



PLANT MECHANIC JOB FAMILY (MULTIPLE)

PAY GRADES: LT-17 TO LT-19 www.cityoftulsa.org/pay

EFFECTIVE DATE: 07/23/2025

JOB FAMILY SUMMARY:

This document describes all job classifications in this job family which vary in grade level as indicated below. Find the detailed specific requirements of each classification in the job descriptions. Also included in this document are the **progression** and **proficiency** instructions for current employees to progress from one grade to the next once they meet all requirements.

Class Title	Pay Grade	Progression/ Promotion	Supervision Level	Minimum Education	Page #
Plant Mechanic I	LT-17	Progression	Under General Supervision	HS/GED	3
Plant Mechanic II	LT-18	Progression	Under General Supervision	HS/GED	7
Plant Mechanic III	LT-19	Progression	Under General Supervision	HS/GED	12

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential tasks.

PURPOSE OF THE CLASSIFICATION:

Positions in this broad class perform plant mechanic services at increasing levels of responsibilities while being responsible for skilled maintenance work involving the operation, installation and maintenance of various water or wastewater treatment plant mechanical systems and related facilities, and other related duties as assigned.

WORKING ENVIRONMENT:

For LT-17 and LT-18 positions: Working environment is primarily outdoors and occasionally indoors and in inclement weather. May be exposed to the following: hazardous materials, flammable liquids, confined spaces, cramped work areas, excessive dust, weather/temperature extremes, trench excavations, underground gas/electric/petroleum lines, rough terrains, cutting/chipping/grinding, hazardous/toxic atmospheres, sewage, damp/wet surfaces, snow/ice covered surfaces, insect bites, poisonous plants, toxic fumes/vapors/odors, confined spaces, compressed gases, high noise areas; and may be required to work overtime and be on 24 hour stand-by.

For LT-19 positions: Working environment is primarily indoors and occasionally outdoors and in inclement weather. May be exposed to the following: hazardous materials, flammable liquids, confined spaces, cramped work areas, heights, high voltage, deep water, high pressure steam, air, water and hydraulic line breaks; excessive dust, weather/temperature extremes, trench excavations, underground gas/electric/petroleum lines, rough terrains, cutting/chipping/grinding, hazardous/toxic atmospheres, sewage, damp/wet surfaces, snow/ice covered surfaces, insect bites, poisonous plants, toxic fumes/vapors/odors, confined spaces, compressed gases, high noise areas; and may be required to work overtime and be on 24 hour standby.

PHYSICAL REQUIREMENTS:

For LT-17 and LT-18 positions: Physical requirements include frequent walking and standing; frequent lifts/carries up to 30 pounds with occasional lifts/carries up to 70 pounds; constantly lifts/carries up to 10 pounds; requires pushing/pulling a maximum force of 100 pounds peak; frequent reaching, balancing, kneeling, bending, handling, feeling, climbing, smelling and twisting and occasional crawling; and vision, speech and hearing sufficient to perform essential tasks. Some positions within this classification may require sitting, use of magnification and good hand-eye coordination.

For LT-19 positions: Physical requirements include frequent walking and standing; frequent lifts/carries up to 30 pounds with occasional lifts/carries up to 70 pounds; constantly lifts/carries up to 10 pounds; requires pushing/pulling a maximum force of 100 pounds peak; frequent reaching, balancing, kneeling, bending, handling, feeling, climbing, smelling and twisting; occasional crawling; and vision, speech and hearing sufficient to perform essential tasks.

LT-17 | PLANT MECHANIC I

CLASS CODE: 7520

ESSENTIAL TASKS:

- Performs non-journeyman, semiskilled mechanical repairs, pipe fitting, welding, carpentry, electrical, plumbing and painting required in the maintenance of water, wastewater or stormwater facilities
- Performs repair activities on water or wastewater treatment plant equipment including piping, fittings, valves, compressors, pumps, engine generators, boilers, motors, chemical feed systems and other specialty trade work equipment
- Operates and maintains a variety of light to heavy automotive equipment, hand tools and equipment common to the skilled trades
- Must report to work on a regular and timely basis

Training and Experience:

Must meet the following criteria:

- (a) Graduation from high school or possession of a General Education Development (GED) certificate; **and,**
- (b) Two (2) years of experience in non-journeyman, semiskilled electrical, mechanical, plumbing or other mechanical maintenance related repairs

Knowledge of:

- Good knowledge of the materials, methods, tools and techniques commonly used in the repair and maintenance of a water or wastewater treatment plant or similar process/production facilities
- Good knowledge of general plumbing, electrical and equipment maintenance work
- Good knowledge of the hazards and safety precautions of the work

Ability to:

- Understand written and verbal instructions
- Prepare reports
- Understand and influence the behavior of internal and external customers in order to achieve job objectives and cause action or understanding

Licenses and Certificates:

1. Possession of a valid Oklahoma Class "D" Driver License; **and,**
2. Possession of a valid Oklahoma Class "B" Commercial Driver License (CDL) with applicable endorsements within six (6) months of hire (*Some positions require possession of a valid Oklahoma Class "A" CDL with applicable endorsements within six (6) months of hire*); **and,**
3. Possession of a Class "D" Water/Wastewater License as issued by the Oklahoma Department of Environmental Quality (ODEQ) within nine (9) months of hire; **and,**
4. Possession of a valid Oklahoma Electrical, Mechanical or Plumbing Apprentice License as issued by the State of Oklahoma within nine (9) months of hire (*some positions*); **and,**



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5. Possession of HAZWOPER 40-Hour Training Certificate within nine (9) months (**Water Plant Mechanics Only**)

LT-17 Plant Mechanic I - 1 st Proficiency Requirements	
All training requests are subject to supervisor approval and budget availability.	
Time in Class	Training, Licenses & Certifications
6 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of nine (9) accredited college hours in a related field; or,
	Completion of one hundred and thirty-five (135) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma or in another department-approved technical training area, for example, carpentry; or,
	Possession of two (2) of the following certificates: <ul style="list-style-type: none"> • Level 1 Lubrication • Level 1 Ultrasonic Testing • Precision Tool Measurement • Level 1 Motion amplification • Certificate of Backflow Inspection • Certificate of Oil Analysis



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LT-17 | PLANT MECHANIC I

CLASS CODE: 7520

LT-17 Plant Mechanic I - 2nd Proficiency Requirements

All training requests are subject to supervisor approval and budget availability.

Time in Class	Training, Licenses & Certifications
12 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of fifteen (15) accredited college hours in a related field; or,
	Completion of two hundred and twenty-five (225) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry; or,
	Possession of OWEA Class/Level I Maintenance Technologist certification as issued by the Oklahoma Water Environment Association (OWEA); or,
	Possession of Level 1 Vibration ISO Certification; or,
	Possession of Level 1 Thermography/Thermal Imaging Certification; or,
	Possession of Level 1 Hendrix Mechanical Training Certification



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To Progress to a Plant Mechanic II LT-18	
All training requests are subject to supervisor approval and budget availability.	
Required	Three (3) years of experience in mechanical maintenance work or related training, including eighteen (18) months as a Plant Mechanic I; and,
	Possession of an applicable Class "C" Water/Wastewater License as issued by the Oklahoma Department of Environmental Quality (ODEQ); and,
	Possession of a valid Oklahoma Class "A" or Class "B" Commercial Driver License (CDL) with applicable endorsements; and,
	Completion of four (4) City of Tulsa training course credits from any category not previously submitted; and,
	HAZWOPER 40-Hour Training (Water Plant Mechanics Only); and,
<u>Must Complete Either Option #1 or Option #2 Below</u>	
Option #1	Completion of twenty (20) accredited college hours in a related field; or,
	Completion of three hundred (300) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry
Option #2	Possession of a Third-Class Operating Engineer's License if working on low pressure boilers, and,
	Completion of two hundred and seventy (270) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry; or,
	Completion of eighteen (18) credit hours from an accredited college or university in a related field

LT-18 | PLANT MECHANIC II

CLASS CODE: 7521

ESSENTIAL TASKS:

- Performs non-journeyman, skilled maintenance repairs, pipe fitting, welding, carpentry, electrical, plumbing and painting required in the maintenance of water, wastewater or stormwater facilities
- Acts as a working lead person over a small group of workers engaged in various maintenance and repair activities
- Performs repair activities on water or wastewater treatment plant equipment including piping, fittings, valves, compressors, pumps, engine generators, boilers, motors, chemical feed systems and other specialty trade work equipment
- Operates and maintains a variety of light to heavy automotive equipment, hand tools and equipment common to the skilled trades
- Must report to work on a regular and timely basis

Training and Experience:

Must meet the following criteria:

- (a) Graduation from high school or possession of a General Education Development (GED) certificate; **and,**
- (b) Three (3) years of experience in non-journeyman, skilled electrical, mechanical, plumbing or other mechanical maintenance related repairs

Knowledge of:

- Considerable knowledge of the materials, methods, tools and techniques commonly used in the repair and maintenance of a water or wastewater treatment plant
- Considerable knowledge of general plumbing, electrical, welding and equipment maintenance work
- Considerable knowledge of the hazards and safety precautions of the work

Ability to:

- Lead a crew performing a variety of maintenance or construction tasks
- Understand written and verbal instructions
- Prepare reports
- Understand and influence the behavior of internal and external customers in order to achieve job objectives and cause action or understanding

Licenses and Certificates:

1. Possession of a valid Oklahoma Class "D" Driver License; **and,**
2. Possession of a valid Oklahoma Class "B" Commercial Driver License (CDL) with applicable endorsements within six (6) months from date of hire (*Some positions require possession of a valid Oklahoma Class "A" CDL with applicable endorsements within six (6) months of hire*); **and,**



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3. Possession of an applicable Class "C" Water/Wastewater License as issued by the Oklahoma Department of Environmental Quality (ODEQ) within eighteen (18) months of hire; **and,**
4. Possession of an Apprentice License in Electrical, Mechanical, or Plumbing as issued by the State of Oklahoma, if actively working towards a journeyman license; **and,**
5. Possession of HAZWOPER 40-Hour Training Certificate within nine (9) months (**Water Plant Mechanics Only**)



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LT-18 | PLANT MECHANIC II

CLASS CODE: 7521

LT-18 Plant Mechanic II - 1st Proficiency Requirements

All training requests are subject to supervisor approval and budget availability.

Time in Class	Training, Licenses & Certifications
6 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of twenty six (26) accredited college hours in a related field; or,
	Completion of four hundred (400) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma or in another department-approved technical training area, for example, carpentry; or,
	Possession of two (2) of the following certificates: <ul style="list-style-type: none"> • Level 2 Lubrication • Level 2 Ultrasonic Testing • Level 2 Motion amplification • Laser & Precision Tool Alignment Training • Certificate of Backflow Repair



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LT-18 | PLANT MECHANIC II

CLASS CODE: 7521

LT-18 Plant Mechanic II - 2nd Proficiency Requirements

All training requests are subject to supervisor approval and budget availability.

Time in Class	Training, Licenses & Certifications
12 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of thirty four (34) credit hours from an accredited college or university in a related field; or,
	Completion of five hundred (500) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma or in another department-approved technical training area, for example, carpentry; or,
	Possession of OWEA Class/Level II Maintenance Technologist certification as issued by the Oklahoma Water Environment Association (OWEA); or,
	Possession of Level 2 Vibration ISO Certification; or,
	Possession of Level 2 Thermography/Thermal Imaging Certification; or,
	Possession of Level 2 Hendrix Mechanical Training Certification



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To Become a Plant Mechanic III LT-19	
Required	Four (4) years of experience in mechanical maintenance work or related training, including one (1) year as a Plant Mechanic II with the City of Tulsa; or,
	Possession of an Electrical, Mechanical, or Plumbers Journeyman's License as issued by the State of Oklahoma; and,
	Possession of a valid Oklahoma Class "A" or Class "B" Commercial Driver License (CDL) with applicable endorsements; and,
	Possession of an applicable Class "C" Water/Wastewater License as issued by the Oklahoma Department of Environmental Quality (ODEQ); and,
	Completion of four (4) City of Tulsa training course credits from any category not previously submitted; and,
	HAZWOPER 40-Hour Training (Water Plant Mechanic Only); and,
Must Complete One (1) of the Following Options Below:	
One Required	Completion of forty (40) accredited college hours in a related field; or,
	Completion of six hundred (600) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry; or,
	Possession of OWEA Class/Level III Maintenance Technologist certification as issued by the Oklahoma Water Environment Association (OWEA); or,
	Possession of Level 3 Vibration ISO Certification; or,
	Possession of Level 3 Thermography/Thermal Imagin Certificate; or,
	Possession of Level 3 Hendrix Mechanical Training Certificate; or,
	Possession of one (1) of the following licenses as issued by the State of Oklahoma: <ul style="list-style-type: none"> • Unlimited Journeyman Mechanical License • Unlimited Journeyman Electrical License • Journeyman Plumbing License

LT-19 | PLANT MECHANIC III

CLASS CODE: 7522

ESSENTIAL TASKS:

- Performs unlimited journeyman level skilled maintenance repairs, pipe fitting, welding, carpentry, electrical, plumbing and painting as required in the maintenance of water, wastewater or stormwater facilities
- Acts as a working lead person over a small group of Plant Mechanics I's, II's and others
- Operates and maintains HVAC control system
- Engages in various maintenance and repair activities
- Repairs plant equipment including piping, fittings, valves, compressors, pumps, engine generators, boilers, motors, chemical feed systems and other specialty trade work
- Operates and maintains a variety of light to heavy automotive equipment, hand tools and equipment common to the skilled trades
- Must report to work on a regular and timely basis

Training and Experience:

Must meet the following criteria:

- (a) Graduation from high school or possession of a General Education Development (GED) certificate; **and,**
- (b) Four (4) years of experience in mechanical maintenance work or related training

Knowledge of:

- Considerable knowledge of the materials, methods, tools and techniques commonly used in the repair and maintenance of a water or wastewater treatment plant
- Considerable knowledge of general plumbing, electrical, welding and equipment maintenance work; good knowledge of basic D.C. and A.C. circuitry analysis
- Considerable knowledge of the hazards and safety precautions of the work

Ability to:

- Lead a crew performing a variety of maintenance or construction tasks
- Understand written and verbal instructions
- Prepare reports
- Understand and influence the behavior of internal and external customers in order to achieve job objectives and cause action or understanding

Licenses and Certificates:

1. Possession of a valid Oklahoma Class "D" Driver License; **and,**
2. Possession of an Electrical, Mechanical, or Plumbers Journeyman's License as issued by the State of Oklahoma; **and,**
3. Possession of a valid Oklahoma Class "B" Commercial Driver License (CDL) with applicable endorsements within six (6) months from date of hire, *(some positions within this classification require a valid Oklahoma Class "A" CDL with applicable endorsements within six (6) months from date of hire)*; **and,**



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4. Possession of an applicable Class "C" Water/Wastewater License as issued by the Oklahoma Department of Environmental Quality (ODEQ) within eighteen (18) months of hire; **and,**
5. Possession of HAZWOPER 40-Hour Training Certificate within nine (9) months (**Water Plant Mechanics Only**)



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LT-19 | PLANT MECHANIC III

CLASS CODE: 7522

LT-19 Plant Mechanic III - 1st Proficiency Requirements

All training requests are subject to supervisor approval and budget availability.

Time in Class	Training, Licenses & Certifications
12 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of fifty (50) accredited college hours in a related field; or,
	Completion of seven hundred (700) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry; or,
	Completion of all of the following courses: <ul style="list-style-type: none"> • TPC – 211 – Electrical Safety in the Workplace – Understanding NFPA 70E • CSUS – Manage for Success: Effective Utility Leadership Practices • TPC – 901 – Maintenance Organization • TPC – 902 – Implementing Preventive Maintenance • TPC – 903 – Controlling Maintenance Resources



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LT-19 Plant Mechanic III - 2 nd Proficiency Requirements	
All training requests are subject to supervisor approval and budget availability.	
Time in Class	Training, Licenses & Certifications
18 months	Completion of one (1) City of Tulsa training course credits from any category not previously submitted; and,
	Completion of sixty (60) accredited college hours in a related field; or,
	Possession of an associate's degree in a related field; or,
	Completion of eight hundred (800) hours of instruction in an applicable trade category that would meet the formal classroom education requirements for licensing by the Construction Industries Board of the State of Oklahoma, or in another department-approved technical training area, for example, carpentry; or,
	Completion of all of the following courses: <ul style="list-style-type: none"> • NFPA – NFPA 70B, Standard for Electrical Equipment Maintenance Online Training Series • TPC – 904 – Improving Performance in Maintenance • TPC – 905 – Effective Communication for Supervisors • TPC – 906 – Employee Relations • TPC – 907 – Managing a Training Program



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APPROVED TRAINING HOUR EQUIVALENCY

All training requests are subject to supervisor approval and budget availability.

The following courses are approved equivalents for only the City of Tulsa Water and Sewer Department Plant Mechanic **progression program** 'Hours of Instruction' requirements.

These courses are not accepted by the City of Tulsa, as a substitution for the college education requirements listed in job descriptions and will not be considered as part of the certification process unless they are documented on an official accredited college or university transcript per City of Tulsa Policies and Procedures outlined in PPPM 100.

APPROVED COURSES: The tables below outline approved Sacramento State courses and their 'Hours of Instruction' value upon completion. Only appropriate Wastewater or Water courses may be used by the employee in relation to their position and applicable work. Earned Continuing Education Unit's (CEU's) are calculated whereby one (1) CEU is the equivalent of ten (10) Hours of Instruction.

Wastewater Courses Only		
Course Title	Manual Used	Hours of Instruction
B - Solids Management and Plant Maintenance, Vol 2	Operation of Wastewater Treatment Plants, Vol 2, 8th ed.	40
Operation and Maintenance of Wastewater Collection Systems, Vol 1	Operation and Maintenance of Wastewater Collection Systems, Vol 1, 8th ed.	90
Operation and Maintenance of Wastewater Collection Systems, Vol 2	Operation and Maintenance of Wastewater Collection Systems, Vol 2, 8th ed.	64
C - Industrial Waste Treatment, Vol 1, 4th ed.	Industrial Waste Treatment, Vol 1, 4th ed.	33
Small Wastewater System Operation and Maintenance Vol 1	Small Wastewater System Operation and Maintenance Vol 1, 2nd ed.	90

Water Courses Only		
Course Title	Manual Used	Hours of Instruction
Water Treatment Plant Operation, Volume 2, 7th ed.	Water Treatment Plant Operation, Volume 2, 7th ed.	90
Water Distribution System Operation and Maintenance, 7th ed.	Water Distribution System Operation and Maintenance, 7th ed.	90
Small Water System Operation and Maintenance, 6th ed.	Small Water System Operation and Maintenance, 6th ed.	90
Water Systems Operation and Maintenance Video Training Series	Water Systems Operation and Maintenance Video Training Series	30

ADDITIONAL TRAINING:

Other additional training may be completed, and 'Hours of Instruction' earned only, as approved by department management. All courses and 'Hours of Instruction' must be appropriately documented with certificates of completion showing how many Hours of Instruction/Credit Hours/Contact Hours/Continual Education Hours or equivalent were earned.

ONLINE RESOURCES:

- Sacramento State Online Courses:
 - <https://www.owp.csus.edu/courses/catalog.php>
- TPC Online Courses:
 - <https://www.tpctraining.com/pages/maintenance-supervisor-training>
- OWEA Maintenance Technologist Training:
 - <https://www.owea.org/maintenance-technologist-training/>
- Hendrix Precision Training:
 - <https://www.hendrixprecisionmaintenance.com/>
- Oklahoma Predictive Maintenance Users Group (OPMUG)
 - <https://www.opmug.org/events>