The Future of Hazardous Materials Cleanup and Training

Sharon D. Beard, Industrial Hygienist
The Evolution of the Brownfields/Minority Worker Training Programs and the Associated Cleanup Markets

Sharon D. Beard, NIEHS, Moderator
Panelist

• Doris Gill, Brownfields Grant Manager and Administrative Assistant to the City Manager of Port Arthur - Job Training Experiences in Port Arthur from the Local Level

• Steve Fenton, National Operations Office Supervisor, CCCHST/ Kirkwood Community College - Overview of Emerging Environmental and Green Careers

• Gary Gustafson, Program Manager, Laborers-AGC Education and Training Fund - Lessons Learned from the Laborers-AGC Minority Outreach Program
City of Port Arthur, Texas
NIEHS/ OAI, Inc.
Job Training Grant Program

Presented by
Mrs. Doris Jean Gill
Brownfields Manager
Hurricane Rita Devastates Our City - Sept. 24, 2005

The Damage: Extensive and Unparalleled

- 5,000 residents have not returned to City
- Civic Center, Central Mall and Airport still under construction from storm damage
- Hundreds of homes still leveled
- Many small businesses closed and not returning to the tax rolls
- Many companies hurt by housing shortage
WIDESPREAD DAMAGE TO HOMES AND FAMILIES!
Some Private Businesses Still Closed
The Oil Goes to the Squeaker!

- The City of Port Arthur prepared a $200,000 Brownfields Job Training Grant. The grant was completed. **But then came Rita....**
- WE HAD TO EVACUATE BY SEPT. 23
- THE GRANT WAS DUE OCT. 3
- ALL ROADS TO PORT ARTHUR WERE CLOSED UNTIL OCT. 10. No grant extension granted!
- WE DID NOT STOP TALKING UNTIL SOMEONE LISTENED TO “THE FORGOTTEN STORM” RESIDENTS! **Thanks NIEHS and OAI!**
The City of Port Arthur Developed a Very Productive Working Relationship with OAI

- OAI, Inc. provided a site visit and planning session
- All invoices were paid in a timely manner
- All questions were answered promptly
- We received support and encouragement
Collaboration is the KEY

- We all wanted this program to succeed!
- Therefore we all gave 100% effort to make the program a positive experience for the trainees:

- The Collaborators:
  Community:  Brownfields Board Members
  City of Port Arthur
  Lamar State  College Port Arthur
  Industrial Safety Training Council
  Port Arthur Economic Development Corporation
  Texas Workforce Center of Southeast Texas
Salute to the Movers and Shakers

We all worked to make it happen!
TEAM EFFORT- We Did It!

- Steve Fitzgibbons, Doris Gill, Brownfields
- Lois Cornwell, Sue Rutledge, TWC
- Sandy Stretcher, Lamar College PA
- Dick Murphy, ISTC
- Floyd Batiste, PAEDC
- Willie Lewis, John Comeaux, BF Co-Chairs
- Dale Watson, Paul Brown, Johnny Hulin, Geraldine Hunt, Barbara Mulroy, Roosevelt Petry - Community Leaders

- **Funding Total= $214,404 to train 150 persons**
- **Training Providers:**
  - **TWC** = Texas Workforce Center
  - **Lamar** = Lamar College of Port Arthur
  - **ISTC** = Industrial Safety Training Council
  - **City** = City of Port Arthur
  - **PAEDC** = Port Arthur Economic Development Corporation.
- **Total Residents to Receive Training = 150 plus 30 fast track**
$94,000 provided by PAEDC under Grant 2 (Construction class – NCCER)

- The Port Arthur EDC funded our program for 50 slots beyond the funding provided by NIEHS and OAI, Inc. (not part of OAI stats)
- This allowed us to train more local residents than our grant proved.
- This provided $200 stipends for “all” grads.
- TWC also provided funding for approximately 10 local residents at no cost to our grant.
## I. Development Training

<table>
<thead>
<tr>
<th>Training Area</th>
<th>Trainer</th>
<th>Hours</th>
<th>Cost</th>
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<tbody>
<tr>
<td><strong>Skills Assessment</strong></td>
<td></td>
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<tr>
<td>TABE Testing</td>
<td>TWC</td>
<td>8</td>
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<tr>
<td>Orientation</td>
<td>TWC</td>
<td>4</td>
<td>NC</td>
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<tr>
<td><strong>Drug Testing</strong></td>
<td>City and Local Provider</td>
<td>2</td>
<td>$4,000</td>
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<tr>
<td>Abbott Mechanical Reasoning</td>
<td>City</td>
<td>4</td>
<td>NC</td>
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<tr>
<td>FDIC Money Smart Program</td>
<td>City</td>
<td>8</td>
<td>NC</td>
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## II. Professional Skills

<table>
<thead>
<tr>
<th>Training Area</th>
<th>Trainer</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace Math</td>
<td>Lamar</td>
<td>4</td>
<td>$600</td>
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<tr>
<td>Workplace Writing</td>
<td>Lamar</td>
<td>4</td>
<td>$600</td>
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<tr>
<td>Critical Thinking</td>
<td>Lamar</td>
<td>2</td>
<td>$300</td>
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<tr>
<td>Time Management</td>
<td>Lamar</td>
<td>2</td>
<td>$300</td>
</tr>
<tr>
<td>Mechanical Reasoning</td>
<td>Lamar</td>
<td>4</td>
<td>$600</td>
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<tr>
<td>Stress Management</td>
<td>TWC</td>
<td>8</td>
<td>NC</td>
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### III. Technical Training

<table>
<thead>
<tr>
<th>Training Area</th>
<th>Trainer</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazwoper</td>
<td>ISTC</td>
<td>40</td>
<td>$22,600</td>
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<tr>
<td>Safety Badge (Basic Plus)</td>
<td>ISTC</td>
<td>6</td>
<td>$2,625</td>
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<tr>
<td>NIEHS Katrina/Rita Training</td>
<td>City</td>
<td>4</td>
<td>NC</td>
</tr>
<tr>
<td>CPR / First Aid</td>
<td>City/Health</td>
<td>8</td>
<td>$375</td>
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<tr>
<td>Mold</td>
<td>ISTC</td>
<td>6</td>
<td>$6,750</td>
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<tr>
<td>Fire Guard</td>
<td>ISTC</td>
<td>8</td>
<td>$6,750</td>
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### IV. Construction Training

<table>
<thead>
<tr>
<th>Training Area</th>
<th>Trainer</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction –Hands on</td>
<td>Lamar</td>
<td>30</td>
<td>$4,500</td>
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<tr>
<td>OSHA 10</td>
<td>ISTC</td>
<td>10</td>
<td>$12,000</td>
</tr>
<tr>
<td>Training Model for two rounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCCER Core Curriculum</td>
<td>Lamar</td>
<td>90</td>
<td>$900 per student</td>
</tr>
</tbody>
</table>
Total Hours of Training

- Total Hours of Training = 160 hours + per trainee- Grant I
  90 hours + per trainee- Grant II

Value of Training if purchased individually = $4,000- Grant I (Environ.)
  $2,000- Grant II (NCCER)

Cost per person under grant = $0
Letter of Obligation for Trainees

Letter of Obligation signed by each trainee prior to beginning the program:

**Key stipulations:**
- Resident of area affected by Hurricane Rita
- Pass drug screening prior to first day of class
- Score at appropriate level on TABE test
- Attend class daily all four weeks.
Members of JTG Class I
June 5-29, 2006
Members of Job Training Class II – Attended Class at Lamar College: June 12 - July 7
Additional Program Costs Assisting Trainees paid by Grant

- **Trainee lunches-**
  
  provided for Grant I participants only
  
  \( \text{($5 \text{ per day } \times 4 \text{ weeks } \times 5 \text{ days per week})} \)
  
  \( = \quad \text{$7,500} \)

- **Trainee Drug Testing**
  
  Provided for both grants
  
  \( \text{($40 \times 200 \text{ applicants})} \)
  
  \( = \quad \text{$4,000 per program} \)

- **City Bus Transportation**
  
  Bus Passes issued to those in need
Incentives for Our Trainees -
Cash and In-kind Services for Our Program

- PAEDC awarded $150 to each trainee upon completion of coursework ( $11,750)- Grant I
- PAEDC awarded $200 to each trainee for completion of course work ( $24,000)- Grant II
- TWC provided grant funds to purchase gear for each trainee to keep ( $14,000)
  -regulation work boots, fire retardant coveralls, safety helmet, and gloves
- City of Port Arthur offered bus passes
- Lamar College gave free classroom space
# Four Week Class Schedule (1 of 3)

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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<tr>
<td>4</td>
<td>5 @ TWC Orientation-4 hrs.</td>
<td>6 @ Lamar-PA Writing- 4 hrs.</td>
<td>7 @ Lamar-PA Writing- 4 hrs.</td>
<td>8 @ Lamar-PA Mech. Tech Abbott-City of PA</td>
<td>9 @ Lamar-PA Stress Management- 8 hrs. TWC</td>
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<td></td>
<td>TWC</td>
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<tr>
<td>11</td>
<td>12 @ Lamar-PA Hazwoper/Mold ISTC</td>
<td>13 @ Lamar-PA Hazwoper/Mold ISTC</td>
<td>14 @ Lamar-PA Hazwoper/Mold ISTC</td>
<td>15 @ Lamar-PA Hazwoper/Mold ISTC</td>
<td>16 @ Lamar-PA OSHA 10 ISTC</td>
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<td>18</td>
<td>19 @ Lamar-PA Mechanical Reasoning-Don Hartman 853-8558</td>
<td>20 @ Lamar-PA Money Smart- 4 hrs. DBDC</td>
<td>21 @ Lamar-PA CPR- 8 hrs. Health Dept.</td>
<td>22 @ Training Site Fire Guard-8 hrs. ISTC</td>
<td>23 @ Lamar-PA Safety Badge 6 hrs. ISTC</td>
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<tr>
<td>25</td>
<td>26 @ Lamar-PA Construction- 8hrs. Terry Jackson</td>
<td>27 @ Lamar-PA Construction- 8hrs. Terry Jackson</td>
<td>28 @ Lamar-PA Construction- 8hrs. Terry Jackson</td>
<td>29 @ Lamar-PA Conclusion-2 hrs. Terry Jackson</td>
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*Session I*

**June 2006**
Graduation Program

NIEHS/ OAI/ K-BMWT Brownfields Construction/ Industrial Job Training Grant Program

Graduation
Class II
Friday, July 7, 2006
2:00 p.m.
Lamar State College Port Arthur

VII. Welcome.........Mrs. Sandy Stretcher, Lamar State College

VIII. Overview of Program...Mrs. Doris Gill, City of Port Arthur

IX. Graduation Speaker.........................Mayor Oscar Ortiz

X. Acknowledgement of Brownfields Committee Members......
   Committee Co-chair /Councilman Willie Bae Lewis

XI. Presentation of Certificates, Badges, Stipends..............
   Sandy Stretcher, Lamar State College
   Doris Gill, Brownfields Manager
   Lois Cornwell, Texas Workforce Port Arthur
   Sue Rutledge, Texas Workforce Port Arthur
   Dick Murphy or Representative, ISTC
   Floyd Batiste, Port Arthur EDC

XII. Dismissal

The Graduates
Alford Acord
Chris Barrier
Chris Brown
James Bryant
De'Boria Davis

John Frasier
Laecicia Gallow
Kevin Gasper
Kayla Johnson

Yvette Mitchell
Kanika Roberts
Lita Roberts
Janice Rogers
Nina Taylor

Donaldson Thomas
Eustavia Wagner
Charles Williams

Special Note: Please notify the TWC office and Doris Gill at 983-8296 when you are hired for a job in this field or in any field. The grant requires that we must document all jobs obtained by our trainees.

Good Luck!
Class I Graduation Day-at Lamar State College Port Arthur
Mayor Of Port Arthur Congratulates the Graduates
Proud Grads Listen to Mayor
The Big Moment- We Made It!
Many Grads Experienced Their First Time Ever On A College Campus! Many Proud Parents Attended the Event!
Placement Level hits 90%- 45 HIRED!!
50 graduated from the First Training Program ending July 2006

Because these companies saw the strength of our program and how it would benefit them to hire our trained workers, our program was a success for the City and for the trainees:

- KTM Maintenance- hired 10 trainees
- Mason Construction- hired 1 trainee
- Protherm Inc. - hired 1 trainee
- Compass Environmental- hired 7 trainees
- GP Industries- hired 3 trainees
- Hydro-Chem- hired 1 trainee...AND LOTS MORE!
Placements: Grant II- 65%- 32 HIRED!!
50 graduated. 30 more in Nov. 2007
We anticipate surge in hiring very soon

- We are just in time for anticipated job surge at Motiva, Inc. Now is the time to TRAIN!
- BECON /Bechtel, Inc. is offering placement
  Hiring pay levels of $12.65 to $14.95 for level I helpers in area construction fields
  One grad is earning $22 per hour at the LNG plant.
  BECON has worked well with us.
  - 15 have taken fast track. 15 more will start.
  - A variety of companies hired our graduates-
Keeping up with the BOOM!

- Port Arthur, Texas is about to experience a tremendous industrial BOOM from the petrochemical industry—Motiva, Inc. to become largest refinery in North America!
- Our goal is to make and keep our Port Arthur citizens ready, willing and trained to walk into the jobs that are coming to our town
- Our goal is to restore hope and improve the quality of life for our community
The Future: Thinking outside the Box

- More focus on training the under-employed
- More focus on flexible hours
- More focus on getting input up front from the companies we are targeting
- Design a “win-win” program for the City, the Trainee and the Employer
- Continue to seek shareholder buy in. We found a great partner in BECON/Bechtel, Inc.
Publicity for our Grant Helped

- **Three articles** in the Port Arthur News
  - 2 articles Published 2006
  - 1 article Published in 2007

**Flyers** sent to all churches/ schools in the target area. Also TWC office.
Several ministers gave strong endorsements

- **Local Radio Station** announced program
Texas Work Source

5/6/06

Classes offer job training

By David Tipton
The Beaumont Enterprise

Port Arthur residents who want free career-orientated Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) job training will not want to miss classes offered at the Texas Workforce Center in Port Arthur.

Classes, focused on these subjects and others, will be offered from 9 a.m. to 12:30 p.m. four weeks a part at the Texas Workforce Commission office at 3000 6th St., Anfa and at Lamar State College-Port Arthur.

The training classes are being funded by a $20,000 grant the city received from the National Institute of Environmental Protection and the Texas Commission on Environmental Quality. The grant was given to the Texas Workforce Commission to aid in the creation of a new Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training program.

Participants will also receive training in Occupational Safety and Health Association standard job safety and health and will be able to take part in all the training in the area.

They will also receive a fee bus pass to attend the classes, $6 for lunch and $3 for hospital training.

Our goal is to train 75 residents and place 50 percent of those trained prior to leaving Port Arthur, with an additional 15 percent placed in the area.

The training program is being offered by South Texas Workforce Commission in partnership with the Texas Workforce Commission and the Midland City College.

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Storm grant pays for training

News Article- June 25, 2006

Training to Survive

Programs, internships offer Triangle residents golden opportunities to learn specialized and work skills that could help them land just the right job.

DEVELOPING NEW SKILLS: Following the class instructions, Ebony Stephenson, right, practices CPR skills at one of several

...
Four Job Fairs Held for our Grads

- **Friday, June 30, 2006**
  - 6 companies attended. (sponsor TWC)
- **Monday, August 28, 2006**
  - 5 companies attended. (sponsor TWC)
- **Wednesday, August 29, 2007**
  - 10 companies attended (sponsor Becon)
- **Saturday, September 22, 2007**
  - 1 company attended (Sponsor AETI)
Job Fair Employers Await Graduates
Job Fair Employer Ready to Meet Graduates
Certificate of Graduation
Courses placed on certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Workforce Math</td>
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<tr>
<td>Workforce Literacy</td>
<td>8 hrs.</td>
</tr>
<tr>
<td>Job Readiness Skills</td>
<td>8 hrs.</td>
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<tr>
<td>Critical Thinking/ Time Management</td>
<td>4 hrs.</td>
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<tr>
<td>Stress Management</td>
<td>8 hrs.</td>
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<td>Money Smart</td>
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<td>Hazwoper</td>
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<td>Mold Remediation</td>
<td>16 hrs.</td>
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<td>CPR</td>
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<tr>
<td>Fire Guard</td>
<td>6 hrs.</td>
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<tr>
<td>Basic Plus Construction</td>
<td>6 hrs.</td>
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<tr>
<td>Construction</td>
<td>30 hrs.</td>
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</tbody>
</table>
Success Story: Mr. Xavier Windom

- “I was offered my job back after this training program, but they only gave me a $5.00 an hour raise. ” said Mr. Windom.
- “$5 per hour!” said every professional in the room. Do you know what that means?…
- $5 x 8 hrs per day x 5 days per week =$200
- $200 per week x 50 weeks = $10,000 more a year because of four weeks spent in our JT program!

BINGO!!!! Now That’s Success!
The Evolution of the Brownfields/Minority Worker Training Programs and the Associated Cleanup Markets

Overview of Emerging Environmental and Green Careers

Steven Fenton, National Operations Office, CCCHST
Kirkwood Community College
Overview of Emerging Environmental and Green Careers

Advanced Technology Environmental Education Center (ATEEC)
Overview of Emerging Environmental and Green Careers

Partnership for Environmental Technology Education (PETE)
Overview of Emerging Environmental and Green Careers

Both Reports are being revised in December 2007 and will be accessible at:

http://www.ateec.org
Overview of Emerging Environmental and Green Careers

Energy Services & Technology Model Curriculum

- Introduction to Energy Management Principles
- Alternative and Renewable Energy Sources
- Heating Systems
- Cooling Systems
- Electrical Lighting and Motors
- Energy Control Strategies/Technologies
- Energy Costs, Economic and Environmental Analysis
- Energy Efficiency Methods
- Energy Analysis Capstone

Overview of Emerging Environmental and Green Careers

President’s High Growth Job Training Initiative

Fourteen Sectors fit the criteria of (1) they are projected to add substantial numbers of new jobs to the economy or affect the growth of other industries; or (2) they are existing or emerging businesses being transformed by technology and innovation requiring new skill sets for workers. The 14 sectors include:

- Advanced Manufacturing
- Aerospace
- Automotive
- Biotechnology
- Construction
- **Energy**
- Financial Services
- Geospatial Technology
- Health Care
- Homeland Security
- Hospitality
- Information Technology
- Retail
- Transportation
Overview of Emerging Environmental and Green Careers

_Career Voyages_ is a collaborative effort between the U.S. Department of Labor and the U.S. Department of Education and in their list of “In-Demand Occupations” Energy was identified as a high growth industry.

[http://www.careervoyages.gov/energy-main.cfm](http://www.careervoyages.gov/energy-main.cfm)
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Five Categories of Energy Jobs Include:

- Electrical Power
- Nuclear
- Oil and Gas
- Mining
- Renewables

http://www.careervoyages.gov/energy-main.cfm
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http://www.careervoyages.gov/energy-main.cfm

By Clicking on “In-Demand” Occupations, you will find:

• Comprehensive Description of the Occupation
• Projected Need for Employees (2004 – 2014)
• Projected Growth of the Occupation
• Wages (Bottom 10%, Median, and Top 10%)
• Education & Training of those in the Occupation
• Comparison of National versus State Employment Outlook
• Introductory Video of the Occupation
• Spanish Language Option
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Careers in Renewable Energy:
http://www.careervoyages.gov/includes/incsmallwindow-energy-greenenergy.cfm

- Wind Energy
- Micro Renewables
- Solar Energy
- Marine Energy
- Wave Energy
- Sustainable Transport
- Environmental Impact
- Tidal Energy
- Hydro Energy
- Bioenergy
- Biofuels
- Green Buildings
- Energy Finance
- Carbon Management
- Waste Management
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JOB AREAS in “GREEN BUILDINGS” INCLUDE:
http://www.greenenergyjobs.com/career-guide/green-building-jobs/

- **Green Building**
  - Green Design
  - BREEAM, LEED standards
  - Ecological Design
  - Sustainable Materials
  - Construction

- **Micro Renewables**
  - Solar Water
  - PV
  - Micro-wind
  - Heat Pumps
  - Grid Tie
  - Inverter Systems

- **Planning**
  - Building Standards
  - Planning Strategy
  - Environmental

- **Energy Efficiency**
  - Thermal Insulation
  - Energy control systems
  - District Heating systems

- **Engineering**
  - Energy Management
  - Project Management
  - CAD
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**Occupational Information Network (O*Net):**

[http://online.onetcenter.org/](http://online.onetcenter.org/)

- Provides a list of tasks, knowledge, skills, abilities, work activities, work context, job zone, work styles, and wages and employment trends. O*Net also provides the Standard Occupational Code (SOC) for each occupation, and a sample of reported job titles within the SOC.

- Note: O*NET OnLine was developed for the U.S. Department of Labor by the National Center for O*NET Development.
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National Wages & Employment Trends for Hazardous Materials Removal Workers (SOC: 47-4041.00)

http://online.onetcenter.org/link/summary/47-4041.00

- Median wages (2005) $16.20 hourly, $33,690 annually
- Employment (2004) 38,000 employees
- Projected growth (2004-2014) Faster than average (21-35%)
- Projected need (2004-2014): 22,000 additional employees

Note: State specific data is also available on this site
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Sample of Reported Jobs - Hazardous Materials Removal Workers (SOC: 47-4041.00)

- Asbestos Abatement Worker
- Decontamination / Decommissioning Operator (D & D Operator)
- Radiological Control and Safety Technician
- Waste Handling Technician
- Field Technician
- Hazmat Technician (Hazardous Materials Technician)
- Sampler
- Site Worker
- Nuclear Waste Handler
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A Few More Job Possibilities…

• **Xeriscaping and Energy-Efficient Landscaping:** Xeriscaping refers to landscaping in ways that do not require supplemental irrigation. It’s promoted in areas that do not have easily accessible supplies of fresh water.

• **Mold Remediation:** Even though this is not necessarily new, it’s the newest issue in the environmental remediation field. From a programmatic view it is also easy to add since few states actually accredit mold training. (Texas is the only one I know of).

• **Clean-up of Meth Labs:** While Meth lab busts in some states are declining, increasing state regulations drive new business. There are no national standards for cleanup, but about 15 states have adopted rules. The EPA has revised its definition of brownfields to include former meth labs.
In Summary …

Today, some of the fastest growing occupations are in the environmental sector. According to the U.S. Department of Labor, the "hottest jobs" include:

- Environmental engineers
- Hazardous materials removal specialists
- Pollution prevention
- Energy efficiency
- Environmental science and protection technicians

Other industry experts list additional emerging and expanding "hot jobs" including:

- Conservation biologists
- Industrial ecologists
- Water and wastewater
- Environmental monitoring (satellite remote sensing, geographic information systems (GIS), nanotechnology, and global positioning systems (GPS))
- Environmental policy integration
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Questions?

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NIEHS Fall Technical Workshop

Chapel Hill, NC

October 18, 2007
Minority Outreach Program Evolution

- Laborers-AGC Participated in the MWTP and BMWTP since inception
- Started our MOP in September 2005 with 2 sites
  - Washington DC
  - Detroit, Michigan
Must submit plan to Laborers-AGC

Plan addresses:

- Need
- Outreach/recruiting strategies
- Partnerships
- Training
- Placement
- Program evaluation
Minority Outreach Program

During 2006 - 2007 Program Year:

- MOP increased to 5 sites
  - Denver, CO
  - Detroit, MI
  - Hartford, CT
  - Southern CA
  - Washington DC
Partnerships

- Union Apprenticeship Programs
- Community Based Organizations
- Building Trades Associations
Opportunities

- Union Apprenticeship
- Continuing Education