Registered Apprenticeship for Transit Rail Vehicle Technicians

National Framework | Local Implementation

RAIL CAR TRAINING CONSORTIUM
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American Apprenticeship Initiative: Overview

- Apprenticeship in five occupations: Transit Coach Operator, Bus Maintenance, Rail Vehicle Maintenance, Elevator-Escalator Maintenance, Signals Maintenance
- 5 years of apprenticeship registration and implementation
- 8 agencies committed to Rail Vehicle Apprenticeship
American Apprenticeship Initiative: Deliverables

**West Virginia Career Pathways Workplan**

**Transit-Based Scenarios**

Working with the Defined STEM platform used by the West Virginia Department of Education Career and Technical Education program, the Transportation Learning Center will develop two transit-related scenarios, one in signals and one in bus electronics, with a green emphasis. These scenarios will be designed for use by WVDE in its transportation career pathway in the high schools, but will also be able to migrate to other interested high school, community and technical college and agency and union training programs across the country. Because Defined STEM utilizes the national competency model framework, these scenarios designed in tandem with the development of a detailed core curriculum outline linked to required competencies and standards.

Point People: Tia Brown, Jack Clark, John Schiavone, Melissa Huber from TLC for scenario development; Kathy D’Antoni from WVDE CTE for appropriate distribution and use in West Virginia.

Deliverables and Dates Due:

- 2.5.1: Develop one detailed core curriculum outline linked to required competencies and standards. Due March 1, 2014-Month 10.
- 2.6.1, 2.6.2: Develop at least two interactive learning modules based on the core curriculum outline. Due June 1, 2014 and September 1, 2014-Months 13 and 16.
- 2.3.1: Engage at least 450 high school students across at least three locations (partial numbers met through students engaging in these scenarios in West Virginia, more if utilized in other locations.) Due November 1, 2014-Month 18.

**CTE Summer Honors Academy 2014**

Through a competitive process, twenty CTE students are selected from a state-wide pool to participate in the Summer Honors Academy. One to two days of this program will be devoted to transportation, including transit. Students will visit various transportation properties in the state and engage with workers and managers in the field and/or classroom. The program may be designed to include use of all or part of the Defined STEM scenarios being developed by the Transportation Learning Center. The Center will work with the Rahall in support of program planning and, where appropriate, will help to develop useful outreach and program materials in addition to presenters in the field and/or classroom. Program may involve hands-on learning module related transit.

Point People: Diana Long of the Rahall Institute directly working with the students and on program planning; support from Center staff led by Jack Clark and Pat Greenfield on program coordination and appropriate resources for the transportation/transit segments of the program.

Deliverables and Dates Due:

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<th>Event</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<td>Nov</td>
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<tr>
<td>Select SMEs</td>
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<td>Start-up Webinar</td>
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<td>Hold first in person meeting</td>
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<tr>
<td>Develop workplan</td>
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<tr>
<td>Review and revise, if necessary APTA standards/addendum</td>
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<tr>
<td>Use APTA standards and current apprenticeship to draft competency based apprenticeship</td>
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<tr>
<td>Hold in person meeting</td>
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<tr>
<td>Submit revised apprenticeship to DOL</td>
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<tr>
<td>Work with agencies to develop Joint Apprenticeship Committees</td>
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<tr>
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<tr>
<td>Begin developing 100 level lesson plans</td>
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</table>
American Apprenticeship Initiative: Deliverables

Rail Vehicles Maintenance Training Standards

Abstract: This Recommended Practice establishes standards for a program of rail vehicles maintenance training.

Keywords: training, rail vehicles

Summary: In response to the transit industry's need for rail vehicles maintenance training, the Transportation Learning Center has partnered with APTA, transit agencies, and unions representing transit workers to develop these joint labor-management training guidelines and recommended training practices.

Scope and purpose: The curriculum, coursework and training guidelines adopted by the group and contained in this Recommended Practice are designed to assist in meeting the licensing requirements of jurisdictions, which currently or in the future, may legislate professional licensure or certification for rail vehicle technicians. The apprenticeship program will ultimately be registered by the U.S. Department of Labor’s Office of Apprenticeship.

This Recommended Practice represents a common viewpoint of those parties concerned with its provisions, namely, transit operating/planning agencies, manufacturers, consultants, engineers and general interest groups. The application of any standards, practices or guidelines contained herein is voluntary. In some cases, federal and/or state regulations govern portions of a rail transit system's operations. In those cases, the government regulations take precedence over this standard. APTA recognizes that for certain applications, the standards or practices, as implemented by individual rail transit agencies, may be either more or less restrictive than those given in this document.

Update and Revise APTA Standards

Develop and customize materials for Mentor Training
Project Overview: Major Project Deliverables

Assist agencies with training development and Registered Apprenticeship registration
American Apprenticeship Initiative: Deliverables

Recruit and Train Mentors

Transit Jobs: Building Green Careers and Helping the Environment

Green collar jobs are blue collar jobs that improve environmental quality and build strong communities. Green collar jobs are good jobs that are poised for dramatic growth well into the future!

Transit is Experiencing Dramatic Growth!
- Transit ridership has grown by 30 percent since 1995. Riders take more than 10.3 billion trips annually.
- Transit employment is expected to grow by 24 percent between 2006 and 2016, creating 64,347 new green collar jobs in transit.
- Transit is predicted to be one of the fastest growing transportation sectors.

Transit Jobs Improve the Environment!
- Conserve Energy: Public transportation saves consumers 11 million gallons of gas a day equaling 4.2 billion gallons a year.
- Shrink Carbon Footprints: Public Transportation saves 37 million metric tons of carbon dioxide annually. 130 metric tons of carbon dioxide are saved per green collar transit employee.
- Reduce Traffic Congestion: Public transportation saves travelers 544 million hours in travel time and 340 million gallons of fuel. Without public transportation, congestion costs would have been an additional $32.2 billion.

Transit Jobs Grow the Economy!
- 1.8 million new jobs can be created in the next two years with $47.8 billion invested in capital transit projects.
- 35,000 jobs can be supported with a $1.25 billion investment in the nation’s public transportation infrastructure.
- $10 million in public transportation capital investments can return up to $30 million in business sales alone.

Transit Jobs are Good Jobs!
- Workers in transit perform meaningful work in their communities and workers earn a living wage.
- Workers earn at least three times more than the federal minimum wage. Green collar transit drivers earn an average of $38,465 per year and mechanics earn $21.30 per hour.
- Workers have a myriad of career advancement opportunities. The Transportation Learning Center works to support and expand these opportunities.

Develop outreach and recruitment materials
American Apprenticeship Initiative: Deliverables

Apprentice and pre-apprentice training
Rail Vehicle Apprenticeship Timeline

- 5 year timeline overall
- Technical Workplan by October 2016
- Update to APTA standards by December 2016
- Submission of standards to APTA by February 2017
- Rail Car Apprenticeship Registration by December 2017
- Train the Trainer, Mentor Training Implementation (Ongoing)
- Recruitment of new partners (Ongoing)
- As courses are developed in the Rail Car Consortium, will work with NCCRS to assess for college credit
Piloting/Implementation

- Revise and submit apprenticeship framework to National Department of Labor
- Development of Policy Committee (if not already developed)
- Development of Joint Labor Management Apprenticeship Committee (if not already developed)
- Development of apprenticeship structure
- Piloting/Implementation
- Registration of program with State or Feds
- Tracking of registered apprentices
- Discussions with workforce board for training funds
# American Apprenticeship Initiative: Tracking Apprentices

## Tracking Apprentices

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</table>
Leveraged Resources

• Need to document agency leveraged resources
• Collected on a quarterly basis
• Can be as simple as a spreadsheet or email
• Types of leveraged resources
  – Training costs
    • Portion of trainers salaries for time spent teaching apprentices or pre-apprentices
    • Cost of developing any training materials or curriculum related to apprenticeship training
  – Materials and supplies
    • Textbooks
    • Training Aids
    • Skill gap survey materials and implementation
Leveraged Resources

Types of leveraged resources

- Rental costs
- Personnel costs (including fringe benefits)
  - OJT wage costs
  - Cost of any personnel time spent working on apprenticeship activities, including work group meetings, policy committee meetings, time spent working with or doing logistics, complying with reporting requirements, etc.
- Meeting costs
  - Including costs of SME time for webinars and in person meetings
- Telephone, postage, copying, printing
- Travel costs not covered by the project
American Apprenticeship Initiative - Quarterly Site Summary

Partner Location:  
Year: 2015  
Quarter:  
Report Compiled By:  
Date Submitted:  

Section A – Narrative Summary
Please use this section to briefly describe what activities (including but not limited to new apprentices, apprentice completions, training classes, group meetings, courseware validation, research activities, etc.) have occurred under the grant this quarter.

Section B – Quarterly Leveraged Resources
Leveraged Resources: Like matching resources – any resources (time, supplies, meeting space, etc.) not charged to the grant but that are being used in support of the grant by partners at the site.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity/Resource</th>
<th>Total Units</th>
<th>Unit value ($)</th>
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<td>example</td>
<td>Planning/launch meeting – Director of Tng and (2) Labor reps</td>
<td>3 hrs X 3 people = 9</td>
<td>$35/hr (group avg)</td>
<td>9 X $35 = 315</td>
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<td>4/6/2010</td>
<td>Planning meeting: 4 Training Members X 6 hours</td>
<td>24</td>
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Draft National Rail Car Apprenticeship Technical Workplan

1. *Modification of National Transit Rail Vehicle Maintenance Technician Apprenticeship program*
   - Revision of the minimum and maximum requires of the total hours for the national rail vehicle apprenticeship framework, to make it a “true” hybrid apprenticeship model. This review will include:
     - Review of minimum and maximum classroom and on-the-job learning hours required for the work process schedule in the national rail vehicle apprenticeship framework. The revised national framework will be submitted to the National Office of Apprenticeship for approval.
     - Review and possible revision of interim credentials for the 100, 200, and 300 level apprentice training areas.

2. *Development of Apprenticeship Assessments*
   - Enhance the current bank of assessment questions for modular rail vehicle training assessments currently housed in online assessment database. These assessments were created as part of a national rail vehicle qualification program. The questions can be used for an individual to demonstrate competency and/or to assess knowledge gained at the end of instruction.
   - Validate assessments (hands-on and written) through a pilot assessment process
   - Develop guidelines for assessment that will include recommendations for fair and consistent assessing of individual’s abilities.

3. *Implementation and Registration of Local Apprenticeships*
   - Work with agencies and the relevant federal and state Offices of Apprenticeship to register local rail vehicle apprenticeship programs
   - Assist agencies with the design and implementation of their apprenticeship programs. This will include assistance with the development of joint apprenticeship committees, assistance with the implementation of the training program, mentor training, train the trainer, etc.
   - Work with agencies on community outreach, partnerships with community colleges, assessment of courses for college credit, etc.
Types of Apprenticeship

• Time Based
• Performance/Competency Based
• Hybrid
Time Based Example

Time based apprenticeship
Minimum of 2,000 hours which includes an outline of the specific work processes and the approximate time requirement for each individual process.

Appendix A

WORK PROCESS SCHEDULE
TRANSIT ELEVATOR-ESCALATOR MAINTENANCE TECHNICIAN
(Existing Title: Elevator Repairer)
This schedule is attached to and is part of these Standards for the above identified occupation.

1. TERM OF APPRENTICESHIP
The term of the apprenticeship shall be 18 months with an overall minimum of 3,000 hours. The example provided is based upon a minimum of 2,000 hours which includes an outline of the specific work processes and the approximate time requirement for each individual process.

2. RATIO OF APPRENTICES TO JOURNEYMEN
Ratio as covered in the local collective bargaining agreement (CBA).

3. APPRENTICE WAGE SCHEDULE
Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyman's wage rate per the CBA.

Transit Elevator-escalator Technician Apprenticeship Terms:
By Percentage of Journey-level Wage: EXAMPLE
for a 28 month program and an hourly wage rate of $28.76.
(The hourly rate is a composite representative of the current state of the industry. Local rates will be determined by the CBA.)

Period | Percentage of Journey-level | Apprentice wage
--- | --- | ---
1st six months | 60% | $17.26
2nd six months | 67% | $19.20
3rd six months | 74% | $21.25
4th six months | 81% | $23.29
5th six months | 88% | $25.34
6th six months | 95% | $27.39

4. SCHEDULE OF WORK EXPERIENCE (See attached Work Process Schedule)
The NVAC may modify the work processes to meet local needs prior to submitting these Standards to the appropriate registration agency for approval.

5. SCHEDULE OF RELATED INSTRUCTION
All classes include practical application, demonstration and troubleshooting when applicable.

Preventive maintenance and inspection
(Basic and advanced concepts are covered in training)

Appendix A - 1
Work process schedules specify approximate time of completion of competency which can be applied to the 2,000 hour requirement.

Flexibility - Apprentices can work at their own pace.

Monitor, Measure, and Reward.

Characteristics:
- Competencies identified and defined by job/task analysis.
- Structured organized learning activities that can be self-paced.
- Measures or tests of competency attainment that are observable.
- Minimum and maximum time/hours for each competency.
Compentency Based Example

ORGANIZATION OF THE STANDARDS

These standards are organized in major job (competency) areas. Each area contains the various tasks that make up the job (competency) area. The sequence in which the major job areas are listed does not imply the sequence in which the training of the apprentice should be accomplished. Related instruction (home study) courses are available and enrollment of the apprentice will provide a structured learning, sequential training program to the apprentice as well assist the sponsor in providing the necessary training required by the apprenticeship program.

The National Apprenticeship and Training Committee will meet periodically to modify and update these standards, if necessary.

ON-THE-JOB TRAINING AND RELATED INSTRUCTION

Purpose and Use of the Apprentice Schedule

The Apprentice Schedule provides a training outline, a progress evaluation, and a schedule of record keeping.

The schedule is designed to assure that the tasks will be included in study references, needed knowledges and proficiencies required to complete effectively the apprenticeship program. In addition, a listing of related instruction has been included. Although much of the related instruction material will be covered in the course of the apprentice schedule, arrangements for study of the non-covered material shall be made by the sponsor.

The apprentice shall be rotated through the task list on the training schedule and provided the related instruction associated with each task. The sequence of training should be based on the sponsor’s operating procedures. The training schedule is designed to assist the program supervisor and the apprentice and is based on the following criterion:

- Ability to recognize and analyze problems
- Applies basic knowledge and skills to problem solving tasks
- Performs appropriate actions to complete tasks

Periodically, the apprentice may request the supervisor to review his/her progress in the assigned elements of the program. Upon completion of all elements in the formal program, the apprentice may then request the sponsor’s certification.
Hybrid Apprenticeship

Combination of time and competency based
Work processed developed with minimum-maximum time/hours for each task or job requirement
Allows for more flexibility in apprenticeship
Registered Apprenticeship for Transit Rail Vehicle Maintenance Technician

- Basic structure
- Classroom hours
- On the Job Learning hours
- Interim Credentials
- Modify?
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>BASIC STRUCTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECTION I.</td>
<td>Program Administration</td>
</tr>
<tr>
<td>SECTION II.</td>
<td>Equal Opportunity Pledge</td>
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<tr>
<td>SECTION III.</td>
<td>Affirmative Action Plan</td>
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<td>SECTION IV.</td>
<td>Qualifications for Apprenticeship</td>
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<tr>
<td>SECTION V.</td>
<td>Selection of Apprentices</td>
</tr>
<tr>
<td>SECTION VI.</td>
<td>Apprenticeship Agreement</td>
</tr>
<tr>
<td>SECTION VII.</td>
<td>Ratio of Apprentices to Journeyworkers</td>
</tr>
<tr>
<td>SECTION VIII.</td>
<td>Term of Apprenticeship</td>
</tr>
<tr>
<td>SECTION IX</td>
<td>Probationary Period</td>
</tr>
<tr>
<td>SECTION X</td>
<td>Hours of Work</td>
</tr>
<tr>
<td>SECTION XI</td>
<td>Apprentice Wage Progression</td>
</tr>
<tr>
<td>SECTION XII</td>
<td>Credit for Previous Experience</td>
</tr>
<tr>
<td>SECTION XIII</td>
<td>Work Experience</td>
</tr>
<tr>
<td>SECTION XIV</td>
<td>Related Instruction</td>
</tr>
<tr>
<td>SECTION XV</td>
<td>Safety and Health Training</td>
</tr>
<tr>
<td>SECTION XVI</td>
<td>Supervision of Apprentices</td>
</tr>
<tr>
<td>SECTION XVII</td>
<td>Records and Examinations</td>
</tr>
<tr>
<td>SECTION XVIII</td>
<td>Maintenance of Records</td>
</tr>
<tr>
<td>SECTION XIX</td>
<td>Certificate of Completion of Apprenticeship</td>
</tr>
</tbody>
</table>
BASIC STRUCTURE

TABLE OF CONTENTS
SECTION XX.   Notice to Registration Agency
SECTION XXI.  Cancellation and Deregistration
SECTION XXII. Amendments and Modifications
SECTION XXIII. Adjusting Differences/Complaint Procedure
SECTION XXIV. Collective Bargaining Agreement
SECTION XXV. Transfer of Training Obligations
SECTION XXVI. Responsibilities of the Apprentice
SECTION XXVII. Technical Assistance
SECTION XXVIII. Signature Page Adopting Apprenticeship Standards

Appendix A - Sample Work Processes and Related Instruction Outline
Appendix B - Sample Apprenticeship Agreement
Appendix C - Template Affirmative Action Plan and Selection Procedures
Appendix D – Qualifications and Selection Procedures
INTERIM CREDENTIALS

WORK PROCESS SCHEDULE AND RELATED INSTRUCTION OUTLINE
TRANSIT RAIL VEHICLE MAINTENANCE TECHNICIAN
(Existing Title: Car Repairer (Railroad Equipment))
O*NET-SOC CODE: 49-3043.00 RAPIDS CODE: 0642R-HY

Level 100 – Fundamental skills for transit railcar maintenance (diagnose, adjust, repair, or overhaul mass transit rail cars)

<table>
<thead>
<tr>
<th>Classroom Hours of Instruction</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Transit Orientation – History of Transit in the U.S. and local community. How transit is funded. Basic Regulatory agency information, federal and state. Orientation and background on the specific property.</td>
</tr>
<tr>
<td>16</td>
<td>Electrical and Job Safety: Demonstrate Knowledge of Job and Electrical Safety Practices</td>
</tr>
<tr>
<td>48</td>
<td>Tools and material handling</td>
</tr>
<tr>
<td>48</td>
<td>Basic mathematics</td>
</tr>
<tr>
<td>64</td>
<td>Introduction to electricity</td>
</tr>
<tr>
<td>24</td>
<td>Electrical meters</td>
</tr>
<tr>
<td>40</td>
<td>Wiring technologies and equipment</td>
</tr>
<tr>
<td>80</td>
<td>DC fundamentals</td>
</tr>
<tr>
<td>80</td>
<td>AC fundamentals</td>
</tr>
<tr>
<td>24</td>
<td>Basic hydraulic and pneumatic theory and applications</td>
</tr>
<tr>
<td>24</td>
<td>Basic mechanical theory and applications</td>
</tr>
<tr>
<td>160</td>
<td>AC motors, DC motors and generators</td>
</tr>
<tr>
<td>80</td>
<td>Introduction to electrical ladder drawings</td>
</tr>
<tr>
<td>80</td>
<td>AC circuit analysis</td>
</tr>
<tr>
<td>160</td>
<td>Semiconductor fundamentals</td>
</tr>
<tr>
<td>40</td>
<td>Digital fundamentals</td>
</tr>
<tr>
<td>992</td>
<td>TOTAL</td>
</tr>
</tbody>
</table>

NOTE: The 100 level is classroom training only, no on-the-job learning (OJL).
WORK PROCESS SCHEDULE AND RELATED INSTRUCTION OUTLINE
TRANSIT RAIL VEHICLE MAINTENANCE TECHNICIAN
(Existing Title: Car Repairer (Railroad Equipment))
O*NET-SOC CODE: 49-3043.00   RAPIDS CODE: 0642R-HY

Level 200 - Vehicle theory of operation and standard maintenance of rail vehicles

<table>
<thead>
<tr>
<th>Hours of Instruction</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>On-the-Job</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Vehicle theory of operation and overview of major systems – The contents of this class will vary by property according to the equipment and propulsion systems used at that location. May include Light Rail Vehicles, Heavy Rail, Commuter Rail and AC, DC catenary, third rail etc.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>200 Couplers – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>24</td>
<td>200 Trucks and axles – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>24</td>
<td>300 Propulsion and dynamic braking – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>16</td>
<td>60 Auxiliary inverters and batteries – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>24</td>
<td>200 Friction brakes – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>40</td>
<td>320 HVAC – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>8</td>
<td>120 Current collection and distribution – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>16</td>
<td>120 Car body – Introduction and preventive maintenance</td>
</tr>
<tr>
<td>24</td>
<td>80 Doors</td>
</tr>
<tr>
<td>16</td>
<td>120 Communications systems</td>
</tr>
<tr>
<td>24</td>
<td>160 Communications Based Train Control (CBTC, Automatic Train Protection (ATP), Automatic Train Operation (ATO))</td>
</tr>
<tr>
<td>24</td>
<td>120 Monitoring, diagnosing and troubleshooting overview</td>
</tr>
<tr>
<td>264</td>
<td>2000 TOTAL</td>
</tr>
</tbody>
</table>

Appendix A - 4
## WORK PROCESS SCHEDULE AND RELATED INSTRUCTION OUTLINE

**Transit Rail Vehicle Maintenance Technician**

<table>
<thead>
<tr>
<th>Existing Title: Car Repairer (Railroad Equipment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>O*NET-SOC CODE: 49-3043.00 RAPIDS CODE: 064R-HY</td>
</tr>
</tbody>
</table>

### Level 300 – Advanced theory of operation and troubleshooting of systems

<table>
<thead>
<tr>
<th>Hours of Instruction</th>
<th>Subject Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>On-the-Job</td>
</tr>
<tr>
<td>24</td>
<td>200</td>
</tr>
<tr>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>40</td>
<td>320</td>
</tr>
<tr>
<td>40</td>
<td>480</td>
</tr>
<tr>
<td>40</td>
<td>480</td>
</tr>
<tr>
<td>20</td>
<td>240</td>
</tr>
<tr>
<td>24</td>
<td>200</td>
</tr>
<tr>
<td>16</td>
<td>160</td>
</tr>
<tr>
<td>16</td>
<td>160</td>
</tr>
<tr>
<td>40</td>
<td>480</td>
</tr>
<tr>
<td>36</td>
<td>240</td>
</tr>
<tr>
<td>24</td>
<td>360</td>
</tr>
<tr>
<td>344</td>
<td>3400</td>
</tr>
</tbody>
</table>

**Total OJL hours (Subject to local CBA)** 5,400  
*Descriptions are limited to brief summaries and are not meant to be inclusive of the many complex components on today’s railcars.*

### SCHEDULE OF RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Sub-component lists are for illustrative purposes and are not inclusive.)</td>
</tr>
</tbody>
</table>

**Total hours OJL and Related Instruction are subject to local CBA** 7,000  
Safety is a part of all instruction  
Several components will have equipment-specific instruction on schematic reading.  

**NOTE:** Each level represents an interim credential with an associated certificate of training.
Rail Vehicle Apprenticeship: Interim Credentials

Transit Rail Vehicle Technician Qualification System

Rail Vehicle Master Technician Qualifications (300 Level)

300 Level Hands-on Assessments

- Track A - Rail Car Maintenance Apprenticeship - Complete recommended 300 Level Classroom and Hands-on Training
- Track B - Experienced Mechanics - May complete assessments without going through apprenticeship program

Rail Vehicle Journeyperson Qualification (200 Level)

200 Level Hands-on Assessments

200 Level Written Assessments

- Track A - Rail Car Maintenance Apprenticeship - Complete recommended 200 Level Classroom and Hands-on Training
- Track B - Experienced Mechanics - May complete assessment without going through apprenticeship program

Rail Vehicle Apprentice Technician Qualification (100 Level)

100 Level Written Assessment

- Track A - Rail Car Maintenance Apprenticeship - Complete recommended 100 Level Classroom and Hands-on Training
- Track B - Experienced Mechanics - May complete assessment without going through apprenticeship program
Implementing A Local Apprenticeship Program

1. Obtain National Apprenticeship - DONE
2. Form local joint apprenticeship committee
3. Apply for locally recognized apprenticeship
4. Select and Train Mentors
5. Train and Track Apprentices within this framework
BULLETIN 2013-22

U.S. Department of Labor
Employment and Training
Administration
Office of Apprenticeship (OA)
Washington, D.C. 20210

Distribution:
A-541 Headquarters
A-544 All Field Tech
A-547 SD+ID+SAA+
Lab.Com

Subject: Revision to Existing Apprenticeship Occupation: Transit Rail Vehicle Maintenance Technician

Code: 200

Symbols: DSNIP/KSL

Action: Immediate

PURPOSE: To inform the staff of OA, State Apprenticeship Agencies (SAA), Registered Apprenticeship program sponsors, and other Registered Apprenticeship partners of a revision to an existing apprenticeship occupation:

Transit Rail Vehicle Maintenance Technician
Existing Title: Car Repairer (Railroad Equipment)
O*NET-SOC Code: 49-3043.00
RAPIDS Code: 0842-R-HY
Training Term: 5,400 hours
Type of Training: Hybrid

BACKGROUND: The occupation Transit Rail Vehicle Maintenance Technician was submitted by Mr. Mark Dysart on behalf of the Transportation Learning Center, for apprenticeship determination for a revision to the title, type of training and the term.

The revision of Transit Rail Vehicle Maintenance Technician has changed the type of training from time-based to hybrid. The time-based approach was 9,000 OJT hours; the hybrid approach has a minimum of 5,400 OJT hours.

ACTION: The OA staff should familiarize themselves with this bulletin and the attached Work Process Schedule and Related Instruction Outline, as a source for developing apprenticeship standards and/or providing technical assistance.

If you have any questions, please contact Ken Lemberg, Apprenticeship and Training Representative, at the Division of Standards and National Industry Promotion at (202) 693-3836.

NOTE: This bulletin is being sent via electronic mail.

Attachments

[attachment names]
Implementing an Apprenticeship

1. Obtain National Apprenticeship - DONE
2. Form local joint apprenticeship committee
3. Apply for locally recognized apprenticeship
4. Select and Train Mentors
5. Train and Track Apprentices within this framework
Forming a JATC

• Equally weighted **Labor** and **Management**
• Appoint **co-chairs**
• Set Ground Rules
• List of **Members** and their **expertise** must go to Registration Agency
Joint Apprenticeship Committees

1. Review and modify National Apprenticeship for local use
2. Draft documents for apprenticeship:
   – Affirmative Action
   – Contract Language
   – Wage Schedule
3. Recruit and Orient Apprentices
4. Ongoing work with Apprentices and Program
Apprenticeship: Apprenticeship Structure

Suggested Training & Apprenticeship Structure #1

National J ATC
(Center Board)

Feedback
Information
Participation

Training System
Training Standards
Courseware
Lesson Plans
Train-the-Trainer Programs

Apprenticeship Technical Committee

Work groups for different occupations
- EL/Es
- Traction Power
- Signals
- Rail Car
- Facilities
- Track, etc.
- Bus

Number of work groups will differ from location to location
Apprenticeship: Apprenticeship Structure

Suggested Training & Apprenticeship Structure #2

National J ATC
(Center Board)

Feedback
Information
Participation

Training System
Training Standards
Courseware
Lesson Plans
Train-the-Trainer Programs

Local J ATC/Apprenticeship Stand Alone Committees

Work groups for different occupations
- EL/Es
- Traction Power
- Signals
- Rail Car
- Facilities
- Track, etc.
- Bus

Number of work groups will differ from location to location
Review and Modify Nat’l Apprenticeship

- **Review National** Apprenticeship Program
- If needed, **modify** program for **local** implementation
- Set minimum **experience** and **education** standards
- Establish **Apprenticeship to Mentor ratio**
Create and Implement Training Schedule

|                | W | T | F | S | S | M | T | W | T | F | S | S | M | T | W | T | F | S | S | M | T |
| Nick N.        | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thomas Li      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| S. Houser      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| K. Edgecomb    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| M. Natesh      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C. Balluff     | D |   | 100| 101| 106|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| D. Reed        | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| D. Lopez       | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| M. Lockwood    | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| De La Rosa J.  | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stockton E.    | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Dorn B         | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Planas E       | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lopd C        | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DeWalt J       | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Plata E        | D | W |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Drusen E       | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Rowe T         | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Swanson D      | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lau B         | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fernandez T.   | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Gilmore B.     | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Atwood J.      | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Arriaga S.     | D |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Training Schedule Example from BART
Local J ATC Responsibilities

- Draft Documents for Apprenticeship:
  A. Wage Schedule
  B. Affirmative Action Plan
3. **APPRENTICES’ WAGE SCHEDULE**

Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyworker wage rate per the CBA.

**Transit Rail Vehicle Maintenance Technician Apprenticeship Term:**

**By Percentage of Journey-level Wage: SAMPLE**

for a 42 month program and an hourly wage rate of $28.80.

(The hourly rate is a composite representative of the current state of the industry. Local rates will be determined by the CBA.)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage of Journey-level</th>
<th>Apprentice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 Level – Rail Vehicle Apprentice Technician</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; six months</td>
<td>= 60%</td>
<td>= $ 17.28</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; six months</td>
<td>= 65%</td>
<td>= $ 18.72</td>
</tr>
<tr>
<td><strong>200 Level – Rail Vehicle Technician</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; six months</td>
<td>= 70%</td>
<td>= $ 20.16</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; six months</td>
<td>= 75%</td>
<td>= $ 21.60</td>
</tr>
<tr>
<td><strong>300 Level – Rail Vehicle Master Technician</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; six months</td>
<td>= 80%</td>
<td>= $ 23.04</td>
</tr>
<tr>
<td>6&lt;sup&gt;th&lt;/sup&gt; six months</td>
<td>= 85%</td>
<td>= $ 24.48</td>
</tr>
<tr>
<td>7&lt;sup&gt;th&lt;/sup&gt; six months</td>
<td>= 95%</td>
<td>= $ 27.36</td>
</tr>
</tbody>
</table>
Affirmative Action Plan

• For Programs that will have 5+ apprentices
• May already be developed by HR Department
  – Obtain
  – Modify as needed
• Other Resources:
  – EEOC
  – Local DOL/OA
### Affirmative Action Plan - Appendix C

**SECTION I - INTRODUCTION**

The JATC enters this Affirmative Action Plan (AAP) with good faith for the purpose of promoting equality of opportunity into its Registered Apprenticeship Program. The JATC seeks to increase the recruitment of qualified women and/or minorities for possible selection into the apprenticeship program in the event women and/or minorities are underutilized in the apprenticeship program. The JATC hereby adopts the following nondiscriminatory pledge and the AAP.

This AAP is a supplement to the Apprenticeship Standards. Any changes made by the JATC will become part of this written AAP, once approved by the Registration Agency.

**SECTION II - EQUAL OPPORTUNITY PLEDGE**

The JATC commits to the following Equal Opportunity Pledge:

"The recruitment, selection, employment, and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex. The Sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, part 30."

**SECTION III - UTILIZATION AND ANALYSIS, GOALS AND TIMETABLES**

In order to allow positive recruitment and full utilization of minorities and women in the apprenticeship program, the JATC pledges to identify outreach efforts under Section IV which will be undertaken. The purpose of the analysis is to determine the minority’s and women’s labor force in the JATC’s labor market area. Once the labor force is determined, the JATC can determine if deficiencies exist in terms of utilization of minorities and women in the occupations registered with the Registration Agency. See attached Affirmative Action Plan Workforce Analysis Worksheet.

**SECTION IV - OUTREACH AND POSITIVE RECRUITMENT**

The JATC’s AAP includes the following "checked" outreach and positive recruitment efforts that would reasonably be expected to increase minority’s and women’s participation in apprenticeship by expanding the opportunity of minorities and women to become eligible for apprenticeship selection. Once those efforts have been checked, the JATC will set forth the specific steps they intend to take under each identified effort. The JATC will identify a significant number of activities in order to enable it to meet its obligation under Title 29, CFR 410.

| A | An announcement of specific apprenticeship openings must be disseminated thirty (30) days in advance of the earliest date for application at the following agencies/organizations:
| --- | --- |
| B | Participation in annual workshops conducted by employment service agencies for the purpose of familiarizing new applicants with apprenticeship and its availability.
| C | Cooperation with school boards and vocational educational officials to develop programs for preparing students to meet the standards and criteria required for entry into the apprenticeship program.
| D | Internal communication of the JATC’s equal opportunity policy should be conducted in such a manner to foster understanding, acceptance, and support among the JATC’s various officers, supervisors, employees, and members, and to encourage such persons to take the necessary action to aid in meeting its obligation under Title 29 CFR 410.
| E | Engaging in outreach programs such as outreach for the positive recruitment and preparation of potential applicants for apprenticeship, where appropriate and feasible, such programs will provide for pre-testing experiences and training. In initiating and conducting these programs, the JATC may be required to work with other sponsors and appropriate community organizations. The JATC will also initiate programs to prepare women and encourage women to enter traditionally male programs.
Implementing an Apprenticeship

1. Obtain National Apprenticeship - DONE
2. Form local joint apprenticeship committee
3. Apply for locally recognized apprenticeship
4. Select and Train Mentors
5. Train and Track Apprentices within this framework
Apply for Local Apprenticeship

• Find out if your state is regulated by state or federal rules

• Get in touch with appropriate representative
  – Discuss any adjustments needed for your location
Apply for Local Apprenticeship
Document Checklist

- JATC member list
- Training Program with any modifications for local implementation
- Affirmative Action Plan
- Contract Language
- Wage Schedule
Implementing an Apprenticeship

1. Obtain National Apprenticeship - DONE
2. Form local joint apprenticeship committee
3. Apply for locally recognized apprenticeship
4. Select and Train Mentors
5. Train and Track Apprentices within this framework
What is a Mentor?

A mentor is a teacher who assigns tasks and reviews performance. A mentor also facilitates personal and professional growth in an individual by sharing knowledge learned throughout the years. The desire to want to share these "life experiences" is characteristic of a successful mentor. In maintenance, a mentor is one who shows a trainee how best to diagnose, maintain, repair and overhaul equipment. Because not all procedures are clearly spelled out in the classroom or in manuals, mentors fill in the missing elements by showing trainees how jobs get done in actual work settings.
Selecting Quality Mentors through Recommendations

- Supervisor and Shop Steward
- Instructor
- Peer
- Self-Nomination
- Use of Incentives?
Roles of Instructors/ Mentors

1. Teacher
2. Guide
3. Counselor
4. Advisor
5. Motivator
6. Motivator
7. Door Opener
8. Coach
9. Role Model
10. Referral Agent
Attributes of Successful Instructors

- Supportive
- Patient
- Respected
- People Oriented
- Good Motivator
- Effective Teacher

- Secure In Position
- An Achiever
- Provide Trainee Visibility
- Values the Organization
- Values the Work
- Respects Others
Training Mentors/Instructors

- Develop in house
- Take Advantage of Existing Programs

Train-the-Trainer curriculum available through www.transittraining.net
Training Mentors/Instructors

- Develop in house
- Take Advantage of Existing Programs
APPENDIX A: MENTOR ATTRIBUTE CHECKLIST

<table>
<thead>
<tr>
<th>Desired Mentor Attribute</th>
<th>Does the Candidate Have This Attribute?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y/N</td>
</tr>
<tr>
<td>Is an extremely knowledge technician with exceptional work skills.</td>
<td></td>
</tr>
<tr>
<td>Is considered by peers to be an expert in the field.</td>
<td></td>
</tr>
<tr>
<td>Has earned the respect of his/her peers and the transit agency.</td>
<td></td>
</tr>
<tr>
<td>In addition to having the ability to teach the “skills of the trade,” would be willing to manage the trainee's overall learning.</td>
<td></td>
</tr>
<tr>
<td>Sets high standards for themselves.</td>
<td></td>
</tr>
<tr>
<td>Enjoys and is enthusiastic about their work.</td>
<td></td>
</tr>
<tr>
<td>Supports and works within collective bargaining agreements.</td>
<td></td>
</tr>
<tr>
<td>Understands various job classifications and can instruct the trainee to work with other technicians.</td>
<td></td>
</tr>
<tr>
<td>Has willingness to help the trainee take and pass any performance assessments given after the mentoring.</td>
<td></td>
</tr>
<tr>
<td>Continuously seeks to update their knowledge and skills.</td>
<td></td>
</tr>
<tr>
<td>Listens to and communicates well with others.</td>
<td></td>
</tr>
<tr>
<td>Helps others.</td>
<td></td>
</tr>
<tr>
<td>Exercises good judgment in decisions concerning themselves and the welfare of others.</td>
<td></td>
</tr>
<tr>
<td>Is sensitive to the needs of others, and generally recognizes when others require support, direct assistance or independence.</td>
<td></td>
</tr>
<tr>
<td>Has the ability to support the needs and</td>
<td></td>
</tr>
</tbody>
</table>

MENTORING TASK CHECKLIST - RAIL

Level 100
Tools & Material Handling

Taken From Rail Training Standard Module 103 - Tools & Material Handling

NOTE: All tasks may not be applicable, and tasks do not need to be performed in the order listed. Use this task sheet as a guide, tailoring as needed to suit mentoring learning objectives. Add other learning objectives as appropriate to your agency’s job tasks.

<table>
<thead>
<tr>
<th>Job Task - Learning Objective</th>
<th>Mentor Performs the Task (Trainee Observes)</th>
<th>Mentor Coaches Trainee Through Task</th>
<th>Trainer Performs Task Without Assistance (Mentor Observes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>103 Tools and Material Handling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Hand Tools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hold a rigid rule correctly when measuring an object.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify wrench sizes and how they are used.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Take a measurement with a micrometer.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replace parts of a combination square.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrenches and Screwdrivers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate use of open-end, box-end, adjustable, torque, and locknut wrenches.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate use of a box-end, socket, and socket-head.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate use of standard, Phillips, offset, and hook-watch screwdrivers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate use of a straight pipe wrench, a Stillson wrench, a chain pipe wrench.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate use of a pipe wrench.</td>
<td></td>
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</tr>
<tr>
<td>Demonstrate why a mechanic's vise would not be used for holding pipe.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate how to clean a pipe tool.</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
## Agency Task Sheets - Ex: SEPTA

### Elevator Escalator Apprentice Program Task Sheet - SEPTA

<table>
<thead>
<tr>
<th>Subject</th>
<th>Task</th>
<th>Required Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soldering</td>
<td>Assemble and Solder a Digital logic probe</td>
<td>Reference material as required. IC components, solder and soldering iron. All necessary tools and PPE**</td>
</tr>
</tbody>
</table>

*NAME________________________________________________ ACCOUNT________________ LOCATION________________*
Hands-on Assessment Resources from TCRP-E7 Rail Vehicle Project

NATIONAL RAIL CAR HANDS-ON SKILLS ASSESSMENT

PART 1: TASK APPLICATION FORM

This form is used to request a single hands-on skills assessment under the National Joint Transit Industry Rail Vehicle Technician Qualification Program: Building for Success. In this stage of the process labor and management representatives work together with the Transportation Learning Center to develop assessment tasks based on each agency’s equipment, procedures, and training in a way that remains consistent with national guidelines.

Start by completing as much of the application as possible and then contact the Center for assistance. Once the application has been finalized, the Center will produce a step-by-step worksheet that can be used to administer each hands-on assessment.

Agency Name: 
Labor Representative Contact Information: 
Name: 
Telephone: 
Email: 
Management Representative Contact Information: 
Name: 
Telephone: 
Email: 

STEP 1: SELECT HAND-ON SKILL

Training Standard Reference: Select from Modules/Learning Objectives
204 – Auxiliary Inverters and Batteries

Hands-On Skill To Be Demonstrated: Select from Modules/Learning Objectives

Assessing the operation of the auxiliary inverter and battery charger with portable test unit (PTU)

STEP 2: IDENTIFY TASK

Table A lists the generic tasks, acceptable performance criteria (steps needed to successfully complete each task), and point structure identified for this assessment by the rail vehicle training committee. Each agency, however, has equipment, training requirements and work procedures that may differ. Because of this you must review the generic material contained in Table A and create your own Table B, modifying the tasks, acceptable performance criteria, and point structure as needed to suit your specific conditions. Also feel free to rearrange the tasks in an order that best suits your needs.

Free to contact the Transportation Learning Center for assistance in completing Table B.
You can **find** or **contribute resources** at www.transittraining.net under Transit Training Forum/General/Apprenticeship.
Implementing an Apprenticeship

1. Obtain National Apprenticeship - DONE
2. Form local joint apprenticeship committee
3. Apply for locally recognized apprenticeship
4. Select and Train Mentors
5. Train and Track Apprentices within this framework
Local J ATC Responsibilities: Select and Orient Apprentices

- **Select** and **Register** Apprentices
  - Dedicated to training program
  - Work safely
  - Respect the workplace
- **Advise** Apprentices on:
  - Rules
  - Policies
  - Health and Safety
Apprenticeship Agreement - Appendix B

- **Probationary Period**
- **Wage Progression**
- **Hours of Work - Term**
- **Credit for Previous Experience**
- **Related Instruction Resources**

**Part A: To be Completed by Apprentice Note to Sponsor, Part A Should Only Be Filled Out by Apprentice**

1. Name (Last, First, Middle): Address (Social Security Number)
2. Date of Birth (Mo., Day, Yr.)
3. Sex (Mark one): Male, Female
4. Employment Status (Mark one): New Employee, Existing Employee
5. Occupation (If any): Job Corps YouthBuild, School to Registered Apprenticeship
6. Signature of Apprentice: Date
7. Signature of Parent/Guardian (if minor): Date

**Part B: Sponsor: Except for Items 6, 7, 8, 9a-10c: Remainder of Items Repopulated From Program Registration**

1. Sponsor Program No.
2. Sponsor Name and Address (No. Street, City, County, State, Zip Code)
3. Related Instruction (Number of Hours Per Year): 2a. Apprentice Wages for Related Instruction
4. Wages (Instructions on reverse): Will Be Paid, Will Not Be Paid
5. Pre-Apprenticeship Hourly Wage
6. Apprentice’s Entry Hourly Wage
7. Journeyworker’s Hourly Wage
8. Occupation (The work processes listed in the standards are part of this agreement):
9. Occupation Code
10. Occupation Training Approach (Mark one): Time-Based, Competency-Based, Hybrid
11. Competency-Based
12. Hybrid
13. Time Remaining (Hrs., Mos., Yrs.): Date Apprentice Begins
14. Name and Address of Sponsor Designee to Receive Complete (if applicable)
15. Signature of Sponsor’s Representative(s): Date Signed
16. Signature of Sponsor’s Representative(s): Date Signed

**Part C: To be Completed by Registration Agency**

1. Registration Agency and Address
2. Signature (Registration Agency)
3. Date Registered
4. Apprentice Identification Number (Definition on reverse):
Apprenticeship Agreement - Appendix B

• Submit to:
  – **Veteran’s** State Approving Agency, if Applicable
  – Registration Agency
Maintaining Records

• Maintain records – training and assessments
• Certify Completion

http://www.rapids.doleta.gov
On-Going Work of the J ATC

- Act as **Liaison** between Apprentice and Registration Agency on Status, etc.
- Modify Training Program as needed
- Maintain Records
- **Meet** bi-annually to review progress
- Resolve Complaints
Resolve Complaints

• Local JATC hears all complaints of violations concerning the apprenticeship agreement and registered apprenticeship standards
• If appealed, taken to National JATC
• For Collective Bargaining violations – issue will be resolved by the applicable grievance and arbitration procedures.
Apprenticeship: Apprenticeship Structure

National JATC (Center Board)

Chain of Command

Feedback
Information
Participation
Possibly Funding

Training System
Training Standards
Courseware
Lesson Plans
Train-the-Trainer Programs

Apprenticeship Technical Committee

Number of work groups will differ from location to location
## Implementing A Local Apprenticeship Program

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Obtain National Apprenticeship - DONE</td>
</tr>
<tr>
<td>2.</td>
<td>Form local joint apprenticeship committee</td>
</tr>
<tr>
<td>3.</td>
<td>Apply for locally recognized apprenticeship</td>
</tr>
<tr>
<td>4.</td>
<td>Select and Train Mentors</td>
</tr>
<tr>
<td>5.</td>
<td>Train and Track Apprentices within this framework</td>
</tr>
</tbody>
</table>
Implementing A Local Apprenticeship Program

For More information, contact Mark Dysart
mdysart@transportcenter.org
240.485.2282
Local Implementation of Rail Car Apprenticeship

- **Registered Apprenticeships:**
  - **TriMet** (see details on following slides)
  - **San Diego Trolley** (see detail on following slides)
  - **GCRTA** – Pending registration with state of Ohio

- **Apprenticeship (not registered yet):**
  - **LA Metro:** Joint apprenticeship committee. A partnership between LA Trade Tech and LA Metro. JAC committee selects candidates from the bus mechanics and service attendant ranks. They go through evaluation and selection to go to Trade Tech on basic aptitude training. They are already Metro employees. Program is not registered. Designed for rail fleet maintenance. Traction and signals department have different programs. They don’t go through the college.
  - **SEPTA** – Exploring registration with state
## Local Implementation Successes/ Barriers - TriMet


<table>
<thead>
<tr>
<th>Standard &amp; Symbol</th>
<th>Skilled Occupational Objective(s)</th>
<th>Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>10610124</td>
<td>Heavy Duty Bus Mechanic</td>
<td>TRIMET HEAVY DUTY BUS MECHANIC JATC</td>
</tr>
<tr>
<td>10610308</td>
<td>Plant Maintenance Mechanic</td>
<td>TRIMET HEAVY DUTY BUS MECHANIC JATC</td>
</tr>
<tr>
<td>10780162</td>
<td>Rail Vehicle Mechanic Technician</td>
<td>TRI-MET RAIL MAINTENANCE VEHICLE MECHANICAL/TECHNICIAN JATC</td>
</tr>
<tr>
<td>10780162.1</td>
<td>Traction/Substation Technician</td>
<td>TRI-MET RAIL MAINTENANCE VEHICLE MECHANICAL/TECHNICIAN JATC</td>
</tr>
<tr>
<td>10780162.2</td>
<td>Overhead Technician</td>
<td>TRI-MET RAIL MAINTENANCE VEHICLE MECHANICAL/TECHNICIAN JATC</td>
</tr>
<tr>
<td>10780906</td>
<td>Field Equipment Technician</td>
<td>TRI-MET RAIL MAINTENANCE VEHICLE MECHANICAL/TECHNICIAN JATC</td>
</tr>
<tr>
<td>10780942</td>
<td>Signal Technician</td>
<td>TRI-MET RAIL MAINTENANCE VEHICLE MECHANICAL/TECHNICIAN JATC</td>
</tr>
</tbody>
</table>
Local Implementation Successes/ Barriers – San Diego

Program Info:
https://www.sdcity.edu/AcademicPrograms/ProgramsofInstruction/Apprenticeship/SanDiegoTrolley


Apprenticeship Programs:
• Assistant lineman LRV
• Lineman LRV
• Assistant lineman Wayside
• Lineman Wayside
• Revenue maintainer I
• Revenue maintainer II