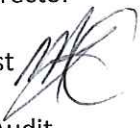


To: Claudia Hazelhurst, Human Resources Director

From: Shelley Caskey, Human Resources Analyst 

Re: Lead Plant Mechanic – Water Plant Job Audit

Date: February 3, 2015

**Background:**

The incumbent was hired into the Lead Plant Mechanic position in May of 2006. At that time, the position was responsible for overseeing and participating in the more complex and difficult work of staff responsible for the maintenance, repair, service, and installation of equipment and machinery in the water treatment plants.

As part of the 2015 budget process, the Water Operations Supervisor, Mark Ritterbush, submitted an audit request stating he felt that the position is classified incorrectly and should be reclassified to an Electronics Specialist position. The Lead Plant Mechanic position is classified within the Plant Maintenance job family at a non-exempt range 78, proficient hourly rate of \$29.33.

The Electronics Specialist is a relatively new position within the City. It was created in 2012 to address the installation, programming, calibration, and troubleshooting of the Supervisory Control and Data Acquisition (SCADA) system that was being installed at the Persigo wastewater treatment plant. SCADA is a system used to gather and analyze real time data, monitor and control a plant and is becoming more and more common within water and wastewater treatment facilities. The City presently has 2 Electronic Specialist positions at Persigo. The position is classified at a range 86, proficient hourly rate of \$32.38 within the same job family as the Lead Plant Mechanic.

**Review of Responsibilities and Job Duties:**

A meeting was held with the incumbent on February 3, 2015, to discuss the job tasks and responsibilities he spends the majority of his time performing. The incumbent stated that he spends the majority of his time wiring, installing, programming, repairing, researching, and troubleshooting the instrumentation used to run the filter control system, radio system, tank level pump system, flow meters, the SCADA system at the Kannah Creek Water Treatment plant, a variety of sensors, variable frequency drives, and all other electronic devices needed by the water plant.

The incumbent was asked what has changed in his position. He stated that when he started in 2006 he did handle more of the day-to-day plant maintenance consisting of janitorial, grounds maintenance, general maintenance and repair on all water treatment equipment and facilities, in addition to some instrumentation work. He stated that as technology grew and the water plant began to work towards a more automated process, tracking mandated records electronically, and upgrading failing electrical systems, he was tasked with responding to these needs. Over the years, he has now become the "go-to" person at the water plant when it comes to installing and programming electronic and instrumentation devices. He stated that he no longer performs general plant maintenance. His primary

focus is plant instrumentation. For example, if there is a problem with a pump station, the Plant Mechanics from Pipeline Maintenance are responsible for repairing the problem. If instrumentation is the cause of the issue, they call the incumbent to come out and resolve the technical issue. The incumbent stated he spends more time with electronic devices and computers than he does repairing pipes, pumps, and valves.

**Recommendation:**

After reviewing the current job duties of the incumbent, it is determined that the classification of Lead Plant Mechanic is incorrect. The job duties being performed are more in line with the City's Electronic Specialist job description. Therefore, it is recommended that the position be reclassified to Electronics Specialist.

The Electronics Specialist position does require a Bachelor's Degree in electrical engineering, control systems engineering or closely related field in addition to 5 years of experience repairing and troubleshooting of electronic process control equipment, motor control systems, and SCADA systems. The incumbent does have a Bachelor of Science in Physics and has spent the past 7 to 10 years upgrading the instruments within the water treatment plant. Therefore, the incumbent meets the minimum education and experience requirements of this position.

The total 2015 budget impact of this reclassification is \$7,434 to Fund 301, Water Fund.

OK  
Chris Schindler  
2-28-15

OK  
Gary R...  
2-25-15

## POSITION AUDIT REQUEST

<b>DEPARTMENT</b>	Public Works and Utilities		
<b>DIVISION</b>	Water Services		
Submitted By:	Mark Ritterbush	Date:	July 29, 2014
Dept. Head Approval:	<i>[Signature]</i>	Date:	8.1.14

**Incumbent Name** Bruce Johnson **Current Position** Lead Plant Mechanic

- 1) Is request for change in **status** only? (example: 1/2 time to 3/4 time) Yes \_\_\_\_\_ No X  
 If yes, change status from \_\_\_\_\_ to \_\_\_\_\_
- 2) Has this position been **audited prior** to this request? Yes \_\_\_\_\_ No X  
 If yes, date position was last reviewed \_\_\_\_\_
- 3) Prepare and attach written justification for the position audit. Include the following:
  - A. Description of what has changed, or will change, in the duties and responsibilities of the position.
  - B. Description of the business or operational reasons for the change.
  - C. Indicate the classification you feel better fits this position and why (if applicable).
- 4) Submit Position Audit Request Form and justification to department head for approval.
- 5) Have incumbent complete or update the **Job Analysis Questionnaire (JAQ)**. If position is vacant or proposed, the supervisor should complete the JAQ. *per HR - JAQ is not required (yet)*
- 6) Review the JAQ; add supervisor comments and signature where indicated.
- 7) Human Resources will conduct interviews as needed, prepare recommendation report and budget impacts.
- 8) Results of reclassification requests will be submitted to the department head for review and approval prior to being added to the budget.

***This Section for Human Resources Use***

Reclassification recommended? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, new class \_\_\_\_\_ Effective date \_\_\_\_\_

Budget Impact

W&B: _____	Notes _____
Offsets: _____	_____
Total Labor: _____	_____

## Justification for Position Audit of the Lead Plant Mechanic

at the Grand Junction Water Treatment Plant

July 29, 2014

### Part A – Description of what has changed in the duties of the position:

There really has been no change in responsibilities associated with this position. There has been a similar position (Electronics Specialist) recently created in the City that fits what this employee does more exact than the current classification (Lead Plant Mechanic).

### Part B – Business or Operational reasons for the change:

I believe it is the City's intent, being ethical and fair, to compensate two people equally who are performing basically the same job – albeit at different locations. Also, reclassifying the job title of Lead Plant Mechanic to Electronics Specialist would benefit the Water Department when the time comes to fill this position by making it competitive salary-wise to attract qualified candidates. As it stands currently, the person taking care of the electronics, SCADA, and instruments at Persigo is making \$6360 more per year than the person in charge of the electronics, SCADA, and instruments at the Water Treatment Plant. Being this far behind on the pay scale to even other departments within the City for a job requiring the same aptitudes would make recruiting someone qualified for this position difficult at best.

### Part C – Indicate the classification that is felt to better fit this position and provide rationale:

As mentioned above I feel the position of Lead Plant Mechanic would be better represented by the job description already in place for Electronics Specialist. It has recently come to my attention that this had already been done at Persigo. It's easy to see the similarities between the two jobs by looking at the job descriptions; the Electronics Specialist has 12 primary duties listed and 9 of them are word-for-word the same as the Lead Plant Mechanic.

The three remaining duties listed for Electronics Specialist are:

1. Install, program, calibrate, maintain and troubleshoot various electronic and instrumentation devices and software including, but not limited to, motor control centers, variable frequency drives (VFD's), level transmitters, flow meters, valve actuators, modems, and automatic dialer and power monitoring equipment.
2. Develop programs, install upgrades, maintain and repair Programmable Logic Controllers (PLC's), Remote Terminal Units (RTU's) and other programmable devices.
3. Troubleshoot the control system and electrical power system failures at the treatment plant, pump stations and collections system SCADA systems.

And if I think back over this past month, a majority of the Lead Plant Mechanic's time has been spent performing duties that would fall under either 1,2, or 3 above. It's a perfect fit in my opinion. He did run the tractor to load coal into one of our filters this morning and he did help to chase a rabbit out of the building a couple weeks ago, but the lion's share of his time has been spent trying to launch a radio system to allow a flow meter output to communicate with the SCADA system at the Kannah Creek plant, troubleshooting and calibrating the readout on this flow meter. He's currently working on reprogramming the PID loop configuration for the chlorine building since the PLC's memory was lost and had to be rebooted. Last week, he also relocated a new chlorine analyzer to a better location and ran new wires downstairs for it. He's the guy who we have install VFD's up here as well as troubleshoot the autodialer or add any parameters to it. He attended a meeting last week with Ute Water and a software vendor regarding PLC upgrades to our fill stations. Even though there is not a SCADA system at the Water Plant per se at the present time— and I think this was the main push for creating the Electronics Specialist position in the first place – our Lead Plant Mechanic is responsible for the SCADA system at the Kannah Creek plant and he also does computer and PLC programming (not just installing). Yes, we do have quite a wide spectrum of things that fall under "other assigned duties" here at the Water Plant, but after I read the definition and duties for Electronics Specialist I again feel it is an almost perfect fit. The duties listed are needs that occur here regularly and the person we would ask to address anything that would fall under duties #1-4 would be our Lead Plant Mechanic, nobody else up here is expected to have those skillsets.

I could drone on and on, but I hope this is enough justification to at least have this position looked at and see if a reclassification is merited.

I appreciate your attention to this matter



Mark Ritterbush

Water Operations supervisor

# 613/mw

CITY OF GRAND JUNCTION  
ELECTRONICS SPECIALIST

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DEFINITION

Perform skilled and technical maintenance on instrumentation and control systems, Supervisory Control and Data Acquisition (SCADA) systems and supporting infrastructure for the wastewater treatment operations; install, program, calibrate, maintain and troubleshoot various electronic and instrumentation devices and software; lead and train plant staff in performing complex maintenance activities; perform a variety of technical and administrative support tasks relative to assigned areas of responsibility.

- quotes  
- lead role in collaborating w/ wife for fill station PLC upgrade  
- works w tech support to obtain specs.  
- works w/ engineering dept. in designing projects.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Wastewater Maintenance and Operations Supervisor.

May exercise supervision over assigned plant maintenance staff as needed.

PRIMARY DUTIES--The following are examples of primary duties assigned to positions in this classification. Other related duties and responsibilities may be assigned.

Not mentioned.

1. Install, program, calibrate, maintain and troubleshoot various electronic and instrumentation devices and software including, but not limited to, motor control centers, variable frequency drives (VFD's), level transmitters, flow meters, valve actuators, modems, and automatic dialer and power monitoring equipment.

Not mentioned.

2. Develop programs, install upgrades, maintain and repair Programmable Logic Controllers (PLC's), Remote Terminal Units (RTU's) and other programmable devices.

3. Troubleshoot the control system and electrical power system failures at the treatment plant, pump stations and collections system SCADA systems.

Same as #7

4. Program changes to SCADA systems and install upgrades related to control software in accordance with best practice procedures and technological advances; ensure proper working order and that system meets regulatory guidelines.

Same as #1

5. Perform leadworker functions of staff including assigning and reviewing daily work, providing input into performance evaluation, training other employees, and acting as a resource to other staff.

Same as #2

6. Estimate time, materials, and equipment required for jobs assigned; order all parts necessary to perform maintenance and repairs; write specifications for new and replacement equipment as needed; research vendors to locate necessary items, determine compatibility, and to obtain competitive prices; purchase items for inventory and repair; maintain adequate supplies and equipment, and act as project manager when dealing with outside vendors.

Same as #3

7. Oversee and participate in the establishment and maintenance of complete and accurate records and logs; track work orders; establish and maintain accurate equipment, maintenance, and repair records.

Same as #5

8.a Operate and maintain a variety of hand tools, power tools, pneumatic tools, trucks and other equipment in the performance of assigned duties.

Same as #6

9.a Respond to plant emergencies and problems after hours and on weekends as required; determine appropriate personnel needed to provide assistance.

Same as #8

8. b Oversee and perform preventative maintenance inspections and servicing on equipment and facilities.

**CITY OF GRAND JUNCTION  
ELECTRONICS SPECIALIST**

9. b Participate in maintaining surrounding grounds and building areas; perform general carpentry duties; install new roofing; pour and finish concrete for sidewalks and structures; build and maintain road right-of-ways for stations.
10. Perform other duties of a similar nature or level.

**QUALIFICATIONS**

**Knowledge of:**

Process control, electrical equipment, and programmable controllers.  
Computer operations and computerized maintenance management systems.  
Software application programming for the wastewater industry.  
Advanced principles of electrical systems and electronic repair.  
Leadworker concepts and practices, including training and scheduling of staff.  
Operations, services and activities of a wastewater treatment maintenance program.  
Principles, methods, materials, and tools employed in the repair and maintenance of pumps, motors, valves and related equipment.  
Operational characteristics of treatment plant systems and equipment.  
Standard principles of hydraulics, plumbing, and mechanical systems.  
Operational principles of a treatment facility.  
Practices and techniques of metal cutting and welding.  
Occupational hazards and standard safety practices.  
Principles and practices of record keeping.  
English usage, spelling, grammar and punctuation.  
Modern office technology and equipment, including computers and related software applications.  
Applicable tools and equipment operations.  
Applicable Federal, State and local codes, laws and regulations.

**Ability to:**

Trouble-shoot calibrate and repair process control loops, SCADA and low voltage equipment.  
Read and interpret electrical drawings, schematics, compute and equipment manuals and blueprints.  
Perform mathematical computation to verify instrument accuracy and to compute testing results.  
Lead, monitor, train and review staff and technical work.  
Program logic controllers and HMI's.  
Perform the full range of repair, maintenance, servicing, and cleaning tasks involving pumps, motors and valves.  
Operate a variety of maintenance and repair equipment in a safe and effective manner.  
Perform preventative maintenance on plant equipment and systems.  
Perform assigned work in accordance with appropriate safety practices and regulations.  
Accurately read and record data from gauges and meters.  
Compile data and material.  
Establish and maintain accurate records, logs, and files.  
Interpret and apply Federal, State and local policies, laws and regulations.  
Operate and use modern office equipment including computer and various software applications.  
Communicate clearly and concisely, both orally and in writing.  
Establish and maintain effective working relationships with those contacted in the course of work.  
Troubleshoot and repair laboratory equipment.

**Experience and Training Guidelines**

*Minimum Requirements:*

**Experience:**

Five (5) years experience in the wastewater treatment plant maintenance including experience in the repair and trouble-shooting of electronic process control equipment, motor control centers and SCADA systems.

**Training:**

Equivalent to a Bachelor's degree in electrical engineering, control systems engineering or closely related field.

**CITY OF GRAND JUNCTION  
ELECTRONICS SPECIALIST**

Other combinations of experience and education that meet the minimum requirements may be substituted.

**License or Certificate**

Possession of, or the ability to obtain, a valid Colorado commercial driver's license.

Possession of, or the ability to obtain, a valid Class D Colorado Wastewater Operator certificate.

**WORKING CONDITIONS**

**Environmental Conditions:**

The job is performed in the following working environment:

Field environment.

The following condition(s) may be present on a continuing basis:

Hazardous physical conditions (mechanical parts, electrical currents, vibration, etc.)

Atmospheric Conditions (fumes, odors, dusts, gases, poor ventilation)

Hazardous materials (chemicals, blood and other body fluids, etc.)

Work space restricts movement

Intense noise

**Physical Conditions:**

The job is characterized by:

**Medium Work:** Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.

The following physical activities are very or extremely important in accomplishing the job's purpose and are performed on a daily basis:

While performing the duties of this job, the employee is required to see, hear, sit, stand, walk, kneel, squat, stoop, repeatedly twist the upper body, and push or drag objects. The employee is regularly required to perform heavy lifting. The employee is regularly exposed to chemicals and materials that result in additional exposure to fumes, dust and air contaminants. Job may require work in confined spaces. The nature of the work also requires the incumbent to climb ladders, and use power and noise producing tools and equipment. The employee regularly works in outside weather conditions, near moving mechanical parts. The employee is frequently exposed to wet or humid conditions and vibration. The employee is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The noise level in the work environment is frequently loud.



\$5083 / mo

**CITY OF GRAND JUNCTION  
LEAD PLANT MECHANIC**

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

**DEFINITION**

Lead, oversee and participate in the more complex and difficult work of staff responsible for the maintenance, repair, service and installation of equipment and machinery in wastewater treatment plants, pumping stations, and related facilities; assist in writing specifications for new and replacement equipment; perform a variety of technical and administrative support tasks relative to assigned areas of responsibility.

**SUPERVISION RECEIVED AND EXERCISED**

Receives direction from the Distribution and Collections Supervisor, Water Operations Supervisor, or Wastewater Maintenance and Collections Supervisor.

Exercises lead supervision over assigned plant maintenance staff.

**PRIMARY DUTIES**--The following are examples of primary duties assigned to positions in this classification. Other related duties and responsibilities may be assigned.

- ✓ 1. Perform leadworker functions of staff including assigning and reviewing daily work, providing input into performance evaluation, training other employees, and acting as a resource to other staff.
- ✓ 2. Estimate time, materials, and equipment required for jobs assigned; order all parts necessary to perform maintenance and repairs; write specifications for new and replacement equipment as needed; research vendors to locate necessary items, determine compatibility, and to obtain competitive prices; purchase items for inventory and repair; maintain adequate supplies and equipment, and act as project manager when dealing with outside vendors.
- ✓ 3. Oversee and participate in the establishment and maintenance of complete and accurate records and logs; track work orders; establish and maintain accurate equipment, maintenance, and repair records.
4. Perform maintenance and repair on all water and wastewater treatment plants and related equipment and facilities; install, align, test, maintain, recondition, troubleshoot, and repair a variety of mechanical and hydraulic systems, components and parts; replace piping and recondition valves.
- ✓ 5. Operate and maintain a variety of hand tools, power tools, pneumatic tools, trucks and other equipment in the performance of assigned duties.
- ✓ 6. Respond to plant emergencies and problems after hours and on weekends as required; determine appropriate personnel needed to provide assistance.
- ✓ 7. Program and maintain water and wastewater computer and SCADA systems; perform necessary maintenance; ensure proper working order and that system meets regulatory guidelines.
- ✓ 8. Oversee and perform preventative maintenance inspections and servicing on equipment and facilities.
- ✓ 9. Participate in maintaining surrounding grounds and building areas; perform general carpentry duties; install new roofing; pour and finish concrete for sidewalks and structures; build and maintain road right-of-ways for stations.
- ✓ 10. Perform other duties of a similar nature or level.

**CITY OF GRAND JUNCTION**  
**LEAD PLANT MECHANIC**

**QUALIFICATIONS**

**Knowledge of:**

Leadworker concepts and practices, including training and scheduling of staff.  
Operations, services and activities of a wastewater treatment maintenance program.  
Principles, methods, materials, and tools employed in the repair and maintenance of pumps, motors, valves and related equipment.  
Operational characteristics of treatment plant systems and equipment.  
Standard principles of hydraulics, plumbing, and mechanical systems.  
Basic principles of electrical systems and electronic repair.  
Operational principles of a treatment facility.  
Practices and techniques of metal cutting and welding.  
Occupational hazards and standard safety practices.  
Principles and practices of record keeping.  
English usage, spelling, grammar and punctuation.  
Modern office technology and equipment, including computers and related software applications.  
Applicable tools and equipment operations.  
Applicable Federal, State and local codes, laws and regulations.

**Ability to:**

Lead, monitor, train and review staff and technical work.  
Program logic controllers and HMI's.  
Perform the full range of repair, maintenance, servicing, and cleaning tasks involving pumps, motors and valves.  
Operate a variety of maintenance and repair equipment in a safe and effective manner.  
Read and understand technical manuals, blueprints, shop drawings and sketches.  
Perform preventative maintenance on plant equipment and systems.  
Perform assigned work in accordance with appropriate safety practices and regulations.  
Accurately read and record data from gauges and meters.  
Compile data and material.  
Establish and maintain accurate records, logs, and files.  
Interpret and apply Federal, State and local policies, laws and regulations.  
Operate and use modern office equipment including computer and various software applications.  
Communicate clearly and concisely, both orally and in writing.  
Establish and maintain effective working relationships with those contacted in the course of work.  
Troubleshoot and repair laboratory equipment.

**Experience and Training Guidelines**

*Minimum Requirements:*

**Experience:**

Five (5) years experience in the maintenance and repair of pumps, motors and electrical systems.

**Training:**

High School Diploma or G.E.D. supplemented by specialized training in the areas of mechanical equipment maintenance and repair and SCADA systems programming.

Other combinations of experience and education that meet the minimum requirements may be substituted.

**License or Certificate**

Possession of, or the ability to obtain, a valid Colorado commercial driver's license.

Some assignments in this classification may also require possession of, or the ability to obtain, Water/Wastewater Operator's D License and/or Collections/Distribution I certificate.

**CITY OF GRAND JUNCTION  
LEAD PLANT MECHANIC**

**WORKING CONDITIONS**

**Environmental Conditions:**

The job is performed in the following working environment:

Field environment.

The following condition(s) may be present on a continuing basis:

Hazardous physical conditions (mechanical parts, electrical currents, vibration, etc.)

Atmospheric Conditions (fumes, odors, dusts, gases, poor ventilation)

Hazardous materials (chemicals, blood and other body fluids, etc.)

Work space restricts movement

Intense noise

**Physical Conditions:**

The job is characterized by:

**Medium Work:** Exerting up to 50 pounds of force occasionally, and/or up to 20 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.

The following physical activities are very or extremely important in accomplishing the job's purpose and are performed on a daily basis:

While performing the duties of this job, the employee is required to see, hear, sit, stand, walk, kneel, squat, stoop, repeatedly twist the upper body, and push or drag objects. The employee is regularly required to perform heavy lifting. The employee is regularly exposed to chemicals and materials that result in additional exposure to fumes, dust and air contaminants. Job may require work in confined spaces. The nature of the work also requires the incumbent to climb ladders, and use power and noise producing tools and equipment. The employee regularly works in outside weather conditions, near moving mechanical parts. The employee is frequently exposed to wet or humid conditions and vibration. The employee is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The noise level in the work environment is frequently loud.

City of Grand Junction - 2014 Class and Comp Schedule

2014 RPT ees	Budget 2014		Entry Mthly	Inter I	Inter II	Prof Monthly
		FT ees				

**Convention Services**

	1		Banquet Captain	2653			3051
		1	Cook	2789			3207
1		1	Chef	3403			3914
		1	<b>Event Operations Supervisor</b>	4365			5020
		1	Executive Chef	5325			6123
		1	Convention Services Manager	6496			7471
1		6					

**WATER AND WASTEWATER OPERATIONS**

**Plant Maintenance**

	5		<b>Plant Mechanic</b>	4001			4601
	1		Plant Electrician	4001			4601
	2		Lead Plant Mechanic	4420			5083
	2		Electronics Specialist	4881			5613
	1		WW Operations and Maintenance Supervisor	5954			6847
	11						

**Utilities Operations**

	2		Stationary Equipment Operator	3903			4488
	5		<b>Wastewater Plant Operator</b>	4283	4497	4722	4958
	4		Water Plant Operator	4283	4497	4722	4958
	1		Wastewater Operations Supervisor	5808			6679
	1		Water Operations Supervisor	5808			6679
	1		Water Supply Supervisor	5808			6679
			Plant Operations Open Range				
	14						

**Laboratory**

1	2		Laboratory Analyst	4365			5020
	2		Industrial Pretreatment Specialist	4587			5276
	3		<b>Laboratory Chemist</b>	4821			5545
	1		Water Quality Specialist	4821			5545
	1		Industrial Pretreatment Supervisor	5881			6763
1		9					

**PW & Utilities Management**

	1		Environmental Lab Manager	6742			7753
	1		<b>Streets and Solid Waste Manager</b>	7444			8561
	1		Wastewater Svcs Manager	7444			8561
	1		Water Services Manager	7444			8561
	1		Utilities Manager	8223			9456
	5						