

# CONNECT News

Community Support, Networking, and Assistance for Environmental Career Training



*The Hazardous Materials Training and Research Institute of the Eastern Iowa Community Colleges (HMTRI-EICC), with a cooperative agreement from the U.S. Environmental Protection Agency (US EPA), assists communities establish environmental job training programs. To better exchange ideas, HMTRI-EICC distributes CONNECT News, featuring topics of interest among those interested in participating in the EPA Brownfields Environmental Job Training (BJT) grant program.*

*This month's issue expands upon topics discussed in the Professional Learning Community (PLC) related to curriculum development, training, and retention of BJT participants.*



## Training and Retaining Program Participants

The objective of the Brownfields Job Training Program currently funded by the Infrastructure Investment and Jobs Act, (Bipartisan Infrastructure Law) is "to deliver Brownfields Job Training (BJT) programs that recruit, train, and retain a local, skilled workforce by prioritizing unemployed and under-employed residents to obtain the skills and credentials needed for pathways into full-time employment in various aspects of hazardous and solid waste management and within the larger environmental field, including sustainable cleanup and reuse, and chemical safety." Developing a curriculum that provides training and certifications for jobs in most demand creates the best opportunity for graduate employment. Additional awareness training incorporated into the curriculum can familiarize students with additional peripheral job opportunities. This issue of CONNECT News explores the following aspects of BJT curriculum development and student retention:



- **Curriculum Development**
- **Finding Qualified Trainers, Facilities and Equipment**
- **Health and Safety in the BJT Curriculum**
- **Student Support and Retention**
- **Curriculum Development and Retention Strategies to Consider When Developing a Training Program**

## Curriculum Development

### **Aligning Curriculum with Labor Market Assessments**

There is no single curriculum that is best suited for every Brownfields Job Training Program. Demand for workers with specific skill sets varies over time depending on the economy, local environmental issues, deconstruction activity and active remediation projects. Staying responsive to employer needs for skilled workers requires BJT curriculum to remain flexible. Frequent labor market assessments guiding curriculum with



regular program evaluations can help ensure that training is relevant and is addressing topics consistent with workforce needs.

Curriculum guided by labor market assessments helps insure graduate placement.

In most large and midsized communities, a full range of occupations requiring workers with environmental, health and safety certifications can be found. While rural areas have fewer options, hazardous waste, spills, and cleanup projects still provide employment opportunities. In small and rural

communities, environmental workers often find employment with local government, at municipal facilities and as part of public works projects. Curriculum offerings in rural communities may differ from those in urban areas. However, in each case, training should prepare students for local employment opportunities including employment with national contractors maintaining a mobile national (or international) workforce.

Because the demand for certified environmental workers is dynamic, it is essential that program planners prioritize skill and knowledge requirements most in demand. At the same time, trainers need to develop a curriculum that will address a range of additional job opportunities. Because environmental work may be grouped with or incorporated into traditional occupations, curriculum developers need to look beyond the obvious environmental job titles.

- Welders may need asbestos training when working around insulated piping.
- Painters may require lead testing, remediation training and confined space certifications.
- All trades working with potential hazardous exposures are required to have 1910.120 certifications.
- Many construction and deconstruction occupations require environmental remediation skills and certifications.
- Handling and transporting hazardous materials requires environmental certifications.

Since many environmental jobs are embedded in traditional occupations, labor market assessments limited to environmental job titles will not reveal the majority of open positions. Individual employers must be approached with specific questions regarding certification, skill and knowledge requirements associated with various jobs.

The following categories of employers often look for employees with BJT job skills but do not use the title of environmental technician.

- Manpower and temp. firms
- Storage and waste facilities
- Consultants – remediation and service providers
- Local construction trade organizations
- Manufacturing firms
- Chemical and refining facilities
- Municipal facilities and utilities
- Painting, repair, and deconstruction companies
- Transportation and material handling operators
- Scrap, recycling, storage, and land fill operations
- Hospital and health care facilities

Aligning curriculum with labor market assessments, potential employers and advisory board members will result in the development of a responsive training program to community needs.

### **Aligning Curriculum with EPA Funding Priorities**

BJT grantees are given wide latitude to develop their training programs as they see fit so long as the courses offered align with EPA's funding priorities. Those priorities are associated with the

mission and goals of the EPA Office of Brownfields and Land Revitalization (OBLR). The only required training is OSHA 29 CFR 1910.120 (40-hour HAZWOPER). Excluded are priorities overseen by other program offices such as The Office of Wastewater Management and the Office of Air Quality planning and standards.

With a range of training topics available, programs funded under the BJT cooperative agreement do have restrictions.

Training must relate to the following areas.

- Assessment and cleanup of solid and hazardous waste
- Chemical risk management
- Stormwater management relating to site cleanup
- Planning and site preparation for low impact development activities
- Planning and site preparation for green infrastructure installation and maintenance
- Vulnerability assessment and contamination mitigation planning



EPA FY24 BJT guidelines provide examples of training which aligns with OBLR priorities centered around solid/hazardous waste management and Brownfields revitalization.

- Training in “green remediation” technologies
- Training in stormwater management
- Emergency planning, preparedness, and response training for emergencies leading to contamination on brownfields sites
- Enhanced environmental health and safety training related to site remediation
- Energy efficiency, and alternative energy technologies
- Training in the assessment, inventory, analysis, and remediation of sites or facilities at which hazardous substances, pollutants, contaminants, and petroleum products are located
- Training in sustainable deconstruction in preparation of a brownfield site cleanup or redevelopment
- Training participants in the use of techniques and methods for cleanup of hazardous substances,
- Asbestos abatement
- Lead abatement
- lead renovation, repair, and painting (RRP)
- Mold remediation
- Cleaning up sites contaminated by the manufacturing of illegal drugs abandoned gas stations, or mine-scarred lands
- Training in confined space entry
- Training in first-aid, cardiopulmonary resuscitation (CPR), and blood-borne pathogens
- Training in chemistry, toxicology, and geology to the extent necessary to inventory, assess, remediate, and clean up contaminated sites
- Training in the requirements and implementation of the All-Appropriate Inquiries and due diligence
- Training in radiation safety and the cleanup of uranium mine tailings
- Training in Hazardous Material (HAZMAT) commercial driver’s license (CDL), forklift, and machine operations associated with the transportation of hazardous waste
- Training in Freon removal or the removal of hazardous substances from white goods located on a brownfield site
- Training in the preparation of sites for urban agriculture and horticulture

- Training participants in planning and conducting ecological restoration of contaminated land
- Awareness training in Environmental Stewardship and Environmental Justice to promote community involvement in assessment, cleanup, and reuse of brownfield sites
- Training in climate change mitigation and adaptation or resiliency as it relates to preparation of brownfield sites for cleanup and subsequent reuse
- Training in Green Infrastructure and Stormwater Management
- Training in building trades related to remediating contamination and site preparation
- Training in national historic preservation and tribal historic preservation regulations associated with cleanup projects
- Training in vapor intrusion testing and mitigation
- Training in site surveying, mapping, blueprint reading, computer-aided design and drafting (CADD), and geographic information systems (GIS)
- Training in *release detection* methods, techniques, and practices at underground storage tank (UST) facilities where hazardous substances and/or petroleum products are or were located

A partial list below demonstrates the diversity of core curriculum offerings that have been delivered by BJT programs over the years.

- OSHA 40 Hazardous Site Worker Protection and Emergency Response (HAZWOPER)
- OSHA 30 Construction Safety
- OSHA 10 Hour General Construction
- OSHA Confined Space Operations
- OSHA Fall Protection Certification
- EPA Asbestos AHERA Worker Certification
- Forklift Driver (Hazardous materials handling)
- Commercial Driver's License (CDL- DOT HAZMAT)
- Disaster Site Worker / Spill Response
- Underground Storage Tank Operations
- Green Infrastructure and Stormwater Management
- 8-hour Lead RRP
- Basic First Aid & Adult CPR
- Chemical Safety and Awareness

While no BJT program can prepare students for every environmental job, they can provide motivated graduates with a basic set of skills and recognized certifications. Most BJT grantees will provide between five and ten State or Federal certifications as part of their curriculum. Aside from HAZWOPER training, BJT grantees are expected to customize curriculum guided local workforce needs and OBLR priorities. While not mandatory, OSHA 10, OSHA 30 and First Aid are often considered for health and safety considerations.

In addition to training in areas outside the purview of the Office of Brownfields and Land Revitalization, life skills training, remedial education, and construction skills development are also excluded from funding under the BJT grant.

### **Incorporating Life Skills and Remedial Education as Part of a Complete BJT Training Curriculum**

Unfortunately, life skills, remedial education, and support services, while essential to BJT success, are not supported by EPA. When students are unable to successfully keep up with classroom instruction, they enter a downward spiral leading to failure. Even with selective recruitment and screening, some refresher instruction may be necessary to bring the entire classroom to a standard where training can continue. As with life skills training, EPA does not support remedial





education. Fortunately, many leveraging partners provide life skills and remedial instruction including faith-based organizations, financial institutions, and nonprofits such as Goodwill, the YMCA, and re-entry organizations. Here are some examples of life skills training provided as part of the BJT curriculum.

- Teambuilding
- Financial literacy
- Career management
- Family living
- Work readiness training
- Anger management
- Remedial education
- Application and report writing
- Personal appearance and presentation

Nonsupport curriculum is often front-loaded in the training schedule allowing participants who decide BJT is not a good fit to exit the technical training portion of the program with helpful skills.

### ***Finding Qualified Trainers, Facilities and Equipment***

Another challenging task in developing a comprehensive training program is finding facilities, qualified instructors, and equipment to deliver training. If grantees are unable to secure these critical components, curriculum offerings may need to be adjusted. Ideas for securing facilities, equipment, and instructors include the following.

- Trainers are often available from a local college (as leveraged partners, sub grantees or contractors).
- Training can be provided under another governmental program interested in providing unsupported training and/or services.
- Facilities, trainers, and equipment may be contributed (in-kind) from local governmental agencies or social service organizations.
- Community stakeholders often provide facilities and services to local nonprofits.
- Potential employers may donate facilities, equipment, and instructors as leveraged partners.
- When leveraged contributions are not available, trainers must be employed as consultants or contractors providing “fee for service” instruction.

### **Recruiting and Employing an Instructional Staff**

A well-rounded instructional staff may include many individuals, each with specific skills, experience, and access to resources. Some instructors may already be on staff, while others may require special credentials not readily available. From a grants management perspective trainers fall into one of four administrative categories.

#### **In House Trainers**

Much of the soft skills training can be provided by grantee staff and associates. When certifications are not required, in-house trainers can be a wise choice as long as the quality, depth and relevance to students can be maintained. Closely related to in-house trainers are in-kind trainers who may have specific experience and skill sets that greatly contribute to the overall curriculum.

#### **In-Kind Training, Equipment, and Facility Donations**

In-kind trainers may vary from community volunteers to employers, training providers, support services, infrastructure, and financial supporters. In-kind trainers may be potential employers,



other nonprofits, governmental agencies including the fire and EMS departments. The important aspect of in-kind partners is that Federal grant money is not exchanged for their services. If in-kind trainers are written into the grant, it should be noted and changes in those relationships should be reported to the EPA Regional Coordinator. In-kind partners not written into the grant “come and go” but can be a valuable resource during implementation of the grant.

In-kind partners may also be a source for training equipment, facilities, and financial aid. Fire and EMS departments may be in a position to provide facilities and loan equipment for hazardous materials handling and cleanup training.

### Using Sub-Grantees as Trainers

Sub-grantees are organizations written into the grant and are subject to all of the terms and conditions of the primary grantee. Sub-grantees have the same qualifying criteria as the primary grantee and are subject to audit on the same terms as the primary BJT grantee. Partnering as sub-grantees often involves an exchange of funds and does not require a competitive bid. Community colleges or governmental agencies are often written into the grant as sub-grantees.

### Training Consultants/Contractors

Training partners where grant money exchanges hands are contracted partners. Fiscal partners need to be vetted and selected by competitive bid (minimum 3 bids required when goods or services over \$10,000 are purchased.). Contractors are required to comply with standard Federal contractor rules and regulations. If a contractor is not already employed by the



prospective grantee, they may be selected prior to the grant development process and included in the proposal. It should be noted that the RFP for prospective consultants should be contingent on receiving Federal funding, training schedules and work plans.

### Procuring Training Services, Equipment, and Supplies

EPA Cooperative Agreement Recipients must follow the competitive process when using EPA funds to purchase supplies, equipment, and professional services. For reference, EPA's policy is outlined in the Procurement Standards of the Uniform Grant Guidance (UGG) published at: [2 CFR Part 200](#).

To help navigate these standards, EPA has created a Best Practices Guide:

[Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements](#).

### Organizations Providing Qualified Trainers

Congress created the [Occupational Safety and Health Administration \(OSHA\)](#) in 1970 to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance. To make certain that regulations are enforced uniformly, OSHA established a quality control or certification system authorizing instructors to issue OSHA cards to individuals receiving training from an authorized instructor.

The OSHA Outreach Training Program has become the agency's primary way to train instructors in the basics of occupational safety and health. Organized as a “train the trainer” model, OTI has established a curriculum that includes

- Occupational Safety and Health Standards for the Construction Industry
- Occupational Safety and Health Standards for General Industry

- Record Keeping
- Respiratory Protection
- Industrial Hygiene

There are several OTI Education Center short courses and seminars also available including topics such as the following:



- Accident Investigation
- Bloodborne Pathogen Exposure Control
- Confined Space Standard
- Construction Noise Evacuation and Emergency Planning
- Excavation Hazards
- Fall Hazard Awareness for Construction
- Health Hazard Awareness
- Lockout/Tagout
- Record keeping
- Safety and Health Management Systems
- Combustible Dust Hazards (1- or 2-day course)
- Pandemic Flu Workplace Preparedness

OSHA Training Institute (OTI) Education Centers provide certification training for OSHA instructors. Here is a searchable database of Certificate and Degree Programs from the 28 Education Center Locations.

<https://www.osha.gov/otiec/degreeprograms/bylocation>

### OSHA Authorized Trainers

OSHA training centers have published a database of individuals receiving “train the trainer” certificates authorized to issue OSHA cards. This list will help locate OSHA-authorized trainers conducting 10- and 30-hour Outreach Training classes in construction, general industry, maritime, or disaster site work. The Department of Labor/Occupational Safety and Health Administration lists only those trainers who have requested that their contact information be made public. Go to: [https://www.osha.gov/dte/outreach/outreach\\_trainers.html](https://www.osha.gov/dte/outreach/outreach_trainers.html)

### National Institute of Environmental Health Sciences (NIEHS)

The National Institute of Environmental Health Sciences (NIEHS) provides extensive resources related to health and safety training. NIEHS funds 18 non-profit organizations dedicated to worker protection training. Go to the following site for a listing of NIEHS grantees. [https://www.niehs.nih.gov/careers/hazmat/about\\_wetp/hwwt/index.cfm](https://www.niehs.nih.gov/careers/hazmat/about_wetp/hwwt/index.cfm).

Many BJT grantees are familiar with The Partnership for Environmental Technology Education (PETE) <https://nationalpete.org/> including and CCCHST. The Community College Consortium for Health and Safety Training is one of 18 model worker training programs recognized and funded by the NIEHS. Each summer CCCHST invites BJT grantees to a two-week Train-the-Trainer Program called the GreatEST (Great Environmental Safety Training) Institute to deliver required certifications for public and private responders and workers. For more information, go to: <https://nationalpete.org/ccchst/>

### EPA, State, and Other Non-OSHA Certificate Training

As previously noted, multiple trainers from different organizations may be necessary to deliver a complete curriculum. Instructors for HAZWOPER, asbestos, lead, or any of the OSHA certificate courses require certified instructors and an approved curriculum. However, there are a variety of State and association issued certificates employers are interested in workers obtain. Examples of non-OSHA training certifications that are regulated include the following:

- Lead Renovation, Repair, and Painting (RRP)
- Stormwater Runoff and Sediment certifications
- Mold Remediation Certification

- OSHA Standards for the Maritime
- Disaster Site Worker Trainer Course
- Confined Space Entry
- Electrical Standards
- Excavation, Trenching and Soil Mechanics
- Fall Arrest Systems
- Hazardous Materials
- Oil & Gas Exploration & Production
- Record Keeping
- Respiratory Protection
- Industrial Hygiene



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- Lead Renovation, Repair, and Painting (RRP)
- Stormwater Runoff and Sediment certifications
- Mold Remediation Certification
- Mining Safety and Health certification
- Flagger certification
- State issued stormwater management certificates

Brownfield Job Training curriculum selected that does not require OSHA, EPA and State certifications can come from a variety of sources. An Internet search for “trainers in my community” can provide a list of organizations available for the instruction being searched. A word of caution regarding internet searches that reflects back to the previous section. When certification is involved, instructors must show proof they comply with local, State, or Federal certification requirements. Often State departments of health, environment or safety will issue lists of trainers authorized to provide certification training.



**Conditions to Consider When Selecting Trainers**

Before grantees finalize contracts with instructors to deliver their curriculum, program managers need to consider the following general BJT issues.

- Is the trainer familiar with the resources and abilities of the student cohort?
- Are existing training facilities adequate for the proposed training?
- How is the health and safety of students being addressed?
- What is the status of insurance coverage on and off site if remote training is required?
- Will the training be in traditional classrooms? – Days, evenings and/or weekends
- Can instructors accommodate remote learning strategies?
- What type of facilities and equipment will be required to complete instruction and certification?
- Will the training be online, in person or hybrid?
- Will students have access to digital resources?
- Is computer literacy required as a prerequisite for training?
- What are the class size minimum requirements or limitations?

**Information Requested from the Training Organization Should Include the Following:**

- Qualifications Statement
- Applicable experience and instructor credentials
- Available facilities and equipment if required
- Training schedule flexibility
- Proposed training plan
- Student health and safety during training
- Indemnification and Insurance
- Student record keeping
- Cost per class or per student if multiple classes are scheduled to reduce class size
- References
- A statement that the contractor will comply with standard Federal contractor rules and regulations

**Health and Safety in the BJT Curriculum**

It is essential that BJT programs train and promote safety and health standards, both in the classroom, as part of the curriculum and after graduation. This is applicable whether the training is being conducted by program staff or a contracted trainer. BJT programs should be concerned for the welfare of graduates, so that appropriate safety and health procedures are being followed by employers. Many BJT grantees provide a list of safety and health policies for students. Both students and trainers are asked to sign and date this document stating that they agree to comply with all safety policies and procedures. Often environmental, health, and safety courses require students to provide a medical waiver or undergo a physical examination. Note that HAZWOPER and some other courses require program participants to sign a *Participant Liability Waiver and Release of all Claims* form. This is especially true if a self-contained breathing apparatus (SCBA) will be used during the training.

**Student Support and Retention**

High placement rates are indicators of successful BJT programs that have paid special attention to labor market assessment, community assessment, careful screening, an appropriate curriculum, and attention to student issues. While it may not be possible to address all of the issues BJT participants face, recognition of their personal problems go a long way towards improving student retention. Hopefully, employment, health and human service organizations and other nonprofit partners can help mitigate some of the issues BJT participants encounter during training. They include the following.

- Transportation needs
- Shelter needs

- Financial assistance
- Legal assistance
- Chemical dependency
- Child and dependent care
- Anger issues
- Mental health issues
- Scheduling issues
- Restrictions facing returning citizens

While generally, the BJT grant will not cover these services, it should be noted that the FY24 Applications for Brownfield Job Training Programs allows for costs associated with the following eligible participant support.

- Transportation for trainees for site visits during training or to transport trainees to and from class in the form of stipends or other allowable direct costs (e.g., transportation vouchers or vehicle rental).
- Reasonable stipends to compensate trainees for participating in training. Note that stipends may only be paid for actual time spent in training classes or on-the-job training activities and must not duplicate training support provided through other Federal, state, tribal or local programs.
- Reasonable child-care subsidies. Note that child-care subsidies must not duplicate child-care subsidies.
- Costs associated with health exams (e.g., pulmonary function tests), drug testing, or licensing fees directly related to the training and/or the placement of graduates in environmental work.

Another relationship between curriculum and student retention relates to the training schedule. Some BJT programs emulate the traditional workday scheduling classes from 8:00 AM to 5:00 PM. Others have found it necessary to schedule evening and weekend classes to accommodate working students and single parents. When designing a BJT curriculum, consider training schedules as a critical element of the overall training program.

### **Curriculum Development and Retention Strategies to Consider When Developing a Training Program**

For BJT grantees to be successful in the specialized field of environmental job training for underserved populations, program managers may want to consider the following strategies.

- Environmental job opportunities are hidden among traditional occupations.
- Be in touch with where the jobs are.
- The demand for workers is specialized and variable depending on local development projects, economies, and legacy environmental issues.
- Curriculum must be consistent with EPA program priorities.
- Curriculum developers must match the curriculum with recruitment, screening, and ability to place graduates.
- Due to funding availability, leveraged resources must be found to deliver a comprehensive training program.
- Course offerings will depend on the capabilities of qualified and certified trainers.
- Health and safety must always be incorporated in the BJT curriculum.
- Program managers must be sensitive to student needs, providing assistance when issues are identified.



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CONNECT News is sponsored under Cooperative Agreement with The US Environmental Protection Agency in affiliation with the Hazardous Materials Training and Research Institute of the Eastern Iowa Community Colleges (HMTRI-EICC)

CONNECT News represents individual opinions and ideas from Professional Learning Community participants, HMTRI staff, and EPA Environmental Job Training grant recipients. They do not represent EPA policy, guidance or opinions and should not be taken as such. Copies of prior CONNECT News issues can be found at [Brownfields-toolbox.org](http://Brownfields-toolbox.org).

HMTRI is part of Eastern Iowa Community Colleges providing technician training and environmental workforce technical assistance since 1987. For more information on HMTRI-EICC technical assistance services or to be added to our Grantee and Community Outreach Listserv, please contact us at: [HMTRI@eicc.edu](mailto:HMTRI@eicc.edu).

