



RETRAINEE - JOB CREATION

Training Proposal for: nanoPrecision Products, Inc.

Agreement Number: ET16-0182

Panel Meeting of: September 25, 2015

ETP Regional Office: North Hollywood

Analyst: E. Wadzinski

PROJECT PROFILE

| | | | |
|---|---|---------------------|---|
| Contract Attributes: | Retrainee SB <100 Priority Rate Job Creation Initiative | Industry Sector(s): | Manufacturing Nanotechnology Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Counties Served: | Los Angeles, Ventura | Repeat Contractor: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Union(s): | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| Number of Employees in: | CA: 60 | U.S.: 60 | Worldwide: 60 |
| <u>Turnover Rate:</u> | 5% | | |
| <u>Managers/Supervisors:</u> (% of total trainees) | 10% | | |

FUNDING DETAIL

| | | | | | |
|---------------|---|----------------------------|-------------------------|---|--------------------------|
| Program Costs | - | (Substantial Contribution) | (High Earner Reduction) | = | Total ETP Funding |
| \$207,480 | | \$0 | \$0 | | \$207,480 |

| | | |
|-----------------------|------------------------------------|-----------|
| In-Kind Contribution: | 100% of Total ETP Funding Required | \$412,542 |
|-----------------------|------------------------------------|-----------|

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 Improvement, Hazardous Materials, Management Skills, Manufacturing Skills | 60 | 8 - 200 | 0 | \$2,990 | \$17.00 |
| | | | | Weighted Avg: 115 | | | |
| 2 | Job Creation Initiative Retrainee SB <100 Priority Rate | Business Skills, Computer Skills, Continuous Improvement, Hazardous Materials, Management Skills, Manufacturing Skills | 15 | 8 - 200 | 0 | \$1,872 | \$20.00 |
| | | | | Weighted Avg: 72 | | | |

Minimum Wage by County: \$15.97 for Los Angeles County; \$15.07 for Ventura 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
 Although employer provides health benefits, they are not being used to meet Post-Retention Wage.

| Wage Range by Occupation | | |
|--------------------------|------------|-------------------------|
| Occupation Titles | Wage Range | Estimated # of Trainees |
| JOB 1 - Retrainee | | |
| Engineer I - IV | | 5 |
| Engineer IV -V | | 10 |
| Engineering Managers I | | 3 |
| Engineering Managers II | | 2 |
| Machinists | | 10 |
| Manufacturing Engineers | | 10 |
| Manufacturing Managers | | 3 |
| Administration | | 4 |
| Administration Managers | | 2 |
| Senior Managers | | 3 |
| Technicians/QA Inspector | | 8 |

| | | |
|-----------------------------|--|---|
| JOB 2 – Job Creation | | |
| Machinists | | 5 |
| Engineer IV | | 4 |
| Manufacturing Engineer | | 2 |
| Technicians/QA Inspector | | 4 |

INTRODUCTION

nanoPrecision Products, Inc. (nPP) (www.nanoprecision.com) is a high-technology, precision manufacturing company with 60 employees. The product development center is located in Camarillo, and the prototyping and manufacturing center is in El Segundo. The Company manufactures ultra-high, precision products for the medical, telecommunications, and military/aerospace industries. Since its incorporation in 2002, nPP has been conducting critical research in the core technologies for large volume, high speed, and nano-scale tolerance manufacturing.

This will be nPP's third ETP Agreement. The Company's first ETP Agreement provided Computer and Manufacturing Skills to support its early manufacturing efforts by standardizing processes, teaching Teamcenter software to manage product life cycle, CAD/CAM software to design products, and fundamentals of high tech machinery and product assembly. In the most current ETP Agreement nPP continued to move from its initial Research & Development (R&D) and early production phase into the manufacturing and product qualification stages. The Company also added 11,000 sq. ft. to the El Segundo facility, and installed high speed, high-precision mechanical presses, electro-chemical surface treatment machines, and automated assembly equipment.

Although nPP started the process to begin manufacturing, which led to the hiring of 20 new staff, due to new developments in these manufacturing processes the implementation of these changes has taken longer than expected. The Company continues to expand, including equipment investments of 3.5 million in 2014 and 1.7 million in 2015. nPP is also upgrading their NX CAD design software system from the 8.5 version to the new 10.5 version, which will require training for all design personnel.

Retrainee - Job Creation

In this proposed Agreement, training will include processes related to the new 3 and 4 axis CNC milling machines, 2 punch presses and the automation and singulation and packing machines. The addition of this equipment necessitates training for six to ten new positions in the tool room, along with five new technical and support positions. These new positions are needed to support nPP's effort in bringing its tooling functions in house to be able to control manufacturing quality and efficiency.

nPP has committed to hiring 15 new employees within the next two years (Job Number 2). The date-of-hire for trainees will be within the three-month period before contract approval or within the term-of-contract. These trainees will be hired into "net new jobs" as a condition of contract.

PROJECT DETAILS

All employees in R&D, manufacturing, and support functions will need training to strengthen skills in the following:

Business Skills (5%): Training will be provided to all occupations. nPP continues to define its administrative processes and practices. Administrative personnel will be provided with training to upgrade their skills and practices. During the prior Agreement, nPP was not able to implement an ERP system, but plans on doing so within the term of this Agreement and will provide training for all employees.

Computer Skills (35%): Training will be provided to all occupations. Training will be on-going in technical areas, as upgrades to the 10.5 version of NX CAD Design software will be implemented. Technical staff will also receive training on software programs that include: Geomagic Control, Geometric Dimensioning & Tolerance techniques, MatLab, Zygote programming. These programs are part of our regular operations and provided to newly-hired employees based on training needs.

Continuous Improvement (15%): Training will be provided to all occupations. Training will focus on internal business systems and functionality resulting in the elimination of duplicate processes, and a more efficient business environment, product improvement, delivery times, waste reduction and profitability.

Hazardous Materials (5%): Training will be provided to Machinists, Technicians, Engineers and Technicians. Training will provide focus on how to manage hazardous materials in relation to production, as well as with experiments on new techniques, materials and technology.

Management Skills (5%): This training will only be provided to Managers. Training will include leadership in a growing environment and how to work together effectively as a team. Technical Managers will be provided with skills to motivate individual departments to achieve the department and company goals.

Manufacturing Skills (35%): Training will be provided to Technicians/QA Inspectors, Machinists, Engineering and Manufacturing Staff. Training will address the new equipment related to manufacturing and the in-house expansion in tooling previously outsourced.

Temporary to Permanent Hiring

The trainees in Job Number 2 fall under Panel guidelines for “temporary to permanent” employment. nPP has retained these employees through a temporary agency, with the intention of hiring them into full-time, permanent positions after training.

These trainees must be determined eligible to participate in ETP-funded training before the start of training, while on payroll with the temporary agency. However, the retention and post-retention wage requirements cannot be satisfied until after trainees have been hired by nPP. Until then, the nPP will not receive progress payments

Training Hours Limitation

Small business retraining is normally capped at 60 hours per trainee; however, nPP is requesting a modification of the cap to deliver up to 200 hours of training per person. The Contractor states that training in technical skills are dynamic and there is a constant upgrade to the processes and software that is used to keep this technology at a level above and to continue to grow the innovations achieved. nPP is at a stage where now that they have proved

technological theories they have discovered, they need to apply those theories to the practical production methods. Since the tolerances nPP has achieved have never been done, innovation, training of manpower is critical to their success. Training on new manufacturing equipment will be in excess of 200 hours, and training on the NX CAD Design software can be in excess of 60 hours which supports nPP's request. These two types of training alone support nPP's request to modify the 60 hour training cap to support nPP's training plan.

Commitment to Training

nPP has a training budget of approximately \$250,000 per year for both facilities, and delivers courses in regulatory compliance, computer software skills, and technical job skills. nPP provides on the job training and new hire orientation. nPP also trains in company Standards, Processes and Procedures.

ETP-funded training will allow nPP to grow, meet customer and industry standards with quality products, and ensure that staff is well versed in the latest technology. Training will provide workers an in-depth understanding of nPP's processes, procedures and manufacturing techniques.

nPP represents that ETP funds will not displace the existing financial commitment to training. Safety training is, and will continue to be, provided in accordance with all pertinent requirements under state and federal law.

➤ Training Infrastructure

nPP has a detailed training plan focused on new equipment and lean manufacturing processes. The Company's Director of Human Resources & Administration and the Advanced Applications Engineer are involved in overseeing the administration and training implementation process for this project.

RECOMMENDATION

Staff recommends approval of this proposal.

ACTIVE PROJECTS

The following table summarizes performance by nPP under an active ETP Agreement:

| Agreement No. | Approved Amount | Term | No. Trainees (Estimated) | No. Completed Training | No. Retained |
|----------------------|------------------------|---------------------|---------------------------------|-------------------------------|---------------------|
| ET14-0158 | \$208,000 | 09/30/13 – 09/29/15 | 50 | 60 | 42 |

Based on ETP Systems, 7,260 reimbursable hours have been tracked for potential earnings of \$188,760 (91% of approved amount). Although training ended on June 30, 2015, the Contractor is in the process of collecting and entering the final batch of rosters for ETP eligible trainees and projects final earnings of 95 to 100%.

PRIOR PROJECTS

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

| Agreement No. | Location (City) | Term | Approved Amount | Payment Earned \$ % |
|---------------|------------------------|---------------------|-----------------|------------------------|
| ET13-0142 | El Segundo & Camarillo | 09/06/12 – 09/05/13 | \$49,920 | \$49,920 (100%) |

DEVELOPMENT SERVICES

N/A

ADMINISTRATIVE SERVICES

N/A

TRAINING VENDORS

N/A

Exhibit B: Menu Curriculum

Class/Lab Hours

8 - 200

Trainees may receive any of the following:

BUSINESS SKILLS

- ✦ Project Management
- ✦ Business Skills Training
- ✦ Program/Project Management Skills
- ✦ Technical Product Specifications

COMPUTER SKILLS

- ✦ Teamcenter Express
- ✦ Teamcenter Express Supervision
- ✦ NX 10.5 Unigraphics CAD/CAM (Intermediate, Advanced, Manufacturing)
- ✦ Workforce Development - Software Implementation
 - Qindos – Metrology Measurement
 - MatLab – Mathematical Analysis tool
 - Geomagic – Geometric Analysis Tool
 - Simufact – Metal Forming Simulation Tool
 - Marc/Mentat Simulation
- ✦ nPP Standards
- ✦ Microsoft Project
- ✦ Quickbooks
- ✦ Statistical Analysis

CONTINUOUS IMPROVEMENT

- ✦ ISO 90001/AS9100
- ✦ Lean Manufacturing/Process Improvement
- ✦ Team Problem Solving/Leadership
- ✦ Technical Accuracy

HAZARDOUS MATERIALS SKILLS

- ✦ Laser Safety
- ✦ Hazardous Waste

MANAGEMENT SKILLS (Managers only)

- ✦ Leadership Training, Coaching
- ✦ Performance Appraisal Training

MANUFACTURING SKILLS

- ✦ Coordinate Measuring Machine (CMM)
- ✦ Talysurf (surface measurement)
- ✦ Inspection Tools and Methodology
- ✦ Fiber Optic Cable Assembly Training
- ✦ Forklift Operation Training & Certification
- ✦ CNC Machine
- ✦ Equipment Operation and Maintenance
- ✦ Grinding

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

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