andrew and his fellow workers were regularly monitored for radiation exposure, but often this was not enough to protect them. "Naturally, when they tell you to put on two plastic suits and two or three pair of coveralls and multiple shoe covers and multiple gloves, you knew that was not a perfect place to be," Andrew says.

Before even enrolling in BTMed, Andrew was experiencing health problems that he believes are connected to his time working at the site. But by visiting the doctors that partner with BTMed, and returning every three years for a re-screen, he receives detailed medical information that is specifically catered to his DOE construction work and how it might affect his health.

"They give an unbelievable physical," he says, describing his experience with BTMed. "They give you a better physical than you would get anywhere else." BTMed is coordinated by CPWR- The Center for Construction Research and Training, and partners with medical providers and former DOE workers themselves to offer a comprehensive screening built around an individual's DOE work history.

All too often, people who worked at Savannah River or other DOE sites wait too long to monitor their health and then face

"Naturally, when they tell you to put on two plastic suits and two or three pair of coveralls and multiple shoe covers and multiple gloves, you knew that was not a perfect place to be."



face while working construction jobs at DOE sites. Once you are in the program, you are invited back for re-screens every three years to stay on

top of illnesses with delayed effects. From his twenty years of experience at the Savannah River Site, Andrew knows as much as anyone how valuable this program can be.

"I worked in the 100 areas, I worked in the 200 areas, I worked as a fitter, I worked as a foreman," he recalls. "You name it, if it's in the pipe trades at the Savannah River Site, I was involved in it."



problems down the road linked to asbestos, radiation, beryllium, or any number of other hazards. Sometimes, they wait too long for anything to be done.

"I highly recommend that anyone who has been around any of these nuclear facilities,

that they do go and get checked. You're not going to get a better physical, guaranteed. You don't want to go through what a lot of my friends went through," Andrew warns. "I was fortunate."

Building Trades National Medical Screening Program (BTMed) for Former Construction Workers at DOE Nuclear Weapons Sites

If you worked construction on a DOE site, you may be eligible for a free medical screening exam. Please call BTMed at 1-800-866-9663 or visit www.btmed.org for more information or click on the the link below.

The Building Trades National Medical Screening Program Video





The Building Trades National Medical Screening Program (BTMed) provides free medical screening exams to former construcation workers previously employed at Department of Energy (DOE) nuclear weapons sites.

BTMed screens former DOE construction workers who may be at risk for occupational diseases as a result of their work on DOE sites. Workers may have been exposed to work-related hazards such as radiation, asbestos, beryllium, cadmium, chromium, lead, silica, and solvents, which can cause cancer and other serious, even fatal, health problems.

Since 1996, BTMed has provided over 38,500 medical screening exams and 6,400 low dose CT scans to former DOE construction workers. BTMed screens workers from

35 different DOE sites through a network of more than 225 specially credentialed health clinics across the country.

BTMed consists of two steps: a work history interview and medical exam. In step one, a specially trained building trades worker conducts a work history interview to determine hazardous materials the participant may have encountered. In step two, the participant receives a free medical screening examination to test for work-related health conditions, as well as other health problems. Following the exam, the participant receives a letter indicating any medical findings and assistance with referrals for further medical care.

All participation in the program is voluntary and all information is kept strictly confidential.

Hear below what UA members and others are saying about the BTMed program.

Click <u>here</u> for a video about the Building Trades National Medical Screening Program.







MAY 3rd, 2021 @ 1:00pm EDT

Despite ongoing efforts by construction employers and safety professionals to prevent falls, provide fall protection systems, and train workers, falls continue to be the leading cause of death in the construction industry. According to recent data from the U.S. Bureau of Labor Statistics, **401 construction workers died from falls to a lower level in 2019**. To raise awareness of construction falls and work with the industry to better prevent them, the National Campaign to Prevent Falls in Construction was launched in 2012 with leadership from NIOSH, OSHA, and CPWR. Each year, the National Safety Stand-Down event is the cornerstone of the campaign. This year, business leaders, labor organizations, community groups, and other construction industry stakeholders will participate in virtual or socially distanced Stand-Down events from <u>May 3-7</u>.

To kick-off the week leaders from OSHA, NIOSH and CPWR will share some of the latest data related to OSHA enforcement, incident rates, and underlying causes of falls, as well as real-life stories and new fall prevention resources to use during the Stand-Down week and beyond.

Panelists:

- James Frederick, Principal Deputy Assistant Secretary of Labor for Occupational Safety and Health, OSHA
- Dr. John Howard, Director, NIOSH, and Administrator of the World Trade Center Health Program, U.S. Department of Health and Human Services
- Scott Ketcham, Director, OSHA's Directorate of Construction
- G. Scott Earnest, Ph.D., P.E., C.S.P., Associate Director for Construction, Office of Construction Safety and Health, NIOSH
- > Chris Cain, CIH, CPWR Executive Director

Click here to register and submit a guestion for our panel in advance.