



**Training Proposal for:  
C & H Machine, Inc.**

**Small Business**

**ET16-0298**

**Approval Date:** December 9, 2015

**ETP Regional Office:** San Diego

**Analyst:** S. Godin

**CONTRACTOR**

- Type of Industry: Manufacturing
  
  - Number of Full-Time Employees
    - California: 53
    - Worldwide: 53
    - Number to be trained: 49
  
  - Out-of-State Competition: Competitors Outside CA
  - Special Employment Training (SET):  Yes  No
  - High Unemployment Area (HUA):  Yes  No
  - Turnover Rate: 18%
  - Repeat Contractor:  Yes  No
- Priority Industry:  Yes  No
- Owner  Yes  No

**FUNDING**

- Requested Amount: \$61,152
- In-Kind Contribution: \$31,000

**TRAINING PLAN TABLE**

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate SB <100	Business Skills, Computer Skills, Continuous Impr, Mfg Skills, HazMat, OSHA 10/30	49	8-60	0	\$1,248	\$15.93
				Weighted Avg: 48			

- Reimbursement Rate: \$26 SB Priority
- County(ies): San Diego
- Occupations to be Trained: Administrative Support, Production Personnel, Quality Control Staff, Technical/Engineering Staff, Manager/Supervisor, Owner
- Union Representation:  Yes  
 No
- Health Benefits: \$2.16 per hour

**SUBCONTRACTORS**

- Development Services: N/A
- Administrative Services: N/A
- Training Vendors: N/A

**OVERVIEW**

Founded in 1964 and located in Escondido, C & H Machine, Inc. (C&H) is a small business manufacturer of custom, precision-machined components. Its customers include a broad range of companies and industries. Its main customers are the military and the aerospace, oil and gas, and semiconductor industries.

**Need for Training**

This is C&H's second ETP Agreement in the last five years. Training delivered on the first ETP Agreement introduced employees to Lean Manufacturing Concepts and enabled the Company to receive AS9100 Certification.

For this proposal, C&H must refine its manufacturing and business processes in order to widen its customer base and increase market share. Training will focus heavily on Continuous Improvement topics. Lean manufacturing principles introduced during the first Agreement will be further incorporated across all occupations to improve production processes, product quality, and frontline leadership. The Company believes that standardizing operating procedures will ensure workers will operate machinery according to standards; and cross-training production workers will maximize manufacturing capabilities as the company moves to a high performance workplace.

Additionally, customer inspection criteria has become more stringent, moving towards zero defective parts per million becoming the standard rather than an exception. To meet these requirements, C&H recently acquired three CNC 5<sup>th</sup>-Axis machines and Open Mind software (to compliment the capabilities of the machines). C&H has already begun training its Lead Production Personnel. These Leads will become in-house trainers and will train the rest of the staff to program, set-up, and operate the machinery during the term of the proposed Agreement.

## **Training Plan**

Training will be delivered using Class/Lab and/or E-Learning methodologies.

**Business Skills** - All occupations will receive training relative to their job function. Customer service and communication skills will provide the necessary tools to interact with external and internal customers in a professional manner. Managers/Supervisors and select Lead Personnel will receive facilitator and coaching skills to become competent internal trainers. All occupations will receive Product Knowledge training to be able to speak to the Company's products and services with acumen.

**Computer Skills** – Training will be offered to Technical/Engineering Staff, Production Personnel, and Managers/Supervisors. Technical/Engineering Staff and Managers/Supervisors will receive training in Solidworks/CAD and Master CAM needed to improve product design. Production Personnel and Technical/Engineering Staff will receive training in Capability Maturity Model software. Open-Mind mapping software will provide a project management tool for Technical/Engineering Staff. All occupations listed will interface with the M1 ERP system and will receive training on the revisions and new features.

**Continuous Improvement** - All occupations will receive skills sets in a variety of Continuous Improvement topics. Employees who were introduced to Lean Manufacturing in the first agreement will receive continued training needed to further improve processes and reduce waste. Topics such as Document Control Skills, Process Improvement, Decision Making and Problem Solving, Leadership Skills, Quality and Inspection Standards, and AS9100/ISO9001 auditing skills will provide important tools needed to maintain zero defective parts per million in the manufacturing process.

**Manufacturing Skills** – Training will be offered to Production Personnel and Managers/Supervisors. Trainees will receive training in new equipment operations, maintenance and troubleshooting. Standard operating procedures will be developed and applied to each piece of equipment. Cross-training workers on machinery will increase manufacturing capability and shorten delivery times. Good Manufacturing Practices (GMP) will reduce waste, improve product quality and increase manufacturing capabilities.

**Hazardous Materials Handling** - Production Personnel working with hazardous materials will receive skills training in hazardous waste/spill operations and emergency response. They will also learn to properly complete material safety data sheets

## **Certified Safety Training**

1. OSHA 10/30. This training is a series of courses “bundled” by industry sector and occupation. It consists of 10 hours of classroom or CBT training for journey-level workers and 30 hours for frontline supervisors. The coursework is geared to construction work, and also manufacturing. Completion of the training results in a certificate that expands employment opportunities. The coursework must be approved

by Cal-OSHA, and the instructors must be certified by Cal-OSHA. This training will be offered to all occupations.

### **Contract Term Limitation**

Although C&H is a small business, the Company is requesting a two-year Agreement term. C&H states that the previous Agreement had a two-year term which allowed sufficient time to deliver all training while still at 100% production capacity. The Company earned 100% of the encumbered amount for the previous Agreement. Staff recommends extending the term.

### **RECOMMENDATION**

Staff recommends approval of this proposal.

### **PRIOR PROJECTS**

The following table summarizes performance by C&H under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned \$ %
ET10-0295	Escondido	11/20/2009– 11/19/2011	\$49,920	\$49,920 (100%)

## **Exhibit B: Menu Curriculum**

### **Class/Lab and E-Learning Hours**

8-60 Trainees may receive any of the following:

#### **BUSINESS SKILLS**

- ✚ Coaching/Mentoring Skills
- ✚ Facilitator/Train-the-Trainer Skills
- ✚ Conflict Resolution
- ✚ Negotiation Skills
- ✚ Communication Skills
- ✚ Customer Service Skills
- ✚ Cost Management
- ✚ Project Management
- ✚ Product Knowledge
- ✚ Sales & Marketing Skills
- ✚ Pricing/Quoting Skills
- ✚ Purchasing Procedures
- ✚ Finance & Accounting for Non-Financial Managers

#### **COMPUTER SKILLS**

- ✚ M1 ERP System Skills
- ✚ Project Management Software
- ✚ MS Office Suite
- ✚ SolidWorks/CAD
- ✚ Master Cam
- ✚ CMM Programing Skills
- ✚ Open Mind Software
- ✚ Sales Forecasting Software

#### **CONTINUOUS IMPROVEMENT**

- ✚ AS 9100/ ISO 9001/IAQC (internal auditing skills)
- ✚ Lean Concepts
- ✚ Quality Standards
- ✚ Inspection Skills
- ✚ Leadership Skills
- ✚ Process Improvement
- ✚ Document Control Skills
- ✚ Teambuilding
- ✚ Decision Making & Problem Solving
- ✚ Standard Operating Procedures

#### **HAZARDOUS MATERIALS**

- ✚ Hazardous Materials Handling
- ✚ Emergency Clean Up
- ✚ Completing Material Safety Data Sheets (MSDS)
- ✚ Registration, Evaluation, Authorization and Restriction of Chemical substances

**MANUFACTURING SKILLS**

- ✚ Equipment Operation, Maintenance & Troubleshooting
  - CNC 1/ Machine Operation
  - CNC 2/ Setup Procedure
  - CNC 3/ Cold Start Procedure
  - CNC 4/ Safety Policy
  - CNC Turning
  - Short Run Lathe
  - EDM S/U and Operation
  - EDM Machine Maintenance
  - Hole Pop S/U and Operation
  - Non-Certified Heat Treat
  - Passivation
  - Deburr Basics
  - Chemical Evaporator
  - Forklift Training
- ✚ Material Handling
- ✚ Blueprint Reading
- ✚ Instrument Calibration
- ✚ Shop Math
- ✚ Welding Skills
- ✚ Inspection Techniques
- ✚ Manufacturing Process and Efficiencies
- ✚ Good Manufacturing Practices
- ✚ Tool use and maintenance

**OSHA 10/30** (OSHA certified trainer)

- ✚ OSHA 10 (requires completion of the 10-hour course)
- ✚ OSHA 30 (requires completion of the 30-hour course)

Safety Training will be limited to 10% of total training hours per-trainee.

Note: Reimbursement for retraining is capped at 60 total hours per-trainee, regardless of method of delivery.
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