Workforce Development – Customized Employer Driven Solutions
Specifications
Each industry client has a customized approach

**INPUTS**

- Identify Job Skills – (descriptions, KSAs)
- Establish Basic Skills Competency Levels
- Define Assessment Strategies
- Design Screening Criteria
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- Convene Interview Panels
- Simultaneous Classroom and Workplace Training
  - In-Training Internships
  - Job shadow
- Basic Training (Boot Camp)

**OUTPUTS**

- Scholarship Pool
  - Employer invests training funds for each graduate hire.
  - Funds are re-used for next crop of students.
Worker Training Curriculum Development
Oil and Gas Exploration and Production Industry
Steering Committee

Jeff Brown, Whiting
Eric Esswein, NIOSH
Kurt Papenfus, CDC
Mary Jasek, TEEX
Dan Welschmeyer, Ensign Energy
Adam Kickish, Calfrac Well Services
Megan Meagher, OSHA VIII
Joan Smith, Red Rocks/RMEC
Jason Weatherford, Calfrac Well Services
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Mark Nave, Blac Frac Tanks

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Rick Ingram, BP
J.D. Dani, WY OSHA
Greg Hardy, Shell
Paul Breaux, IADC
Barry Horseman, PEC
Lane Miller, WS Safety
Dale Robinson, HR Safety
Calfrac Supervisors: Chris, Brian
Module 1: Course Introduction
Module 2: Safety, Health and Environmental Management Systems
Module 3: Health Hazards and Industrial Hygiene
Module 4: Hazard Communication
Module 5: Personal Protective Equipment
Module 6: Emergency Action Plans
Module 7: Fire Protection and Prevention
Module 8: Control of Hazardous Energy
Module 9: Electrical Hazards
Module 10: Machinery Hazards and Machine Guarding
Module 11: Mechanical Lifting and Hoisting Equipment (Material Handling)
Module 12: Walking and Working Surfaces
Module 13: Fall Protective Systems
Module 14: Confined Space
Module 15: Excavation Trenching and Protective Systems
Module 16: Inspection, Testing and Preventative Maintenance
Module 17: Motor Vehicle Operation

OSHA 5810
http://rmecosha.com/5810.aspx

Hazards Recognition and Standards Training Course for the US On-Shore Oil and Gas Exploration and Production Industry

30 Hour Course
Field Leadership in Oil and Gas E&P –

Practicing the Effective Application of Communication Tools to Achieve Production and Safety Goals

The Industry Steering Committee responsible for the development of the OSHA 5810 has developed a new course specific to the needs of our supervisors and managers in the oil patch.

**Workshop Goal**

Participants will engage in active scenario based learning as they practice adapting their leadership style to increase effectiveness of his or her communication strategies. Participants will practice proven techniques in communicating, motivating and inspiring a diverse workforce to achieve the desired balance of worker health and safety, quality work, and production outcomes in the upstream oil and gas industry.
Ready to Work Academy
Energy Efficiency

$1400 Ready to Work Academy
$1200 Scholarship

$200 registration fee refunded upon successful completion of course.

Final Student Cost $0!!!

Select images below to view the RRCC/RMEC HVAC lab in full size

The Ready to Work Academy is an 80 clock hour intensive training course aimed at providing students with the knowledge and skills needed to pursue a career as an Infrastructure Technician.
The Ready to Work Academy is a 10 day “Boot Camp” that will introduce the knowledge and skills to pursue a career as an HVAC Tech/Facility Engineering Tech.

Students will earn two federally recognized credentials to include the OSHA 10-Hour General Industry Safety and Health, and the EPA Section 608 card. Students successfully completing the Academy and the 90 day internship will have a personal education plan that guides their continued training through the *Facilities Engineering Technician Program (FET).

Students completing the FET Program are eligible to sit for the competency exams to earn the American National Standards Institute Certificate Accreditation Program (ANSI-CAP) – Facilities Engineering Journey Technician.**
Day 1 - Topic: OSHA General Industry Safety and Health 10-Hour card - Part One
Day 2 - Topic: OSHA General Industry Safety and Health 10-Hour card - Part Two
Day 3 - Topic: Principles of Refrigeration & Gas Laws
Day 4 - Topic: EPA Section 608 Certification Training
Day 5 - Topic: Service practices for handling refrigerants and refrigerant reclamation Training for Section 608 Certification

Day Six - Topic: Review questions for Section 608 Certification - 608 Certification TEST
Day Seven - Topic: Use and Care of Hand Tools, Basic Principles of Rigging and Basic principles of Maintenance
Day Eight - Topic: Basic principles of Electricity and Demonstration of the Basic principles of Electricity
Day Nine - Topic: Communication, Listening and Time Management
Day Ten - Topic: Role Playing to develop Communication and Listening skills
INDUSTRIAL MAINTENANCE TECHNOLOGY

- Mechanical Specialty
- Electrical Specialty
- Instrumentation and Controls
## Workforce Development

### Process Operators NEW HIRE TRAINING

<table>
<thead>
<tr>
<th>Class Topic</th>
<th>ClassTime</th>
<th>Class Duration, Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>0700 -1015</td>
<td>4.5</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1200 – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Heat Exchangers</td>
<td>1200 – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Pipe and Valves</td>
<td>230 – 330P</td>
<td>1.5</td>
</tr>
<tr>
<td>Fired Equipment</td>
<td>1200 – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Tanks and Vessels</td>
<td>0700-1015A</td>
<td>4.5</td>
</tr>
<tr>
<td>Electrical Equipment</td>
<td>0700A – 1130A</td>
<td>4.5</td>
</tr>
<tr>
<td>Prime Movers</td>
<td>1200P – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Compressors</td>
<td>0700A 1130A</td>
<td>8</td>
</tr>
<tr>
<td>Pumps w Demo</td>
<td>0700A – 330P</td>
<td>8</td>
</tr>
<tr>
<td>Equipment Care</td>
<td>0700A 1130A</td>
<td>4.5</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>1200P – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Process Control</td>
<td>1200P – 330P</td>
<td>4.5</td>
</tr>
<tr>
<td>DCS Fundamentals</td>
<td>0700A - 1130A</td>
<td>4.5</td>
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<tr>
<td>Distillation</td>
<td>0700 – 330P</td>
<td>8</td>
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<tr>
<td>Reactors</td>
<td>0700 – 1030A</td>
<td>3.5</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>0700A 1130A</td>
<td>4.5</td>
</tr>
<tr>
<td>Problem solving</td>
<td>1200 – 330P</td>
<td>3.5</td>
</tr>
<tr>
<td>Steam Traps</td>
<td></td>
<td>4.5</td>
</tr>
</tbody>
</table>
Basic Process Physics

Physics: the science that describes the way Matter behaves in response to natural phenomena such as energy, force and motion.

Solids and Physics

- Density
- Elasticity and Strength
  - Pressure vessels and piping
  - Steel framework
- THERMAL CONDUCTIVITY
  - Ability to conduct heat energy from hot (high energy) to cold (lower energy)
  - Metals vs insulation
- Thermal Expansion and Thermal Shock
  - Vessels, piping systems
- Corrosion and erosion resistance

Pressure Measurement

- Gauge
- Absolute
- Vacuum

Gauge (PSIG)
PSIG = PSIA - 14.7

Absolute (PSIA)
PSIA = PSIG + 14.7

Vacuum (PSIV)
Any pressure below 14.7
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