(20)-JT-25-R04

TWIN
Training to Work an Industry Niche

Grant Type: Environmental Workforce Development and Job Training Grant

Applicant Identification:
Training to Work an Industry Niche
809 W. Hill St. Suite C, Charlotte, NC 28208
DUNS Number: 08-008-3914

June 09, 2019

EPA Headquarters
1200 Pennsylvania Ave. N.W.
Mail code: 5105T
Washington, D.C. 20460

Attn: Ms. Rachel Congdon

RE: Environmental Workforce Development and Job Training Grant

Dear Ms. Congdon,

Training to Work an Industry Niche (TWIN), a 501 (c)(3) non-profit organization in Charlotte, North Carolina, operate mainly for educational and charitable purposes. The heart of our mission is to support and promote the professional development of individuals on three levels: Workforce Development (18+ years of age), Career Development (middle and high school), and Small Business Development. Workforce development initiatives qualifying individuals to participate in clean-up and revitalization projects provides an avenue for the unemployed and underemployed in our community to improve their economic and social status; as several revitalization efforts are currently underway throughout Charlotte. Hence, TWIN is delighted to submit a proposal for the Environmental Workforce Development and Job Training (EWDJT) Grant funded by the Environmental Protection Agency (EPA) in response to RFP: EPA-OLEM-OBLR-19-01; as it aligns with our mission to develop educational programming to nurture professional development.

A search for federally funded programs awarded in Charlotte (which has a general population of 809,958 people according to U.S Census Bureau of 2014) revealed the City of Charlotte received previous awards in 2010 to conduct Phase I & II Environmental Assessments in the Business Corridor Revitalization Area (BCRA). TWIN also became an EWDJT Grantee for the first time in 2018. TWIN's program is the first environmental or "green job" training programs in Charlotte focused on providing the unemployed and/or underemployed with skills and credentials to assist with revitalization efforts in the community or to start a career in the environmental field.

With that said, TWIN is proposing to continue the advanced EWDJT curriculum to help develop residents' skills and knowledge in the environmental industry. The aim of the proposed program is to recruit, train, certify and place residents of Charlotte, NC in a position to take advantage of potential environmental job opportunities associated with assessments and revitalizations efforts in communities surrounding the City, such as the South End District. The program shall target the unemployed and the underemployed resident in the city of Charlotte. Hence, a major focus shall be on low-income public housing neighborhoods within and near the South End District BCRA, and Center City.

The curriculum proposed consists of eight courses as outlined in the narrative proposal on pages 4-5. The curriculum entails a scale of subject matter relevant to the environmental workforce, such as, soil and water sampling, integrated pest management, confined spaces, and environmental health and safety training. OSHA 29 CFR 1910.120 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training is included in the curriculum per the solicitation requirement.

The project duration is three years; which consists of 24 months of training and 12 months of follow up activity for program participants. The funding amount requested for an EWDJT program in Charlotte is $144,792. A training curriculum chart indicating the associated cost for each training course and the cost percentage is also provided in the narrative proposal on page 5.

The proposal application submission occurred via www.grants.gov on June 9, 2019 prior to the deadline of 11:59 p.m. Eastern Time on June 10, 2019. On behalf of the TWIN organization, I affirm the proposal conforms to the proposal submission instruction and format requirements set forth in RFP: EPA-OLEM-OBLR-19-01. Dr. Tonnia Thomas, the Executive Director for the TWIN organization, is also the program manager for this initiative. If additional information is needed or required for consideration, please contact Dr. Thomas using the contact information below. Thank you for your time, consideration, and the opportunity to submit to RFP: EPA-OLEM-OBLR-19-01.

Sincerely,

Tonnia Thomas

Dr. Tonnia Thomas
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Training to Work an Industry Niche
(DUNS #: 08-008-3914)
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1. Community Need

A. Community Description

Home to the Carolina Panthers, Charlotte Hornets, and the NASCAR Hall of Fame; Charlotte is the largest city in the state of North Carolina with an estimated population of 809,958, unemployment rate of 5.2%, and a median household income of $53,274 according to the U.S. Census Bureau of 2014.

Table 1a. Community Demographics

	Charlotte *	NC State*	National*
Population:	809,958	9,943,964	318,857,056
Unemployment*:	5.2%	5.7%	5%
% Below Poverty Rate:	17.7%	17.2%	14.8%
Percent Minority:	55%	35.9%	37.9%
Median Income:	$53,274	$46,693	$53,482
www.census.gov (2014), *Bureau of Labor Statistics www.bls.gov,			

Now ranked as one of the fastest-growing metropolitan regions in the U.S, the city is amid a building boom. Hence, multiple redevelopment and revitalization initiatives are underway (or planned) across the city to meet the demand of residents as well as employers. Such projects include the redevelopment of a 16.2-acre site owned by Charlotte Housing Authority (near Dilworth and South End District), the expansion of Charlotte Douglas Airport terminal lobby, and the redevelopment and expansion of Charlotte Convention Center (to name a few).

The city also made a commitment to adopting a circular economy as a public sector strategy in 2018. The new circular economy initiative is designed to produce "zero waste" and boost economic development. At a glance, Charlotte appears to be a resilient and vibrant city, but there are many economic and social disparities within and surrounding the city. In fact, a national report ranked Charlotte last among the nation's 50 largest cities in terms of economic mobility. Charlotte has more than 148,000 people living in poverty.

Within the communities across Charlotte booming with revitalization and redevelopment activities (such as Noda, Dilworth, and South End District) are pockets of neighborhoods with low income individuals living in public housing units that are not seeing the same rate of growth and redevelopment as the rest of the city. Neither are these individuals positioned to benefit from the jobs being created to support the revitalization projects surrounding them. For example, right next to the 16.2-acre site being redeveloped in the Dilworth community is an old high-rise public housing unit managed by CHA that will remain for the low income. Also, on the far end of the South End District is Southpark neighborhood. Within the Southpark neighborhood are the Southside Homes public housing units also managed by CHA.

Furthermore, the South End District is also a part of the Business Corridor Revitalization Area (BCRA) geography; which consists of several potential brownfield sites, as well as higher poverty rates, and a higher minority population than other communities in the city. The South End District has approximately 32 brownfield sites. This area has the highest concentration of brownfield sites than any other location in Charlotte. There are several environmental monitoring wells placed throughout the South End District to monitor for potential contaminants. One interesting area is the Southpark Community Park where residents of Southside Homes and Brookhill Village (another low-income housing development) often go for outdoor and extracurricular activities. The park is in the same area that use to be an old ash landfill many years ago (where trash was burned). Hence, there is a potential for heavy metals to be concentrated in the soil. Also, within a 1-mile radius of the park, are 78 properties that have been of environmental concern.

To further illustrate the disparity for residents in low-income neighborhoods, data from the neighborhood profiles is explored. For more than 20 years, the City of Charlotte has been gathering data on neighborhoods across the City for a Quality of Life Study, known as the Neighborhood Profile Areas (NPA). Southside Homes units make up roughly 75% of the housing for the Southpark NPA (NPA 30). According to the Quality of Life Explorer, NPA 30 yields the following information in comparison to the City of Charlotte and Mecklenburg County regarding education, health, housing, and safety (see Table 1b).

Table 1b. Quality of Life Index (based on 2014 -2015 data, latest information updated in index)

Index	NPA 30	Charlotte	County
Median age of residents	24	34	34
Concentration of residents. (people per acre)	4	4	3
Percent of Adults with a Bachelor's Degree	5%	40%	42%
Percent of Adults with a High School Diploma	62%	88%	89%
High School Graduation Rate (graduate in 4 years)	57%	88%	89%
Births to Adolescents (under 19)	6.6%	3.2%	2.9%
Percentage of population receiving Food & Nutrition Services	51%	18%	16%
Percentage of housing units that are owner-occupied	3%	56%	59%
Percentage of housing units that are single-family houses	15%	58%	61%
Average age of single-family housing unit (years)	52	34	32
Housing-related code violations per 100 units.	2	1	1
Concentration of residential units permitted for new construction. (units per 100 acres)	0.2	3.3	2.9
Percentage of city streets adopted for litter clean up.	26%	13%	13%
Percentage of housing units with development-based rental assistance.	46%	3%	3%
Property crime rate per 1,000 residents.	52.1	35.7	31.8
Violent crime rate per 1,000 residents	13.4	4.7	4.2
Percentage of the population who receive Medicaid or N.C. Health Choice.	45%	19%	18%

In addition to low-income neighborhoods, Charlotte is also home to numerous individuals that fill shelters (including veterans) and foster care programs due to homelessness and abandonment. Many of these facilities surround the city and BCRA; for example, the Men's Shelter of Charlotte (N. Tryon St), Urban Ministry Center (N. College St), Salvation Army Center of Hope (Spratt St), and the Shelter for Battered Women (E 5th Street) to name a few. Elon Homes and Schools for Children (EHSC) is a community-based foster care program in Charlotte that provides refuge for children ages 0-18 who need a safe place to live when their parents cannot adequately care for them. EHSC's serves 80-90 children per year through its community-based foster care and it's behavioral and mental health services. However, EHSC does not have a job training program in place to help their older youth aging out of their foster care program gain hard skills to obtain employment with local employers. Once the youth age out of foster care they must learn how to provide for themselves. The Relative is also a resource center in Charlotte that helps children and youth find shelter and support. Their Journey Place program assist young adult (18-21) with making the transition from foster care to being an independent adult. With so many people in need of support and living below the poverty line, as well as the economic and social disparities within Charlotte, additional initiatives are needed to train and provide these individuals with hard skills that could help them to become more self-reliant, and self-sufficient. Providing an environmental job training program that qualifies the low-income in public housing and shelters, displaced veterans, at-risk youth, and youth aging out of foster care to participate in revitalization and clean-up initiatives surrounding the city would be a step toward creating new pathways to upward mobility.

B. Labor Market Demand

The Charlotte-Concord-Gastonia region ranked among the top 10 metropolitan areas with the highest employment level in the hazmat removal worker occupation in May 2018 (according to the Bureau of Labor Statistics). Now with Charlotte launching a new circular economy initiative and "Circular Charlotte" becoming a focal point for the city; the demand for individuals with experience handling hazmat (those that identify, remove, pack, transport, or dispose of hazardous materials) is projected to grow at a much faster rate.

The transition to a circular economy will also require defining innovative ways to reduce and reuse materials that are currently being transported to landfills (materials that are hazardous as well as nonhazardous). Materials that are transported from homes, businesses, and manufacturing operations every day by individuals employed in the private and public sector (such as remediation and waste management services).

A city report released on the Circular Charlotte initiative in September 2018 estimates the program could capture up to $111 million in value by recovering materials instead of sending them to landfill. It also stated that the initiative has the potential to create up to 2,000 jobs over the next 30 years. For the circular economy initiative to be successful, it will require coordination from both public and private sectors, as well as from residents, over several years. It will also require a local workforce qualified and certified to handle hazardous materials and potentially hazardous work environments (particularly those working in public and private sectors that support utilities, remediation, waste collection, waste treatment and disposal, or other waste management services). Similarly, it will require a work force trained to remanufacture products and reuse materials in different ways.

Moreover, Charlotte Water, the third largest city department in Charlotte (958 employees), launched a workforce development program in 2018. The program's goal is to hire at least 40 individuals annually via Charlotte Water internship and apprenticeship programs. Considering the work environment associated with sewage and wastewater treatment, prime candidates for such positions would include individuals with knowledge of how to handle hazardous materials and experience working in confined spaces.

In addition to the Circular Charlotte initiative and the Charlotte Water workforce development initiative, there are local employers currently facing issues with contaminants and cleanup. Duke Energy, a local utilities provider in Charlotte, is facing an environmental hazard regarding seeps from their coal ash ponds. The coal ash waste spill into the Dan River prompted the General Assembly to pass a law in 2014 requiring Duke Energy to close all its coal ash ponds statewide by 2029. Hence, 33 coal ash ponds are to be closed in the state of North Carolina starting in 2019 through 2029. The state Department of Environmental Quality has also ordered Duke Energy to excavate all remaining coal ash ponds in North Carolina and move the toxic ash to lined landfills. This requires a labor force trained and skilled to handle and transport hazardous materials. According to Duke Energy, millions of work hours were logged in 2018 by expert teams focused on basin closure. Work to prepare basins for closure is underway across the fleet.

Honeywell International Inc. is in the process of relocating its headquarters to Charlotte from Morris Plains, New Jersey, as well as their headquarters for its Safety and Productivity Solutions division from South Carolina to Charlotte. Although the move overall will bring additional job opportunities to the city; it will also bring its current concerns. Like other local employers, Honeywell is facing issues with contaminants and cleanup. Honeywell International Inc. and International Paper Co. recently signed a consent decree with federal regulators to clean up mercury, PCBs and other contaminants from an EPA Superfund site in North Carolina. Hence, another employer that can potentially benefit from talent skilled in hazardous waste cleanup.

Lastly, the major construction projects planned across Charlotte for the development and revitalization of housing as well as the expansion of the convention center and airport requires skilled labor to service both environmental and revitalization issues. This may include skills in demolition, building facade improvements, mold remediation, asbestos removal, reduction and abatement of lead-based paint hazards, working in confined spaces, road repairs, or operating a commercial vehicle such as a dump truck.

Considering the labor force needed to support the Circular Charlotte initiative, redevelopment and revitalization projects, the utilities workforce programs, and other environmental issues in or surrounding the Charlotte-Mecklenburg region; there is ample opportunity for graduates of an EWDJT program to gain employment in the Charlotte-Mecklenburg region. Perhaps it also ample opportunity to help minimize the social disparity and improve economic mobility for individuals in low-income neighborhoods throughout the city of Charlotte.

2. Training Program Description

An EWDJT Program was designed with two objectives: 1) set the foundation for participants to establish the fundamental credentials to work in the environmental industry, as well as career clusters that may require environmental services; and 2) align the training curriculum with the needs of employers and municipal agencies. With that in mind, TWIN developed the Sustainable Environmental Training (SET) Program, an advanced training curriculum comprised of the following eight courses (see Table 2. Training Course Overview):

1. Lead
2. Asbestos
3. OSHA10
4. HAZWOPER40
5. Confined Spaces
6. Soil & Water Sampling
7. Pest Management
8. CPR/First Aid

The curriculum is advanced because it exposes trainees to three levels of learning: awareness, understanding, and application. The curriculum incorporates instructional learning, hands-on activities, as well as simulated demonstrations throughout the training (see attachments for an in-depth course curriculum, which encompass 134 hours of hard skills environmental training and 24 hours of soft skills training over the course of 6 weeks). The curriculum also offers trainees the opportunity to develop a diverse skillset applicable to the environmental industry; thereby, increasing opportunity for employment. As illustrated in Table 2, the curriculum yields a variety of professional credentials (certificates, licenses, OSHA card, and continuous educational units).

Since safety is a common denominator for all employers , the OSHA 10 Hours Construction Industry Health and Safety is incorporated into the curriculum to help workers think and develop a mindset for working safely and mitigating risk. The OSHA class is geared specifically to the construction industry because many environmental jobs occur on a construction site or under construction management (existing or new structures). As shown in the Tables 2 below, the curriculum would be offered 3 times over the course of 24 months. Note some courses require licenses and application fees. The expense for all licenses and applications processing is built into the cost of the training class.

Table 2. Training Course Overview

Course Name	Level of Training	Type of Certification (State or Federally Recognized)	# of Hrs	Start Date – End Date	# of Times Course Offered	Training Provider	Cost of Course	% Grant Budget
LBP	advance	NC/VA	16	11/19-4/21	3	contractor	9,000	6.2%
ASB INI	advance	NC/SC/TN/VA	32	11/19-4/21	3	contractor	18,300	12.6%
OSHA10	intermediate	National	10	11/19-4/21	3	contractor	5,400	3.7%
HAZ 40	advance	National	40	11/19-4/21	3	contractor	17,275	11.9%
CS	intermediate	NC	8	11/19-4/21	3	contractor	7,050	4.9%
S&W	advance	CEU	16	11/19-4/21	3	contractor	15,900	11.0%
PEST	intermediate	CEU*	8	11/19-4/21	3	contractor	2,820	1.9%
CPR	intermediate	National	4	11/19-4/21	3	contractor	1,950	1.3%

CEU – Continuous Education Units
CS - Confines Spaces
PEST – Pest Management, * 8hours consist of prep for license applicator exam
S&W - Soils & Water Sampling
LBP - 16 Hour Lead Based Paint Worker Initial Training
ASB INI - 32 Hour Asbestos Worker Initial Training Class
OSHA 10 - 10 Hour OSHA Construction Industry Safety & Health Training
HAZ 40 - 40 Hour Hazardous Waste Operations and Emergency Response (HAZWOPER)
Start/End date tentative dependent upon notification of award

3. Budget

Table 3. Budget for proposed EWDJT Program

Project Funding	**Outreach and Recruitment**	**Instruction / Training**	**Program Mgmt.**	**Placement and Tracking**	**Total**
Personnel	$9,000		$7500	$4500	$21,000
Fringe benefits	$897		$747	$448	$2,092
Travel	$600	$3,240	$6210		$10,050
Contractual		$77,695			$77,695
Supplies	$2,700	$750		$300	$3,750
Other: Drug screening and Background check	$2,760				$2,760
Other: Physicals		$15,000			$15,000
Other: Graduation		$5,550			$5,550
Direct Subtotal	$15,957	$102,235	$14,457	$5,248	$137,897
Indirect Cost	$798	$5,112	$723	$262	$6,895
Total EPA Funds	$16,755	$107,347	$15,180	$5,510	$144,792

The total funds requested for the EWDJT Program is $144,792. The funding is portioned into 3 categories: Pre-Training Activities, Training Delivery, and Post-Training Activities.

Pre-Training Activities: Identifying employable candidates with the potential to complete the program in its entirety is vital to the program's success. Outreach to the community to promote the program and recruiting eligible candidates to participate in tryouts are essential pre-training activities. Resources are needed to coordinate and effectively conduct tryout sessions to identify employable candidates during the screening process (which will be discussed in further detail in the recruitment and screening section). So, a budget of $9,000 ($3000/training cycles) is reserved to compensate two resources to onboard potential applicants, organize evaluators for tryouts, plan and execute tryout activities, follow-up with applicants post tryouts and onboard selected candidates for the training cycle. Supplies and materials are also needed to market the program (signage, posters, flyers) and conduct tryout sessions. Hence, $2700 is allocated for such purposes, and $600 ($200/cohort) for local travel to engage the community and recruit potential candidates. Drug screening and background checks are required for screening applicants as well; $2760 is reserved for fees incurred to conduct background checks and drug screening for 30 candidates ($62 drug screening, $30 background checks).

Training Delivery: This segment includes instructor fees, course materials, license fees, and equipment for hands on activities and demonstrations ($78,445). Delivery of all environmental courses outlined in the curriculum are contracted out to qualified instructors. Since the EWDJT Program consists of 6 weeks of training, it may become a hardship for some participants to get to and from class each day. If a need for transportation assistance arises during the applicants' screening, arrangements can be made for weekly bus passes. Weekly bus passes cost $30; supporting one participant's transportation needs during a training cycle would require $180 for passes to access public transportation; which may become a hardship for 60% of the demographic targeted. Therefore, $3,240 is allocated for weekly bus passes to assist 18 participants (60%) with transportation to and from class.

Post Training Activities: Expenses for physical exams and graduation. Passing a physical exam is a requirement to obtaining employment. $15,000 ($500/trainee) is earmarked within the budget to help graduates with expenses associated with taking a comprehensive physical exam to qualify for employment. With the potential to be exposed to hazardous substances in the environmental industry, being able to track an employee's health over the course of his/her career in the field is important. In addition to a necessity for employment, establishing and documenting a base line of the environmental worker's health to identify any pre-existing conditions not conducive to working in the field is a benefit to both the employer and worker. Under this program, all participants will be required to establish a baseline of lung function prior to placement in any work activity to mitigate liability to employers. This will also give employers a sense of comfort when hiring a graduate from the program. The requirements for the physical exams are derived from the regulations and requirements for the HAZWOPER, ASBESTOS, and LEAD course offerings; as each course account for different components of the physical exam.

Upon successfully completing the program, each cohort will celebrate their achievement at a graduation ceremony with their families and program sponsors. Trainees will receive a cap & gown to wear to the graduation ceremony. In addition to receiving certificates, each graduate shall receive a graduation work bag filled with the appropriate PPE required to work on a job site (the work bag may include items, such as, a hard hat, safety glasses, ear plugs, reflective vest, or an air purifying half-face mask). Hence, $5,550 is allotted for expenses incurred for graduation: cap and gowns for 30 graduates ($50/graduate = $1500), work bags for each graduate ($100/graduate = $3000), and graduation celebration for each of the three cohorts ($350 /cohort = $1050).

After completing training and passing a physical exam, graduates will qualify for assistance with job placement. Therefore, $4,500 is allocated to support job placement and tracking activities for program

graduates. Tracking activities includes weekly class meetings until placement, as well as 6 and 12-month check-in with each graduate post-graduation. $300 is budgeted for materials and supplies to support job placement and tracking as well.

$7,500 is budgeted under program management for a resource to manage contractors, collect data for quarterly reports to satisfy EPA's reporting requirements, prepare presentations for information sessions to engage the target population, and engage stakeholders to keep them abreast of program status ad performance. The budget also includes $6,210 under program management for three team members to travel to three All-Grantee Meetings over the duration of the grant ($2,070 /year for three members to travel to the meeting for three years).

Total fringe benefits for personnel included 1.45% for Medicare, 6.2% for FICA, 1% for State Unemployment Insurance, and 1.31% for Workers Compensation for a total of 9.96% (which yields $2,092 over the course of this project). Lastly, $6895 added for indirect cost.

4. Program Structure, Anticipated Outputs and Outcomes

A. Outputs and Outcomes

Table 4. Output targets

Overall # of Participants Enrolled in Program	# of Graduates Completing Program	# of Graduates Placed in Environmental Positions	# of Graduates Not Placed but Pursuing Further Education
30	30	27	3

Anticipated outputs for the program include increasing the number of skilled environmental workers in the Charlotte Mecklenburg region by training 30 individuals within 24 months (please see 24-month training plan in the attached milestone schedule). To achieve this target, the program intends to touch approximately 200 individuals via outreach, informational and tryout sessions to recruit and enroll 30 participants into the program. The total enrollment target can be achieved by offering the training 3 times with 10 trainees per cohort. With expectation of a 100% graduation rate, 30 trainees are expected to complete the training program in its entirety. It is probable for 10% of graduates to decide to continue pursuing further education after completing the program due to personal choice. Consequently, 27 graduates are projected for job placement. Additional outputs for the program include the following:

- Execute 9 information sessions to inform community of program initiative
- 30 individuals with certification in HAZWOPER40, and additional credentials relevant to the environmental field (i.e. 2 licenses for Lead & Asbestos Worker, OSHA card)
- A dedicated EWDJT Advisory Board consisting of employers and community partners to guide and monitor the program's performance and progress towards achieving the output targets (board members listed in the attached milestone schedule).

The anticipated outcomes of an EWDJT Program in Charlotte are the impacts the program can have on the community by:

- Establishing a support system for the unemployed to become more self-reliant and self-sufficient. Offering the unemployed and underemployed in the community the opportunity to build a

foundation and transition into a career in a sustainable industry with a potential to continue growth (i.e. eventually become a supervisor, foreman, etc.).

- Enabling residents in low-income communities to increase their own social and economic status by gaining the credentials to qualify and take advantage of jobs created due to the Circular Charlotte initiative, assessments and clean-up efforts.
- Increasing safety awareness in the community by fostering a mindset to think about how to approach working safely daily.

All outputs and outcomes for the program shall be tracked through quarterly reports.

B. Recruitment and Screening

Spending Federal dollars effectively is of upmost importance. Thus, recruiting individuals with real interest in the field, ability to do the work, dedication to completing the program, and great potential to be a good employee for the local employers is critical. For these reasons, the program proposed would consist of eight phases: outreach, orientation, tryouts, onboarding, training, graduation, job placement, and tracking.

- Outreach consist of creating and distributing notifications and marketing materials to the unemployment office, community partners, shelters, and/or public housing authority to reach the target population. For example, at least one month prior to the start of a training cycle TWIN operates a pop-up table in the lobby of Charlotte Housing Authorities main office twice a week to distribute market material, application packets, and ensure the community is aware of the program. Outreach also includes, but not limited to posting marketing material on social media and participating in local job fairs to gain interest from employers as well as potential applicants.

- Orientation involves scheduling and coordinating information sessions. Information sessions are conducted prior to each training cycle to give the target population a perspective on careers in the environmental field, make them aware of the program's mission, eligibility requirements, training expectations, and next steps for applying to the program. Application packets are distributed during the information sessions. Individuals interested in becoming a potential candidate for the program, must apply prior to the given deadline to be eligible to participate in tryouts. Information regarding the date, time, and location for tryouts is also disclosed to attendees of the information session. To be eligible for the program, an individual must be a U.S. Citizen, have a high school diploma or the equivalent of a GED, and be able to pass a drug test (possession of a driver's license preferred).

- Tryouts encompass pre-screening activities to evaluate candidate's ability to comprehend and follow directions, work in a team, communicate, and assess their physical fitness. Employers, instructors, and other key stakeholders participate in tryouts to identify the most viable candidates to complete the training for placement. Pre-screening interviews are conducted in partnership with a local employer and/or a training instructor. The objective of the pre-screening interview is to further assess applicants' skills, discuss in more detail the program time commitment in addition to expectations or benefits to participants (such as all-inclusive fees for applications, licenses and physical exams), answer clarifying questions, identify risk or constraints, and understand applicant's ability to get to and from class. The overall aim of the pre-screening interview is to fill a class with people that can be put to work. Drug screenings are also performed on all program applicants.

- Onboarding of program participants follows tryouts. Within 24 hours of the last day of tryouts, applicants are notified of their status in the program. Candidates selected to participate in the program receive an invitation to participate, training schedule, code of conduct, commitment letter, and instructions for next steps, which includes background checks. Personnel files are also established for all participants as a recordkeeping requirement. If an applicant has a case coordinator assigned to them via a community partner, the case coordinator is also informed of the applicant status.

- Training commences after onboarding. Prior to the first day of training class, participants are sent a reminder by email and/or phone call. Training materials are distributed in class and participants will be required to fill out relevant application forms for certification and/or license at the beginning of class (but not filed until class is complete) to minimize delaying the application process. The training venue is conveniently located less than 0.1 miles from public transportation. The program is strategically designed for the training to be completed within six weeks to keep participants motivated, focused, and to also put those that may have been unemployed for a long duration back into the routine of going to work daily. Sporadic and long drawn out training have a higher potential for turnover and attrition.

- A graduation is given for each cohort to officially certify and celebrate accomplishments. During graduation, trainees are presented with their earned credentials along with a workbag and work boots (to ensure they have the proper personal protective equipment to be on a jobsite).

- Job placement requires candidate to pass a physical prior to being placed. Upon passing a physical, program graduates are assisted with job search and placement with employers (via direct hire or staffing agencies).

- Tracking is composed of post-graduation follow-up & check-in. To satisfy the tracking and reporting requirements of graduates, trainees are required to attend class meetings and schedule a 6-months and 12-months check-in with the program manager and/or their case coordinator to follow-up on their progress post training. During the touch points, information will be captured on the graduate's employment status, wage rate, and any additional training obtained post-graduation.

C. Program Support

In addition to the hard skill environmental training outlined in the program description, the program also provides trainees with soft/life skills training, job search support, and monthly peer group meetups. Entrepreneurship readiness is incorporated into the soft/life skills training to encourage trainees to consider eventually using their new skills to start their own business after gaining some work experience in the field.

Job search support occurs during the training delivery as well as post-graduation. Over the course of the 6-weeks of training, trainees are provided with mock interviews, assistance with resume writing, tips for networking, and opportunities to engage with local employers via in-class Meet & Greets, as well as job fairs. The in-class Meet & Greets allows employers to come to the classroom to share information about their company's goals and mission, job opportunities, and their hiring process in an informal setting. It allows the students to ask clarifying questions and assess the potential opportunities available to them prior to graduation. This informal setting also permits students to get comfortable with having a conversation with employers and to move beyond the nervousness and fears of formal interviews.

Trainees are also required to development a Personal Development Plan (PDP) with a Personal Growth Specialist and a Career/Employment Specialist prior to graduation. The PDP outlines the goals trainees would like to achieve within 6 months of completing the program. Hence, the PDP is one of the tools used to monitor graduate's progression or growth.

Upon graduating from the program, graduates continue their engagement with a Personal Growth Specialist and Employment/Career Specialist for 6 months via weekly class meetings and monthly peer group meetups. The weekly class meetings are designed to help trainees' transition from the classroom to the workforce by distributing notifications of job openings (or career fairs) and assisting with submission of job applications. Graduates are required to attend the weekly class meeting until an employment is obtained. The monthly peer group meet-up is dedicated time for the trainees to come together to talk about their experiences in the workplace, share ideas, teach one another, problem solve, and build comradery via a fun activity. This engagement helps the trainees build a network of support amongst themselves (note, although program participants engage in weekly and monthly socials for up to six months, they are tracked for up to one year).

Another significant support to placing program graduates is the inclusion of employers, and two local environmental staffing agencies in the tryouts and pre-screening interviews. As community partners, Environmental Staffing in addition to Bergman Brothers Environmental Staffing are committed to working with TWIN to help place graduates of the program.

Lastly, TWIN encourage local employers to consider trialing program graduates under the Charlotte Mecklenburg County On-the-Job Training (OJT) Program for dislocated workers. The OJT Program can reimburse employers up to 90% of an employee's salary for 3-6 months (depending on the number of employees on staff). Information regarding the OJT Program is shared with employers to inform them of the program benefits and requirements.

D. Program Sustainability

In addition to proposing to the EPA grant for funding to support the EWDJT program, TWIN continues to engage foundations and sponsors (in the public and private sector) that have environmental and workforce development initiatives to help sustain the program and support cost not covered by the EPA grant. For instance, due to support from a corporate sponsor (Wells Fargo), TWIN was able to provide breakfast and lunch to a recent EWDJT cohort. This was of great significances being that program participants consisted of individuals from a shelter and foster care program that provided them daily meals. However, such individuals miss out on meals while participating in the program (due to early departures from their residence to commute to training classes for an 8 am start).

Being able to provide nutritional meals to all the trainees during all day training classes allows them to remain present and focused on the training content being delivered to them. It is also easier to reassemble the class after a lunch break when no one must leave to secure food. Furthermore, access to stores and restaurants within walking distance is limited due to the training facility location.

In addition to proposing to corporate sponsors and foundations, TWIN has partnered with the city of Charlotte for workforce development programming (which will be further discussed in the community and employer partnerships section).

Lastly, TWIN will use the experience of running an EWDJT program to eventually proposed to other agencies with initiatives focused on health, safety and environmental justice.

5. Community and Employer Partnerships

A. Collaboration with Entities Involved with Local Remediation Activities & Environmental Projects
Throughout the design and development of the SET Program, TWIN collaborated with David Wolfe, Program Manager for the City of Charlotte's Environmental Services Group within the Engineering and Property Management division, to discuss findings from previous assessments as well as resource needs for current and upcoming projects. Mr. Wolfe served as the project manager for the City's Brownfield Phase I & II Assessment Grants in 2010. In support of this proposal, Mr. Wolfe collaborated on the curriculum development and conducted research on areas surrounding the City of Charlotte to help TWIN identify potential environmental hazardous in the community. He also serves as the chairperson for the EWDJT Advisory Board. Having input from the City's Environmental Services is valuable to maintaining the program's integrity, and ensuring the training offered to participants is relevant to the City's need for resources to support future projects that may require resources with environmental expertise.

Furthermore, Kevin Dick, Deputy Director in the Office of Economic Development for the City of Charlotte, also serves on the EWDJT Advisory Board. Mr. Dick was instrumental in administering the City of Durham EWDJT Program in 2008-2014. Therefore, he has advised and shared his expertise in administering successful EWDJT grants. In addition to the advisory and counsel provided, the Office of Economic Development has a workforce development initiative called Project P.I.E.C.E. (Partners for Inclusive Employment and Career Excellence). The central focus of Project P.I.E.C.E. is connecting Charlotte area residents with job training and support services. Due to the EWDJT program, TWIN is now recognized as an official training provider under the Project P.I.E.C.E. initiative. Hence, the Office of Economic Development is committed to referring graduates from the EWDJT program to general contractors and subcontractors participating the Project P.I.E.C.E. coalition for potential hire.

Regarding the city's commitment to a circular economy, an important component proposed is the opening of the "Innovation Barn" in the fall of 2019. The Innovation Barn will serve as the city's local circular economy showcase and innovation center. The facility slated to become the Innovation Barn is an old horse barn that requires renovations. The organization taking the lead in the redevelopment of the Innovation Barn is Envision Charlotte (a local organization with a mission towards environmental sustainability). During a community/neighborhood meeting at the Waste Management facility, Envision Charlotte highlighted two issues that needed to be resolve before renovation of the facility could proceed; the abatement of asbestos on the windows and lead based paint found at the facility. Upon hearing the issues, TWIN took the opportunity to share information about the EWDJT program and to engaged with Envision Charlotte to help develop a workforce to address the issues highlighted (since TWIN's EWDJT program trained individuals for asbestos and lead abatement). As illustrated, even in the early stages of launching the circular economy initiative, the need for labor resources with environmental expertise surfaced and the demand for such labor resources is expected to continue to grow as the Circular Charlotte moves forward.

As mentioned previously in the labor market demand, two long-term projects are scheduled to start mid-2019 and the beginning of 2020: the expansion of the Charlotte Convention Center and the terminal lobby at the Charlotte Douglas Airport. The construction for both projects will be completed by a joint venture consisting of three contractors (Holder – Edison Foard – R.J. Leeper). TWIN signed a Letter of Commitment with the joint venture to help identify potential candidates for the pre-apprenticeship program associated with the two projects. TWIN has also partnered with Charlotte Water to help fill their pipeline for their intern and apprenticeship program by referring EWDJT graduates. Both initiative presents opportunity to engage graduates from TWIN's EWDJT program with local employers for hire.

Lastly, TWIN is an active participant in a newly formed coalition called Charlotte Environmental Justice Task Force. The group consist of employers and organizations with missions toward public health, green

jobs, solar power, and environmental education. The objective of the task force is to identify where the gaps are and to devise a strategy for how the task force can work together to address the gaps identified.

B. Community Partnership Building

Operating an EWDJT program has required TWIN to engage and establish relationships with other organizations currently servicing the unemployed and underemployed in the community. Information regarding the EWDJT program has been shared with (but not limited to) the Department of Veteran Affairs, Department of Social Services, NC Department of Health and Human Services, Men's Shelter of Charlotte, Salvation Army's Center of Hope, My Sister's House, Goodwill, and The Relative Crises Center, and Elon Homes.

In addition to the above, TWIN has developed a strategic partnership with CHA to reach low income individuals in public housing units. The partnership is an additional tool to support CHA's Job Plus Program, which is founded upon promoting family self-sufficiency. To start building an avenue to connect with CHA residents, information sessions have been held at CHA properties in addition to hosting pop-up tables in CHA main office lobby to make residents aware of the EWDJT program. CHA case management staff also sent out alerts to their residents regarding the program. Since case coordinators are assigned to CHA residents, CHA is committed to providing administrative support for the onboarding and tracking of their participants throughout the program. CHA has also provided TWIN with training space at the Job Plus Center to conduct tryout sessions and soft skills training when needed. CHA is also committed to providing childcare and bus passes for their residents participating in the program (as funding permits).

TWIN has also presented at other public forms, such as the Tuesday Morning Breakfast Club and the Citizen Forum during a City Council Meeting at the Mecklenburg County Government Center to make the public aware of the EWDJT program and encourage their involvement.

Charlotte Works, which is the local Workforce Investment Board in Charlotte offers a soft skill training to help the unemployed gain skills for job readiness. To support TWIN'S soft skill training, Charlotte Works has provided TWIN a list of nine training partners in Mecklenburg County authorized to provide support for the training. Charlotte Works also sponsors a Work and Learn Program at Central Piedmont Community College (CPCC) that offers free training for underserve youth, which will be discussed further as a leveraging tool. TWIN engaged Sheena Ashley, the Director of the Work and Learn Program, to understand the program eligibility requirements and request the opportunity to refer qualifying graduates from the EWDJT Program.

C. Employer Involvement

The involvement of employers into the development of the EWDJT Program began with their feedback regarding the type of certifications desired and required for hiring; which was taken into consideration when developing the training curriculum. Since then, local employers have continued to be involved throughout the execution of the program and have served in various capacities. For instance, local employers have either served on the EWDJT Advisory Board, volunteered to serve as an Evaluator during Tryouts (to help identify and interview candidates for the program), and/or served as a guest speaker during Meet & Greet sessions.

Two members committed to the advisory board are representatives from environmental staffing agencies (BBES and EN-STAFF). Having program participants associated with staffing agencies give graduates access to many employers. Exposing potential candidates to employment agencies prior to taking the training also serve as an incentive to complete the training and yield some enthusiasm about the industry.

6. Leveraging

In addition to corporate sponsorship, TWIN leveraged EPA funds to secure a contractual agreement with the City of Charlotte to incorporate wrap-around services for program graduates for up to six months post-graduation. The support from the City, has allowed TWIN to onboard additional resources to assist with case management, human support services, and employment counseling. Post-graduation support services may include providing provision for transportation to get to/from work (via gas cards and bus passes), providing graduates with work attire (boots/uniforms), providing a stipend to help subsidize childcare expenses, or guiding graduates to appropriate channels and resources for childcare services, housing, and substance abuse counseling, if needed.

The Work and Learn Program can also be leveraged to allow graduates between the ages of 18-24 to gain free training to obtain their commercial driver's license at the Central Piedmont Community College (CPCC). The Work and Learn Program is operated by CPCC and sponsored by Charlotte Works. The program offers youth not currently enrolled in school the opportunity to received up to $1500 in free training. TWIN will refer all eligible candidates to the Work and Learn Program.

The state's NC Works Incumbent Worker Training Grant which reimburses business for the cost of training their workers may be used as leverage to entice local business owners for in-kind donations or to send employees through the EWDJT program as it will help offset the training cost. Under the Incumbent Worker Grant, eligible employers can receive up to $60,000 lifetime total over the course of the company.

The City of Charlotte has its own self-funded Brownfield Grant Program, which provides a matching grant for environmental assessment costs to private developers within the Business Corridor Revitalization Area (BCRA). Since the South End District is a part of the BCRA geography, the City's self-funded Brownfield grant can also be leverage with developers to onboard graduates from the program to support environmental assessment initiatives.

Other means of leveraging support for the program includes reminding volunteers that give of their time and support to apply to their company's dollar matching programs, if applicable. Lastly, making every effort to leverage the Section 3 Provision in CHA contracting solicitations regarding HUD funded projects can also be a support for the placement and hiring of program graduates.

7. Programmatic Capability

A. Grant Management System

Dr. Tonnia Thomas serves as the program manager for the EWDJT program. Dr. Thomas is supported by a case manager, career-employment specialist, and an advisory board dedicated to the EWDJT initiative (board members listed in attachment). All activities concerning the EWDJT grant is guided by Dr. Thomas with input from the advisory board.

To further support the program's execution, Dr. Thomas developed an EWDJT Operational Playbook with details on the following information about the EWDJT Program: team members as well as their roles and responsible, advisory board members, community partners, training curriculum, trainers, participant requirements, step-by-step instructions for the program's eight phases, as well as, the inputs and outputs for each of the eight phases of the program.

Prior to launching the official EWDJT program, Dr. Thomas served as the program lead for the test pilot. She also has a diverse background in Material Science Engineering, Mechanical Engineering, New

Product Development, Supply Management, Small Business Development, and Program Development. In a previous role, as Program Director for Spend Management Solution (SMS), Dr. Thomas was responsible for managing a Talent Development Program which provided a variety of training classes to corporations and universities.

Dr. Thomas (in her former role) was also a part of the team that established and implemented the first Procurement and Supply Management Fundamentals Certificate Program at University of North Carolina Charlotte (UNCC) and Clayton State University (CSU) in 2015. The certificate program was designed to give emerging and transitioning professionals a holistic view of the purchasing and sourcing process. Like the EWDJT Program, this certificate program required outreach to market the program, curriculums development, coordination of instructors, class scheduling, securing venues, registering and onboarding students, as well as follow-ups with class participants.

Lastly, both the case manager and career-employment specialist have prior work experience as a training coordinator and in human resources or support services. Their work experience entails servicing a diverse clientele which included the unemployed, under-employed, low-income, or simply individuals with significant barriers to employment.

B. Organizational Experience

The test piloting of an EWDJT program in 2017 and the official launch in 2018 enabled TWIN to gain first-hand experience with running an environmental job training program. It also demonstrated TWIN's capacity to reach the targeted demographics proposed. For example, previous graduates of the EWDJT program consisted of individuals recruited from Charlotte Housing Authority (low-income), Salvation Army's Center of Hope (women's shelter), and Elon Homes (youth aged out of foster care).

The organization has secured qualified and certified training providers via a competitive bid process. Processes and procedures to effectively run the program has been validated and documented.

In addition to the EWDJT program, TWIN has substantial experience developing and running training programs and workshops for professional development. For instance, TWIN has program segments for Youth Career Development and Small Business Development support. TWIN has a youth career awareness initiative called Grooming an Ace that targets students in the 8-12th grade and first year college students to make them aware of the 16 Career Clusters recognized by the Department of Education. This program has serviced youth in Charlotte, NC, Knoxville, TN, Hurtsboro, AL, and Montgomery, AL.

TWIN is also a training provider for the Women's Business Center of Charlotte (WBCC). TWIN offers three training workshops to entrepreneurs via the WBCC.

C. Audit Findings

No audits have been required for the TWIN organization to date.

D. Past Performance and Accomplishments

TWIN received the EPA Environmental Workforce Development and Job Training Grant for the first time in 2018 (but has not received a Brownfields Job Training Grant). The project consists of four training cycles to train 40 individuals over 24 months. To date, two training cycles have been executed as scheduled according to the project work plan. A total of 17 participants entered the previous training

cycles and 16 of the 17 graduated (note: one trainee withdrew from the program for medical reasons after a car accident). Therefore, the program has a 94% completion rate (to date). TWIN has also submitted two quarterly reports to the assigned EPA Project Officer (Wanda Jennings) as required. Additional information about the ongoing project to date is outlined in the table below:

Grant #	Project Period	Funds Expended (to date)	# of Participants Trained	# of Participants Placed
JT - 00D73718	10/1/2018 9/30/2021	$65,465 (of $164,280)	16	13

TWIN is in the process of recruiting for the third training cycle (which is scheduled to conclude by October 4, 2019). Due to partnerships with employers and the demand for labor to support local projects scheduled to start in summer and fall of 2019, the target participants for the upcoming training cycle is 20. If the target trainees are achieved in cohort 3, the remaining funds would only support four trainees. Hence, additional funding is needed to continue training and developing labor to support projects planned.

Appendix 3 - Other Factors Checklist

Please identify with an *X* any of the items below which may apply to your proposed Environmental Workforce Development and Job Training Grant project area as described in your proposal. Also, provide the page number and where the information is located within your proposal on how you meet the factor on the line provided next to each factor. EPA may verify these disclosures and supporting information prior to selection and may consider this information during the evaluation process.

☐ Fair distribution of funds between urban and non-urban areas, including an equitable distribution of funds to "micro" communities (those communities with populations of 10,000 or less). Provide your total population count below.

_____

☒ Fair distribution of funds between new applicants and previous job training grant recipients; ("New" applicants are defined as organizations that have not received EPA brownfields job training grant funding since 2012) Indicate whether you have ever received EPA EWDJT grant funding before, and if so, in what year(s) did you receive funding?

TWIN received first EWDJT grant in 2018 (pg 15)

☐ Whether the applicant is a federally recognized Indian Tribe or United States Territory, or is an organization that will primarily serve tribal or territorial residents.

_____

☐ Whether the applicant is a member of an Urban Waters partnership project, including, but not limited to, recipients of EPA Urban Waters Grants and members of the Urban Waters Learning Network.

_____

☒ Proposals that seek to serve veterans.

Target population includes displaced-veterans, low-income, at-risk youth in foster care, and individuals in shelters (pg 2)

☐ Whether the applicant's project is located in an IRS-designated Opportunity Zone.

_____

TWIN EWDJT Program

EWDJT Advisory Board:
David Wolfe - City of Charlotte (Engineering & Property Mgmt. - Environmental Services)
Kevin Dick - City of Charlotte (Neighborhood & Business Service – Economic Development)
Dwayne Burnett - Environmental Staffing
Chris Campbell - Charlotte Housing Authority (CHA)
Gilberto Bergman - Bergman Brothers Environmental Staffing
Erika Shorty - Charlotte Works (Workforce Investment Board)
Carly Carroll - Wells Fargo (Environmental Sustainability)
Natalie Williams - Women Business Center of Charlotte (WBCC)
Ronnie Devine – Mecklenburg County

Milestones for EWDJT Start-up:
Becoming an EWDJT Grantee for the first time in 2018 was a critical and vital milestone for TWIN. The organization has gained valuable experience operating an environmental job training program. Due to this experience, TWIN is ready to operate immediately upon notice of an award.

Action Item	Status
Target Community Research	Complete
Labor Market Survey	Complete
Outreach to Municipal Agencies	Complete
Establish Advisory Board	Complete
Draft Curriculum Design	Complete
Program Budget	Complete
Training Schedule	Complete
Develop Operational Playbook	Complete
Secure Training Providers	Complete
Notify Community of Intent	Complete
Sponsorship & In-Kind Donation Request	Ongoing
Submit Proposal grant.gov	6/9/2019
Notice of FY 20 Award	Fall 2019
Notify partners of upcoming training	upon award
All Grantee Meeting	TBD
Program Commencement	upon award
Info Sessions for Cohort	upon award
Tryouts & Onboarding	upon award
Begin Training Courses	upon award

EWDJT Training Schedule							
Week		1	2	3	4	5	6
Training	Hrs						
ASBESTOS	32						
LEAD	16						
OSHA10	10						
CONFINED	8						
HAZWOPER	40						
Soft Skills	24						
Pest Mgmt	8						
Soil/Ground	16						
CPR	4						

The program proposed consist of hard and soft skill training over the course of 6 weeks. The program yields 3 cohorts within 24 months (minimum of 10 participants per cohort). Each cycle incorporates recruitment, tryout, 6-weeks training classes, graduation, and commencement of job placement.

EWDJT 24 Months Training Cycle

EWDJT 24 Months		2019			2020												2021							
		oct		dec	jan				may				sep				jan			apr				
	Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	24
Date	Cycle																							
Oct 15 - Jan 17	1		cohort 1																					
Jun 29 - Sept 25	2										cohort 2													
Jan 04 - Apr 02	3																cohort 3							

The 24 hours of soft skill training consisting of the following content:

Training Module	Module Content
Self- Awareness & Management	• Active Listening • Who are You? • Managing Your Emotions & Stress • Managing Your Workload • Time Management
Personal Branding & Business Acumen	• Brand You • Elevator Pitch • Business Etiquette • Networking • Interview Tips • Social Media • Project Management
Communication & Conflict	• What is Communication? • Communication Barriers • Causes & Types of Conflicts • Conflict Management Styles • Problem Solving vs. Problem Statement
Teamwork & Leadership	• Team Development – Bruce Tuckman's Model • Stages of Leadership
Money Matters	• Setting Financial Goals • Budgeting & Planning: Income vs. Expenses
Entrepreneurship Readiness	• Five Critical Components

Course Content

OSHA10 (10 hrs.)

- Introduction to OSHA w/handouts
- OSHA Focus Four Hazards
- Fall Protection Hazards
- Electrical Hazards
- Struck By
- Caught-In/Between
- Personal Protective & Life Saving Equipment
- Health Hazards in Construction
- Hazard Communications 2012 GHS
- Tools - Hand & Power
- Scaffolds
- Excavations
- Stairways & Ladders

CPR (4hrs.)

- Life is Why
- Roles and Responsibilities of Responder
- Assessing the Scene
- Calling for Help
- Recognizing an Emergency
- PPE
- Breathing Emergencies
- Choking
- Cardiac Arrest
- CPR Skills
- Automatic External Defibrillator
- First Aid

Integrated Pest Management (8hrs.)

- Pesticide Names and Classifications
- Pesticide Exposure & Hazards
- Personal Protective Equipment
- Pests and Pesticides
- Storage/Disposal of Pesticides
- Application
- Laws & Regulations

Confined Spaces (8hrs.)

- Explanation for general hazards associated with confined spaces
- Definitions of confined spaces and "permit required" confined spaces
- Responsibilities of managers, supervisors, entrants and attendants
- Types of emergencies
- The use of safety and retrieval equipment
- Permit required and non-permit required entry procedures
- Confined space entry:
- Responsibilities at the facility Level
- The posting of warnings
- Informing outside contractors
- Air quality requirements and the use of ventilation equipment
- Confined space rescue operations and equipment

Lead Based Paint (16 hrs.)

- Roles & Responsibilities of the LBP Abatement Worker
- Background Information on Lead Based Paint
- Health Effects of Lead Bases Paint Exposure
- Laws, Regulations & Standards
- Identifying Lead Based Paint Hazards
- Controlling Lead Based Paint Hazards
- Setting Up for Abatement
- Abatement Methods
- Clean-up, Disposal & Clearance Testing
- Soil Abatement & Cleanup
- Hands-on Training - Component LBP Hazard Recognition & Control Methods
- Hands-on Training – LBP Hazard Reduction Methods & Restricted Practices
- Hands-on Training – Interior Dust Abatement Methods Clean-up & Lead Hazard Reduction
- Hands-on Training – Soil & Exterior Dust Abatement Methods & Lead Hazard Reduction
- Hands-on Training Teardown and Waste Segregation

HAZWOPER40 (40hrs.)

- Hazard Communication Standard
- History of Laws
- Hazwoper Regulations
- "Poison" Video
- Chemical Exposure
- Fire & Explosions
- Reference Materials Overview & Exercise
- Oxidizers
- Oxygen Deficiency
- "Carbon Monoxide" Video
- Ionizing Radiation
- Potential Site Hazards
- "Trenching & Excavating" Video
- Heat Stress
- Cold & Noise Exposures
- Intro to OSHA Standard 1910.146
- "No Escape" Video
- "Blast Wave" Video
- Planning & Organizing
- "First On Scene" Video
- Collecting Hazard /Response Info
- Training
- Medical Monitoring
- Site Characterization
- "Anatomy of a Disaster" Video
- Air Monitoring
- Self-Contained Breathing Apparatus
- Atmosphere Supplying/Air Purifying Respirators" Video
- Chemical Protective Clothing
- Respirator Fit Testing
- Site Control
- Decontamination
- Drums & Containers
- Site Emergencies
- "Teamwork" Video
- "Chemical Spills, Leaks & Cleanup Operations" Video
- Prep for Hands-On Activities

ASBESTOS (32 hr.)

- Background Information on Asbestos and Asbestos-Containing Materials
- Health Effects Related to Asbestos Exposure
- Protecting the Worker: Respiratory Protection and Protective Clothing
- Establishing a Type C, Supplied-Air System
- Establishing a Medical Surveillance Program – Medical Monitoring
- Pre-Work Activities
- Glove-bag Techniques for Removal of Pipe Insulation
- Preparing the Work Area and Establishing the Decontamination
- Confining and Minimizing Airborne Fibers
- Safety and Health Considerations Other than Asbestos
- Cleaning Up the Work Area
- Waste Disposal Requirement
- Sampling and Analytical Methodology Pertaining to Asbestos Abatement
- Post Removal Lockdown Procedures and Asbestos Substitutes
- Regulatory Update
- Hands-on Workshop - Pre-Work Activities (Area Preparation) & Proper Work Practices
- Proper Work Practices Establishing Negative Air & Decontamination Unit
- Glove Bag Exercises & Teardown, Final Clean-up

Soil & Groundwater Sampling (16 hrs.)

- Discussion of the Site Assessment Process
- What is contamination, and why is it important
- Common contaminants, their chemical properties and sources of release
- Field documentation techniques
- Site Assessment Tools
- Drilling
- Geophysics
- Lab analysis
- Field tools
- Groundwater Sampling
    - Planning for a groundwater monitoring event
    - Pre-sampling activities
    - Well-purge sampling
    - Low-flow sampling
    - Passive sampling
    - Post-sampling activities
- Soil Sampling
    - Containers
    - Sample collection
    - Decontamination
    - Soil screening
    - QA/QC samples
    - Waste Characterization sampling
- Sediment and surface water sampling
- Remediation
    - Common remedial technologies for soil and groundwater
    - Factors in selecting different Remedial Technologies
    - Operations and Maintenance of Remedial Systems
- Health and Safety Topics in Remediation
- Career Opportunities in environmental site assessment and remediation