



2019 Sierra Pacific Power Company dba NV Energy  
and IBEW Local #1245 IJ Standards of Apprenticeship

## **SIERRA PACIFIC POWER COMPANY (dba NV ENERGY) and IBEW LOCAL #1245**

**Occupation – Utility Fleet Mechanic  
(Existing Occupation Title: Transit Bus Technician)  
O-NET Code: 49-3031.00 RAPIDS Code: 0124CB  
Competency-Based Apprenticeship Program**

- ✓ **Similar Program Notice Letters**
- ✓ **Form 5910 – Application for Approval On-the-Job Training & Apprenticeship**
- ✓ **U.S. Department of Labor Apprenticeable Occupation List ONET Code Confirmation**
- ✓ **Appendix A Checklist**
- ✓ **Appendix A - Work Process Schedule and RTI Outline**



January 10, 2020

Brian Prather  
Operating Engineers Local 3 JATC  
1290 Corporate Blvd  
Reno, NV 89515

Dear Brian,

The State Apprenticeship Council will be considering the approval of an additional occupation for Sierra Pacific Power Company at its meeting on February 13, 2020.

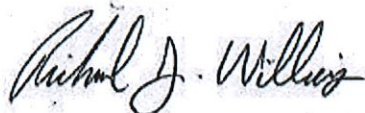
In accordance with NAC 610.355, when the Council considers approving a new apprenticeship occupation by an employer or association of employers, the Council must notify existing program sponsors with similar objectives for similar jobs and give them between 30 and 60 days to comment before final action on the proposed occupation is taken.

It has come to our attention that the occupation under consideration for approval by the Council is Utility Fleet Mechanic. Our records indicate that your organization has similar occupations.

Attached you will find the standards and accompanying appendices for the proposed occupation. The State Apprenticeship Council will welcome any comments you may have.

Thank you.

Sincerely,



Richard J. Williams  
State Apprenticeship Director



January 10, 2020

Larry Hopkins  
Operating Engineers Local 12 JATC  
6350 Howdy Wells Avenue  
Las Vegas, NV 89115

Dear Larry,

The State Apprenticeship Council will be considering the approval of an additional occupation for Sierra Pacific Power Company at its meeting on February 13, 2020.

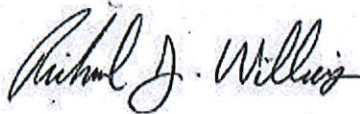
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Thank you.

Sincerely,



Richard J. Williams  
State Apprenticeship Director





**STATE OF NEVADA**  
**Office of the Labor Commissioner**  
**Nevada State Apprenticeship Council**

**APPLICATION FOR APPROVAL**  
**ON THE JOB TRAINING & APPRENTICESHIP**

Program Name: Sierra Pacific Power Company (d/b/a NV Energy) Program # NV002700001

Address: 6100 Neil Road City/State Reno, NV Zip 89521 Telephone 775-834-5735

Contact Person: Nanette Quitt, Labor Relations Manager Type of Program: Mechanic, Fleet Utility ONet SOC Code: 49-3031.00 RAPIDS  
 Code: 0124CB

EIN # 88-0044418 Email Address: laborrelations@nvenergy.com

Type of Action: (Check One) A. Wage Increase B. Revision of Standards C. New Occupation <b>D. New Program</b>	Type of Program: (Check One) <b>A. Individual Union</b> B. Individual Non Union C. Group Union D. Group Non Union E. If Union Bargaining Unit	Journey Workers (JW) <b>A. No. JW: 11</b> <b>B. No. of Employers: 1</b>	Pay Period (Circle One) Weekly <b>Bi-Weekly</b> Semi Monthly <b>Pay Increases (Months)</b> 3 <b>6</b> 12 Other
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**TRADE INFORMATION**

Occupation (use separate form for each occupation)	Term (OJT hours)	RTI (Classroom hours)	# Of Journey workers	# Of Apprentices in Training	Journey worker Hourly Rate	Days per Week
Mechanic, Fleet Utility	2,000	144 Minimum	11	0	\$39.41	5

**HOURLY APPRENTICE WAGES BY PERIOD (Excluding Benefits) Top Line Dollar Amounts Bottom Line Percentages**

Occupation	1 <sup>ST</sup> Start	2 <sup>ND</sup> 6 months	3 <sup>RD</sup> 1 Year	4 <sup>TH</sup> 18 Months		
Apprentice, Mechanic-Utility Fleet	\$33.33	\$34.10	\$35.07	\$36.57		

Instructor	Occupation	Experience (Years)
Ryan Peterson	Journeyman Heavy Equipment Mechanic & Sr. Fleet Equipment Advisor	21 Years
Tom Rich	Fleet Coordinator & Supervisor	17 Years
Randall Ward	Fleet Management Supervisor	37 Years

10/1/2019 \_\_\_\_\_

*Nanette Quitt*  
 \_\_\_\_\_

Date

Signature of Program Coordinator

**DO NOT WRITE BELOW THIS LINE**

Approved: \_\_\_\_\_

Disapproved: \_\_\_\_\_

Secretary Director of Apprenticeship

Date





**SIERRA PACIFIC POWER COMPANY (dba NV ENERGY) and IBEW  
LOCAL #1245**

**Occupation – Utility Fleet Mechanic  
(Existing Occupation Title: Transit Bus Technician)  
O-NET Code: 49-3031.00 RAPIDS Code: 0124CB  
Competency-Based Apprenticeship Program**

U.S. Department of Labor Apprenticeable Occupation List:

TRANSIT BUS TECHNICIAN	0124CB	<a href="#">49-3031.00</a>	<a href="#">*CB</a>	CB
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Link to list: <https://www.doleta.gov/oa/occupations.cfm>



Standards Placement	29 CFR, NRS 610, and NAC 610 Required Provisions
Appendix A p. 2	<p>2) <b>Term:</b> A term of apprenticeship of not less than 2,000 hours of work experience, consistent with training requirements as established by practice in the trade. <b>NRS 610.144 3 (b)</b></p> <p><b>Type of Occupation:</b> The term of apprenticeship, which for an individual apprentice may be measured either through the completion of the industry standard for on-the-job learning (time-based approach), the attainment of competency (competency-based approach), or a blend of the time-based and competency-based approaches (hybrid approach). <b>29 CFR 29.5 (b)</b></p>
Appendix A p. 4-10	<p>3) <b>Work Processes:</b> An outline of the processes in which the apprentice will receive supervised experience and training on the job, and the allocation of the approximate time to be spent in each major process. <b>NRS 610.144 3 (c)</b></p>
Appendix A p. 12-15	<p>4) <b>Related Instruction:</b> Provisions for organized, related and supplemental instruction in technical subjects (and the costs thereof) related to the trade with a minimum of 144 hours for each year of apprenticeship, given in a classroom or through trade, industrial or correspondence courses of equivalent value or other forms of study approved by the State Apprenticeship Council. <b>NRS 610.144 3 (d); NAC 610.433</b></p>
Appendix A p. 2	<p>5) <b>Wages:</b> A progressively increasing, reasonable and profitable schedule of wages to be paid to the apprentice consistent with the skills acquired, not less than that allowed by federal or state law or regulations or by a collective bargaining agreement. Employers shall pay a beginning wage for apprentices which is at least 35 percent of the rate for journeymen in the same trade, <i>or</i> Minimum and Reasonable and profitable wage for apprentice in construction industry. <b>NRS 610.144 3 (e); NAC 610.480, NAC 610.485</b></p>
Appendix A p. 2	<p>6) <b>Periodic Review and Evaluation:</b> Provisions for a periodic review and evaluation of the apprentice's progress in performance on the job and related instruction and the maintenance of appropriate records of such progress. <b>NRS 610.144 3 (f)</b></p>
Appendix A p. 2	<p>7) <b>Ratio:</b> A numeric ratio of apprentices to journeymen consistent with proper supervision, training, safety, continuity of employment and applicable provisions in collective bargaining agreements, in language that is specific and clear as to its application in terms of job sites, workforces, departments or plants. <b>NRS 610.144 3 (g)</b></p>
	<p><b>ALL DOCUMENTS HAVE BEEN CHECKED FOR SPELLING, FORMATTING, GRAMMAR, (INCLUDING TABLE OF CONTENTS), ETC.</b></p>



## Appendix A

### WORK PROCESS SCHEDULE AND RELATED INSTRUCTION OUTLINE

**Sierra Pacific Power (d/b/a NV Energy)  
Mechanic, Utility Fleet**

**O\*NET-SOC CODE: 49-3031.00 RAPIDS CODE: 0124CB**

APPROVED BY  
OFFICE OF WORKFORCE INNOVATION AND THE NEVADA STATE APPRENTICESHIP COUNCIL

\_\_\_\_\_  
Richard J. Williams, Nevada State Apprenticeship Director

REGISTRATION DATE: \_\_\_\_\_

REGISTRATION NUMBER: \_\_\_\_\_

DEVELOPED IN COOPERATION WITH THE  
US DEPARTMENT OF LABOR, THE OFFICE OF WORKFORCE INNOVATION FOR THE NEW  
NEVADA, AND THE NEVADA STATE APPRENTICESHIP COUNCIL

## Appendix A

### WORK PROCESS SCHEDULE

**Mechanic, Utility Fleet**

O\*NET-SOC CODE: **49-3031.00** RAPIDS CODE: **0124CB**

This schedule is attached to and a part of these Standards for the above identified occupation.

#### 1. TYPE OF OCCUPATION

Time-based
  Competency-based
  Hybrid

#### 2. TERM OF APPRENTICESHIP

The term of the occupation shall be defined by the attainment of all competencies of the position, which would be expected to occur within approximately **2,000** hours of OJL, supplemented by the **minimum of 144 hours of related instruction per year** of the apprenticeship.

#### 3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker/fully-competent worker ratio is: **1 apprentice(s) to 1 journeyworker/fully-competent worker(s)**.

#### 4. APPRENTICE WAGE SCHEDULE

An apprentice minimum starting wage will be at least **\$33.33** per hour. Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker/fully-competent worker wage. A journeyworker/fully-competent worker minimum wage will be at least **\$39.41**. Wages will be based on regional ranges.

HOURLY APPRENTICE WAGES BY PERIOD (Excluding Benefits) Top Line Dollar Amounts Bottom				
Occupation	1 <sup>ST</sup> Start	2 <sup>ND</sup> 6 months	3 <sup>RD</sup> 1 Year	4 <sup>TH</sup> 18 Months
Apprentice, Mechanic-Utility Fleet	\$33.33	\$34.10	\$35.07	\$36.57

Periodic review and evaluation of the apprentice's on-the-job learning and related technical instruction will be conducted in alignment with the wage schedule established.

**5. WORK PROCESS SCHEDULE (See attached Work Process Schedule)**

The sponsor may modify the work processes to meet local needs prior to submitting these Standards to the appropriate Registration Agency for approval.

**6. RELATED INSTRUCTION OUTLINE (See attached Related Instruction Outline)**

The sponsor may modify the related instruction to meet local needs prior to submitting these Standards to the appropriate Registration Agency for approval.

**Appendix A**

**WORK PROCESS SCHEDULE**

**Mechanic, Utility Fleet**

**O\*NET-SOC CODE: 49-3031.00 RAPIDS CODE: 0124CB**

The term of the occupation shall be defined by the attainment of all competencies, both technical and behavioral, of the position, which would be expected and approximated to occur within 2,000 hours of OJL, supplemented by a minimum of 144 hours of related instruction per year of apprenticeship.

**Apprenticeship Competencies – Technical**

JOB FUNCTION 1: Demonstrates mastery of fundamental skills			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Correctly applies hand tools, power tools, and fasteners	Core		
C. Demonstrates basic rigging and hoisting ability	Core		
D. Demonstrates ability to apply basic industrial mathematics	Core		
E. Demonstrates basic mechanical ability	Core		
F. Demonstrates basic hydraulic and pneumatic ability	Core		
G. Demonstrates basic electrical and electronic ability	Core		
H. Demonstrates basic vehicle towing	Core		
JOB FUNCTION 2: Maintains and repairs low voltage electrical and electronic systems			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Performs general electrical/electronic diagnosis	Core		
C. Performs battery diagnosis and repair	Core		
D. Performs charging system diagnosis and repair	Core		
E. Performs lighting systems diagnosis and repair	Core		





F. Performs gauge and warning device diagnosis and repair	Core		
G. Diagnoses and repairs related electrical/electronic systems	Core		
H. Maintains, diagnoses, and repairs data communications systems	Core		
I. Maintains, diagnoses, and repairs multiplex systems	Core		
J. Maintains, diagnoses, and repairs equipment associated with vehicle electronic systems in accordance with factory guidelines	Optional		
<b>JOB FUNCTION 3: Maintains and repairs brake and air systems</b>			
<b>Competencies</b>	<b>Core or Optional</b>	<b>Supervisor /Journeyman Initials</b>	<b>Date</b>
A. Follows safe procedures	Core		
B. Maintains, diagnoses, and repairs systems	Core		
C. Maintains, diagnoses, and repairs mechanical/foundation disc and drum brakes	Core		
D. Maintains, diagnoses, and repairs parking brakes	Core		
E. Maintains, diagnoses, and repairs wheel bearings	Core		
<b>JOB FUNCTION 4: Maintains, diagnoses, and repairs engine systems</b>			
<b>Competencies</b>	<b>Core or Optional</b>	<b>Supervisor /Journeyman Initials</b>	<b>Date</b>
A. Follows safe procedures	Core		
B. Maintains, diagnoses, and repairs internal combustion (IC) engines (note: applies generally to diesel, CNG and gasoline engines – see unique competencies below for each propulsion type)	Core		
C. Maintains, diagnoses, and repairs items specific to diesel engines	Core		
D. Maintains, diagnoses, and repairs items specific to gasoline engines	Optional		
E. Maintains, diagnoses, and repairs items specific to CNG engines and related systems	Optional		
F. Maintains, diagnoses, and repairs items specific to hybrid propulsion systems	Optional		
G. Maintains, diagnoses, and repairs items specific to electric propulsion systems	Optional		



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2019 IJ Standards of Apprenticeship

H. Maintains, diagnoses, and repairs items specific to fuel cell propulsion systems	Optional		
I. Overhaul of engine	Optional		
<b>JOB FUNCTION 5: Maintains, diagnoses, and repairs automatic transmissions and drivetrains</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Maintains, diagnoses, and repairs automatic transmissions	Core		
C. Maintains, diagnoses, and repairs drive shafts and universal joints	Core		
D. Maintains, diagnoses, and repairs drive axles	Core		
E. Overhaul of transmission	Optional		
<b>JOB FUNCTION 6: Maintains, diagnoses, and repairs steering and suspension systems</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Maintains, diagnoses, and repairs steering systems	Core		
C. Maintains, diagnoses, and repairs independent front suspensions	Core		
D. Maintains, diagnoses, and repairs straight/I-beam axles	Core		
E. Maintains, diagnoses, and repairs rear suspensions	Core		
F. Diagnoses, adjusts, and repairs wheel alignment	Core		
G. Maintains, diagnoses, and repairs wheels and tires	Core		
<b>JOB FUNCTION 7: Maintains, diagnoses, and repairs heating, ventilation and air conditioning (HVAC) systems</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Performs basic HVAC system verifications and testing	Core		
C. Maintains, diagnoses, and repairs a/c system and related components	Core		
D. Maintains, diagnoses, and repairs heating and engine cooling systems	Core		



Sierra Pacific Power (d/b/a NV Energy)  
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E. Maintains, diagnoses, and repairs HVAC operating systems and related controls	Core		
<b>JOB FUNCTION 8: Maintains, diagnoses, and repairs body and chassis equipment and systems</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Maintains, diagnoses, and repairs operator and passenger seating	Core		
C. Maintains, diagnoses, and repairs stanchions, grab rails and modesty panels	Core		
D. Maintains, diagnoses, and repairs windows	Core		
E. Maintains, diagnoses, and repairs door systems	Core		
F. Maintains, diagnoses, and repairs flooring, paneling and roof hatches	Core		
G. Inspects and repairs frame/chassis members	Core		
<b>JOB FUNCTION 9: Conducts preventive maintenance inspections</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Core		
B. Inspects engine systems	Core		
C. Inspects body interior and exterior	Core		
D. Inspects electrical/electronic systems	Core		
E. Inspects frame and chassis	Core		
F. Conducts road test	Core		
<b>JOB FUNCTION 10: Maintains, diagnoses, and repairs articulated systems</b>			
Competencies	Core or Optional	Supervisor /Journeyman Initials	Date
A. Follows safe procedures	Optional		
B. Maintains, diagnoses, and repairs mechanical components of the articulation joint	Optional		
C. Maintains, diagnoses, and repairs hydraulic components of the articulation joint	Optional		



D. Maintains, diagnoses, and repairs the electronic control system	Optional		
E. Maintains, diagnoses, and repairs articulation bellows	Optional		

## Specialization

### Legend

<i>Preventative Maintenance</i>	PM
<i>Department of Transportation</i>	DOT
<i>Troubleshoot &amp; Repair</i>	TR
<i>Remove &amp; Replace</i>	RR
<i>Rebuild</i>	RB
<i>Disassemble</i>	D
<i>Inspect</i>	I
<i>Repair</i>	R
<i>Adjust</i>	A
<i>Load &amp; Unload</i>	LL

### Preventative Maintenance

<i>Light Duty Gas Engine &amp; Chassis</i>	PM
<i>Light Duty Diesel Engine &amp; Chassis</i>	PM
<i>Heavy Duty Diesel &amp; Chassis</i>	PM
<i>Trailers</i>	PM
<i>DOT Trucks</i>	DOT
<i>DOT Trailers</i>	DOT
<b>Percentage of Time 40%</b>	

### Diesel Engine Diagnosis & Repair

<i>Diesel Engine</i>	RR
<i>Fuel Systems</i>	TR
<i>Electrical Systems</i>	TR
<i>Emission Systems</i>	TR
<i>Intake/Exhaust Systems/Turbochargers</i>	RR
<i>Cooling Systems</i>	TR
<b>Percentage of Time 10%</b>	

### Gas Engine Diagnosis & Repair

<i>Gas Engine</i>	RR
<i>Fuel System</i>	TR
<i>Electrical System</i>	TR
<i>Emission System</i>	TR

Intake/ Exhaust System	TR	
Cooling System	TR	
	Percentage of Time	5%
<b>Drivetrain</b>		
Automatic Transmissions	TR/RR	
Manual Transmission & Clutch	I/A/RR	
Drivelines	RR	
Transfer Cases	TR/RR	
Axles	TR/RR	
Tires	I/RR	
	Percentage of Time	5%
<b>Chassis</b>		
Chassis Electrical	TR	
Suspension	A/TR	
Steering System	TR	
Air Systems	TR	
Air Brakes	I/A/RR	
Hydraulic Brakes	I/RR	
	Percentage of Time	5%
<b>Mounted Equipment &amp; Trailers</b>		
Service Bodies	I/TR	
Water Tanks	I/TR	
Generators/ Air Compressors/ Tool Circuits	PM/TR	
Reel/ Pole Trailers	TR	
Puller/ Tensioner	I/TR	
Lighting/ Safety Devices/ Hitches	TR	
	Percentage of Time	5%
<b>Construction Equipment</b>		
Backhoe/ Loader/ Dozer/ Skid Steer/ Grader	PM	
Controls	TR	
Hydraulics	TR/RR	
Implements	TR/RR	
Electrical	TR	
Trailing / Transporting	LL/I/A	
	Percentage of Time	5%
<b>Aerial Devices</b>		
Bucket Truck/ Manlift/ Scissorlift	PM	
Controls	TR	
Hydraulics	TR/RR	



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<i>Electrical</i>	TR	
<i>Booms &amp; Buckets</i>	I/TR/D/R	
<i>Outriggers</i>	TR	
	<b>Percentage of Time</b>	<b>5%</b>
<b>Cranes &amp; Derricks</b>		
<i>Digger Derrick/ Backyard Digger/ Mobile Crane</i>	PM	
<i>Controls</i>	TR	
<i>Hydraulics</i>	TR/RR	
<i>Electrical</i>	TR	
<i>Booms/ Outriggers</i>	I/TR/D/R	
<i>Winch/ Winch Line/ Hook</i>	I/TR/RR	
		<b>5%</b>
<b>Snowcat</b>		
<i>Piston bully/ Camoplast/ Tucker</i>	PM	
<i>Controls</i>	TR	
<i>Electrical</i>	TR	
<i>Hydraulic/ Drivetrain</i>	I/PM/TR	
<i>Tracks</i>	I/D/R	
<i>Trailing / Transporting</i>	LL/I/A	
	<b>Percentage of Time</b>	<b>5%</b>
<b>Off Highway Vehicles</b>		
<i>ATV/ UTV/ Golf Cart</i>	PM	
<i>Engine</i>	TR	
<i>Drivetrain/ Belt</i>	TR/RR	
<i>Suspension</i>	TR	
<i>Steering</i>	TR	
<i>Wheels &amp; Tires</i>	RR	
	<b>Percentage of Time</b>	<b>5%</b>
<b>Forklift &amp; PIT Trucks</b>		
<i>Telehandlers/ Forklifts/ Order Pickers</i>	I/PM	
<i>Masts/ Booms/ Forks</i>	TR	
<i>Hydraulics/ Controls</i>	TR	
<i>Engine/ Drivetrain</i>	TR	
<i>Wheels &amp; Tires</i>	RR	
<i>Electrical &amp; Lighting</i>	TR	
	<b>Percentage of Time</b>	<b>5%</b>
	<b>TOTAL</b>	<b>100%</b>

See LOA 19-14 with NV Energy and IBEW Local 1245 for program approval and oversight from the NVE/Local 1245 Joint Apprenticeship Training Committee.

The above on-the-job-learning (OJL) work process competencies are intended as a guide. It need not be followed in any particular sequence, and it is understood that some adjustments may be necessary in the hours allotted for different work experience. In all cases, the apprentice is to receive sufficient experience to make them fully competent and use good workmanship in all work processes, which are a part of the industry. In addition, the apprentice shall be fully instructed in safety and OSHA requirements.

**Apprenticeship Competencies – Behavioral**

In addition to mastering all of the essential technical competencies, an apprentice must consistently demonstrate at an acceptable level the following behavioral competencies in order to complete the apprenticeship.

Item #	Behavioral Competencies
1.	Participation in team discussions/meetings
2.	Focus in team discussions/meetings
3.	Focus during independent work
4.	Openness to new ideas and change
5.	Ability to deal with ambiguity by exploring, asking questions, etc.
6.	Knows when to ask for help
7.	Able to demonstrate effective group presentation skills
8.	Able to demonstrate effective one-on-one communication skills
9.	Maintains an acceptable attendance record
10.	Reports to work on time
11.	Completes assigned tasks on time
12.	Uses appropriate language
13.	Demonstrates respect for patients, co-workers and supervisors
14.	Demonstrates trust, honesty and integrity
15.	Requests and performs work assignments without prompting
16.	Appropriately cares for personal dress, grooming and hygiene
17.	Maintains a positive attitude
18.	Cooperates with and assists co-workers
19.	Follows instructions/directions
20.	Able to work under supervision
21.	Able to accept constructive feedback and criticism
22.	Able to follow safety rules
23.	Able to take care of equipment and work place
24.	Able to keep work area neat and clean
25.	Able to meet supervisor's work standards
26.	Able to not let personal life interfere with work
27.	Adheres to work policies/rules/regulations

**RELATED INSTRUCTION OUTLINE**

**Mechanic, Utility Fleet**

**O\*NET-SOC CODE: 49-3031.00 RAPIDS CODE: 0124CB**

The related instruction has been developed in cooperation with employer-partners as part of the apprenticeship. The following is a set of courses to be delivered by subject matter experts.

Related Technical Instruction (RTI) - This instruction shall include, but not be limited to, at least 144 hours per year for each year of the apprenticeship. The related theoretical education listed below is tightly integrated with real work product. The curriculum is defined as a variety of classes, around which the exams and projects are based. By defining the RTI this way, all competencies required of the students are met, through project work.

**TMCC Required Related Instruction**

**TMCC Transportation Technologies, AAS/ Diesel Technician**

<b>1st Semester</b>		Units
ENG 107	Technical Communications I	3
DT 101	Basic Diesel Engines	4
DT 201	Diesel Brakes and Pneumatics	3
DT 211	Light Duty Performance	2
DT 235	Steering and Suspension	2
OSH 222	General Industry Safety	1
<b>Semester Total</b>		<b>15</b>
		225 hrs
<b>2nd Semester</b>		
U.S. and Nevada Constitutions 2		3
AUTO 111	Automotive Electricity	4
DT 130	Heavy Duty Hydraulics	2
DT 210	Advanced Diesel Engines	4
DT 250	Preventive Maintenance	2
<b>Semester Total</b>		<b>15</b>
		225 hrs
<b>3rd Semester</b>		
DT 106	Heavy Duty Transmissions and Power Trains	5
DT 107	Heavy Duty Drive Trains	5
DT 217	Electronic Fuel Injection II	3
Science 3		3
<b>Semester Total</b>		<b>16</b>
		240 hrs
<b>4th Semester</b>		
Communications 3		3
DT 110	Heavy Duty Electrical Systems	3
Social Science		3





<i>Elective 3</i>		5
	<b>Semester Total</b>	14
		210 hrs
	<b>Total Degree Credit Units</b>	<b>60</b>
	<b>Total Clock Hours</b>	<b>900</b>

**NVE Related Technical Instruction**

**First 6 Months**

**Hours**

<b>Shop Safety</b>		
General Safety		18
	<b>Total Hours</b>	<b>18</b>
<b>Fleet Specific Training</b>		
Fleet Policies Procedures		8
Jumpstarting		1
Working Around Mobile Equipment		1
	<b>Total Hours</b>	<b>10</b>
<b>Shop Tools</b>		
Steam Cleaner		1
Parts Washer		1
Drill Press		1
Bench Grinder		1
	<b>Total Hours</b>	<b>4</b>
<b>General Driving</b>		
Alert Driver		3
Complete Driver		2
Trailer Towing		1
	<b>Total Hours</b>	<b>6</b>
<b>Commercial Driver's Training</b>		
CDL Rules and Regulation		2
	<b>Total Hours</b>	<b>2</b>
<b>Utility Equipment Operators Training</b>		
Forklift & PIT Truck		2
Bucket Truck		2
Digger Derrick		2
	<b>Total Hours</b>	<b>6</b>
<b>Off Highway Vehicle Operators Training</b>		
ATV		1
UTV		1
Golf Cart		1
	<b>Total Hours</b>	<b>3</b>
<b>Mechanic Instruction</b>		



Sierra Pacific Power (d/b/a NV Energy)  
2019 IJ Standards of Apprenticeship

	Utility Mechanic Field Service Training	20
	<b>Total Hours</b>	<b>20</b>
	<b>Hours of Instruction Months 0-6</b>	<b>69</b>
<b>6-12 Months</b>		<b>Hours</b>
	<b>Shop Safety</b>	
	General Safety	18
	<b>Total Hours</b>	<b>18</b>
	<b>Fleet Specific Training</b>	
	Modern Turbo Diesel Engines	1
	Auger Stow	2
	Installing Snow Chains	1
	<b>Total Hours</b>	<b>4</b>
	<b>Shop Tools</b>	
	Overhead Cranes	1
	Vehicle Hoists	1
	<b>Total Hours</b>	<b>2</b>
	<b>General Driving</b>	
	Alert Driver	3
	<b>Total Hours</b>	<b>3</b>
	<b>Commercial Driver's Training</b>	
	Load Securement Standards	1
	<b>Total Hours</b>	<b>1</b>
	<b>Utility Equipment Operators Training</b>	
	Man & Scissor Lift	2
	Backyard Digger	1
	<b>Total Hours</b>	<b>3</b>
	<b>Off Highway Vehicle Operators Training</b>	
	Snowcat	4
	<b>Total Hours</b>	<b>4</b>
	<b>Mechanic Instruction</b>	
	Bucket Truck Rebuild	20
	Digger Derrick Rebuild	20
	<b>Total Hours</b>	<b>40</b>
	<b>Hours of Instruction Months 6-12</b>	<b>75</b>
	<b>Total Instruction Hours Year 1</b>	<b>144</b>
<b>12-18 Months</b>		<b>Hours</b>
	<b>Shop Safety</b>	
	General Safety	18



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		<b>Total Hours</b>	<b>18</b>
	<b>General Driving</b>		
	Alert Driver / NVE Driver Awareness Training		3
		<b>Total Hours</b>	<b>3</b>
	<b>Commercial Driver's Training</b>		
	Class "A" Pretrip		20
	Class "A" Skills		20
	Class "A" Driving		40
		<b>Total Hours</b>	<b>80</b>
		<b>Hours of Instruction Months 12-18</b>	<b>101</b>
<b>18-24 Months</b>			<b>Hours</b>
	<b>Shop Safety</b>		
	General Safety		18
		<b>Total Hours</b>	<b>18</b>
	<b>General Driving</b>		
	Alert Driver		3
		<b>Total Hours</b>	<b>3</b>
	<b>Mechanic Instruction</b>		
	Snowcat Summer Rebuild		30
		<b>Total Hours</b>	<b>30</b>
		<b>Hours of Instruction Months 18-24</b>	<b>51</b>
		<b>Total Instruction Hours Year 2</b>	<b>152</b>
	<b>Total Program Related Technical Instruction</b>		<b>1,196</b>



Sierra Pacific Power (d/b/a NV Energy) Mechanic,  
Utility Fleet - 2 Year Program

Work Process Competencies	Demonstrated Tasks Performed	6-month Rating (25%)**	12-month Rating (50%)	18-month Rating (75%)	24-month Rating* (100%)
Demonstrates mastery of fundamental skills	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Correctly applies hand tools, power tools, and fasteners</li> <li>C. Demonstrates basic rigging and hoisting ability</li> <li>D. Demonstrates ability to apply basic industrial mathematics</li> <li>E. Demonstrates basic mechanical ability</li> <li>F. Demonstrates basic hydraulic and pneumatic ability</li> <li>G. Demonstrates basic electrical and electronic ability</li> <li>H. Demonstrates basic vehicle towing</li> </ul>				
Maintains and repairs low voltage electrical and electronic systems	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Performs general electrical/electronic diagnosis</li> <li>C. Performs battery diagnosis and repair</li> <li>D. Performs charging system diagnosis and repair</li> <li>E. Performs lighting systems diagnosis and repair</li> <li>F. Performs gauge and warning device diagnosis and repair</li> <li>G. Diagnoses and repairs related electrical/electronic systems</li> <li>H. Maintains, diagnoses, and repairs data communications systems</li> <li>I. Maintains, diagnoses, and repairs multiplex systems</li> <li>J. Maintains, diagnoses, and repairs equipment associated with vehicle electronic systems in accordance with factory guidelines</li> </ul>				
Maintains and repairs brake and air systems	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Maintains, diagnoses, and repairs systems</li> <li>C. Maintains, diagnoses, and repairs mechanical/foundation disc and drum brakes</li> <li>D. Maintains, diagnoses, and repairs parking brakes</li> <li>E. Maintains, diagnoses, and repairs wheel bearings</li> </ul>				
Maintains, diagnoses, and repairs engine systems	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Maintains, diagnoses, and repairs internal combustion (IC) engines (note: applies generally to diesel, CNG and gasoline engines – see unique competencies below for each propulsion type)</li> <li>C. Maintains, diagnoses, and repairs items specific to diesel engines</li> <li>D. Maintains, diagnoses, and repairs items specific to gasoline engines</li> <li>E. Maintains, diagnoses, and repairs items specific to CNG engines and related systems</li> <li>F. Maintains, diagnoses, and repairs items specific to hybrid propulsion systems</li> <li>G. Maintains, diagnoses, and repairs items specific to electric propulsion systems</li> <li>H. Maintains, diagnoses, and repairs items specific to fuel cell propulsion systems</li> <li>I. Overhaul of engine</li> </ul>				
Maintains, diagnoses, and repairs automatic transmissions and drivetrains	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Maintains, diagnoses, and repairs automatic transmissions</li> <li>C. Maintains, diagnoses, and repairs drive shafts and universal joints</li> <li>D. Maintains, diagnoses, and repairs drive axles</li> <li>E. Overhaul of transmission</li> </ul>				
Maintains, diagnoses, and repairs steering and suspension systems	<ul style="list-style-type: none"> <li>A. Follows safe procedures</li> <li>B. Maintains, diagnoses, and repairs steering systems</li> <li>C. Maintains, diagnoses, and repairs independent front suspensions</li> <li>D. Maintains, diagnoses, and repairs straight/-beam axles</li> <li>E. Maintains, diagnoses, and repairs rear suspensions</li> <li>F. Diagnoses, adjusts, and repairs wheel alignment</li> <li>G. Maintains, diagnoses, and repairs wheels and tires</li> </ul>				

Maintains, diagnoses, and repairs heating, ventilation and air conditioning (HVAC) systems	<p>A. Follows safe procedures</p> <p>B. Performs basic HVAC system verifications and testing</p> <p>C. Maintains, diagnoses, and repairs a/c system and related components</p> <p>D. Maintains, diagnoses, and repairs heating and engine cooling systems</p> <p>E. Maintains, diagnoses, and repairs HVAC operating systems and related controls</p> <p>A. Follows safe procedures</p> <p>B. Maintains, diagnoses, and repairs operator and passenger seating</p> <p>C. Maintains, diagnoses, and repairs stanchions, grab rails and modesty panels</p> <p>D. Maintains, diagnoses, and repairs windows</p> <p>E. Maintains, diagnoses, and repairs door systems</p> <p>F. Maintains, diagnoses, and repairs flooring, paneling and roof hatches</p> <p>G. Inspects and repairs frame/chassis members</p> <p>A. Follows safe procedures</p> <p>B. Inspects engine systems</p> <p>C. Inspects body interior and exterior</p> <p>D. Inspects electrical/electronic systems</p> <p>E. Inspects frame and chassis</p> <p>F. Conducts road test</p> <p>A. Follows safe procedures</p> <p>B. Maintains, diagnoses, and repairs mechanical components of the a/culation joint</p> <p>C. Maintains, diagnoses, and repairs hydraulic components of the a/culation joint</p> <p>D. Maintains, diagnoses, and repairs the electronic control system</p> <p>E. Maintains, diagnoses, and repairs a/culation bellows</p>				
Maintains, diagnoses, and repairs body and chassis equipment and systems					
Conducts preventive maintenance inspections					
Maintains, diagnoses, and repairs a/culated systems					

\* Full-competency requires score of 3.0 or higher on each work process

\*\* Denotes approximate percentage of time in apprenticeship

Score Obtained (Average)

Increase Paid Score Required

3.0

3.0

3.0

3.0

Rating System	Description	Points
Exceeds All Expectations	Consistently exceeds performance standard established for the time in position. Achieves results above and beyond what is required. Extends themselves in their roles to exceed personally and as a team to achieve exceptional results.	5
Meets & Exceeds Some Expectations	Employee not only meets all expectations in a fully satisfactory way but exceeds some of the objectives.	4
Meets Expectations	Consistently meets the performance standards established for time in position. Handles routine tasks & some unexpected situation with the usual amount of supervision. Can continue to develop with coaching, advanced training or more experience	3
Meets Some Expectations	Employee occasionally meets some of the objectives related to this goal but does not meet others in a fully satisfactory way. This performance level generally indicates the need for additional coaching, training or other plan for performance improvements.	2
Does Not Meet / Meets Some Expectations	Does not consistently meet performance standards established for time in position. Requires basic training, coaching or experience to improve performance and become consistent. Additional follow up will be necessary.	1
Does Not Meet Expectations	Clearly and repeatedly does not meet the performance standards established for time in position. Additional follow up and specific suggestions for improvement mandatory.	0