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STATE OF NEVADA
DEPARTMENT OF ADMINISTRATION
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MEMORANDUM
HR# 51-22

December 1, 2022

TO: DHRM Listserv Recipients

FROM: Mandee Bowsmith, Administrator *Mandee Bowsmith*
Division of Human Resource Management

SUBJECT: PROPOSED CLASSIFICATION CHANGES – COMMUNICATIONS
SYSTEMS SPECIALIST SERIES

Attached are revised proposed classification changes for your information pursuant to NRS 284.160, subsections 3 through 5. If you have any comments or objections regarding these changes, please send your written notification to Deputy Administrator Beverly Ghan at bghan@admin.nv.gov no later than December 30, 2022.

If no written objections are received in this office by December 30, 2022, action will be taken to effect the changes and a report will be made to the Personnel Commission.

Attachments

NOTICE OF PROPOSED CLASSIFICATION CHANGES

Number: **Posting #06-23**
Posting Expires: **December 30, 2022**

Per NRS 284.160, the Administrator may make a change in classification without the prior approval of the Commission. The following change(s) are proposed:

CURRENT				PROPOSED			
CODE	TITLE	GRADE	EEO-4	CODE	TITLE	GRADE	EEO-4
6.976	Communication Systems Supervisor	37	A	6.976	<i>Communication Systems Specialist III</i>	37	<i>C</i>
6.977	Communication Systems Specialist II	35	C	6.977	<i>Communication Systems Specialist II</i>	35	<i>C</i>
6.973	Communication Systems Specialist I	33	C	6.973	<i>Communication Systems Specialist I</i>	33	<i>C</i>

Basis for Recommendation

As the result of an individual class specification study (NPD-19), the Division of Human Resource Management (DHRM) conducted a review of the Communication Systems Supervisor/Specialists class specification. Communications Systems Specialists perform specialized electronic technician work involving the fabrication, installation, maintenance, repair, and modification of 24-hour communications systems in a geographical area or statewide basis.

In consultation with subject matter experts from the Office of the Adjutant General (Military), Department of Conservations and Natural Resources (DCNR), Department of Public Safety (DPS), and Department of Wildlife (DOW) and analysts within DHRM, it is recommended that the title of the Communication Systems Supervisor be changed to Communication Systems Specialist III as there are currently no supervisory staff allocated to this class. In addition, it is recommended that the class concept for this level be amended to remove supervisory related language, replace it with oversight of a statewide 24-hour communications system for a State agency, and clarify duties and responsibilities of the class.

In consultation with the EEO Administrator, it was determined that the EEO-4 Code for the newly titled Communication Systems Specialist III be changed from A – Officials and Administrators to C – Technicians as the class does not set broad policies, exercise overall responsibility for execution of these policies, or direct individual departments or special phases of the agency’s operations nor is it considered to be a department head, bureau chief, division chief, director, deputy director, or kindred worker.

Furthermore, it is recommended that revisions be made to the class concepts for the Communications Systems Specialist I and II and the Minimum Qualifications at every level to maintain consistency with verbiage formatting and structure.

Throughout the review management and staff within Military, DCNR, DPS, and DOW, and analysts within DHRM participated by offering recommendations and reviewing changes as the process progressed and they support the recommendation.

Changes to the class specification are noted as follows: additions in blue and deletions in red.

The formal recommendations and specifications are on file with the Division Administrator, Human Resource Management. To view a copy in Carson City, go to 209 East Musser Street, Suite 101; in Las Vegas, go to 555 East Washington Avenue, Suite 1400. You may also view the recommendations and specifications online at

https://hr.nv.gov/Sections/Classification/Proposed_Classification_Changes/ . For additional information call (775) 684-0137.

Objections to the proposed new classification must be received in writing by December 30, 2022. Objections should be addressed to Beverly Ghan, Deputy Administrator, Compensation, Classification and Recruitment Section of the Division of Human Resource Management, 209 East Musser Street, Suite 101, Carson City, Nevada 89701-4204.

POSTING DATE: December 1, 2022



STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
COMMUNICATIONS SYSTEMS [SUPERVISOR] <i>SPECIALIST III</i>	37	[A] C	6.976
COMMUNICATIONS SYSTEMS SPECIALIST II	35	C	6.977
COMMUNICATIONS SYSTEMS SPECIALIST I	33	C	6.973

SERIES CONCEPT

Communications Systems Specialists perform specialized electronic technician work involving the fabrication, installation, maintenance, repair, and modification of 24-hour communications systems in a geographical area or ~~[on a]~~ statewide basis. ~~[This]~~ *Equipment* may include two-way radio and microwave equipment, mountaintop base stations, power systems, towers, antennas, multiple ~~[station/operator]~~ radio ~~[control]~~ console systems, ~~[data,]~~ voice, ~~[and]~~ data terminals, *and end-user equipment*.

Repair, align, and troubleshoot radio frequency (RF) components, units, ~~[and]~~ systems, microwave, radios, and other ancillary equipment making frequency, modulation, distortion, noise, and power measurements. ~~[; use and m]~~

Maintain test equipment such as oscilloscopes, voltmeters, *land mobile radio communications system analyzers*, microwave link analyzers, spectrum analyzers, baseband analyzers, radio frequency transmission reflectrometer test sets, sweep generators, ~~[and]~~ deviation calibrators, tuning and adjusting tools, microcomputers, and microprocessor-controlled test/status/alarm equipment.

Maintain RF systems at peak efficiency using advanced troubleshooting skills and electronics theory at a system's engineering level.

Implement and monitor an integrated geographically dispersed radio communications processing network comprised of multiple hardware platforms, information resources, communications protocols, and physical network topologies for an agency's district or statewide trunked radio communications system.

Install, align, and troubleshoot other communications equipment such as frequency and digital multiplex equipment, digital encoding equipment, analog and digital video systems, radio control, *transponders*, switching equipment, multiple ~~[station/operator]~~ radio ~~[control]~~ console systems, multiple channel information logging recorders, *mobile* data terminals and printing systems, scanning monitor receivers, receiver voting systems, grounding system, and surge protection equipment using test equipment and understanding of schematics.

Install, repair, and maintain agency mountaintop base station radios, microwave, and radio systems, power distribution systems, antenna systems, towers, lighting systems, and primary and back-up power generation systems to create remote communication sites to cover a geographical area and radio communications network.

Install copper and fiber optic cabling and cable distribution systems in division facilities enabling radio, telephone, and data systems to be inter-connected and distributed as required.

Perform electrical and mechanical installation, maintenance, and repairs on emergency vehicle equipment and maintenance vehicles including electronic siren and public address amplifiers, emergency lights and light control systems, antenna systems, data terminals, printers, data multiplexers, radio ~~[control]~~ consoles, logging recorders, radar sets, mobile and portable radios to ensure reliability of public safety and maintenance vehicles, communications equipment, and networks.

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SERIES CONCEPT (cont'd)

Conduct research and develop custom circuit boards and sub-systems to provide necessary system components which are unavailable from commercial sources, or which require modification for use with existing components and communications system.

Compose and revise schematics and other working and technical drawings to manufacture and assemble components, mounting brackets, radio consoles, panels, cabinets, and electronic subsystems used in the installation of two-way mobile radio communications, mobile data, mobile video, and emergency lighting systems, and microprocessor-controlled sirens.

Align, test, program, and troubleshoot two-way radio communication systems, antennas, coaxial cables, mobile data, mobile video, emergency lighting systems, and microprocessor-controlled siren using electronic test and programming equipment to include portable and desktop personal computers and digital multi-meters; ensure outfitted vehicles follow Federal Communication Commission (FCC) regulations and Nevada State Police standards.

Install, maintain, troubleshoot, and repair dispatch communication consoles, audio recorders, and associated communications equipment; respond to transmission issues; conduct tests to validate field radio operations; notify radio system personnel of validated problems.

Provide on-site direction and assistance to lower-level Communication Systems Specialists to facilitate reliable, efficient, cost-effective service to the agency.

Coordinate with other communications entities including federal, State, and private agencies in the repair, maintenance, and modification of the agency's communications system.

Review and analyze system utilization statistics, user training needs, hardware, software, and environmental needs.

Maintain shop inventory of parts and equipment and maintain replacement and repair stock by researching part numbers, descriptions, and prices.

Prepare and maintain documentation of work completed, files for the system, and vendor information for the assigned work area.

Train equipment operators in the use of communications equipment.

Perform related duties as assigned.

CLASS CONCEPTS

Communications Systems ~~[Supervisor]~~ *Specialist III*: Under general direction, incumbents *in addition to performing* the full range of duties in the series concept, ~~[supervise]~~ *oversee* a statewide~~[-staff of Communications Systems Specialists]~~, *24-hour communications system for a State agency; plan, develop, and monitor an agency's radio equipment budget; prepare FCC license applications for the agency and ensure licenses are renewed and properly posted in a timely manner;* and provide systems engineering design, research, and development of an agency's statewide communications system. *Serve as lead worker for lower-level specialists and other technical staff to include work assignment and review, training, and providing input regarding performance evaluations and work performance standards.*

Incumbents ~~[E]~~ conduct communications systems engineering including frequency availability, path analysis, coverage area charts, site layout, installation, and interconnection methods, and site power source and sizing~~[5]~~.

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CLASS CONCEPTS (cont'd)

Communications Systems ~~[Supervisor]~~ *Specialist III*: (cont'd)

~~[d]~~ Develop and implement technical parameters and standard practices for the installation, maintenance, and repair of communication equipment; and ensure the integrity of the communications system is maintained. Perform needs analysis ~~[concerning a statewide communications system;]~~ *and* write detailed plans ~~[and other documentation to meet identified needs]~~ including annual work plans ~~[and]~~ *focused on* broad system improvements and strategy~~;~~. ~~[a]~~ Analyze existing system configuration and proposed ~~[improvements]~~ *revisions* to ensure compatibility, reliability, efficiency, and cost-effectiveness. *This is the advanced journey level in the series.*

~~[Assign, direct and evaluate the work of assigned staff; interview, select and hire personnel; delegate responsibility to appropriate levels; develop and communicate work performance standards consistent with principles of effective management; identify training needs and provide for appropriate training opportunities based on organizational requirements and within budget constraints.]~~

Communications Systems Specialist II: Under direction, ~~[, at the journey level]~~ incumbents perform the full range of duties in the series concept and ~~[in addition,]~~ may act as a lead worker for lower-level Communications Systems Specialists and other technical staff. *Incumbents* ~~[A]~~ assist ~~[the Communications Systems Supervisor]~~ in performing systems engineering and design, research, and development including frequency availability, path analysis, coverage area charts, site layout, installation methods, interconnection methods, site power sizing, and determination of power source types for each additional site or site to be modified as well as the repair and maintenance of a statewide communications system. *This is the journey level in the series.*

Communications Systems Specialist I: ~~[Under general supervision of a higher-level Communications Systems Specialist or Supervisor, i]~~ Incumbents either:

- 1) *under general supervision of a higher-level Communications Systems Specialist*, perform routine installation, repair, and maintenance of the agency's communications equipment ~~[below the journey level]~~ *at the sub-journey level*. Progression to the ~~[journey]~~ *next level in the series* is not automatic, and positions may be permanently allocated to this level; or
- 2) ~~[function in a]~~ *under close supervision of a higher-level Communications Systems Specialist*, receive training ~~[capacity and learn to]~~ *in* performing the duties described in the series concept. *This is the trainee level in the series and* ~~[P]~~ progression to the next level *in the series* may occur upon meeting the minimum qualifications, *satisfactory performance*, and with the ~~[approval]~~ *recommendation* of the appointing authority.

MINIMUM QUALIFICATIONS

SPECIAL REQUIREMENTS:

- * Pursuant to NRS 284.4066, some positions in this series have been identified as affecting public safety. Persons offered employment in these positions, must submit to a pre-employment screening for controlled substances.
- * Some positions require extensive travel.
- * Some positions require on-call availability and emergency response during non-working hours including holidays.
- * Work is performed during inclement weather conditions and includes climbing towers and hiking into remote site areas as required.
- * Applicants must submit proof of certification of competency issued by one of the following: National Association of Radio Telecommunication Engineers (NARTE), Association of Public Safety Communications Officers (APCO), or National Association of Business and Educational Radio (NABER); or possess a ~~[Federal Communication Commission (FCC)]~~ radio-telephone license.

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MINIMUM QUALIFICATIONS (cont'd)

SPECIAL REQUIREMENTS: (cont'd)

- * A valid driver's license is required at *the* time of appointment and as a condition of continuing employment.

INFORMATIONAL NOTE:

- * Communications Systems Specialist I applicants must submit proof of certification ~~[of competency]~~ as specified above within six months of employment.

COMMUNICATIONS SYSTEMS SUPERVISOR SPECIALIST III

EDUCATION AND EXPERIENCE: ~~[Bachelor's degree in electrical engineering, electronics technology, or closely related field and three years of technical electronics experience, two years of which included installing, maintaining, and repairing communications and ancillary equipment; OR an a]~~ Associate's degree *from an accredited college or university* in electronics technology and four years of technical electronics experience, two years of which included experience installing, maintaining, and repairing communications and ancillary equipment; **OR** one year of experience as a Communications Systems Specialist II in Nevada State service; **OR** an equivalent combination of education and experience as described above. (*See Special Requirements and Informational Note*)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: theory of communications technology as applied to specialized communications networks. **Working knowledge of:** FCC licensing procedures including frequency coordination; communications system design; systems engineering to include needs analysis, system requirements, and the development and implementation of solutions; correct English grammar, usage, punctuation, and spelling. **Ability to:** establish and maintain effective working relationships with other State agencies, equipment suppliers, employees, and the public; plan and set project priorities; motivate and direct subordinates; organize and coordinate the work of others. **Skill in:** oral and written communications; *and all knowledge, skills, and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS, AND ABILITIES (typically acquired on the job):

Working knowledge of: ~~[State Rules for Personnel Administration;]~~ State regulatory requirements applicable to communications ~~[; principles and practices of supervision and training]~~. **Ability to:** manage projects such as site development, system upgrades, and modifications; ~~[train, supervise and evaluate the performance of assigned staff]~~ represent the agency regarding its communications system; purchase parts and supplies according to established policies and regulations. **Skill in:** assessing technical and administrative issues, analyzing potential solutions and reaching sound decisions in a timely manner.

COMMUNICATION SYSTEMS SPECIALIST II

EDUCATION AND EXPERIENCE: Associate's degree *from an accredited college or university* in electronics technology or equivalent with course work in algebra, trigonometry, schematics, electronics laboratories, corrective maintenance procedures, and technical writing courses and three years of technical electronics experience, one year of which included installing, maintaining, and repairing communications and ancillary equipment; **OR** completion of trade school, military or college training to the certificate level in electronics technology which included *the* theory of communication technology and three years of technical electronics experience, one year of which included installing, maintaining, and repairing communications and ancillary equipment; **OR** one year of experience as a Communications Systems Specialist I in Nevada State service; **OR** an equivalent combination of education and experience as described above. (*See Special Requirements and Informational Note*)

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MINIMUM QUALIFICATIONS (cont'd)

COMMUNICATION SYSTEMS SPECIALIST II (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: math including algebra and trigonometry; microwave, radio, and antenna systems (transmitters, receivers, repeater stations, transceivers, mobile and portable radios, and base station dispatch consoles); telephone systems; standby power including generators, uninterruptible power supplies, and solar electric systems; processes and procedures used in circuit analysis and corrective diagnosis for repair and troubleshooting communications equipment. **Working knowledge of:** calibration principles and techniques; federal communications rules and regulations; *electronics technology as applied to specialized communications networks; voice and data communications servers; analog and digital video; copper and fiber optic data and voice cabling distribution systems.* **General knowledge of:** *federal communications rules and regulations.* **Ability to:** coordinate and implement communications site development and improvement projects; provide training and direction to lower-level technical staff; supervise the work of outside contractors; prepare technical and analytical reports; analyze communications protocols; *use word processing, spreadsheet, and database management software;* and all knowledge, skills, and abilities required at the lower level.

FULL PERFORMANCE KNOWLEDGE, SKILLS, AND ABILITIES (typically acquired on the job):

~~[Detailed knowledge of: theory of communications technology as applied to specialized communications networks. Ability to: use word processing, spreadsheet, and database management software.] (These are identical to the Entry Level Knowledge, Skills, and Abilities required for Communications Systems Specialist III.)~~

COMMUNICATIONS SYSTEMS SPECIALIST I

EDUCATION AND EXPERIENCE: Associate's degree *from an accredited college or university* or equivalent with course work in algebra, trigonometry, schematics, and electronics laboratories and two years of technical experience in the installation, maintenance, and repair of electronic equipment; **OR** completion of trade school, military, or college training to the certificate level in electronics technology which included *the* theory of communication technology and two years of technical electronics experience as described above; **OR** an equivalent combination of education and experience as described above. (See *Special Requirements and Informational Note*)

ENTRY LEVEL KNOWLEDGE, SKILLS, AND ABILITIES (required at time of application):

Detailed knowledge of: electronics including AC/DC principles, pulse circuits, solid-state integrated circuit devices, and microprocessors; microwave and multiplex principles and theories; analog and digital electronics. **Working knowledge of:** math including algebra and trigonometry; public address systems; processes and procedures used in circuit analysis and corrective diagnosis for the repair and troubleshooting of communications equipment. **General knowledge of:** basic calibration principles and techniques. **Ability to:** operate a variety of electronic test equipment that measures time, frequency, phase, amplitude, and power; install, repair, and maintain communications and ancillary equipment; operate a variety of hand and power tools; read and understand complex schematics and understand the operations of components, units, and systems; work independently and as a team member; write reports and documentation in a clear and concise manner.

FULL PERFORMANCE KNOWLEDGE, SKILLS, AND ABILITIES (typically acquired on the job):

~~[Working knowledge of: electronics technology as applied to specialized communications networks; microwave, radio and antenna systems including transmitters, receivers, repeater stations, transceivers, mobile and portable radios, and base station dispatch consoles; voice and data communications servers; standby power including generator, uninterruptible power supply and solar electric systems; analog and digital video; copper and fiber optic data and voice cabling distribution systems. General knowledge of: federal communications rules and regulations.] (These are identical to the Entry Level Knowledge, Skills, and Abilities required for Communications Systems Specialist II.)~~

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This class specification is used for classification, recruitment, and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	<u>6.976</u>	<u>6.977</u>	<u>6.973</u>
ESTABLISHED:	12/13/88R 10/91/90PC	12/13/88R 10/19/90PC	7/1/93P 8/31/92PC
REVISED:	7/1/93P 8/31/92PC	7/1/93P 8/31/92PC	
REVISED:	9/19/03PC	9/19/03PC	9/19/03PC
REVISED:	5/12/06PC	5/12/06PC	5/12/06PC
REVISED:	5/9/12UC	5/9/12UC	5/9/12UC
<i>REVISED:</i>	<i>XXXXXXUC</i>	<i>XXXXXXUC</i>	<i>XXXXXXUC</i>