APPENDIX A

QUALITY ASSURANCE AUDITOR
(Time-Based)

D.O.T. CODE 194.387-010
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This training outline represents minimum standards for work processes and related instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom instruction.

WORK PROCESSES

	Approximate Hours
A. Workplace Orientation	300
B. Workplace Fundamentals	400
C. Quality Assurance Fundamentals	700

A. Workplace Orientation

1. Demonstrate knowledge of workplace procedures, policies, etc.
2. Describe workplace structure, workflow, and relation of trade to the workflow.
3. Practice working safely in workplace, e.g., follow Lock-Out/Tag-Out (LO/TO) procedures, safety plans, etc.

B. Workplace Fundamentals

1. Demonstrate understanding of manufacturing process (where applicable).
2. Exhibit thorough understanding of items produced by employer.
3. Demonstrate familiarity with production equipment and functions (excluding machinery operation).
4. Demonstrate ability to read and interpret blueprints/engineering drawings.
5. Exhibit grasp of trade math needed for work, e.g., decimal system, measurements.

C. Quality Assurance Fundamentals

1. Explain importance of quality control.
2. Develop and demonstrate understanding of Statistical Process Control (SPC) methods.
3. Develop and demonstrate an understanding of Geometrical Dimensioning & Tolerancing (GD&T).
4. Explain all dimensions being audited.
5. Demonstrate familiarity with testing standards, e.g., ASTM, American Society of Mechanical Engineers (ASME), American National Standards Institute (ANSI).

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D. Auditing 2000

1. Set up all tools and gauges for use in performing quality assurance tasks, such as: gage blocks, vernier gages, plug (go/no-go) gages, profilometers, optical comparator, video comparator (Smartscope), roundness testers, microhardness testers, roughness testers, coordinate measuring machines (CMMs).
2. Use tools to acquire data for all manner of metrics, including but not limited to: roughness, cylindricity, perpendicularity, parallelism, angularity, outside/inside diameter (OD/ID).
3. Perform first piece inspection (where applicable), including recording and evaluating data.
4. Perform machine capability studies per customers' instructions (if applicable).
5. Perform Repeatability & Reproducibility (R&R) studies on gages (if applicable).
6. Make decisions and communicate regarding quality of pieces to appropriate personnel, orally and in writing.
7. Demonstrate ability to analyze problems and suggest solutions.
8. Fill out all pertinent paperwork regarding audited materials, such as Material Defect Report, parts conformity to specified tolerances, etc.

E. Maintenance and Recordkeeping 600

1. Practice general care and upkeep of inspection equipment.
2. Perform schedule maintenance of shopfloor tools (where applicable).
3. Calibrate auditing equipment.
4. Manage computerized and physical inventory of audited work.

Total Approximate Hours 4000

Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impacton classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to http://www.labor.state.ny.us/workerprotection/publicwork/PDFs/Article8FAQS.pdf.

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APPENDIX B

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RELATED INSTRUCTION

Safety/Health/Environment

General Workplace Safety
First Aid & CPR (minimum 6.5 hours every 3 years)
Personal Protective Equipment (PPE)
Right-to-Know/Safety Data Sheets (SDS)
Sexual Harassment Prevention Training (minimum 3 hours)
Lock-Out/Tag-Out (LO/TO)

Trade Theory and Science

Blueprint Reading
Trade Math, especially decimal system, measurements
Geometry
Basic Computer Skills
Metallurgy
Geometric Dimensioning & Tolerancing (GD&T)
Quality Control Basics
Statistical Process Control (SPC) Methods
Plating and Heat Treating Specifications (if applicable)
Measuring Instruments
Standardization/Standards Organizations (e.g., ASME, ASTM, ANSI)
Calibration
Tool Inspections (if applicable)
Inventory
Data Collection
Data Reporting

Other Courses as Necessary

A Minimum of 144 Hours of Related Instruction is Required for Each Apprentice for Each Year.

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