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## FY 1997 Accomplishments and Highlights: NIEHS/EPA Superfund Worker Training Program

Since the initiation of the Superfund Worker Training Grants Program in 1987, the National Institute of Environmental Health Sciences (NIEHS) has developed a strong network of non-profit organizations that are committed to protecting workers and their communities by delivering high-quality, peer-reviewed safety and health curriculum to target populations of hazardous waste workers and emergency responders.

The Worker Training Program was originally authorized for five years (FY 87-91) by Congress with the passage of Section 126 of the Superfund Amendments and Reauthorization Act of 1986 (SARA). The program is administered by NIEHS through an interagency agreement with EPA. During October 1990, Congress reauthorized the Superfund program for an additional three years (FY 92-94), which included an authorization of \$20 million per year for the NIEHS Worker Training Program. For FY 96, Congress provided \$18.5 million for the NIEHS Worker Training Program. EPA separately transferred \$2 million to support the continuation of an initiative for pilot project to train minority youth for careers in the environmental restoration industry.

Through an Interagency Agreement, NIEHS received \$21 million from the FY 97 EPA appropriations to support cooperative agreements for providing model occupational safety and health training for workers and their supervisors that perform dangerous jobs in the nation's hazardous waste management and remediation programs, as well as for emergency responders to uncontrolled hazardous materials releases. One million dollars of the FY 97 funds were allocated to continue support for the Minority Worker Training Program. EPA transferred \$400,000 to support Superfund Jobs Training Initiative (Super JTI) activities, which provided additional funding to NIEHS awardees. Public sector workers receiving training are primarily from state and local governments. Few federal employees have been targeted, as there are other means by which they may be trained.

During the first ten years of the Superfund Worker Training Program (FY 87-97), the NIEHS has successfully supported twenty primary awardees. These represent over ninety different institutions who have trained nearly 596,000 workers across the country and presented more than 31,000 classroom and hands-on training courses, which have accounted for over 9.0 million contact hours of actual training (See Appendix 1).

Through the encouragement of multi-state, university-based consortiums and the development of national non-profit organizations which have focused on specific workforce sectors, this NIEHS program has established technically-proficient curriculum materials and quality-controlled course presentations. These courses have been delivered to hazardous waste workers and emergency responders in every region of the country and

have established new national benchmarks for quality worker safety and health training. The program also has represented a major prevention education activity for NIEHS as technical scientific and basic research information is delivered to target populations with high-risk toxic exposures.

During the past year (FY 97), training delivery has been carried out in all regions of the country to all relevant target populations regulated under 29 CFR 1910.120. The eighteen primary worker training awardees, in conjunction with over seventy collaborating institutions, have delivered 4,026 courses, reaching 77,658 workers, which account for 1,043,499 contact hours of health and safety training, which ranges from 4 hour refresher programs through more complex train-the-trainer courses lasting up to 120 hours in duration. Between September 1, 1996 and August 31, 1997, 58% of the training has been focused on delivering CERCLA cleanup worker training, which comprises 31,735 workers who received 80 hour training, basic 40 hour training or 4-8 hour refresher courses out of the annual total of workers reached by the program (See Appendix 2).

For FY 97, major program accomplishments of the Superfund Worker Training Program include:

**1) Continuation of a peer-reviewed Worker Training awards for training of hazardous waste workers, emergency responders and minority workers---** After the completion of the second program year on the projected five year long cooperative agreements to support worker training activities, the 20 organizations submitted progress reports, training data and year three budget requests and training plans on July 1, 1997. Budget adjustments in the proposed funding plan were based on the training needs of high-risk populations, national geographic coverage in training availability and the published program priorities for training support.

**2) Continued expansion of national training opportunities to underserved, low literate and non-English-speaking populations---** Based on review criteria established by NIEHS in 1992 and the President's Executive Order on Environmental Justice, the NIEHS Worker Training Awardees continue to implement special initiatives to ensure that disadvantaged populations who are exposed to hazardous waste and toxic materials will have meaningful access to high quality safety and health training. Many of the NIEHS awardees have responded by translating curricula into appropriate languages and dialects for non-English speaking waste cleanup workers and forming partnerships with community organizations in contaminated regions with large minority populations. Efforts by all awardees have been made to incorporate environmental justice concerns into program development, outreach to high-risk target populations, curricular modifications and training evaluation.

**3) Initiation of national Labor Market Study of Brownfields Remediation---** In conjunction with the EPA-Superfund Labor Task Force and EPA-OSWER staff, NIEHS

has developed a study protocol to capture site specific, environmental restoration employment data and describe the workforce which is involved in brownfields site cleanup projects. Through a supplemental award to the George Meany Center for Labor Studies, Ruttenberg & Associates has implemented the study design to examine specific labor markets where brownfields cleanups have already been carried out.

Data will be collected and analyzed through 3 to 5 case studies in regions where brownfields related environmental cleanup projects were implemented and completed. The data will examine job creation, duration and impact on the local labor market, as well the impact on related safety and health training needs. Case studies should also serve as a guidebook to be utilized in ongoing brownfields cleanup projects in other geographic locations.

**4) Completion of "Resource Guide for Evaluating Worker Training: A Focus on Safety and Health" ---** During March 1996, NIEHS sponsored the first national conference on **Measuring and Evaluating the Outcomes of Hazardous Waste Worker Training** to examine the methods which have been developed by various programs to document the effectiveness of training activities. Drawing on public health experts in the evaluation field, awardee representatives spent two days exploring the methodological issues that underlie the collection of program effectiveness data. Breakout sessions examined issues from trainee comprehension of curricula to outcome results in the workplace after training had taken place. The significant resources that have been allocated for NIEHS training awards require that recipients demonstrate not only effective implementation, but also positive impacts on the health and safety of trained workers. The findings reported at the technical workshop clearly demonstrate that NIEHS grantees have responded to the challenge for program evaluation and have documented monumental changes in the health and safety of workers and communities across the United States.

After the technical workshop, an ongoing committee was established to publish a manual on program evaluation to benefit other organizations that grapple with safety and health training evaluation issues. This manual is now available on the Clearinghouse Web Page and is in the process of final publication.

**5.) Continued operation and support for a national clearinghouse on hazardous waste worker training ---** The Clearinghouse functions as a link between awardees of NIEHS Worker Training cooperative agreements and other members of the general public who are concerned with quality worker health and safety training. Tasks of the Clearinghouse include, but are not limited to, the distribution of curricula, research work to support the development of the NIEHS Worker Training Program, cataloguing of training materials, and other information pertaining to worker health and safety training for hazardous materials, waste operations, and emergency response, as well as other related activities. The Clearinghouse is the information exchange and dissemination

mechanism for 20 worker training programs whose support from the Environmental Protection Agency (EPA) is intended to set a high standard for health and safety training to protect workers in the burgeoning environmental technology sector.

**6) Clearinghouse Virtual Help Desk ---** A new initiative for the Clearinghouse this past year has been the enhanced development of a World Wide Web page of hazardous waste worker materials, including a summary of all curricula produced by the program, all technical workshop reports and the monthly Newsbrief in a download-able format. In order to enhance the utilization of electronic resources and enhance the public availability and exchange of technical information in safety and health resources, a virtual help desk will be maintained by the Clearinghouse. Assistance will be provided to the awardees of the NIEHS Worker Training Program in accessing electronically available information resources and exchanging such data and information.

This task by the Clearinghouse will also include enhancing the existing Web page and related resources, collecting data on existing computer technology, linkages to other resources, and direct assistance and consultations in creating on-line access for individual users and participating organizations in the NIEHS program. The Help desk program will increase the use of Web page resources, available LISTSERV resources, NIEHS FTP site, email exchange, on-line conferencing capabilities and related electronic resources. The Clearinghouse web address is: <<http://www.niehs.nih.gov/wetp/clear.htm>>

**7) Minority Worker Training Program Development ---** The Minority Worker Training Program (MWTP) has completed its second year of successful training of urban young adults throughout the United States. Training has occurred in 12 cities including: Chicago, IL; Washington, DC; Baltimore, MD; New Orleans, LO; Atlanta, GA; Jackson, MS; Los Angeles, CA; San Francisco, CA; Oakland, CA; Minneapolis-St. Paul, MN; Memphis, TN; New York City, NY and Cleveland, OH.

Our joint efforts with EPA to support Minority Worker Training for inner-city youth are preparing them for career-path jobs related to environmental cleanups. In the second year, 341 young people of color have been trained and approximately 206 placed in jobs. The majority of these jobs are in carpentry and or construction work, lead, hazardous waste and asbestos work.

### **Program Accomplishments and Developments:**

For the second year, 70 students were placed in environmental jobs and 136 placed in construction and other job classifications. In two programs, there were 2 students who choose to pursue college and associate degrees. The refining of the program has positively helped to increase job placement rates. There were **180 courses** given representing **181,904 contact hours**. This program included over 27 different training courses/subjects (See Appendix 3). The progress reports indicate successful completion

and job placement of graduates of the program.

The demographics for this training population can be found in Appendix 4. There were approximately 88 percent African American; 11 percent Hispanic and 1 percent Asian American students. There were approximately 78 percent males and 22 percent females making up the second year the training program. This year there was an increase in life skills and career/job development preparation training due to the need to increase trainee awareness of job market forces and acquiring on the job skills.

In an effort to increase collaboration and partnership between NIEHS and EPA, staff at NIEHS has been involved in the EPA brownfields and Superfund Jobs Training Initiative.

Under the brownfields Program, NIEHS staff are active members of the Interagency Working Group that has met several times during this year to promote and develop an Interagency Brownfields National Action Agenda. Under a special taskforce established by the Office of Solid Waste and Emergency Response a Sub-Committee on Job Training and Workforce Development has been established and NIEHS staff are members of that Sub-Committee. The major goals of this collaboration is to share information between EPA/NIEHS program regarding brownfields pilots; tie Minority Worker grants closely to ongoing activities in brownfields pilot cities; and leverage job training opportunities for residents of brownfields pilots communities.

The Super JTI within the Superfund Community Involvement and Outreach Center of the Office of Emergency and Remedial Response has been working closely with our program to help forge a new partnership. The EPA Regional Offices have also worked with our program to promote this collaboration. This partnership has allowed two programs with similar goals, the Super JTI and the MWTP, to share resources and establish a framework to provide additional training to other priority Superfund sites across the US. The priority Super JTI sites include: East Palo Alto, CA; Granite City, IL; New Orleans, IL; Albuquerque, NM; Memphis, TN; Dallas, TX; and Wingate, FL. Because of this interaction, 5 new training sites are planned for year 3 to provide training of residents surrounding Superfund sites in East Palo Alto, CA, Granite City, IL, New Orleans, IL, Albuquerque, NM; and Dallas, TX.

Several programs have continued to make strides in the development of quality worker training programs.

- The Carpenters Health & Safety Fund trained 170 students and has placed 61% of its second year graduates in environmental and construction jobs in over 6 cities. Their students participated in environmental training, basic construction skills training, job development, job referral, mentoring, GET and or enrollment in a union apprenticeship program. A hallmark of the Carpenters program is the success of students in the Carpenters Union Apprenticeship Program. Through the apprenticeship program and partnerships/collaborations with other programs,

such as HUD, City Housing Local Offices, and EPA Regional Offices, the Carpenters are able to provide an extensive network with contractors and major construction developments across the US. The New Orleans program has a 97% placement rate. Many of the graduates are employed by the International Brotherhood of Painters and Allied Trades New Orleans Local Signatory contractor at the New Orleans Arena. The program in Oakland, CA at the Cypress Mandela Training Center has a 78% placement rate with graduates in the apprenticeship program working in various trades at an apprenticeship rate of approximately \$10 hour. Also in California, the Los Angeles training center has graduated students to entry level jobs in freeway bridge retrofitting, refinery turn-arounds, general construction in such as areas as the Alameda Corridor, re-use of Long Beach Navy property and the New Hyperian Plant expansion. Since these projects generally require remediation of some type, the additional certifications provide the participants with the needed skills to continue working in this job market. According to a labor market survey conducted by the State of California's Employment Development Department, California will have 250,000 environmental workers by 1997. The California programs have prepared these students for entry into that job market.

- Clark Atlanta University with a collaboration with Xavier University and the Laborers were able to place many graduates at EPA projects removing insecticide in Houma and Fischer Housing Developments in New Orleans and with environmental consultants working on the oil spills and lead and asbestos Removal projects in New Orleans and Atlanta. With other funding obtained by Clark-Environmental Justice Resource Center from the Agency for Toxic Substances and Disease Registry, students were able to receive training in Indoor Environmental Assessment. This training enabled students to participate and obtain employment for the assessments conducted in the Atlanta Empowerment Zone Project. This additional component helped trainees learn specific skills for placement, survival, and upward mobility on the job.

- New Jersey/New York Consortium was able to provide training for an additional 25 students from a grant from the New York City Housing Authority due to the excellent job placement and success in their program. Also a formal agreement between New York City Department of Environmental Protection was formed to allow students to conduct soil testing on City-owned brownfields properties.

- DePaul University as part of the sustainability plan for the MWTP has made a concerted effort in disseminating and promoting its program model to other potential Superfund and brownfield sites. A major focus of the project is to establish linkages with these sites in order that the MWT model can be replicated. DePaul has succeeded in establishing a replication site in East Palo Alto, CA with plans for another site in Granite City, IL. DePaul was awarded a Youthbuild

planning grant which enabled them to provide additional environmental training and stipends for more students. In addition, the Center for Workforce Literacy (CWE) partners with DePaul in the MWTP successfully obtained a developmental grant from Coors Brewing Company to the project. The grant goals are to develop a fund-development videotape; analyze the project to date and recommend ways in which it can be expanded to other populations and into other industries; and develop and package the specific training, administrative, and support elements of the program for use at multiple sites and with multiple industries.

8) **NIEHS National Trainers Exchange** --- The second NIEHS National Trainers Exchange was held in Manhattan Beach, CA, April 9-11. The Exchange began with an Environmental Justice tour of Southeast LA. The 130 attendees of the Trainers Exchange participated in various activities such as a panel session entitled "NIEHS Worker Training Program After Ten Years: Accomplishments, Challenges, and New Directions," an interactive workshop demonstrations, which included icebreakers and participatory activities, and a roundtable discussions ranging from evaluating the impact of your program to new ideas for train-the-trainer programs.

9) **Minimum Criteria for Train-the-Trainer Programs in hazardous waste operations and emergency response** --- Key to the success of the Superfund Worker Training Program has been the continuing development of trainers at the local level throughout the United States. NIEHS is undertaking an effort to inventory Train-the-Trainer Programs for hazardous waste workers and emergency responders in order to examine the characteristics of successful programs. It is the goal of this effort to establish a national consensus for how to maintain the delivery of high quality HAZWOPER training through the ongoing support and development of both professional and worker trainers. This national development of a minimum criteria document will include a state of the art discussion concerning the current status of the unique characteristics of train-the-trainer programs which will include the content of training programs, mechanisms for ongoing support of peer trainers, and minimum qualifications for trainers in 1910.120 programs. Information will be collected and catalogued from NIEHS Worker Training awardees who will document the processes and content of existing trainer programs, refresher and tune-up activities, and other activities which assure the ongoing technical competency of trainers supported by NIEHS programs.

The goal of the upcoming NIEHS technical workshop on worker-trainers is to provide programs that rely on worker trainers an opportunity to share common concerns and lessons learned. One of the workshop's concrete objectives is to produce a draft of a practical guide to worker trainer programs that establishes minimum criteria for such programs of use to NIEHS grantees, their staffs, trainers, and others.

**10) Training Partnerships Workshop ---** During February 1997, a national workshop was held to examine the characteristics of successful training partnerships. The keynote speaker for this event was Tim Fields, Acting Assistant Administrator of the US EPA. The results of the Successful Training Partnership: Lessons Learned Workshop continues efforts toward finding better ways of providing worker health and safety training. Again, representatives of widely diverse interests were assembled to explore what constitutes successful training partnerships. Perhaps it is no surprise that certain the themes such as trust, honesty, and commitment to cooperation and other fundamental values emerge as keys to success, yet their re-discovery through the lively discussion, animated inquiry and positive energy of the workshop are a reaffirmation of those who were involved and a compass for others through this record.

Partnerships have been key to the NIEHS worker training program's successful training of over half a million workers in how to better protect themselves and the communities in which they work from work-related harm. Lessons we have learned about how partnerships contribute to these successes form the basis of this workshop report. The workshop report on characteristics of successful training partnerships has been published and widely distributed.

## **Summary**

In administering the Superfund Worker Training Program through an Interagency Agreement with the Environmental Protection Agency (EPA), the NIEHS ensures that the traditional peer review process of the National Institutes of Health (NIH) provides the essential framework for the oversight of grant application reviews, and guidance of the program with grants management activities and ongoing program administration. Technical experts in toxicology, industrial hygiene, labor education and hazardous waste management from both the public and private sectors have played an ongoing role in assuring that NIEHS supported programs demonstrate high technical merit and adhere to stringent standards for quality control through periodic site reviews and an ongoing peer review process.

The NIEHS/EPA Superfund Worker Training Program must continue to meet the Superfund-related national environmental goals of protecting: communities from exposures to wastes at abandoned dumpsites and currently operating facilities and from exposures related to the storage, treatment and disposal of waste; those who live and work in communities affected by EPA brownfields and environmental justice initiatives; and everyone who works with disease-causing hazardous materials. These goals will be achieved by responding to the nation's changing needs for worker training in the area of hazardous waste operations and emergency response to hazardous materials. The NIEHS model programs will continue to encourage innovation for training difficult-to-reach populations. This program is addressing issues such as literacy, appropriate adult

education techniques, training quality improvement and other areas unaddressed directly by the market place. The program enhances rather than replaces private sector training by demonstrating new and cost-effective training techniques and materials.

Based on our program experience over the past ten years, the NIEHS will continue to use cooperative agreements as the appropriate mechanism for making awards to non-profit training organizations for fiscal years 1995-99. Because of the substantial programmatic involvement by NIEHS staff to ensure the consistency, appropriateness and technical reliability of funded training programs, the use of cooperative agreements appear to be a more suitable instrument for supporting extramural training of hazardous waste workers and emergency responders and assuring the delivery of high quality safety and health programs to high-risk populations.

#### Appendix 1: Ten Year Summary

NIEHS Worker Training Program: Ten Year Summary			
YEAR	COURSES	WORKERS	CONTACT HOURS
1988	623	12,319	261,542
1989	1,353	29,429	519,992
1990	3,267	76,489	995,534
1991	2,731	58,637	874,673
1992	2,973	64,985	1,085,461
1993	2,653	55,644	782,225
1994	4,025	65,716	1,101,758
1995	4,665	81,245	1,391,107
1996	4,752	73,724	1,087,297
1997(1)	4,026	77,658	1,043,499

TOTAL	31,068	595,846	9,143,088
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1) Data are incomplete for one program.

Appendix 2: Target Populations

NIEHS Worker Training Program: Target Populations						
Target Populations	# Courses Completed	% Courses Completed	# Workers Trained	% Workers Trained	# Contact Hours	% Contact Hours
CERCLA Cleanup(1)	1,858	46%	31,735	41%	601,030	58%
RCRA/Industrial	450	11%	12,709	16%	112,760	11%
Emergency Response	892	22%	17,853	23%	190,332	18%
Radiation Protection	23	1%	276	1%	6,744	1%
Lead Abatement	15	0%	180	0%	2,591	0%
Asbestos Abatement	20	1%	153	0%	3,232	0%
Hazmat Transport	117	3%	1,297	2%	11,302	1%
Misc. Training	651	16%	13,455	17%	115,508	11%
<b>FY 97 Totals</b>	<b>4,026</b>	<b>100%</b>	<b>77,658</b>	<b>100%</b>	<b>1,043,499</b>	<b>100%</b>

1) The overall majority of training remains in the CERCLA cleanup training.

Appendix 3: Second Year Summary of Type and Number of Courses

NIEHS/EPA Minority Worker Training Program: Second Year Summary of Type and Number of Courses	
Superfund Site Worker	15
Site Worker Refresher	1
Emergency Response Awareness	1
Lead Abatement	26
Lead Abatement Worker Refresher	1
Asbestos Abatement Worker Basic	8
Asbestos Abatement Worker Refresher	2
Asbestos Abatement Supervisor	1
Confined Space Training	4
Environmental Preparation	2
Hazardous Waste Operations	2
Evaluation of Industrial Ventilation	1
Construction Skills	9
Welding	2
Electrical Training	2
Math	11
Reading/Writing	12
First Aid	7
Adult CPR	7
Physical Fitness	6
Mentoring/Career Guidance	17
GED Training & Certification	5
Life Skills	17
Environmental Sampling	4
Environmental Justice	7
General Construction Safety	9
General Industry Safety/Plant Operation	1

Appendix 4: Demographics

<b>NIEHS/EPA Minority Worker Training Program: DEMOGRAPHICS</b>					
<b>STUDENTS</b>	341				
<b>ETHNICITY</b>	<u>BLACK</u>	<u>HISPANIC</u>	<u>ASIAN</u>	<u>NATIVE AMERICAN</u>	<u>PAC. ISL.</u>
	88%	11%	1%	1%	
<b>GENDER</b>	<u>MALE</u>			<u>FEMALE</u>	
	78%			22%	

\* Data are incomplete for two programs.