



Training Proposal for:
Turbine Engine Components Technologies Corporation
Agreement Number: ET15-0247

Panel Meeting of: July 25, 2014

ETP Regional Office: North Hollywood

Analyst: M. Paccereilli

PROJECT PROFILE

Contract Attributes:	Retrainee Priority Rate Job Creation Initiative	Industry Sector(s):	Manufacturing Aerospace and Defense Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Counties Served:	Los Angeles	Repeat Contractor:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Union(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Number of Employees in:	CA: 102	U.S.: 1,500	Worldwide: 1,500
<u>Turnover Rate:</u>	8%		
<u>Managers/Supervisors:</u> (% of total trainees)	9%		

FUNDING DETAIL

Program Costs	-	(Substantial Contribution)	(High Earner Reduction)	=	Total ETP Funding
\$117,600		\$0	\$0		\$117,600

In-Kind Contribution:	100% of Total ETP Funding Required	\$134,400
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TRAINING PLAN

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	Continuous Imp., Mfg. Skills, PL-Mfg. Skills	65	8-200	0	\$1,440	\$16.04
				Weighted Avg: 80			
2	Retrainee Job Creation Initiative Priority Rate	Continuous Imp., Mfg. Skills, PL-Mfg. Skills	15	8-200	0	\$1,600	\$13.37
				Weighted Avg: 80			

Minimum Wage by County: \$16.04 per hour in Job Number 1 and \$13.37 per hour in Job Number 2 for Los Angeles County.

Health Benefits: Yes No This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: Yes No Maybe

Up to \$1.04 per hour in Job Number 1 and up to \$0.37 per hour in Job Number 2 may be used to meet the Post-Retention Wage.

Job 1 Wage Range by Occupation

Occupation Titles	Wage Range	Estimated # of Trainees
Production Staff		52
Engineering Staff		5
Plant Support Staff		2
Supervisor		2
Manager		4

Job 2 Wage Range by Occupation

Occupation Titles	Wage Range	Estimated # of Trainees
Production Staff		7
Engineering Staff		2
Plant Support Staff		2
Supervisor		2
Manager		2

INTRODUCTION

Founded in 1933, Turbine Engine Components Technologies Corporation (TECT) (www.tectcorp.com) is wholly owned privately-held aerospace company. It currently consists of two business units: TECT Aerospace and TECT Power. With their fully integrated supply chain, these business units bring unprecedented speed to the manufacturing process as one-stop

shops for components and assemblies. TECT meets the Panel's out-of-state competition requirements as a manufacturer and eligible for priority industry reimbursement.

The training in this proposal is for the TECT Power's manufacturing facility in Santa Fe Springs. This facility manufactures critical rotating components of turbine engines for aviation and industrial applications, as well as components for other industries with similar engineering and quality requirements.

Training will focus on TECT's robust technology, capabilities and integrated supply chain which will make the Company a one-stop shop for precision-manufactured turbine engine components resulting in shorter lead times, better quality control and reduced manufacturing costs. The Company recently invested \$14M in 28 Deckel Maho Unit (DMU) 5 Axis Milling Machines. The DMU is a 5 axis advanced technological milling machine used for manufacturing aircraft engine rotors & blades, the machine is computer controlled with a quick-change tooling carousel. This innovative 5-axis milling technology will give TECT the ability to machine turbine engine components with a high degree of precision and complexity.

Retrainee - Job Creation

Based on current orders and schedules, it is anticipated that TECT will have a 45% growth in the next five years. With the company's \$14M in new equipment and the Lean Continuous Improvement Program, customer orders are expected to triple in the next two years. To support this growth and fully utilize the new equipment, TECT is hiring 15 new employees in production, engineering and management as shown in Job Number 2. This will not replace existing employees, but rather fill a need to bring staff levels up to meet demand and keep up with production schedule.

Job Creation trainees must be hired within the three-month period prior to Panel approval or during the term of contract. Training is reimbursed at a higher rate and trainees are subject to a lower post-retention wage.

PROJECT DETAILS

The proposed training will concentrate on the Company's new machineries as well as its new Lean Continuous Improvement (CI) Program which will roll out in July 2014. Training will be provided to all employees on Lean chapters required by TECT's new customers, and will begin before the start of production in the Fall of 2014.

Training Plan

Continuous Improvement (45%) – This training will be provided to all trainees on Lean, Kaizen and ISO. Trainees will also learn specific programs such as 5S (Sort, Set in Order, Shine, Standardize, Sustain) and Visual Management which has now been required by customers to be in place before the start of production.

Manufacturing Skills (55%) – This training will be provided to Production, Engineering and Management Staff on all aspects of the machine, operator Interface, troubleshooting, CNC programming, and machine maintenance. Trainees will gain the skills and knowledge to operate the machines, ensure product quality, and implement best practices in manufacturing.

Productive Lab – Manufacturing Skills

PL training in the milling technology specifically for the DMU Milling Machines will be provided to Production and Engineering staff.

A considerable amount of the training will take place at the machines because of the complexity and precision required to run the machines. The 28 DMU machines purchased this year are new to TECT and will require up to 50 hours of PL training to understand how to program the machine, how the control panel works for each function, identifying machine alarms and associating them with their respective errors, performing preventive maintenance, changing tooling on the advanced quick change tooling carousel, and understanding of laser detection positioning to identify location of hole & slots on the parts. This training would be too expensive to replicate in a simulated setting.

Trainees will receive classroom and lab training along with up to 50 hours of PL. Upon completion of the PL training, trainees will continue to receive “on-the-job” training at the employer’s expense. PL will be delivered with a trainer-to-trainee ratio of 1:1. The trainers are in-house subject matter experts who are exclusively dedicated to instruction for the entire reported training time. TECT provided a Checklist of Task and Competencies which supports the need for PL training and overall business objectives.

Commitment to Training

TECT’s Santa Fe Springs facility has an annual training budget of \$46,000. The Company represents that ETP funds will not displace the existing financial commitment to training. Training in Safety, New Hire Orientation, Human Resources, and Sexual Harassment is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

RECOMMENDATION

Staff recommends approval of this proposal.

DEVELOPMENT SERVICES

N/A

ADMINISTRATIVE SERVICES

N/A

TRAINING VENDORS

To Be Determined

Exhibit B: Menu Curriculum

Class/Lab Hours

8-200

Trainees may receive any of the following:

CONTINUOUS IMPROVEMENT

- + Kaizen
- + Quality Systems
- + Lean
- + 5S (Sort, Set in Order, Shine, Standardize, Sustain)
- + Green Belt/Six Sigma
- + ISO
- + Visual Management

MANUFACTURING SKILLS

- + Manufacturing Process
- + CNC Programming
- + Machine Operation
 - Lathe
 - Mori Mills
 - DMU Mills
 - Robots
 - CMM Machines

Productive Lab Hours

0 – 50

PL-MANUFACTURING SKILLS (Ratio 1:1)

- + Interlock Devices
- + Operation Mode Section
 - Speed Control
 - Tool Loading & Clamping
 - Tool Calibration
 - Rotary Axis Circular Table
 - Machining Spindle & Linear Axis
 - Operating After Collision
- + Chip Disposal Inside Machine
- + Zero Point Clamping System
 - Clamping & Unclamping
 - Edit Clamping System
- + Tool Measurement & Breakage
- + Calibration
- + Laser Tool Measuring Device
- + Programming
 - Store & Restore
 - Auxilliary Program
 - DM Cycles
 - Groove Turning Cycles
 - 3D Quick Set
- + Preventive Maintenance

Safety Training cannot exceed 10% of total training hours per-trainee

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery.