Welcome

Welcome to the National Mine Health and Safety Academy and to the 2020 Training Resources Applied to Mining (TRAM) Virtual Summit. This conference has become a very important event on the Academy’s annual calendar, and this year is no different. This year’s TRAM Conference will give participants the opportunity to learn about new developments in health and safety training, to share ideas in small group sessions, and to share new materials all while safely social distancing.

Thank you for joining us online, we hope you will have a productive and enjoyable experience.

Acknowledgments

We wish to thank all of the presenters who volunteered their time and knowledge with others to promote mine safety and health. Without the efforts of these experts, it would be impossible to present a conference of this magnitude. They always come forward so willingly to assist us with this program and for that we are grateful.
MSHA Leadership

David G. Zatezalo
Assistant Secretary for Mine Safety and Health

President Donald J. Trump nominated David G. Zatezalo to be the 9th Assistant Secretary for Mine Safety and Health. He was sworn in on November 30, 2017.

Assistant Secretary Zatezalo is a native of West Virginia and has spent a lifetime working in mining. He began his career as a union miner and since then has held positions at a number of companies as shift foreman, engineering superintendent, mine manager, vice president of operations and chief executive officer. Assistant Secretary Zatezalo has worked in mining all across the U.S. and internationally in Australia.

Assistant Secretary Zatezalo has a degree in Mining Engineering from West Virginia University and is a registered professional engineer in Ohio and West Virginia. He also has an MBA from Ohio University. He is the past chairman of the Kentucky Coal Association and the Ohio Coal Association. He’s also been a member of the Mine Rescue Veterans of the Pittsburgh District.

Patricia W. Silvey
Deputy Assistant Secretary for Operations

Patricia W. Silvey is the Deputy Assistant Secretary for Operations, Mine Safety and Health Administration. She was appointed to the position in December 2010.

Before her appointment as Deputy Assistant Secretary for Operations, Mrs. Silvey served as the Director of Standards, Regulations and Variances for MSHA. Prior to this, Mrs. Silvey served as the Deputy Administrator for Metal and Nonmetal Mine Safety and Health, and on an Intergovernmental Personnel Act assignment to the National Safety Council.

In October 1998, she held the position of Director, Office of Administration and Management. In July 1983, she was appointed to the Senior Executive Service as Director of Standards. In early 1978, she played an integral role in the transition of MSHA from the Department of the Interior to the Department of Labor and the establishment of the Office of Standards.

Mrs. Silvey earned her B.S. degree from Tuskegee Institute; M.A. degree from the University of Alabama; and J.D. degree from Georgetown University Law Center. She is a member of the District of Columbia Bar.
Wayne D. Palmer is the Deputy Assistant Secretary for Policy, Mine Safety and Health Administration. He was appointed to the position in August 2017, following engagements as Senior White House Advisor for the Department of Labor and Chief of Staff to Secretary R. Alexander Acosta.

Mr. Palmer previously served as Senior Manager of Congressional Relations at the nonpartisan Center for Presidential Transition, where he armed presidential transition teams with innovative tools to navigate the Senate confirmation process effectively.

Prior to that he oversaw operations for a global consultancy and owned a private consulting practice where he crafted health policy options for the National Association of Manufacturers and served as Thought Leader for IMS Health. For three years he spearheaded the drug safety team in Federal Government Relations at the world’s 7th largest pharmaceutical company and subsequently managed C-level governance teams for its $13 billion U.S. unit.

Earlier he served U.S. Senator George Voinovich (OH) and Conference Chairman Rick Santorum (PA) for a combined 13 years in a variety of legislative and management roles, lastly as Santorum’s Chief of Staff.

A native Pennsylvanian, Mr. Palmer earned his B.A. in Political Science from Penn State University and Master of Government Administration degree from the University of Pennsylvania, subsequently entering federal service as a Presidential Management Fellow at the U.S. Department of Commerce and rotating through the U.S. House, U.S. Senate and White House Office of Management and Budget.
Lincoln (Link) Selfe
Superintendent
National Mine Health and Safety Academy

Lincoln (Link) Selfe began his mining career in 1974 as a Management Trainee with Clinchfield Coal Company. He worked as an Engineer, Industrial Engineer, Safety Specialist and Staff Assistant to the Vice President of Operations. He also served as a Section Foreman, Out-By Foreman and Assistant Mine Foreman while at Clinchfield Coal Company.

Mr. Selfe began his career with MSHA in 1982 as an Inspector and Accident Investigator in District 5, Norton, VA. From 1989 until December 2018 he served in various capacities within management. He served as a Field Office Supervisor in District 6, Staff Assistant, Field Office Supervisor and Roof Control Supervisor in District 3. He served for 17 years as Assistant District Manager in District 4 and also did temporary details as District Manager in District 3, 4 and 5. He is currently the Deputy Superintendent at the National Mine Academy in Beaver WV.

Mr. Selfe became a member and Team Captain of MSHA’S Mine Emergency Unit in February 1991 and continued on the Mine Emergency Unit until April 2005. During this time he worked numerous Mine Emergencies such as fires, explosions, inundations and other emergencies in West Virginia, Virginia, Kentucky, Illinois, Pennsylvania, Alabama, Utah and Colorado while under oxygen in irrespirable atmospheres and in several elevated methane situations. He also responded to the Pentagon after the 9/11 attacks and to Hurricane Katrina, working with OSHA in 2005. Mr. Selfe also was selected from MSHA’s Team to work with the Fairfax County Structure Rescue Team in Morgantown, WV when a coal silo collapsed and fatally injured 1 person.

Mr. Selfe has represented the United States internationally in various Mine Rescue roles. He served as a Mine Rescue Advisor in Ontario, Canada and Krakow, Poland. He also competed as a map man on MSHA’s Team in the International Mines Rescue Contest in Louisville, KY in 1999 where they won First Place. Link also competed on MSHA’s Team in Glogow, Poland in 2004. He is currently serving as the Director for the Upcoming 2020 International Mines Rescue Contest to be held at the National Mine Academy in Beaver, WV.
8:30 a.m. – 9:30 a.m. Opening Ceremonies .........................................Quarry Room

**Welcome and Introductions**

Ms. Patricia W. Silvey, Deputy Assistant Secretary for Operations
Mine Safety and Health Administration

**Opening Address**

Mr. David G. Zatezalo, Assistant Secretary for
Mine Safety and Health Administration

9:30 a.m. – 10:00 a.m. Training Materials Competition Awards ...............Quarry Room

**Materials Competition Award Presentation**

Mr. David G. Zatezalo, Assistant Secretary
Mine Safety and Health Administration

10:00 a.m. – 10:30 a.m. MSHA Digital Library Demonstration ..................Quarry Room

**MSHA Digital Library Demonstration**

Mr. Reza Noorani, Chief
Office of Program Policy and Evaluation

10:40 a.m. – 12:50 p.m. Workshops........................................See Workshop Schedule
12:50 p.m. – 1:50 p.m. Lunch
1:50 p.m. – 5:10 p.m. Workshops........................................See Workshop Schedule

**Thursday, October 15**

9:00 a.m. – 10:00 a.m. Fall Protection Panel Discussion.......................Quarry Room
10:10 a.m. – 12:20 a.m. Workshops........................................See Workshop Schedule
12:20 a.m. – 1:20 p.m. Lunch
1:20 p.m. – 4:40 p.m. Workshops........................................See Workshop Schedule
As mining declines in the U.S., safety and environmental professionals must work diligently to ensure safe and environmentally friendly coal mines. Is it possible? It's about Acceptable Risks, Leadership, and the 7 keys to a Safety Leadership.

The question is, 'What will normal look like?' It is increasingly clear our new future will be defined by a fundamental safety and health schism: the period before COVID, and that which will emerge in the post-viral era: the "new safety and health." We will witness a dramatic restructuring of the safety and social order in which we and even society have traditionally operated. We are seeing the beginning of discussion about what the next era of safety, training and compliance could entail and how sharply its contours will diverge from those that previously shaped our lives. Join Richard in this discussion, as he shares thoughts on the 4 Rs of safety recovery - Resolve, Resilience, Re-imagination and Reform within our safety and health world.

This presentation will be an overview of best practices at dump points and a review of recent incidents.

Carbon monoxide (CO) has often been described as a "silent killer". It is produced from incomplete combustion of carbon-based materials. Some well-recognized sources of CO at mines include fires (small-scale or large-scale), vehicular exhaust, tobacco smoke, and portable heaters. CO is colorless, tasteless, and odorless; thus, it lacks warning properties. When inhaled, this gas can lead to asphyxiation and other serious impairments of health, including death. The objectives of this training are as follows: 1) to review the generation of CO, 2) to discuss the uptake of CO into the human body and its concentration-dependent health effects, 3) to describe treatment and recovery from CO poisoning, 4) to examine exposure limits for CO, and 5) to summarize engineering controls used for the reduction of CO exposures. At the conclusion of this training, attendees will more fully understand the health-related effects of CO exposures.
**Exposure to Solvents and Their Potential Health Effects — Michelle Schaper**

Solvents are well-recognized for their ability to dissolve solids and have been widely used as ingredients in commercial cleaning products. At mines, there may be exposures to solvents (as liquids), but there may also be exposures to their vapors. Thus, there is a potential for health effects to occur due to the inhalation and dermal (skin) routes of exposure. The objectives of this training are as follows: 1) to review some solvents found in mining, 2) to discuss the uptake and movement of solvents and their vapors throughout the human body, 3) to describe major types of health effects associated with exposure to solvents and their vapors, 4) to examine exposure limits for some selected solvents and their vapors, and 5) to summarize PPE and engineering controls used for the reduction of solvent and vapor exposures. At the conclusion of this training, attendees will more fully understand the health-related effects of solvent and vapor exposures.

**Falls in the Workplace — Kevin Deel, Ben Gandy, Sam Pierce**

The presentation will be a panel discussion with Kevin Deel, Educational Field and Small Mine Services (EFSMS); Ben Gandy, Technical Support; and Sam Pierce, Regional Administrator for MSHA Eastern Region. The trainers will address “Falls in the Workplace,” with special emphasis on “Falls from Equipment” and “Fall Protection.” The presentation will include statistical data on falls in the workplace and recent fatalities involving falls, as well as MSHA Best Practices and training resources available to trainers. There will be a short Q&A session at the end of the presentation.

**Keeping Cool: Protecting Miners from Heat-Related Illness — Kristin Yeoman, MD; Blaine P. Connor, PhD; and Launa Mallett, PhD**

Whether working under a blazing sun or mining the deepest reserves, miners face hot, humid conditions at work and are at risk for heat-related adverse outcomes. NIOSH is conducting research on the impact of working in hot environments on miners and has recently developed “Keeping Cool,” a new, interactive training module that can be used to review essential heat stress-related safety points in 20 to 30 minutes. The case-based training module allows workers to better understand the impact of various risk factors on the development of heat illness. The presenters will introduce a module that includes guidance and materials for instructor-led training about heat-related illnesses.

A train-the-trainer segment will prepare participants to conduct the training for workers who are potentially at risk. A key component of the module is a small group activity that teaches miners about protecting themselves and their coworkers. The presenters will provide training delivery tips and explain how to tailor the materials to meet the needs of specific workers.

During this presentation, NIOSH will provide:
- Materials for on-site instructor-led training
- A demonstration of how to use the training materials
- A demonstration of the training module

What attendees will take away from the presentation:
- Tips to use the training materials
- Tips to increase worker participation in the training module
Learning Laboratories - An Outcome-Focused Mentorship and Evaluation Program for the Health and Safety Trainer — Leonard Brown, PhD; Laurie Wilson; Glenna Smith

Learning Laboratories (LLs) provide a community-based framework to share resources and expertise that can lead to measurable improvements in health and safety outcomes. In this talk, we will discuss the core aspects of the LL program, including available training resources, trainer mentorship, and an online framework for evaluation and sharing. Through personalized mentorship, LLs incrementally improve trainer capabilities to adapt and create new materials based on workforce needs. The LL web portal lets trainers measure competency, correlate outcomes, and share new resources. We will discuss success stories, outlining culture change in the classroom and observed reductions in injuries and days lost among LL participant.

***Noise Controls in Mining — Jason Novakovich***

Noise Controls in Mining covers topics related to using administrative and engineering controls to limit noise exposures experienced by miners. The presentation includes the following subjects: Properties of Sound, Sound Measurement, MSHA regulations, Acoustical Materials, and Engineering/Administrative Noise Controls.

Opioid Hazard Awareness for the Sand, Stone and Gravel Sector — Cora Roelofs, ScD

"Extraction workers" continue to lead opioid overdose statistics for working populations. In early 2020, over 800 Massachusetts miners received training on opioid hazard awareness as part of their annual MSHA refresher training. Pre- and post-training surveys showed improvements in knowledge, attitudes, and skills related to recognizing and taking action to prevent opioid hazards. We will present these findings as well as the training development process, curricula essentials, and plans to make the module available to operators across the U.S. for inclusion in annual refresher training programs.

SAFETY – It's All About the Manager! — Scott McKenna, Heidi Williams

What creates a highly productive, safe employee? It's not the money, it's not the company; it's all about the manager. A great manager elicits motivation, influence, and inspiration. We must put all efforts necessary into creating a strong culture within our organizations to maximize employee engagement. Engaged staff not only are more productive and loyal to the organization and supervision but they are statistically proven to be 62% SAFER! There are multiple elements that all the best leaders in the world share, let's explore a few of these together and help each other succeed with our goals in SAFE/QUALITY/PRODUCTION.
Shale Gas Well Stability Under the Influence of Underground Longwall Coal Mining: Miner Safety and Health Implications — Daniel Su, PhD; Steven Schatzel, PhD

The ventilation and ground control teams are collaborating to study changes occurring in the pillars as a consequence of mining to update the 1957 Pennsylvania Gas Well Pillar guidelines and the potential impact of longwall mining on well stability. The ventilation team is producing simulations of shale gas from a hypothetical breached well towards the underground mine environment. The team is also producing a method of distinguishing gas sources entering the underground mine to identify non-coal gases.

Tools to Help Prevent Musculoskeletal Disorders and Slips, Trips, and Falls in Mining — Mahiyar Nasarwanji, PhD

Overexertion and slips, trips, and falls are two of the largest contributors to non-fatal injuries in mining. Proactive identification of risk factors and remediating the hazard at mine sites can help prevent such incidents, leading to a safe and productive workplace. This presentation showcases tools, created by NIOSH, to help prevent overexertion and slip, trip, and fall injuries. The presentation will also briefly cover risk factors for these injuries and their causes in mining. The tools described will help improve mine safety.

Training on Escape from a Fire and Hazard Recognition - If Santa Clause Was an MSHA Inspector — Garland Moffett, Damir Hasanovic

In this session you will get a first-hand view of how to present using the method of telling a story as your curriculum. The training presented uses a twist on words in the well-known story that begins “T’was the night before Christmas and all through the house…”

We will take you through a comical story where you will become the student to maneuver your way out of a burning building that MSHA recently inspected and wrote citations on, causing your mine operator to issue a cleaning party for you and your co-workers!!! In addition, we will show you how to use the story as a way to teach hazard recognition. Your students will become “rookie MSHA inspectors” where they will have to use the 30 CFR to find answers and write citations.
Training Technology

Converting 48 Training to Online: HOW WE ARE DOING IT IN TEXAS — Garland Moffett, Brittanie Phillips, Alexandra Mercado, Damir Hasanovic

WHEN LIFE THROWS YOU A COVID CURVE-BALL, PUT A MASK OVER YOUR FACE, CLOSE YOUR EYES, AND SWING... NOT!!!

In this training you will learn how The University of Texas converted to online instruction for Part 48 ART and NMT. We will discuss the pros and cons of online vs. in-person instruction and precautions that need to be taken to protect yourself and the customer if you do have to conduct in-person trainings. In addition, we will take you on a step-by-step tour of how our online training is conducted. Come join us to see how we are doing it in Texas!

Live Online Training and Logistics — Terry Weston, Robert Weston

This session will focus on what obstacles an instructor faces while conducting annual refresher and new miner training live online. We will spend time on the obstacles the learner will face and give examples of how to circumvent these obstacles and provide a quality training session with limited loss in functionality. Zoom will be the main delivery mode discussed.

On Demand Training to Make the Surface Mining Industry Safer — William C. York-Feirn, CMSP, Todd Ohlheiser

As the mining industry recruits younger generations and MSHA requests feedback on technology that can help provide safer work environments, the industry must strive to bring best safety practices to its employees in the age of COVID-19. An effective answer is the Mine Safety Institute's (MSI) interactive, on-demand training platform that provides surface mining personnel with the initial 4 hours of training required for new hires to start work. The benefits of using on-demand training tools developed by real miners, real regulators, and using real mine site video footage is presented. MSI offers a set of effective training products on topics such as Task Training, Customizable Annual Refresher Training, and the MSHA Operator's Guide.

Search Like an EXAMiner using NIOSH Hazard Recognition Tools — Brianna M. Eiter, PhD

Mineworkers have to perform workplace examinations before they start work. The goal of the workplace examination is to find and fix hazards in the work environment. To improve mineworkers’ ability to find hazards, the NIOSH Mining Program developed EXAMiner, a workplace examination tool that gives mineworkers the opportunity to practice searching for hazards in virtual environments. It also gives health and safety professionals the opportunity to debrief hazard recognition performance with mineworkers. EXAMiner comes equipped with 31 scenes that health and safety professionals can use to create training scenarios.

These scenes are of four locations at a surface stone mine (the pit, plant, shop, and roadways) and include over 100 hazards. EXAMiner gives health and safety professionals the ability to create site-specific materials by importing panoramic pictures from their own sites into the software. As an additional new feature, EXAMiner also gives health and safety professionals the
ability to share training scenarios they have created with others. This presentation will include a brief explanation of the EXAMiner software, a demonstration of its key features, tips and best practices for creating site-specific scenes, and suggestions for how to incorporate EXAMiner into your current health and safety program.

During this presentation, NIOSH will provide:
- A link for attendees to download the EXAMiner software (https://www.cdc.gov/niosh/mining/works/coversheet2050.html).
- A quickstart guide and help documentation.
- A demonstration of how to use key features of the software.

What attendees will take away from the presentation:
- Tips to use when designing site-specific materials.
- Considerations for panoramic picture taking.
- Suggestions for how to incorporate EXAMiner into current workplace examination practices.

**Virtual Reality Advantages in Mine Rescue Training — Stephen G. Sawyer, Jr. PhD; Terry “Mike” Jude**

NIOSH and MSHA are collaborating to develop a Virtual Reality (VR) application to increase the utilization of VR training in the Mine Rescue Community. VR allows team members to immerse themselves in more realistic simulations of dangerous situations and to practice individual and team decision-making skills. This presentation will explore specific advantages of VR training over traditional training mechanisms, discuss performance evaluation, and demonstrate the NIOSH/MSHA VR application.
Delivery Techniques

Conflict Resolution — Dennis Riley

Conflict management is an essential skill for all business professionals, as nothing can destroy productivity, derail projects, and damage your reputation faster than workplace conflict. Whether the conflict is passive or very aggressive, it can paralyze your group, department, or the entire organization. This training addresses communication skills for dealing with disagreements. Learn to negotiate reasonable and neutral options for an acceptable outcome for everyone. Identify anger triggers and disengage from those situations while focusing on a solution. Managing conflicts quickly through conflict resolution and negotiation skills training prevents disruptions and loss of productivity.

COVID-19 Impacts on Mine Rescue Team Readiness — William C. York-Feirn, CMSP; Jeffery Kravitz, PhD, MBA, PE; David Stalfort, BS, MS

The readiness of mine rescue teams is vital to effectively responding to a major mine emergency. The COVID-19 pandemic has impacted team readiness due to the reduction in critical mine rescue training and contests, multiple-team MERDs in realistic environments, and the loss or readiness assessments using easy-to-use comprehensive tools. Virtual mine rescue team assessments are conducted at mining operations that depend upon mine rescue teams through a Zoom meeting platform. Results of these abbreviated assessments and a more comprehensive tool are presented.

Employee Engagement: Establishing and Using Safety Committees at Work — Joseph McGuire, PhD; Emily Haas, PhD

Many companies provide training to their employees with the intention to fulfill regulatory requirements. Although training is important, complementary activities that continually focus on knowledge building may have a greater impact on worker attitudes and performance on the job. Rather than considering training as an overarching “answer” to a problem, a more encompassing approach may be trying to obtain a higher level of employee engagement through promoting the development of soft skills.

Leadership, communication, teamwork, task training of employees, speaking up, and identifying distractions in the workplace are just a few of the topics that can contribute to what is termed “empowerment training.” One approach for continuously supporting ongoing employee engagement is by establishing health and safety (H&S) committees. This presentation focuses on a 2019 case study in developing and using a committee to facilitate worker empowerment.

Steps discussed and validated in the presentation include:
1) Brainstorming to identify problems
2) Forming sub-committees
3) Meeting and acting
4) Sustaining health and safety committees
We also highlight the value of continuous follow-up to close perceptual gaps among workers. It is clear throughout the case study that perceptions about employee engagement moved in the right direction and over time as workers took a more active role in health and safety at work.

**Energy Control: Get the Message Across — Chuck Ross, CHSO, CMSP**

When most people think of energy isolation, they usually think of a lock, or lock out. Lock out tag out training has been around for years. While lock out tag out is a form of energy control and a darn good one, it is not the only one. Miners continue to be injured by not controlling energy. All forms of energy, and most are simply not a lock application. Perhaps we need to re-think our training. This presentation provides a unique method for trainers to increase their ability to reach miners and teach energy control beyond the "Lock Only Blinders".

**Shifting Classroom Training to Virtual Classrooms — Jeff Dalto**

Learn to transition your existing classroom-style training to a virtual classroom (delivered over a webinar-style platform) by following a few best practices gathered from experts in the field.

***Highlighted sessions are related to MSHA's special emphasis campaigns***
The year 2020 marks the 25th year that the TRAM Training Materials competition has been conducted. For a quarter century, the materials developed and entered in the competition have made lasting, positive impacts on health and safety training at mining operations.

Below are the entries for the 2020 competition.

In keeping with changes put into place in 2019, those entries which met the highest standard of performance were awarded an MSHA Blue Ribbon of Excellence. The top scoring entry was awarded the Grand Prize.

The winners will be announced during opening ceremonies on Wednesday, October 14.

TRAM 2020 Training Materials Competition Entrants

Entrants:

- **Virginia Department of Mines, Minerals, and Energy**
  - Electric Motor Installation & Calculations
- **Virginia Department of Mines, Minerals, and Energy**
  - Virginia 2019 Surface Foreman Continuing Education Training
- **CRH Americas Material Companies**
  - MSHA Annual Refresher Education: Vol. 9 and Vol. 10
- **Florida Mine Safety Program**
  - Powered Haulage - Get Them on Board
- **Virginia Department of Mines, Minerals, and Energy**
  - Virginia 2019 Underground Foreman Continuing Education
- **Blackhawk Mining, LLC**
  - Proximity Training/ Dust Parameter Training
- **ODNR - Division of Mineral Resource Management - Mine Safety**
  - ONDR/DMRM Surface Mine Safety Training
- **Center for the Promotion of Health in New England**
  - Opioid Hazard Awareness for Sand, stone and gravel miners
- **Contour Highwall Mining, LLC**
  - Highwall Miner Specific Training
- **Florida Mine Safety Program**
  - Surface Mine Rescue Training and Contests
TRAM 2019 Materials
Competition Winners

Blue Ribbon Awards
♦ DIR. CAL/OSHA, Mining and Tunneling Unit – ORGANIZED CHAOS
♦ Ohio Department of Natural Resources - Mine Safety – Ohio Surface Mine Training
♦ Cessford Construction Company – This is Not Your Father’s MSHA Training
♦ University of Texas – Health and Safety Training Center – First Aid in the Mining Industry

Innovation Award
♦ WY MSHA State Grant – Gillette College – Virtual Reality Blind Spot Awareness

Grand Prize
♦ Florida Mine Safety Program – Powered Haulage: Be Alert/Be Ready

Previous Grand Prize Winners
2019 – Florida Mine Safety Program
2018 – Florida Mine Safety Program
2017 – South Central College Center for Business & Industry
2016 – Virginia Department of Mines, Minerals and Energy
2015 – South Central College Center for Business & Industry
2013 – Kentucky Office of Mine Safety and Licensing
2012 – Virginia Dept. of Mines, Minerals and Energy
2011 – South Central College
2010 – Lafarge North America, Inc.
2009 – Alliance Coal
2008 – Kentucky Coal Academy
2007 – Safe Steps Training, LLC
2006 – AGC for Heavy Equipment Operations, Vermont Chapter
2005 – Colorado Division of Minerals and Geology
2004 – Virginia Department of Mines, Minerals and Energy
2003 – Colorado Division of Minerals and Geology
2002 – Commonwealth of Virginia
2001 – Commonwealth of Virginia
2000 – Colorado Division of Minerals and Geology
Presenters

Brown, Leonard, PhD - Leonard D. Brown is an Assistant Research Professor at the University of Arizona's Mel and Enid Zuckerman College of Public Health. He has over 15 years of experience in instructional design and technology innovation for health and safety training and has published numerous technical papers on these topics. He currently serves as a co-director for the NIOSH-funded Western Mining Safety and Health Training Resource Center, where he develops serious games and other active learning resources for the mining workforce. Brown also teaches courses on human-computer interaction for the UA's School of Information.

Connor, Blaine, PhD - Blaine P. Connor PhD is a research anthropologist and learning design specialist at NIOSH's Pittsburgh Mining Research Division. Part of the Escape, Rescue, and Training Team, he is currently the Principal Investigator of a study aimed at reducing the risk of injury to miners new to their worksite. He also is a mentor for the CDC's eLearning Institute. Prior to joining NIOSH, Blaine was the Director of Academic Programs for the University of Pittsburgh's College of General Studies and earned his doctorate for a multi-year study of employee relocations in Japan. He may be reached at BConnor@cdc.gov.

Dalto, Jeff - Jeff Dalto is an instructional design, workplace learning, and performance improvement professional. He's worked in safety training for 20+ years and is a frequent presenter at MSHA TRAM conferences. He helped to create the ANSI/ASSP Z490.2 standard for Online EHS Training and is currently on the committee revising the Z490.1 standard for all EHS training as well. Jeff was recently recognized as Safety Professional of the Year by the ASSP's Training and Communications Practice Specialty, he's a regular contributor to the ASSP's Professional Safety Journal, and is currently pursuing a Master's degree in Organizational Performance & Workplace Learning at Boise State University.

Deel, Kevin - Kevin Deel is the Manager for MSHA’s Educational Policy and Development (EPD) Educational Field and Small Mine Services group (EFSMS). Mr. Deel has an extensive 32 year mining career including almost 16 years with MSHA. Mr. Deel has worked in MSHA Enforcement as a CMI, Health Supervisor, and Health Specialist at MSHA Headquarters. Mr. Deel has spent the last 5 ½ years as manager for EFSMS advocating effective training for the nations’ miners.

Eiter, Brianna, PhD - Brianna Eiter, Ph.D. is a Cognitive Psychologist with the National Institute for Occupational Safety and Health (NIOSH) Spokane Mining Research Division (SMRD). While with NIOSH, she has researched hazard recognition and risk perception, informational needs of underground coal miners, and fatigue risk management for small mines. Her recent work has involved creating VR work environments and developing training tools to address hazard recognition and risk assessment abilities. Brianna has 20 years of experience studying human cognition and using eye-tracking to measure human behavior. She graduated with a Bachelor's degree from Lehigh University and earned her Master's and Doctoral degrees in Cognitive Psychology from Binghamton University.

Gandy, Benjamin W. - Ben Gandy holds a Bachelor of Science Degree in Mining Engineering from West Virginia University and a Master of Science Degree in Safety from Marshall University. Ben has worked in the mining industry since 1994 and is certified by the State of West Virginia as an Assistant Mine Foreman. For the last 23 years, Ben has been with MSHA where he currently serves as a Lead Engineer in Technical Support. His experience includes management, mine emergency and recovery operations, ventilation, accident investigations, accident prevention strategies, training, refuge alternatives, SCSRs, and proximity detection systems.
Hass, Emily, PhD - Dr. Emily Haas has worked for 8 years with the National Institute for Occupational Safety and Health. Her research involves developing, implementing, and evaluating organizational interventions with a present emphasis on improving worker and management engagement in response to new technologies, processes, or practices, including how workers and managers can better measure and mitigate health hazards in the workplace. Dr. Haas has authored over 70 publications and has provided over 100 technical presentations, including workshops and keynotes at international mining conferences. She received her PhD from Purdue University in 2012 with a focus on Health Communication and Research Methods.

Hasanovic, Damir - Damir Hasanovic has been a part of the mining industry for the past five years. He holds the title of Training Coordinator at the Health and Safety Training Center at The University of Texas at Austin. Damir’s duties include communicating with mine sites and contractors throughout the state of Texas to ensure they are correctly scheduled and trained in both MSHA Part 46 and 48 New Miner and Annual Refresher Training, as well First Aid. Damir is actively involved in ALL of the Joseph A. Holmes in Texas and he currently serves as the Vice President of the Hill Country Holmes in the Austin – San Antonio TX corridor.

Kravitz, Jeffery PhD - Dr. Kravitz is the President of JHK & Associates Consulting, LLC. He holds an MBA and Ph.D. from the University of Pittsburgh and a BSEE degree from the Illinois Institute of Technology. He is a registered Professional Engineer (PE) in Pennsylvania and he has received many awards/accolades. Dr. Kravitz worked at the Mine Safety and Health Administration for over 43 years. He served as the Chief, Mine Emergency Operations, and the Chief, Scientific Development for MSHA. He was responsible for seeking out and developing new technology for mine emergency operations and led MSHA's mine emergency operations and respiratory protection programs. He has been involved in over 80 mine emergency responses in the United States and Internationally.

Jude, Terry “Mike” - Mr. Jude is a training instructor at the MSHA National Mine Health and Safety Academy in Beaver, West Virginia. He teaches a broad range of classes for industry and government officials including Special Investigations, Mine Rescue, Inspection Procedures, Safety Programs and Surface Haulage for metal/non-metal and coal mines. He was a Mine Inspector, Ventilation Specialist, Collateral Special Investigator and Collateral Conference Litigation Representative for MSHA. He has participated in multiple accident investigations. He has 14 years in the mining industry, was a member of a Mine Rescue team, is a veteran of the United States Air Force and has held multiple mining and hazardous material handling certifications.

Mallett, Launa, PhD - Launa Mallett PhD is a social scientist at NIOSH's Pittsburgh Mining Research Division. She leads the Escape, Rescue, and Training Team. The work of the team includes improving the safety and health of miners through better training techniques and strategies. Her team also develops products to communicate the agency's research findings to the mining industry. Launa holds degrees in anthropology and sociology from the University of Kentucky. You can contact her at LMallett@cdc.gov

McGuire, Joseph, PhD - Dr. Joe McGuire recently retired from more than 35 years in the aggregates production industry, working for Cessford Construction, Martin Marietta, and CRH Americas Materials. Joe received BA from Benedictine College, MS from NW Missouri State and PhD from Iowa State University. Joe was lead author on 10 MSHA Education Workbooks; 4 OSHA Safety Workbooks and has had over 30 research articles published on both safety and environmental topics.

McKenna, Scott - Scott McKenna is a certified instructor with the Mine Safety Health Administration and is an OSHA certified Construction Trainer. With over 20 years' experience in the mining, construction and highway industries, McKenna directs Catamount Consulting NY. Catamount
Consulting provides training in all facets of OSHA, MSHA and Work Zone safety as well as On-Site Drug and Alcohol Testing, On-Site Hearing Test, Noise and Dust Testing, company management training and motivational presentations. Catamount Consulting has offices throughout the Northeast & due to increased needs is expanding nationally. Catamount has developed several national seminars including Supervisor Seminars and ACRI Training and consults with operations throughout the country.

**Mercado, Alexandra** - Alexandra Mercado has worked with the mining industry for the past 2 years. She is an Admin Associate and a First Aid/CPR Instructor with the Health and Safety Training Center at The University of Texas at Austin. Alexandra’s duties include conducting trainings for mine sites and contractors, as well as prepares, analyzes, and distributes material for ART and NMT. Alexandra is very involved in the Joseph A. Holmes Associations throughout the State of Texas and continues to expand her knowledge in the mining industry.

**Moffett, Garland** - Garland Moffett has over 25 years of experience in the Mining Industry. He is currently Supervisor of Instruction, for The University of Texas at Austin, where he oversees the training and curriculum of the HSTC program. He is a Motivational Speaker traveling throughout the U.S. presenting as a Key-Note Speaker on Safety and School Conferences where he motivates Teachers to become more passionate in their fields. Garland also travels throughout the U.S. working with companies to hone the skills of their instructors. His unsurpassed passion for health and safety is very contagious to the individuals who attend his trainings. His energetic approach coupled with real life scenarios motivates the listener to capture every sentence spoken.

**Nasarwanji, Mahiyar PhD** - Nasarwanji Dr. Mahiyar Nasarwanji is an Associate Service Fellow at NIOSH in the Workplace Health Branch. Mahiyar's interests are in improving work environments and products to make them safer based on the principles of human factors and ergonomics. His current work focuses on the prevention of slips, trips and fall and musculoskeletal disorders in mining. Mahiyar has a B.Eng. in Mechanical Engineering from the University of Mumbai and a M.S. and Ph.D. in Industrial Engineering from the University of Buffalo.

**Novakovich, Jason** - Jason R. Novakovich is a General Engineer in the Mine Safety & Health Administration (MSHA) Pittsburgh Safety & Health Technology Center (Technical Support), Physical & Toxic Agents Division (PTAD). He joined MSHA in 2009. Jason's responsibilities include providing technical assistance to reduce noise exposures experienced by the nation's miners. Jason also provides support to MSHA's Acoustical Calibration Laboratory where all MSHA personal noise dosimeters/calibrators are serviced and calibrated. In addition to this, Jason provides technical assistance for injuries related to heat stress, serves as an Alternate Gas Analyst during mine emergency operations, and has assisted in mine accident investigations. Jason is also Certified Occupation Hearing Conservationist (COHC).

**Ohlheiser, Todd** - Todd R. Ohlheiser has been the Executive Director for the Colorado Stone Sand & Gravel Association/ Colorado Ready Mixed Concrete Association since 2013. Prior to that, he spent many years in the construction, aggregate mining and concrete industries managing businesses and operations in the U.S. and Canada. He works to positively impact legislative, regulatory and safety-related issues in the aggregate mining and concrete sectors. Todd was honored by the NSSSGA as top Executive Director in 2019.

**Pfeifer, James** - James Pfeifer holds a B.S. in Civil Engineering Technology from University of Pittsburgh at Johnstown and a M.S. in Mine Safety from Marshall University. He worked for several consulting geotechnical engineering companies in site development, foundation construction, drilling, design and analyses from 1985 - 2000. James has been employed with the MSHA Mine Waste and Geotechnical Engineering Division since 2000.
Phillips, Brittanie - Brittanie Phillips is a Senior Field Trainer/Analyst, with Health and Safety Training Center (HSTC) at The University of Texas at Austin. She has a Bachelor's of Science in Occupational Safety, as well as her associates in Applied Science Oil and Gas Production. Brittanie has over 7 years of hands-on experience in the safety sector and is a certified MSHA, OSHA, and First Aid Instructor. Accompanying her experience, Brittanie is the recipient of the Joseph A. Homes Scholarship, and a valued member at many organizations including, Incident Management Committee, and Texas Mine Rescue Association Board.

Pierce, Samuel - Samuel Pierce, currently the East Regional Administrator, started with MSHA in 2001, as a Mine Safety and Health Inspector in the Southeastern District, Macon, Georgia Field Office. Mr. Pierce has held several key jobs in the Southeast district office which include Special Investigator, Conference Litigation Officer, Supervisor for Special Investigations and Staff Assistant to the District Manager, Assistant District Manager and District Manager. Mr. Pierce spent 28 years in the mining industry in limestone quarrying, sand and gravel and mineral processing of Iron ore and Coal slag. Mr. Pierce has 25 years in mine management.

Riley, Dennis - Dennis Riley has over 26 years of law enforcement experience in both the United States Marine Corps and the civilian sector. He has served at virtually every level and function of policing from patrol, special weapons and tactics to supervision furthermore, he has served in the intelligence community at the strategic level. Dennis has instructed in General Topics, Leadership, Non-Lethal Weapons, Defensive Tactics, Small Arms and Anti-Terrorism Force Protection. He specializes in client-based resolutions in disruptive environments. Dennis takes a collaborative and unconventional approach to teaching. Dennis advocates for safe and sane firearms instruction for enthusiasts. He is an avid competitive shooter and outdoors enthusiast.

Roelofs, Cora, ScD - Dr. Cora Roelofs is an occupational health and safety researcher at the University of Massachusetts Lowell's Center for the Promotion of Health in the New England Workplace. She is a recognized expert in opioids as a Total Worker Health® concern. Her work on opioid hazards in the sand, stone and gravel sector is funded by the Alpha Foundation for Mining Safety and Health.

Ross, Chuck CHSO, CMSP - Mining started early for Mr. Ross as he was born at the remote mining location where his father worked. He has over 28 years of industrial experience in Steel, Pulp & Paper and Mining. He is a veteran of the United States Marine Corps, a Certified Mine Safety Professional, and is a Certified Safety & Health Official in both OSHA General Industry and OSHA Construction. He is currently the Director of Safety for Capitol Aggregates located in San Antonio, Texas.

Sawyer, Jr Stephen PhD - Stephen G. Sawyer, Jr PhD, recently joined NIOSH as a research engineer. He currently works on research projects involving haul truck safety and mine rescue team training development for the Human Systems Integration Branch of the NIOSH Pittsburgh Mining Research Division. Previously, he worked in the MSHA Mine Emergency Operations Division for 13 years. He served as the Engineering Support Branch Manager. He was also an apparatus wearing member of the MSHA Mine Emergency Unit for 4 years.

Schaper, Michelle, PhD - Dr. Schaper is MSHA’s toxicologist and has worked for MSHA for approximately 20 years. Michelle has expertise in inhalation toxicology and is interested in the effects of airborne chemicals on the health of miners. She has been involved with a variety of training activities, has provided assistance with health-based regulatory issues, and has provided technical support throughout the Agency. Currently, Michelle works within the Directorate of Technical Support (Physical and Toxic Agents Division) in Pittsburgh, PA.
Schatzel, Steve, PhD - Steve Schatzel is a geologist with NIOSH, National Institute for Occupational Safety and Health (NIOSH) at the Pittsburgh Lab. His academic training is in geology and a geochemistry and he earned a PhD from the University of Pittsburgh in 2001. Steve has been serving on the North American Coalbed Methane Forum Board of Directors as NIOSH liaison. Steve was a Henry Krumb lecturer for SME in 2017-2018 for recognition of his coal mine ventilation research.

Simpson, Walter - With a solid background in organizational leadership, Walter Simpson has focused his career the development and training of safety initiatives. He is skilled in design and implementation of: 1) Human Resources policy and procedures; 2) behavioral safety initiatives; 3) site specific and company-wide leadership development; and 4) effective communications. He received his undergraduate degree from Troy University in Alabama and his Master's in Psychology from Walden University in Minnesota. He holds certifications from the Society for Human Resources Management and the International Society of Mine Safety Professionals.

Smith, Glenna - Glenna Smith is a Certified Mine Safety Professional with a career spanning multiple decades. As Director of Consulting and Training with McCraren Compliance, Glenna develops training curricula and works with field safety professionals at mining companies across the Southwest. Her passion for safety is evidenced by her numerous training certifications and deep connections to the safety community, both national and international. Her training and experience cover mining, construction, and energy sectors.

Stalfort, David - David Stalfort has 36 years of risk management and emergency preparedness experience. He is a Senior Director at ABS Group, a wholly owned subsidiary of the American Bureau of Shipping. Mr. Stalfort is responsible for leading the development and execution of risk management services for clients. Prior to coming to ABS Consulting, Mr. Stalfort was a senior officer in the US Coast Guard. During his 26-year USCG career, he led several risk management initiatives including; development of models to assess and manage the risk of major accidents; development of models to assess the preparedness of the maritime industry to respond to major oil spills; and development of curriculum to train personnel in risk-based decision-making.

Su, Daniel, PhD - Daniel Su received his Ph.D. degree from West Virginia University in 1982. Upon graduation, he joined the Mining Engineering Department of West Virginia University as an Assistant Professor. In 1985, Daniel joined CONSOL R&D as a Sr. Research Engineer and later became Manager of Geomechanical Engineering. In 2015, Daniel retired from CONSOL Energy and Joined CDC/NIOSH Pittsburgh Mining Research Division as a Sr. Service Fellow.

Weston, Robert CSP, CMSP, CET - Mr. Robert Weston is a Safety and Health professional with the Center for Business and Industry (CBI) division of South Central College in North Mankato MN. He is responsible for developing, designing and delivering safety solutions, has presented at numerous local, regional and national events including TRAM, and Joseph A. Holmes National conferences and is a past president of the Minnesota Mine Safety Association. He is credentialed by the Board of Certified Safety Professionals (CSP and CIT) and the Society for Mining, Metallurgy, and Exploration (CMSP). Robert is a subject matter expert for CBI in the areas of OSHA and MSHA safety.

Weston, Terry CSP, CMSP - Mr. Terry Weston is a Safety and Health professional with the Center for Business and Industry (CBI) division of South Central College in North Mankato MN. He has presented at numerous events including TRAM, and Joseph A. Holmes National conferences. He is credentialed by the Board of Certified Safety Professionals (CSP) and the Society for Mining, Metallurgy, and Exploration (CMSP). Terry is a subject matter expert for CBI in the areas of OSHA Safety, Mine Safety training. Terry has working partnerships with other leaders in the safety field including NIOSH, BLR, UL, PowerLift, PSI (Safety DNA), and others.
**Williams, Heidi** - Heidi Williams is the Office Manager for Catamount Consulting offices. Catamount Consulting provides training in all facets of OSHA, MSHA and Work Zone safety as well as On-Site Drug and Alcohol Testing, On-Site Hearing Testing, Noise and Dust Testing, company management training and motivational presentations. Heidi’s primary objective is to oversee all offices for the Catamount Group, the online training portal and development of future Catamount offices. Catamount Consulting has offices throughout the Northeast. Catamount has developed several national seminars including Supervisor Seminars and ACRI Training. Heidi has over 10 years of experience in the mining industry and is active in many safety associations.

**Wilson, Laurie** - Laurie Wilson is a research specialist at the University of Arizona's Lowell institute for Mineral Resources. She has over 10 years of experience in the design, deployment, and evaluation of training across the mining industry. For the last five years, her work has focused on improving and standardizing New Miner and Annual Refresher training, using a modular approach that incorporates active learning techniques and effective evaluation. For the University's San Xavier Underground Mining Laboratory, she has also developed the Student Interactive Mining (SIM) program, which gives engineering students an introduction to the mining workplace and practical experience in health and safety controls and mining methods.

**Wobby, Jr, Richard** - Richard Wobby, Jr is Executive Vice President of the Associated General Contractors of Vermont and an associate of Catamount Consulting. He has over 20 years’ experience in the construction and mining industries as a safety management consultant and professional speaker, helping more than 100 companies or associations in their safety systems. Constantly in demand, Wobby speaks to an average of 50 associations, companies, trade shows and conventions each year teaching his philosophy across New England. He continues to consult with an average of 50 clients annually, assisting in and improving their safety performance. He has developed several safety programs and policies for the construction and mining industries.

**Yeoman, Kristin MD, MPH** - Kristin Yeoman, MD, MPH is a medical epidemiologist at NIOSH's Spokane Mining Research Division. She has worked on studies to understand health issues among miners and other high-risk western occupations. She is currently the Principal Investigator of a study to assess the performance effects of heat stress among miners.

**York-Feirn, William CMSP** - William C. York-Feirn is the Director of the Mine Safety Training Program at the Colorado Division of Reclamation, Mining & Safety. He has over 25 year in mine safety and education and 14 years in the surface and underground mining industry.