



National Institute of
Environmental Health Sciences
Worker Training Program

Advancing Partnerships to Improve Worker Health and Safety

A COMPENDIUM OF SUCCESS STORIES





Contents

-
- 3 Building Capacity in Tribal Communities

 - 5 Partnership Expands Training Opportunities for Maritime Workers

 - 6 Training to Mitigate Climate Change Impacts in Gulf Communities

 - 8 Safety Team Ensures No Voice Left Unheard

 - 10 Local Community Learns Essential Information about Oil Transport

 - 12 Drug Response Training for Parks and Recreation Workers

 - 14 Training Tribes and Fenceline Communities Near the Hanford DOE Site

 - 16 Training Empowers Nurses and Frontline Health Care Workers during the COVID-19 Pandemic

 - 19 Partnership Combats Unemployment and COVID-19 Myths in Central Florida

 - 21 Partnership Creates Job Opportunities for Transitioning Military Personnel and their Families

 - 24 Partnerships Ensure Health & Safety for DOE Workers

 - 28 Partnerships Expand Reach for Worker Training

 - 31 Partnership Builds Cadre of Spanish-Speaking Trainers in New Jersey and New York City

 - 32 A Shared Vision of Integrating Technology into HAZMAT and Emergency Response Training

A Compendium of Success Stories

This document is a compendium of success stories from organizations (grantees) funded by the NIEHS Worker Training Program (WTP). These success stories were shared prior to and following the program's fall 2021 workshop on [Advancing Partnerships to Improve Worker Health and Safety](#). During the workshop, program staff and grantees shared how worker health and safety [benefit from strategic partnerships](#).



Building Capacity in Tribal Communities

GRANTEE: Alabama Fire College Workplace Safety Training Program

WTP grantee the [Alabama Fire College Workplace Safety Training Program](#) (AFC WST) conducts trainings for emergency responders, law enforcement, and public safety personnel across the southeastern U.S. AFC also delivers training to American Indian and Alaska Native tribal members and emergency response personnel nationwide.

AFC WST's efforts to reach and deliver training to Native American tribal members and employees is done in partnership with the [Native American Fish and Wildlife Society](#) (NAFWS).

■ About the Partnership

NAFWS is a non-profit organization that assists in the conservation, protection, and enhancement of wildlife and marine resources of American Indian and Alaska Native Tribes. Both AFC WST and NAFWS are driven by missions that focus on education and supporting community health and welfare.

The partnership was formed more than 20 years ago, when conservation officers from the [Mississippi Band of Choctaw Indians](#) attended a 40-hour Hazardous Waste Site Worker course delivered by AFC WST. The conservation officers recognized a need to bring the training to other officers who encounter hazardous materials on the job. With help from the AFC WST director and tribal leaders, an introduction was made to the NAFWS.

■ Benefits and Outcomes

Through mutual efforts to maintain their relationship and support each other's mission, AFC WST and NAFWS have been successful in training tribal workers and communities.



Trainees from Mohawk Tribe participate in hazardous waste training hosted by AFC in collaboration with NAFWS.



The partnership has been a value added for both organizations, and it enhances their outreach and training goals. While AFC WST provides the training, NAFWS coordinates outreach through newsletters, social media, and meetings. Additionally, NAFWS staff and member tribes serve as advisors to AFC WST by providing cultural knowledge and perspectives on hazardous materials response, emergency planning, disaster response, and course development. AFC WST brings subject matter expertise on emergency planning, disaster response, and public health education. NAFWS is a nationally recognized society with a strong member base, which allows AFC WST to expand their trainings to overlooked and underserved tribal communities.

Through this partnership, AFC WST delivers an average of 15 courses each year to American Indian and Alaskan Native tribes. Course topics include hazardous materials emergency response, incident command systems, air monitoring, mass casualty incident triage, meth lab awareness, and responder safety during natural and man-made disasters. The trainings enable workers to protect themselves, their coworkers, and their communities from hazardous materials and other hazards encountered during disaster response operations.

AFC WST has worked with two tribes, Poarch Band of Creek Indians in southern Alabama and the St. Regis Mohawk Tribe in upstate New York, to conduct progressive levels of HazMat response and incident command systems training. Each tribe has leveraged skills gained from these trainings for leadership roles within their respective tribal communities and regions. The tribes now partner with state and federal agencies in regional training and response preparedness initiatives.

■ **Lessons Learned**

Strong partnerships have growing pains that test their relationship for the better. AFC WST and NAFWS have strengthened their partnership by following guiding principles. This includes maintaining open lines of communication and being willing to adapt during challenging and uncertain periods.

For example, the COVID-19 pandemic presented many challenges for the partnership. During the early phases of the pandemic, training facilities remained closed for extended periods of time. AFC WST provided NAFWS with access to online training so tribes could easily access information about the proper selection and use of personal protective equipment and other means of reducing disease transmission for volunteers and essential workers. AFC WST also developed modules that allowed tribes to receive HazMat training in an online format.

Over the duration of the AFC WST and NAFWS partnership, organizational leadership has changed and so has the level of support for the training. However, maintaining open lines of communication helps ensure that the collaboration improves and creates additional opportunities for both organizations.

■ **Next Steps**

AFC WST and NAFWS will continue to sustain their partnership by outlining the scope of work in the yearly contract and conducting an annual evaluation of activities. AFC WST and NAFWS coordinators will continue providing frequent updates to maintain their open lines of communications for the benefit of their partnership.



Partnership Expands Training Opportunities for Maritime Workers

GRANTEE: Nova Southeastern University

WTP grantee [Nova Southeastern University](#) (NSU) has a successful hazardous materials training program for maritime workers, called Project SEAMIST, which stands for South East Area Maritime Industry Safety Training. The program is operated by the Institute for Disaster Preparedness at NSU.

In recent years, NSU staff began researching and looking for regional maritime training facilities to form a sustainable collaboration and offer training opportunities for more workers. In 2020, NSU started working with [Resolve Maritime Academy](#) (Resolve), a training program that provides students with firefighting safety and resource management skills.

■ About the Partnership

Resolve specializes in basic and advanced safety training for the maritime sector according to the [Standards of Training, Certification, and Watchkeeping for Seafarers](#). These standards apply for the U.S. Coast Guard and Maritime and Coastguard Agency, and include approved shipboard and land-based training, such as firefighting, safety, first aid, navigation and HazMat certifications. The Resolve training program is nationally recognized and focuses on tanker, commercial vessel, cruise ship, and superyacht crew and personnel. Resolve has trained over 45,000 students since 2004, averaging 2,760 students per year.

Through their partnership with Resolve, NSU's Project SEAMIST has expanded its training population by targeting new maritime and public safety workers across the country. In addition to funding from WTP, NSU has also leveraged support from the Florida Division of Emergency Management (DEM) to support this collaboration. This support allows the purchase of supplies and other resources that are necessary for the training. Additionally, Florida DEM also covers the costs of housing for participants who are brought in for training.

■ Benefits and Outcomes

The partnership has been a value added for both NSU and Resolve. NSU has updated training curricula for several courses, including for off-shore HazMat response. Resolve students now have access to additional training opportunities with NSU courses.

Based on student responses in course evaluations, the trainings between NSU and Resolve have been very well received. Nearly every student has highly rated (5 out of 5) the written lessons and practical lessons. The students have also been happy with both the lead and assistant instructors who received 5 out of 5 ratings from 100% of respondents. Examples of comments students have included in their evaluations include:

"Very impressed with all the instructors. They were very experienced and knowledgeable."



“Second time here and the program always reinforces the basics that most companies overlook. It was very informative, and the staff was very knowledgeable.”

The partnership has facilitated name recognition for Resolve as a collaborator for a NIEHS-funded organization and program affiliated with an academic institution.

■ **Lessons Learned**

Partnerships evolve over time and can bring unique sets of challenges. For example, meeting training goals and outcomes can be difficult during periods of increased workload at Resolve. During the COVID-19 pandemic, NSU and Resolve worked together to strengthen their collaboration by providing students with access to dedicated training facilities through the academy.

■ **Next Steps**

To ensure that this partnership is effective and sustained, NSU and Resolve continue to hold regular meetings with leadership teams from both organizations. NSU evaluates Resolve trainings monthly and provides feedback. In addition, NSU hosts interviews with trainees to assess the impacts that training has on the organization’s operations.

NSU and Resolve anticipate that their partnership will continue in the future, helping Project SEAMIST develop innovative curricula and achieve expansion of their training population. This will help students and workers enhance and maintain their skills in emergency response, including HazMat situations.



Training to Mitigate Climate Change Impacts in Gulf Communities

GRANTEE: OAI, Inc.

[OAI, Inc.](#), a WTP grantee, delivers health and safety training to underserved populations across the U.S. and workers in diverse industries. These trainings promote healthy communities and help workers reduce their exposure to occupational hazards.



■ **About the Partnership**

Following Hurricane Katrina in 2005, a central focus of OAI training has been to prepare workers for the health impacts of climate change. For more than 16 years, OAI has partnered with Mendez Environmental, an environmental training organization, to offer courses in lead and asbestos abatement, disaster awareness, and infectious disease awareness for workers throughout Louisiana and New Mexico.



■ Benefits and Outcomes

In recent years, OAI and Mendez Environmental have focused on engagement with the Hispanic community, Spanish-speaking day laborers, and disadvantaged contract workers. These individuals have unique experiences in non-union industries, transitional and temporary work, and Superfund or oil and gas sites. Since 2009, they have trained more than 4,700 workers.

Louisiana and New Mexico are two states that are particularly vulnerable to climate change effects due to their geographic location, and prevalence of oil and gas infrastructure, Superfund sites, and hazardous and radioactive waste disposal sites.

In October 2019, the U.S. Government Accountability Office found that at least 60% of the nation's Superfund sites are vulnerable to wildfires, floods and hurricanes, and sea level rise. Among them, 21 sites are in Louisiana and ten sites are in New Mexico. Within these states, the effects of climate change disproportionately fall on underserved communities who are least able to prepare for, and recover from impacts, such as heat waves, poor air quality, flooding, and others, according to the U.S. Environmental Protection Agency [Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts](#) report published in September 2021.

The OAI and Mendez Environmental partnership fills a crucial need to strengthen worker and community resiliency. By targeting the most vulnerable neighborhoods, the trainings have a significant social and economic impact. For example, language access and equity can be barrier to a safe workplace. The partnership deploys translation services and cultural competency to reach Spanish-speaking workers.

Trainees consistently report high levels of satisfaction with the training they receive through the OAI and Mendez Environmental partnership. They cite valuable, relevant curriculum delivered by a knowledgeable and engaging instructor that makes a positive impact in their lives.

“With the training I received from Mendez I was able to secure a better, higher paying job as a supervisor and provide better for my family,” one participant said. “I am also able to communicate with my coworkers on how to do their jobs safely and help them do better.”

The Mendez Environmental asbestos and lead training courses have been particularly salient in the Gulf States and New Mexico due to the severity of natural disasters and the need for environmental remediation. Asbestos, a naturally occurring mineral composed of flexible fibers formerly used in building materials, and lead, a heavy metal formerly used in pipes and paint, can cause serious health risks if inhaled or ingested. The trainings instruct workers in construction how to identify exposures, how to protect themselves from the exposures, and how to safely remediate them.



■ Lessons Learned

Partnerships evolve over time and can bring unique sets of challenges. For example, with a state mandate for in-person training in Louisiana, Mendez Environmental had to temporarily pause planned trainings in 2020 due to COVID-19. However, OAI and Mendez Environmental worked together to identify ways to resume training safely and as soon as possible. OAI supported these efforts by providing ample personal protective equipment, purchasing overhead projector equipment that allowed participants to socially distance, and moving to electronic submission of course documentation.

Overall, this partnership has resulted in many lessons learned. This includes maintaining ongoing communication, being flexible in the face of changing circumstances, and continually looking for new opportunities to further shared goals.

■ Next Steps

OAI anticipates that the partnership with Mendez Environmental will continue in the future, helping them achieve and exceed their goals for reaching out to non-union and underrepresented workers and transitional or temporary workers. This will be done by expanding training delivered to limited English-speaking workers and by fostering new relationships.



Safety Team Ensures No Voice Left Unheard

GRANTEE: International Chemical Workers Union Council Center for Worker Health and Safety Education

The [International Chemical Workers Union Council \(ICWUC\) Center for Worker Health and Safety Education](#) and its union-based consortium have built a nationally-recognized hazardous materials training program. The center trains collateral duty emergency responders, disaster workers, and U.S. Department of Energy workers. This training helps thousands of workers protect themselves from exposure to a wide variety of hazardous substances. Among those trained are ICWUC Local 871C employees of the [Afton Chemical Corporation](#) plant in Sauget, Illinois (Afton-Sauget plant).

Afton Chemical Corporation is an international corporation that produces specialty chemicals, like fuels and lubricants, to help customers reduce emissions, extend equipment life, and improve operator satisfaction.

■ About the Partnership

The ICWUC Center for Worker Health and Safety Education (ICWUC Center) and Local 871C union leadership at the Afton-Sauget plant established a partnership that enables continual improvement of facility safety through a joint union company team.

Beginning in August 2012, management at the Afton-Sauget plant worked with the ICWUC Center in Cincinnati, Ohio to create a Safety Liaison Team made up of three hourly workers and three managers. The Safety Liaison Team was tasked with establishing baseline health and safety knowledge across the plant. This was done by requiring all employees – from hourly workers to management – to complete



an Occupational Safety and Health Administration (OSHA) 10-hour outreach training course. ICWUC delivered the training courses, and used a train-the-trainer model, creating in-house capacity to continue the training over time. Employees enrolled in the training included a mix of hourly workers (represented by the ICWUC Local 871C), salaried workers, and contractors.

ICWUC Center staff developed and customized the initial OSHA 10-hour training modules to fit the site- and operations-specific needs of the Afton-Sauget plant. The training used interactive methods, such as small group activities and hands-on demonstrations of personal protective equipment. At the conclusion of the OSHA 10-hour training, participants documented, compiled, and prioritized safety concerns observed in their workplace. Participants collaboratively assigned each concern to an employee, who then monitored progress to address the concern, and reported back during four quarterly follow-up sessions.

The partnership has advanced the mission of the ICWUC Center by supporting their goal of providing quality training, developing competent trainers, and incorporating hands-on components using proven adult teaching techniques.


■ **Benefits and Outcomes**

A recent [study](#) demonstrates the significant improvements in workplace safety resulting from the ICWUC and Afton-Sauget partnership. The study shows the importance of engaging workers that are closest to production, and how this leads to more cost-efficient solutions than top-down decision making. It also shows how trust among management and union leadership can create new opportunities, and how OSHA 10-hour training for the entire workforce can help reinforce health and safety goals. Together, Afton-Sauget's management team and ICWUC Center identified and [resolved 104 safety concerns](#) throughout the plant.

The partnership with ICWUC has helped union leadership shift from a sole focus on compliance to sustainable approaches to improve safety. The plant has since maintained a below average injury rate and embraced many new initiatives to educate, engage, and empower workers. The interactive process of training, evaluation, and communication continues to benefit the Afton-Sauget plant in many ways. The OSHA 10-hour training and train-the-trainer model has helped increase the pool of instructors. Afton-Sauget employees continue to participate in training and provide their input on health and safety concerns across the plant. They also have an opportunity to share their concerns each month with their plant manager who then reports to the supervisor.

The Safety Liaison Team continues to create a space for collaboration between hourly and salaried employees. All employees have a say in the authorization for all capital expenditures and alternative solutions, facilitating trust between the decision-makers and the workers.

Through this process, workers feel they have a voice and ownership over decision-making that they had not seen before.



“By educating (our employees) in ways such as the 10-Hour OSHA Awareness class, they are empowered to hold us accountable which makes us better,” said one Afton safety manager. “Some companies are afraid to educate their employees. That is not the case at Afton.”

■ Lessons Learned

Lessons learned through the partnership include:

- Listen to production workers to identify problems and find cost-efficient solutions.
- Work hard and commit time and money to health and safety with joint labor-management decision-making.
- Cultivate leadership, both in management and labor, and encourage the building of trust in one another.
- Train everyone and implement an ongoing training program.

■ Next Steps

To ensure that this partnership is effective and sustained, ICWUC Center will continue to practice high quality training using adult teaching techniques and methods.



Local Community Learns Essential Information about Oil Transport

GRANTEE: Midwest Consortium for Hazardous Waste Worker Training

The [Midwest Consortium for Hazardous Waste Worker Training](#) (Midwest Consortium) facilitates action-oriented worker and community training. The consortium’s goal is to build workers’ capacity to improve health and safety in their workplaces and communities and help them recognize, prepare for, and recover from environmental exposures. The consortium has long established relationships with several community and regional partners interested in hazardous materials training and education.

In recent years, the Midwest Consortium sought to increase their connection with community members and workers in Minnesota who live near freight rail lines that may transport petroleum from the Bakken oil field in North Dakota and Canada.

The consortium’s lead organization, the [University of Minnesota Hazardous Materials Training Center](#) (UMN Training Center), connected with [Citizens Acting for Rail Safety – Twin Cities](#) (CARS-TC) to initiate a new community partnership. The efforts and scope of this partnership are funded by the NIEHS [Hazardous Waste Worker Training Program](#).

■ About the Partnership

CARS-TC works in the Upper Midwest with citizens and public officials to achieve a rail transportation system that respects the environment, wildlife, and the health, safety, and quality-of-life for citizens. A



primary focus for CARS-TC has been to address community safety concerns related to the transport of hazardous fuel sources through education and training opportunities.

The UMN Training Center has provided members of CARS-TC with a 40-hour emergency response training, hazardous materials awareness, and several large community training forums to better understand the hazardous materials and emergency team response in case of a train derailment in the area. Trainees gained an understanding of the risks posed by freight rail and how to identify railcars that may be carrying petroleum or other hazardous chemicals.

The partnership between the UMN Training Center and CARS-TC has existed for more than seven years; together, they have provided outreach and training to more than 150 community participants.

■ **Benefits and Outcomes**

This partnership has led to an increase in community awareness and knowledge about oil transport. Additionally, CARS-TC members have benefited by connecting with elected leaders and University of Minnesota researchers through some of the training events organized as part of this partnership.

The partnership has allowed CARS-TC to co-sponsor several large training events at which local, national, and international speakers have discussed hazards related to petroleum transport as well as community resilience in general. The partnership has also provided CARS-TC with opportunities to participate in training courses offered by the UMN Training Center that provides connections to first responders and emergency managers in the region.

This partnership has helped the UMN Training Center achieve better connections to community members in the Twin Cities. The center has also benefited by increasing its visibility with elected leaders from local, state, and federal government.

As a whole, the Midwest Consortium has benefitted from the partnership because one of its newer external advisory board members is a leader within CARS-TC.

■ **Lessons Learned**

Partnering with a large university system is a challenging process for any community organization. CARS-TC members have expressed their appreciation for the UMN Training Center's work in making training accessible to their members in a way that would not have been possible without the support of the institution.

This partnership provided the UMN Training Center with an opportunity to showcase public health concerns related to oil transport in a way that is meaningful to community members. The work to create a trusting partnership with CARS-TC is important for future engagement with other community organizations.

■ **Next Steps**

While the primary training efforts of this partnership have ended, the UMN Training Center and CARS-TC have agreed to maintain open communication about opportunities to collaborate in the future.



Opioid and Drug Response Training for Parks and Recreation Workers

GRANTEE: Prevention, Preparedness, and Response Consortium

WTP grantee [Prevention, Preparedness, and Response \(P2R\) Consortium](#) delivers health and safety training to workers in diverse sectors addressing topics specific to basic first aid, emergency response, hazardous waste operations, and infectious disease. The consortium aims to help workers and communities protect themselves, their colleagues, and the environment from hazardous exposures.

■ About the Partnership

In 2019 the P2R Consortium established a partnership with the [City of Bloomington Parks and Recreation Department](#) (Bloomington Parks and Recreation) in Indiana to provide opioid and substance use awareness and response training for parks and recreation workers.

These efforts were initiated following trainings conducted for the [City of Bloomington Utilities Department](#) under the Biosafety and Infectious Disease Initiative (BIDTI). BIDTI is a former WTP grantee that was funded by the NIEHS Ebola Biosafety and Infectious Disease Response Program which ended in 2019. During its funded years, the [BIDTI team leveraged a partnership](#) with Eppley Institute for Parks and Public Lands to offer training through an online learning platform on infectious disease and opioid hazards. BIDTI's efforts have since been rolled into the mission and goals of the P2R Consortium.

The opioid crisis has had a significant impact on parks and recreation departments across the country. According to the report, [Parks and Recreation: A Comprehensive Response to the Substance Use Crisis](#), many professionals in this field are confronted with challenges such as used drug paraphernalia being discarded in public park spaces and facilities, the sale of illicit drugs in public areas, responding to overdoses in parks and other facilities, and many other issues.

■ Benefits and Outcomes

Bloomington Parks and Recreation [manages 2,342 acres of property](#) including 34 parks, 27 playgrounds, a golf course, and several other public amenities. Given their vast number of facilities, training is needed to help parks employees and volunteers avoid risks of exposure to opioid waste, drug paraphernalia, and other biohazards on the job.

The partnership between P2R Consortium and Bloomington Parks and Recreation has helped fill this critical need. P2R Consortium has used several resources to deliver training to parks and recreation workers, including the NIEHS [Opioids and the Workplace training tool](#).

To date, the P2R Consortium has trained more than 70 city workers through this partnership with in-person and synchronous live online trainings during the COVID-19 pandemic. This includes workers who provide parks maintenance, landscaping, urban greenspace and forestry planning, cleanup, and groundskeeping.



The trainings have been well received by participants. Course evaluations and feedback show that after the training, workers are better able to identify potentially infectious drug paraphernalia material and safely contain and dispose of sharps when sharps containers are not readily available.

“From this training, I am more [knowledgeable] on the transmission of different diseases.” – Employee

“Thank you so much, once again, for being a vital part of our seasonal staff training. Your expertise and knowledge bring so much to the table.” – Operations Coordinator

This partnership has helped the P2R Consortium build relationships with local government as a trusted source of training and simultaneously created a positive impact on city workers’ occupational safety and health. Additionally, the partnership has helped Bloomington Parks and Recreation continue needlestick prevention, as well as safer disposal of sharp objects and other hazards found in public restrooms and parks.

■ Lessons Learned

The P2R Consortium has documented several lessons over the course of this partnership. Staff and trainers had to remain flexible to meet the needs of Bloomington Parks and Recreation. For example, the department preferred use of in-person trainings rather than virtual.

Due to the COVID-19 pandemic, a training scheduled for March 2020 was postponed for an entire year when it was safe to return to in-person training in March 2021. The 2022 training was conducted online live synchronously to maximize attendance; it was also recorded so that employees unable to attend could still receive the training. There may be future infectious disease outbreaks or pandemics in the future; so, there is a need for the P2R Consortium to brainstorm ways to deliver in-person training for partner organizations because many still may not embrace virtual trainings.

Another lesson is understanding that some training requires reiteration and retraining, even if workers regularly encounter certain hazards every day. Repetition is necessary in training, as some workers commonly fall into improper working habits that jeopardize their occupational safety and health.

■ Next Steps

To ensure that this partnership is effective and sustained, the P2R Consortium and Bloomington Parks and Recreation will continue to practice follow-up and immediate evaluation of the trainings upon delivery to ensure the outcomes are satisfactory. For annual refreshers, the P2R Consortium revisits the curriculum with the Bloomington Parks and Recreation coordinator to make updates, so it remains relevant to the workers’ needs. P2R Consortium also covers additional topics in the training that are requested, for example, how to respond to situations involving single-stall public restrooms with locked doors.

It is expected that this partnership will continue in the future, helping P2R Consortium achieve more opportunities to connect with other parks and recreation organizations.



Training Tribes and Fenceline Communities Near the Hanford DOE Site

GRANTEE: Steelworkers Charitable and Educational Organization, Tony Mazzocchi Center

The Tony Mazzocchi Center (TMC), the training entity for WTP grantee the [Steelworkers Charitable and Educational Organization](#), provides workers and community residents with training to prevent hazardous chemical releases and protect their health and safety.

TMC has access to more than 1.2 million workers and managers at steel, manufacturing, and automotive facilities located in the U.S., Puerto Rico, Guam, and the Virgin Islands. TMC reaches workers in underserved communities, including immigrants and day laborers. The center also reaches fenceline communities, which are communities located near major sources of pollution.

TMC's broad reach and training success is made possible through countless partnerships with the United Steelworkers (USW), Communications Workers of America, the Labor Institute, and many other entities.

In recent years, TMC established a partnership with the [Confederated Tribes of Umatilla Indian Reservation](#) (CTUIR) and the [Washington State Occupational Safety and Health Administration](#) (Washington State OSHA).

■ About the Partnership

Through its consortium partner the Labor Institute, TMC and the CTUIR have been in partnership for more than six years. This partnership is a part of TMC's efforts to target tribal members and fenceline communities near the [Hanford Site](#) in the Pacific Northwest. These efforts are funded by the [NIEHS/U.S. Department of Energy \(DOE\) Nuclear Worker Training Program](#). TMC has also leveraged support from Washington State OSHA to support the partnership with CTUIR.

The partnership was initially established in 2015 when USW reached out to the HAMMER Tribal Committee to learn about the health, safety, and environmental barriers the committee faced. From there, the Labor Institute took charge of maintaining ongoing relations with the five tribes in the 200 square-mile area. These include the Nez Perce, Umatilla, Walla Walla, Cayuse, and Yakama.

■ Benefits and Outcomes

As a result of the partnership, TMC established a formal relationship between CTUIR and Washington State OSHA. The partnership also allowed a conduit of inter-communication between TMC and CTUIR regarding health and safety state standards. For example, TMC helped streamline the process that CTUIR uses to select OSHA outreach trainers by negotiating special protocols. This process includes establishing criteria for trainer selection, diversifying the age and skills of applicants, and adjusting authorization class times to meet the economic needs of class participants. This provides CTUIR with a systematic process for building OSHA trainer capacity.



The partnership has proven to be advantageous for TMC in learning about specific challenges that fence-line communities face around the Hanford Site. These lessons are currently being applied to immigrant communities in different parts of the country.

The value added is mutual for CTUIR and has helped the tribes achieve greater independence in assessing their overall health and safety needs. The tribes have since initiated efforts to reach out to younger tribal members for trainings as part of their jobs program.

■ **Lessons Learned**

TMC has documented several lessons over the course of this partnership. For example, by way of TMC training, CTUIR has increased protections for various workers. Prior to the training partnership, flaggers on site were trained according to U.S. Department of Transportation standards. However, after seeing the value of OSHA outreach training, several modules from the General Industry Outreach Training were added to the flagger course, strengthening the training these workers receive.

■ **Next Steps**

To ensure that the partnership is effective and sustained, TMC continues to practice health and safety needs assessments monthly. These assessments include inter-tribal departmental reviews of work practices. Maintaining close relations with tribal leaders throughout the year, regardless of training rates, streamlines planning during emergency situations.

TMC anticipates that the partnership will continue in the future, helping CTUIR achieve greater health and safety capacity across tribal departments, and they are confident that the collaboration with CTUIR will continue to grow over time.

TMC looks forward to working with CTUIR to establish a Health and Safety Youth Program, which will establish a cadre of Hazardous Waste Operations and Emergency Response (HAZWOPER) trainers that will work to grow the accessibility of training within CTUIR and provide tools for youth to gain employment. TMC will advise CTUIR on the selection of trainers, curriculum development, and provide overall program support as their training capacity grows and new hazards emerge.



Training Empowers Nurses and Frontline Health Care Workers during the COVID-19 Pandemic

GRANTEE: Western Region Universities Consortium

WTP grantee the [Western Region Universities Consortium](#) (WRUC), led by the [University of California, Los Angeles Labor Occupational Safety and Health Program](#) (UCLA-LOSH), delivers training to help workers protect themselves from hazardous exposures, and to prepare for and respond to disasters and emergencies. As part of this work, WRUC developed training for nurses and frontline health care workers exposed to airborne and droplet diseases, with a specific focus on protections afforded to workers under the [California Aerosol Transmissible Diseases \(ATD\) Standard](#).

With the onset of the COVID-19 pandemic in March 2020, WRUC was able to leverage these existing training resources and its partnership with the [SEIU Nurse Alliance of California](#) to quickly roll out a series of virtual trainings to help nurses on the frontlines of the pandemic in hospitals, acute care centers, skilled nursing facilities, and correctional facilities to understand what measures their employers were required to take to protect them from COVID-19 exposures at work.

■ About the Partnership

The SEIU Nurse Alliance is the largest and fastest-growing health care union in California for registered nurses, with more than 35,000 members.

In the years prior to COVID-19, WRUC and the SEIU Nurse Alliance partnered on several initiatives to support the development of several new California Division of Occupational Safety and Health (Cal/OSHA) standards on ATDs, safe patient handling, and workplace violence prevention, and to provide training to SEIU-affiliated nurses throughout the state. This work laid an important foundation of trust as new educational needs arose related to COVID-19.

■ Benefits and Outcomes

As COVID-19 emerged in California, the SEIU Nurse Alliance recognized a critical need for support among its nurse members who were facing surging numbers of infected patients and severe shortages of personal protective equipment at their facilities. Nurses were also concerned about whether employers were providing them with proper protections, especially in light of evolving scientific knowledge and guidelines on how the novel coronavirus spread.

In response to these concerns, WRUC adapted its existing ATD training materials to directly address nurses' concerns, including measures that Cal/OSHA required employers to take to protect health care workers from exposure to novel pathogens such as COVID-19. In April 2020, WRUC and the SEIU Nurse Alliance offered its first virtual training sessions on COVID-19 and the Cal/OSHA ATD standard for nurses. The success of the initial sessions led the partners to establish an ongoing series of trainings available to nurses and other health care workers across the state over the subsequent months.



The screenshot shows a Zoom meeting interface. The main content is a slide titled "Differing Paradigms: Occupational Health / Infection Prevention". The slide compares two paradigms:

Occupational Health (Cal/OSHA / Federal OSHA)	Infection Prevention (Local & State Depts of Health/CDC)
<ul style="list-style-type: none">Mission to protect workersRegulatory enforcement mechanism - CalOSHAEmployers have primary legal responsibility for safe workplaces – identify and control hazardsWorkers have a right to safe and healthy workplace / Union role and rights	<ul style="list-style-type: none">Mission is to prevention infectionsUsually relies on guidelinesFocus often on workers and worker behaviorMay believe worker risk of infection is part of the job.Often unfamiliar with worker and union rights

Overlaid on the slide is a Zoom chat window with the following text:

Zoom Group Chat

from Ed Jensen to Everyone: is cal osha enforcing airborne recommendations?

from adriancarr to Everyone: We are keeping them busy Great job guys!

from Ross Samped to Everyone: this is SO HELPFUL for someone like me who is not a nurse but is responsible for helping local union leaders in public education... grateful for this

To: Everyone

Type message here...

The bottom of the screenshot shows a Windows taskbar with the time 10:37 AM and date 4/2/2020.

In total, the partnership offered more than 22 virtual courses, reached more than 426 trainees, and resulted in more than 1,244 continuing education hours for nurses and frontline health care workers.

The courses were particularly valuable in clarifying for participants that Cal/OSHA regulations require employers to treat novel pathogens such as COVID-19 as airborne, which means airborne infection isolation of known or suspected COVID-19 cases and respiratory protection for health care workers. Many employers instead followed guidelines from the Centers for Disease Control and Prevention (CDC) and other public health authorities that downplayed the airborne transmission of the virus, which ultimately left health care workers with fewer protections from exposure, and were a violation of Cal/OSHA requirements. The courses also provided nurses in acute care hospitals, skilled nursing facilities, and correctional facilities with clarity on how the state standard applied and what measures employers were required to follow.

WRUC staff and trainers evaluated the courses, to document the impacts of the training. WRUC found that the training enabled nurses and health care workers to:

- Request and review ATD exposure control plans.
- Talk with coworkers about ATD requirements.
- Track and document worksite control measures.
- Make demands for N-95 availability.
- Ensure proper training and fit testing for respirator use.
- Participate in Cal/OSHA complaints and investigations.

“This class has empowered us to speak up at work,” said a trainee. “[It has empowered us] to go public with our concerns that our employers are downgrading COVID-19 transmission to contact and droplet, not aerosol.”



WRUC continues to provide technical assistance to the SEIU Nurse Alliance and other health care unions around COVID-19 protections and the Cal/OSHA ATD standard. In early 2022, the partners produced a recorded version of the ATD training session that will be made available on the SEIU Nurse Alliance's online learning management system.

“LOSH provides access to education that would otherwise be incredibly challenging or impossible to develop,” said the director of the SEIU Nurse Alliance of California. “For our union members and members of the public to have access to education that helps protect them, their families, patients/clients, other coworkers, and members of their communities is priceless. The education provided empowers our members to speak for up themselves and know how to help protect themselves in the worksites.”

WRUC's partnership with the SEIU Nurse Alliance has helped fortify its efforts to provide training to health care workers on a wide range of health and safety hazards. The partnership has also opened up other partnership opportunities, including a new collaboration with the Watts [Community Emergency Response Training](#) program, an innovative community-based initiative in South Los Angeles, led by two public health nurse leaders affiliated with the SEIU Nurse Alliance.

■ Lessons Learned

Due to the initial evolving nature of state and federal guidance on COVID-19, the partnership was critical in quickly developing a series of courses and adapting them in real time. Each training session featured an overview and discussion of the Cal/OSHA ATD standard, as well as updates on COVID-related science and policies (e.g., changes in data on case numbers; differences between CDC guidance and the Cal/OSHA requirements; use of personal protective equipment; vaccine rollout; etc.), and provided opportunities for discussion regarding what participants were seeing on their worksites.

■ Next Steps

As the COVID-19 pandemic transitions into regional epidemics, the partnership between WRUC and the SEIU Nurse Alliance will carry on the mission to meet the needs of nurses and frontline health care workers.



Partnership Combats Unemployment and COVID-19 Myths in Central Florida

GRANTEE: Sustainable Workplace Alliance

WTP grantee [Sustainable Workplace Alliance](#) (SWA) delivers training to protect workers and communities from harmful exposures. A special emphasis is given to providing training to underserved communities that are adversely affected by pollution and emergency events.

SWA partners with several organizations to fulfill its mission. For example, SWA partners with the [Evans Center, Inc.](#) to reach and train underserved communities in Brevard County, Florida, and the South Melbourne region.

■ About the Partnership

SWA and the Evans Center have been partners since 2019. This partnership is a part of SWA's efforts funded by the NIEHS [Environmental Career Worker Training Program](#) (ECWTP) targeting underserved communities that experience high rates of unemployment or under-employment.

The Evans Center is a non-profit organization committed to eradicating food insecurity and raising the standard of health in the community. They accomplish this by building partnerships with organizations and local leaders determined to disrupt the status quo of scarce resources in low- to moderate-income communities that surround the Center. The Center also wishes to reduce the poverty rates and assist the community residents with well-paying and sustainable employment.

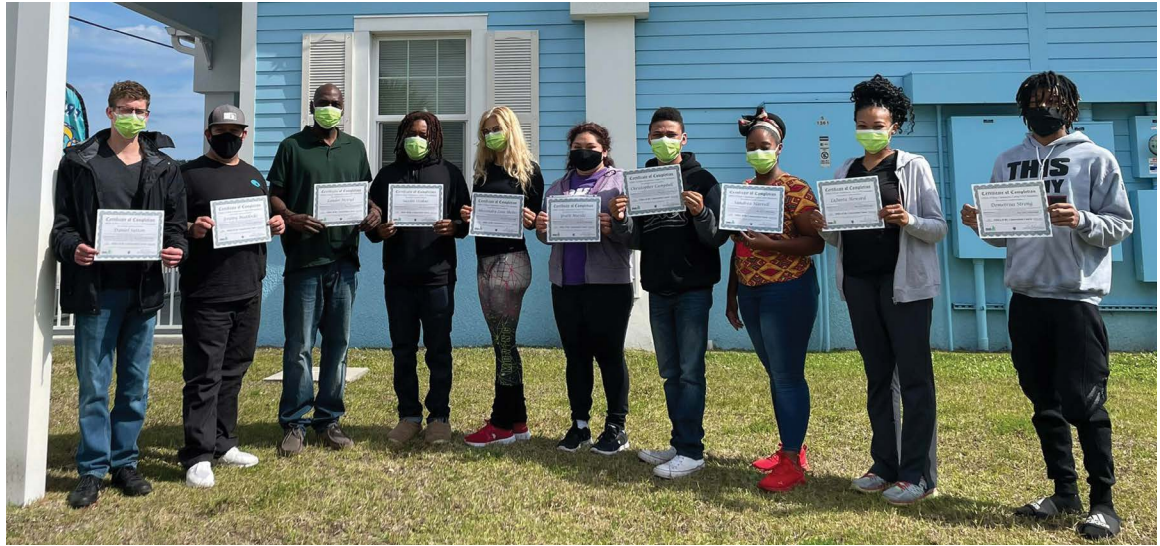
The Evans Center features a community center and a food market in an area formally classified as a food desert. It also houses a health care center that provides affordable medical services to the community. The Center hosts healthy cooking classes, apprenticeship programs, and similar activities that serve and build the community.

In addition to funding from WTP, SWA has also leveraged funding from other agencies to support efforts that fall within the scope of its partnership with the Evans Center. This includes funding from the Occupational Safety and Health Administration [Susan Harwood Training Grant Program](#) and the U.S. Department of Transportation [Community Safety Grant Program](#).

■ Benefits and Outcomes

By working with the Evans Center, SWA brings the added feature of job training and placement services to a neighborhood often overlooked and forgotten. These services are critical for the success of the Evans Center, especially because it is early in its existence.

Similarly, the partnership has helped SWA gain access to the local community, which has spurred support and assistance from [CareerSource](#) and the [Housing Authority of Brevard County](#) (HABC) in recruiting students and placing graduates in environmental jobs.



Trainees holding their certificates in front of the Evans Center. (Photo courtesy of SWA).

The partnership with the Evans Center is a vital piece of SWA's Career Launch Program. Several students share the impact that the program has had on their lives in a [video](#).

"I never had an idea that a job like this existed," said one student. "So being able to get pretty much first-hand experience – I've never felt so sure about wanting to do something with my life ever, until now."

The average earnings for students prior to the SWA Career Launch Program is less than \$10K per year. Upon graduation, students earn an average of \$33K per year. A few students have broken the \$50K barrier thanks to promotions and overtime.

"You have no idea how life-changing this program has been for me," said one student. "I plan to tell others that if I can do this, so can they."

The partnership has provided many individual benefits, but on a larger scale, it has built trust within the community. Due to their collaboration with the Evans Center, SWA can answer questions regarding community concerns and provide useful information including the type of work available and job placement rate through the program.

SWA has also noted benefits in collaboration with other local partners, like the HABC. In this partnership, SWA works specifically with the Resident Opportunities Self-Sufficiency (ROSS) coordinator. The ROSS Program serves public housing residents and operates through partnerships with numerous social services, corporations, private business, and non-profit organizations. The ROSS Program provides a diverse set of training and educational tools for families to become self-sufficient and move out of public housing (including Section 8 housing) and in many cases, become homeowners.

By promoting the ECWTP to residents in public housing, HABC can provide the residents with a gateway for good employment that includes sustainable living wages and eventually will move them from public housing and into an improved housing situation which may even include home ownership.



■ Lessons Learned

SWA reports that the biggest challenges in working with the Evans Center to date were related to COVID-19. However, these challenges encouraged SWA to establish a [WTP COVID-19 Recovery Center](#) in the area. Many residents in the community had misconceptions about COVID-19 and expressed a reluctance to receive the vaccine. To combat these misconceptions and fulfill its role as a COVID-19 Recovery Center, SWA and the Evans Center partnered with the [Brevard Health Alliance](#) to [produce a video](#) for anyone having reservations about taking the COVID-19 vaccine.

SWA worked with other local non-profits to produce COVID Relief Bags, which included disposable masks, hand sanitizer, printed materials from NIEHS and the Centers for Disease Control and Prevention (CDC), and other information related to unemployment and re-employment, housing assistance, and local food banks. The printed materials included the CDC flyer titled [Myths and Facts about COVID-19 Vaccines](#). The flyer was well received by the community. Videos and printed information such as these resources helped to ease the communities' concerns about the vaccine, fostered a more trusting attitude, and ultimately resulted in an increase in those electing to receive the vaccine.

■ Next Steps

SWA and the Evans Center continue to communicate and meet monthly to ensure that the partnership is effective and sustained. By maintaining frequent and open communication, SWA can better identify new opportunities on how their work can assist the Evans Center and the community it serves.

Additionally, the Evans Center director and HABC ROSS coordinator have both been added to SWA's Advisory Board. This will allow representatives from both organizations to have a voice and help steer the program to best meet the needs of the community.



Partnership Creates Job Opportunities for Transitioning Military Personnel and their Families

GRANTEE: Community College Consortium for Health and Safety Training, National Partnership for Environmental Technology Education

WTP grantee the [Community College Consortium for Health and Safety Training](#) (CCCHST), administered by the National Partnership for Environmental Technology Education (PETE), includes a network of more than 100 community and tribal colleges and training partners that provide health and safety trainings for hazardous materials and waste workers. The goal of PETE's CCCHST is to make worker training nationally available through its member organizations, whose instructors are prepared through a train-the-trainer model program, offering hazardous materials instruction in 32 states and two territories.

As a part of the CCCHST, Barton Community College in Kansas offers health and safety training to military personnel and transitioning service members. The program aims to ease the transition into public life for individuals leaving the military by providing them with the skills they need to obtain jobs related to hazardous materials.



■ About the Partnership

Barton's partnership with PETE began in 1998 when the then director of Barton's Military Schools attended a hazardous materials training course offered by the Hazardous Materials Training and Research Institute at Kirkwood Community College in Iowa, the original sponsor of CCCHST. Impressed with the training and recognizing the opportunities for collaboration, Barton joined the consortium. With access to consortium materials, curricula, and train-the-trainer programs, Barton had the network and resources it needed to build its own hazardous materials training degree program.

In 2008, the [Barton Hazardous Materials and Emergency Services Training Institute](#) was launched. The institute offers free training to military personnel who live and work on the Fort Riley military base in north central Kansas. Through the program, soldiers, veterans and retired military personnel, and their families can earn the Occupational Safety and Health Administration (OSHA) certifications needed to secure a hazardous materials-related job when they leave the military.



■ Benefits and Outcomes

The benefits of the partnership are bidirectional – with both organizations expanding and growing stronger thanks to the collaboration.

The partnership allows PETE to leverage Barton's reputation and knowledge of working with the military. Barton brings over 40 years of experience working with the military at Fort Riley and is also an OSHA Education Center. Through PETE'S CCCHST Military Initiative, Barton provides Hazardous Waste Operations and Emergency Response (HAZWOPER) and OSHA training courses, including respiratory protection, industrial hygiene, and lockout tagout to military members that are transitioning from active duty. Trainees receive OSHA certificates of training and college credits that help the participants get a head start on a degree.

Trainee feedback shows the overall impact of the courses delivered:

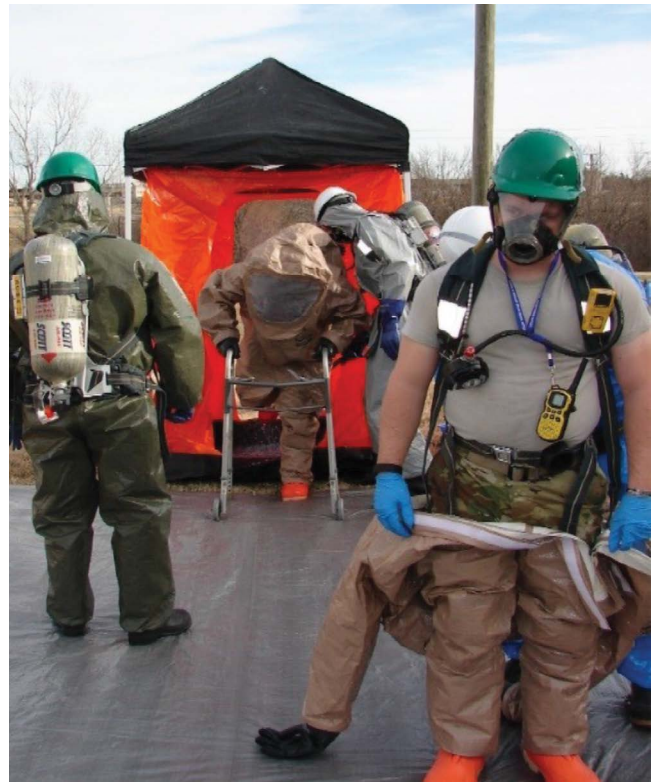
"I'll continue to talk to transitioning soldiers about the opportunities being provided by PETE and NIEHS to expand soldiers' knowledge base and provide them with another means of possibilities as they transition out of the Army."



“Thank you for the training. I am thankful for the funding for the training provided to myself and other military service members and their families.”

“I will continue to convey the importance of the safety field and continue to inform soldiers of the opportunity to them through Barton and funding provided by the NIEHS and PETE.”

PETE’s CCCHST also helped build Barton’s Hazardous Materials and Emergency Services Training Institute, which has since received national recognition for helping military personnel and families transition into the public sector.



- The program has contributed between 10,000 and 50,000 contact hours of training each year.
- More than 10 Barton instructors have attended train-the-trainer programs, authorizing them to deliver hazardous materials-related trainings. One instructor received the following review: *“Students rave about his ability to teach complex subject matter in layman’s terms – making the educational experience both enjoyable and memorable.”*
- Course graduates have secured training-related jobs after leaving the military and reported using the knowledge gained in their current military job.
- A transition to online courses (due to COVID-19), enabled Barton to widen its reach beyond Fort Riley – the college now virtually trains students from nine military bases across the U.S. and at five international locations.

Barton’s role as a partner of the CCCHST has grown since it first joined the network more than two decades ago. Now, the college plays a key role in delivering PETE’s HAZMAT Disaster Preparedness Instructor Training Program. Using a train-the-trainer approach, this program enables instructors to earn and renew the OSHA certifications required to deliver training about hazardous materials cleanup during disasters. Barton provides OSHA’s two-day Disaster Site Worker course as part of the consortium’s five-day Disaster Preparedness Instructor Institute.

■ Lessons Learned

The key to a successful partnership is frequent communication among all parties, say PETE and Barton representatives. Continued communication is particularly important during times of leadership change



at an organization. New leadership often brings new program priorities, and it is critical that new staff recognize the value of the partnership and advocate for its continued support. One way PETE maintains communication, even in times of transition, is by making frequent site visits to both the Barton campus and Fort Riley military base. This is essential to build and sustain the relationships that have made PETE's CCCHST-Barton partnership a success.

PETE also works to keep the lines of communication open with OSHA personnel, reminding them of the success of virtual training during the height of the COVID-19 pandemic. This is important to ensure OSHA continues to approve and allow PETE and Barton to deliver online trainings.

■ Next Steps

Moving forward, PETE and Barton will maintain the communication, outreach, and site visits that have made their decades-long partnership a success. In addition, PETE will advocate for OSHA's continued support and approval of using a virtual format to deliver trainings. Being able to supplement in-person trainings with virtual courses will allow CCCHST and PETE to reach a larger audience and offer a wider variety of course listings.



Partnerships Ensure Health & Safety for DOE Workers

GRANTEE: LIUNA Training and Education Fund

WTP grantee the [LIUNA Training and Education Fund](#) is an integral part of the Laborers' International Union of North America (LIUNA), one of the oldest and most respected labor unions in the world.

LIUNA Training develops the curriculum, certifies the instructors, and supports a network of over 70 affiliated training centers throughout the U.S. and Canada. Their programs are used to train construction craft laborers in the many different career opportunities available to them as a member of LIUNA.

LIUNA Training leverages partnerships to meet its mission of health and safety training for workers at U.S. Department of Energy (DOE) sites. A few of these partnerships are described below.

PARTNERSHIP WITH LABORERS' SOUTHEAST TRAINING FUND AND UNITED CLEAN UP OAK RIDGE

LIUNA Training and Education Fund (LIUNA Training) partners with the Laborers' Southeast Training Fund and United Clean Up Oak Ridge to provide training that ensures a safe job site and well-trained workers.

LIUNA Training/Laborers' Southeast Training Fund (LSTF) and [United Clean Up Oak Ridge, LLC](#) (UCOR) have been in partnership for over ten years. The partnership has been advantageous in that LSTF provides training for UCOR employees including LIUNA members, other craft persons, and any other UCOR workers or employees. The LSTF provides the following courses for UCOR: 40-hour Hazardous Waste Worker, 40-hour Asbestos Worker, 40-hour Asbestos Supervisor, as well as Occupational Safety and Health Administration safety and other courses.



The partnership was created and established by a contractual agreement between LIUNA and UCOR with necessary grant support. This partnership is a part of LIUNA Training's efforts funded by the [NIEHS/U.S. Department of Energy \(DOE\) Nuclear Worker Training Program](#) in Oak Ridge, Tennessee, reservations with a specific focus on LIUNA Local 818 members and UCOR employees.

In addition to funding from WTP, LIUNA Training has leveraged support from LSTF and has negotiated contributions from UCOR and other employers that are the primary financial backbone of the organization and help the organization and trainings run smoothly.

■ **Benefits and Outcomes**

This partnership has been invaluable in creating safer job sites and training workers for UCOR and other DOE projects. It has allowed timely communication of needs and opportunities and facilitated open communication for support of LSTF objectives. The value added is mutual for LSTF and UCOR and has helped them achieve a safe job site and highly trained employees.

■ **Lessons Learned**

Partnerships evolve over time and can bring unique sets of challenges. LSTF worked with UCOR training management to schedule small classes due to COVID-19 and social distancing guidelines. Annual Hazardous Waste Refreshers and Annual Asbestos Refresher courses had to be maintained for several hundred workers. This was done in many small classes of 8-10 participants instead of the usual 25 participants in a class. The partnership was able to complete the regular training despite the smaller class sizes.

Overall, this partnership has resulted in many lessons learned for our organization. This includes addressing the fast-paced changes needed to meet manpower needs, learning to anticipate future needs, and being prepared to develop new training classes.

■ **Next Steps**

To ensure that this partnership is effective and sustained, LIUNA Training and LSTF continue to coordinate frequently with UCOR training managers to schedule training and meet the needs and goals of UCOR and the Local Union.

LIUNA Training is confident the relationship will continue in the future to develop a skilled workforce for years to come to meet any need of the DOE facility and LIUNA Local 818 membership.



PARTNERSHIP WITH SOUTHERN NEVADA LABORERS-EMPLOYERS COOPERATION AND EDUCATION TRUST AND THE NEVADA NATIONAL SECURITY SITE

LIUNA Training, [The Southern Nevada Laborers-Employers Cooperation and Education Trust \(SNLECET\)](#), and the [Nevada National Security Site](#) have been in partnership for over 30 years and is a part of the organization's U.S. Department of Energy (DOE) efforts in Nevada working on government-funded projects. The partnership has been successful in its goal of providing career employment opportunities for LIUNA members, creating the ability to retain steady employment and the chance for participants to advance in their company.

The partnership between the three organizations has been invaluable in helping to develop classes and schedules that fit the participants specific needs while training our members employed by them. The partnership has also been beneficial when it comes to engaging management and employees in proper safety and health training and on-site safety management which creates an atmosphere of compliance to all regulatory safety requirements on the site.

This partnership is a part of LIUNA Training's efforts funded by the [NIEHS/U.S. Department of Energy \(DOE\) Nuclear Worker Training Program](#).

■ Benefits and Outcomes

There is value added for NNSC since the partnership has helped them achieve training support while allowing them to complete job assignments and missions on time. LIUNA and SNLECET provide a pool of workers that are properly trained before being employed and then continue to train current employees on required certifications. This process allows NNSC to concentrate on other aspects of their tasks knowing they can have their employees ready for any job assignment that comes up.

To ensure that this partnership is effective and sustained, LIUNA works with the contractors to try to schedule classes and training during times that are the most useful to the student and members. LIUNA and members also regularly evaluate the program and every participant that takes training from us completes evaluation forms. This helps highlight areas of improvement, gaps, and opportunities while maintaining the best training possible for our members.

■ Lessons Learned

Overall, the partnership has resulted in many lessons learned for the organization. This includes the knowledge of how crucial it is to have a trained and prepared workforce and how invaluable that steady stream of work is. NNSC is constantly upgrading and starting new projects at the facility which require workers that are ready on demand. The upgrades also require that the classes and training be adaptable to the current project.

■ Next Steps

Both partners anticipate that their efforts will continue well into the future, helping NNSC achieve mission completion on current and future projects.



PARTNERSHIP WITH LOS ALAMOS NATIONAL LABORATORY AND THE NEW MEXICO LABORERS TRAINING AND APPRENTICESHIP

LIUNA Training, [New Mexico Laborers Training and Apprenticeship Trust Fund](#), and the [Los Alamos National Laboratory](#) (LANL) have been in partnership for nearly 30 years, starting in 1993. The New Mexico Laborers Training and Apprenticeship Trust Fund is recognized as a leader in the State of New Mexico in educating and training union members statewide. The organization continues to improve and expand to meet the future needs of the participants.

This partnership has been valuable in providing opportunities to earn career training and gain steady employment at LANL. In turn, the partnership provides LANL with a well-trained workforce that meets the training requirements needed for all the contractors at the site that are well-versed in occupational safety and hazard mitigation.

This partnership is a part of LIUNA Training's efforts funded by the [NIEHS/U.S. Department of Energy \(DOE\) Nuclear Worker Training Program](#).

■ Benefits and Outcomes

LANL contractors, such as Triad National Security, LLC, N3B Environmental Remediation, and Waste Management have mutually benefited from the partnership by helping them achieve their contract goals and providing them with the skilled and certificates they need.

When the COVID-19 pandemic hit in March 2020, special training became a priority for trainees and partners at LANL. From June to December 2020, training classes were smaller and followed all safety recommendations by the LIUNA Training and the Centers for Disease Control and Prevention. New Mexico Laborers Training instructors trained over 400 workers in infectious disease awareness; the organization conducted the course in-person and virtually. Members from Triad National Security, LLC, and N3B also took the course, and were grateful for the training they received and the knowledge they attained.

In January 2021, the partnership delivered a 40-hour Hazardous Waste training course for various employees for Triad National Security. This training was tailored to the specific needs of the partners and contractors. Over the span of four months, the partnership enabled delivery of five 40-hour Hazardous Waste training classes for a total of 100 employees working at the LANL. The New Mexico Laborers Training and Apprenticeship Trust Fund is known in the state as the go-to training organization for workers at LANL.

■ Next Steps

To ensure that this partnership is effective and sustained, LIUNA Training continues to practice open communication with the contractors at LANL and provides them with additional training needs. LIUNA Training also has every participant complete an evaluation at the end of classes. These evaluations help LIUNA Training adapt and improve courses and training delivery.

The New Mexico Laborers Training and Apprenticeship Trust Fund has grown year after year and contractors have been very happy with the quality of workers being sent to them from our Local Union. LIUNA Training anticipates that its partnership with LANL will continue in the future, helping LIUNA and its signatory contractors achieve their goals.



Partnerships Expand Reach for Worker Training

GRANTEE: The New England Consortium

PARTNERSHIP WITH THE CIVIL SERVICE EMPLOYEES ASSOCIATION

[The New England Consortium](#) (TNEC) and [Civil Service Employees Association](#) (CSEA) Local 1000, a New York State labor union, partner to offer training for civil service workers handling hazardous materials on the job.

TNEC, a WTP grantee, is a New England regional Hazardous Waste Operations and Emergency Response (HAZWOPER) worker health and safety training organization. Founded in 1988, TNEC has delivered training to over 60,000 hazardous-waste workers and employees. TNEC also partners with other regional organizations, such as four New England-area Coalitions and Committees for Occupational Safety and Health, to expand the impact of their safety training work.

CSEA is the New York State chapter of the American Federation of State, County and Municipal Employees (AFSCME) union, part of the American Federation of Labor and Congress of Industrial Organizations.

■ About the Partnership

TNEC and CSEA, the largest union in New York state, have been in partnership since 2010, when TNEC approached CSEA to create the partnership.

■ Benefits and Outcomes

The partnership has provided both partners with significant expertise in health and safety for public sector workers. It has extended TNEC's reach into the densely populated State of New York and provided inroads into the state, county, and municipal workforce CSEA represents.

The partnership also allows the members to advance their Hazardous Waste Worker Training and Hazmat Disaster Preparedness Training efforts.

"With its well-supported resources, CSEA's health and safety department has contributed significant innovations in instruction through its peer-trainer health and safety training program," said TNEC's project director. The director is also an adjunct faculty member in the University of Massachusetts Lowell Department of Public Health and helps leverage the expertise of the university for the benefit of TNEC's partners and trainees.

The TNEC and CSEA partnership has allowed the two organizations to extend their programs further and reach more workers by:

- Sharing curricula.
- Developing better training evaluation for both TNEC and CSEA by sharing an evaluator.
- Supporting trainer development and cross-pollination by sharing trainers.



- Helping each other expand learning technologies.
- Serving on each other’s advisory boards and providing constructive input into improving training operations for both organizations.

“The value added is mutual for both TNEC and CSEA,” said the TNEC project director. “It has helped us to train more workers for more contact hours of training than either were able to do before.”

■ **Lessons Learned**

Over the course of their collaboration, TNEC and CSEA have faced challenges that arise from differing organizational cultures and priorities. However, the partners have learned to emphasize regular and productive communication between them, to surface any tensions that arise. Regular meetings between directors and managers, as well as one-on-one conversations as needed, have helped the groups build trust and continue moving toward their goals. The organizations have learned specifically to:

- Establish clear lines of authority in communicating information between organizations.
- Coordinate progress report compilation in a timely fashion.
- Collaborate on the planning process for preparing grant proposals.

“Transparency is the best policy,” the TNEC project director noted.

■ **Next Steps**

TNEC and CSEA are committed to maintaining a healthy partnership in the future. Through cooperation and communication, the two organizations hope to continue expanding their training courses, reach new populations of workers, and continuously enhance their training quality.

PARTNERSHIP WITH COSH ORGANIZATIONS

[The New England Consortium](#) (TNEC) and four of New England’s Coalitions and Committees for Occupational Safety and Health (COSH) organizations have partnered for more than 30 years to train workers who handle hazardous materials.

TNEC, a WTP grantee, is a New England regional Hazardous Waste Operations and Emergency Response (HAZWOPER) worker health and safety training organization. Founded in 1988, TNEC has delivered training to over 60,000 hazardous-waste workers and employees. TNEC also partners with other regional organizations, such as the Civil Service Employees Association.

COSH are state-specific organizations that train thousands of workers, providing them with necessary information and skills to protect their safety and health on the job. Members include workers, local unions, labor councils, community groups, health and safety activists, and health professionals.

■ **About the Partnership**

The four COSH organizations partnering with TNEC are the [Connecticut Council on Occupational Safety and Health](#) (ConnectiCOSH), [Massachusetts Coalition for Occupational Safety and Health](#) (MassCOSH),



[New Hampshire Coalition for Occupational Safety and Health \(NHCOSH\)](#), and [Rhode Island Committee for Occupational Safety and Health \(RICOSH\)](#).

TNEC and three of the COSH organizations – MassCOSH, ConnectiCOSH, and RICOSH – established their partnership in 1987. The New Hampshire COSH joined soon thereafter in 1991.

■ **Benefits and Outcomes**

The partnership has allowed each member organization to both provide and gain value. TNEC's efforts and expertise have helped the COSH organizations continue providing crucial health and safety training, technical assistance, workers' rights education, and advocacy to worker populations in their states. Also, TNEC gives each COSH access to the occupational health and safety expertise from research and education programs at the University of Massachusetts Lowell, TNEC's home base.

In return, the state COSH programs offer TNEC assistance with outreach, marketing, and overall direction. Additionally, each COSH draws upon their local networks to help TNEC reach more unions and community and public health organizations.

The current project director is an adjunct faculty member in the University of Massachusetts Lowell Department of Public Health, which helps TNEC leverage the expertise of the university for the benefit of their partners and trainees.

The longstanding cooperation between TNEC and the COSH organizations has allowed them to accomplish many goals more quickly and effectively than they would individually. Some of these goals include:

- Providing trainers to TNEC's pool.
- Recruiting trainees to training courses, particularly youth and adults from underserved communities, such as immigrant communities; and Black, indigenous, and communities of color.
- Enabling the important worker-advocacy work of the COSH partners, including their focus on occupational safety and health policy, increased regulation, and serving traditionally underserved worker communities.

The partnership also allows the members to advance their efforts funded by the NIEHS [Hazardous Waste Worker Training Program](#) and [HAZMAT Disaster Preparedness Training Program](#). Through their cooperation, the group can reach their target audiences of public and private sector workplaces, as well as underserved worker populations.

Operating in tandem has enabled the partners to leverage support from the Occupational Safety and Health Administration [Susan Harwood Training Grant program](#), in addition to WTP funding. The partners also enjoy support from state public health departments' grant programs, state public health networks, unions and state labor federations, and universities. Several of the COSH organizations also bring in private foundation support.



■ Lessons Learned

Although TNEC and the COSH organizations have faced challenges throughout their partnership, it has helped them learn and grow. Since the partners have separate financial resources and offerings, plus different work cultures, there are opportunities for misunderstanding and conflict.

The partners have learned to overcome hurdles through communication. They hold quarterly member meetings and have frequent informal communications, in addition to yearly meetings with the TNEC managers and COSH directors.

By emphasizing cooperation and communication, the partners have gained valuable lessons and expanded their capabilities. The partnership has proved to be worth more than the sum of its parts.

■ Next Steps

The partners all look forward to continuing collaboration in the future. They aim to leverage the partnership to further expand training courses, reach new populations of workers, and continue enhancing the quality of training.



Partnership Builds Cadre of Spanish-Speaking Trainers in New Jersey and New York City



GRANTEE: The Atlantic Center for Occupational Health and Safety Training

WTP grantee the [Atlantic Center for Occupational Health and Safety Training](#) (Atlantic Center) has a long history of effective health and safety training that meets the requirements of the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard. The Atlantic Center trains workers about safety issues during cleanup of hazardous waste sites; issues related to generation, treatment, and storage of hazardous materials; and emergency response. Since 1987, the Center has provided training to more than 450,000 workers.

The center partners with numerous organizations to fulfill its mission of health and safety training. In fact, partnership with the Labor Institute, the United Steelworkers, Wind of the Spirit, and Make the Road New York, have allowed the Center to build a cadre of Spanish-speaking trainers in New Jersey and New York City.

■ About the Partnership

The partnership was created and established by identifying a need for Spanish language instructors or trainers in New Jersey and New York City. A discussion between the Atlantic Center and its partners led to funding through the NIEHS [HAZMAT Disaster Preparedness Training Program](#).

■ Benefits and Outcomes

Although this partnership is informal, it has proven advantageous in providing resources to trainers and creating a cadre of Spanish language trainers who can deliver OSHA courses in Spanish. These include



the OSHA 10-hour and 30-hour courses, which are critical for employment for those working during disasters and at construction sites.

The value added is mutual for the Atlantic Center and its partners, Wind of the Spirit, Make the Road New York, and the United Steelworkers, who now have trainers with the OSHA credentials to provide the training in Spanish. This has helped the organizations provide more training for their target populations.

■ **Lessons Learned**

Overall, this partnership has resulted in many lessons learned for the Atlantic Center. To ensure that this partnership is effective and sustained, the Atlantic Center continues to communicate with partners to ensure a mutual understanding of the needs and provide an opportunity for community-based organizations to participate in training to improve their capacity. In addition, the Atlantic Center provides OSHA update courses for the Spanish trainers to help them keep their credentials up to date.

This includes understanding the needs of the community so that appropriate actions can take place that are mutually beneficial.

■ **Next Steps**

It is expected that this partnership will continue in the future, helping the Atlantic Center achieve increased capacity for foreign language trainers.



A Shared Vision of Integrating Technology into HAZMAT and Emergency Response Training

GRANTEE: Cell Podium

Former WTP grantee [Cell Podium](#) is a small business that develops online platforms, multimedia messaging, mobile applications and other digital solutions for the emergency response and health and safety sectors. Cell Podium was founded in 2000 by Cesar Bandera, Ph.D. and Peter Schmitt, Ph.D.

Over the years, Cell Podium has established partnership with several organizations. In 2005, Bandera and Mitchel Rosen, Ph.D., director of the [Atlantic Center for Occupational Health and Safety Training](#) (Atlantic Center) at Rutgers School of Public Health, began brainstorming ways to combine their expertise to provide technology-enhanced training for workers. Cell Podium and the Atlantic Center have been in partnership since then.

This collaboration is part of Cell Podium's efforts formerly funded by the WTP [Small Business Innovation Research \(SBIR\) E-Learning for HAZMAT Program](#), which aims to develop and deploy training technologies that initially serve the WTP grantee community, and subsequently the broader safety training market.

In addition to funding from WTP, Cell Podium has leveraged support from the Centers for Disease Control and Prevention (CDC) Center for Preparedness and Response, which helped deploy the JITTEIS technology following Hurricane Sandy in New York, as well as the Haiti Cholera epidemic and the



Dominican Chikungunya epidemic. The Cell Podium-Atlantic Center partnership has also leveraged support from the National Institute for Occupational Safety and Health, and the 87th Medical Group of Joint Base McGuire-Dix-Lakehurst, for the development and deployment of real-time simulators of chemical/radiological hazards, sensors, and exposures for HAZMAT field exercises.

■ About the Partnership

In 2005, Rosen and his colleagues at the Atlantic Center (formerly known as the New Jersey/Nork York Consortium for Health and Safety Training) were in search of a technological solution to support just-in-time training for skilled support personnel (SSP).

Bandera proposed developing a video processing technology that provides onsite health and safety training to SSP who are deployed to respond to emergencies. This set the stage for Cell Podium and the Atlantic Center's first collaborative technology and project, the [Just-Time-Training for Emergency Incidents System](#) (JITTEIS).

Cell Podium and the Atlantic Center continue to work together to bring innovative training tools to emergency response and health and safety workers.

The Atlantic Center integrates the technologies developed by Cell Podium into their training courses to pilot test, adapt, and adjust the technologies. This allows Atlantic Center to provide Cell Podium with real time feedback. Additionally, Atlantic Center brings subject matter expertise of training and hazardous materials to develop the content for the videos. Meanwhile, Cell Podium brings the technology and engineering expertise to bring the content and videos to life.

■ Benefits and Outcomes

The JITTEIS has proven useful in helping SSP during public health emergencies. With this technology, videos are sent to the cell phones of SSP to play at any time, similar to text messaging. The JITTEIS was used among responders who were deployed to New Jersey in the aftermath of Superstorm Sandy. Although the internet was inaccessible to most cell phones throughout the region following the storm, the Emergency Operations Center of the CDC was able to use the JITTEIS to [broadcast logistics and mobilization videos](#) to responders.

In 2017, Cell Podium and the Atlantic Center worked together to develop [an augmented reality \(AR\) system](#) to simulate hazardous environments. The AR system is inexpensive and provides [realistic scenarios of HAZMAT training exercises](#). The system works using tiny Bluetooth beacons that are placed on mock chemical and radiological hazards and a free phone application that mimics the handheld sensors. While the GPS tracks the location of the trainees, the Bluetooth beacons give off locations of the mock hazards. This allows the AR system to calculate mock exposure levels in real time.

The AR system provides realistic scenarios of HAZMAT training exercises, which helps trainees learn to use equipment to find, classify, and isolate chemical and radiological hazards. Additionally, the AR system allows instructors to focus on assessing trainees' performance so they can provide valuable feedback to improve their learning experience.

The partnership with the Atlantic Center and Rutgers has been indispensable in helping Cell Podium meet the Congressional objectives of the [SBIR program](#), namely the development and commercialization



of technological innovation by small U.S. businesses. Bandera says the most frequent reason for failure among small technology-centric ventures is that, while the innovation works in the technical sense, the business model does not, (e.g., the innovation is not sufficiently attractive in the eyes of the customer to warrant adoption). However, the WTP [SBIR E-Learning for HAZMAT program](#) helps small businesses by encouraging partnerships within the WTP training community that validate the value proposition, provide minimum viable product specifications, and accelerate adoption.

The collaboration has also been valuable for the Atlantic Center as well and has helped its HAZMAT courses achieve greater realism in field exercises including chemical hazard detection and classification, and the delineation of exclusion and safety zones. It has also allowed the Atlantic Center to reach new audiences during the COVID-19 pandemic through just-in-time mobile essential worker training.

■ **Lessons Learned**

Partnerships evolve over time and can bring unique sets of challenges. For example, the collaboration must survive changes in personnel, whether it is workforce, trainers, or leadership.

The Cell Podium-Atlantic Center partnership has survived over time by being vertically integrated – in other words, the relationship between the two organizations exists at all levels of their hierarchy. This ensures a resilient partnership with a mission that is well understood by all. The partners continue to hold open inter-organization reviews (that are open to staff) at least quarterly, and more often when jointly designing or deploying a new innovation.

Technology life cycles also evolve over time, and these sometimes require changes to the training technologies deployed whereby Cell Podium must replace older components with more cost-effective ones. The close partnership between Cell Podium and Atlantic Center, reinforced by frequent inter-organization discussions at all hierarchy levels, ensures that technology upgrades by Cell Podium do not disrupt ongoing training. Through the close partnership, the Atlantic Center also communicates to Cell Podium changes to its training requirements that might affect the desired functionality of the technological innovations, such as the precision of simulated sensor readings. Without the close partnerships, Cell Podium might not be aware of opportunities to improve the innovations, or it might change them in a way that the Atlantic Center might find counterproductive.

Overall, this partnership has resulted in many lessons learned for Cell Podium. One lesson is that an important value of partnership lies in discovering unexpected opportunities for each partner to improve its particular mission – product development in the case of Cell Podium, and HAZMAT training in the case of the Atlantic Center. These unexpected opportunities keep the partnership as youthful as it was when it began nearly 17 years ago. Another lesson is that a successful partnership leads to new partnerships. Rosen introduced Bandera to other WTP grantees, like OAI, Inc. (Chicago), National Partnership for Environmental Technology Education, and partners like the Institute for Environmental Education at the Universidad Ana G. Méndez (Puerto Rico).

■ **Next steps**

Cell Podium and the Atlantic Center have longevity, common vision, and a shared understanding of what makes a meaningful partnership. Moving forward, the partners will continue to brainstorm, innovate, and build technologies to make worker health and safety a priority.

