STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

TITLE	GRADE	EEO-4	CODE
SEISMIC DATA TECHNICIAN III	**29**	**C**	**6.615**
SEISMIC DATA TECHNICIAN II	**27**	**C**	**6.618**
SEISMIC DATA TECHNICIAN I	**23**	**C**	**6.621**

SERIES CONCEPT

Seismic Data Technicians perform specialized technical work in support of seismic network operations and research by calibrating, monitoring, compiling, archiving and retrieving seismic data.

Monitor incoming and outgoing seismic data; check the overall status of seismic data flow; ensure data quality and completeness through established procedures; maintain a database that describes installed seismic instrumentation, station locations, and various data recording parameters; interact with other laboratory personnel; document problems with recording systems and data files and notify appropriate staff.

Analyze seismic data; check earthquake signals and other seismic events; employ various computer programs to plot and analyze seismic data and to present spatial and temporal patterns of seismic activity; make preliminary determinations regarding location, times or arriving phases, and locations and magnitudes of events; identify types of seismic waves; record seismic events in computer files; document unusual seismic activity and notify appropriate staff.

Assist professional staff in reviewing earthquake activity and preparing reports and visual materials; aid in determining the location of online and offline data; assist with field deployments and instrument installations as requested; respond to emergency situations following a major earthquake as required.

Provide information and data to seismology staff, governmental agencies, the media and the general public regarding seismic recording and seismic events in the State; prepare materials for public display and teaching or researching functions within the laboratory.

Archive and retrieve seismic waveform data and parametric data; prepare and maintain documentation of work completed and files created to provide a tracking system for data quality, routing, processing, status, and location of archived data; keep logs describing location, types, chronology, and characteristics of seismic activity.

Perform related duties as assigned.

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CLASS CONCEPTS

Seismic Data Technician III: Under limited supervision, incumbents perform advanced journey level duties in addition to the full range of duties in the series concept. Seismic Data Technician III's have responsibility for all aspects of assigned equipment; prioritize and schedule work, maintain inventory, and prepare cost estimations; and provide training and guidance to students and support staff.

The Seismic Data Technician III is distinguished from lower level technicians by providing independent contributions based on a working knowledge and application of seismology and by responsibility for the integrity of all archived seismic data and maintenance of records of this broad data. In addition, Seismic Data Technician III's monitor, diagnose, and solve various problems related to data flow; maintain and improve data integrity and

CLASS CONCEPTS (cont'd)

Seismic Data Technician III: (cont'd)
quality; analyze and interpret seismic data as directed; and make group presentations to provide information and explain seismic data.

Seismic Data Technician II: Under general supervision, incumbents perform the full range of duties in the series concept. This is the journey level in the series.

Seismic Data Technician I: Under close supervision, incumbents receive training in the performance of all or part of the duties outlined in the series concept. This is the entry level in the series and progression to the next level may occur upon meeting the minimum qualifications and with the recommendation of the appointing authority.

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MINIMUM QUALIFICATIONS

SPECIAL REQUIREMENTS:

- Incumbents may be required to carry a cellular phone and respond to various data collection problems during off hours.
- Emergency response after a major earthquake is essential and may require extended hours to include nights, weekends and holidays as well as the temporary performance of additional duties outside the normal scope of responsibilities as detailed in the series and/or class concepts.

SEISMIC DATA TECHNICIAN III

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in physical science or math and three years of experience in seismology, involving the monitoring, compiling and archiving of seismographic data; one year which included preparing reports and maintaining related equipment; **OR** graduation from high school or equivalent education and four years of experience as described above, one year which included preparing reports and maintaining related equipment; **OR** one year of experience as a Seismic Data Technician II in Nevada State service; **OR** an equivalent combination of education and experience as described above. *(See Special Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Detailed knowledge of: standard seismic recording and storage systems. **Working knowledge of:** principles and practices of seismology; interpretation of seismic records. **General knowledge of:** outside service agencies which provide, utilize or interact with laboratory data. **Ability to:** read and interpret seismic recordings; operate, utilize and maintain a variety of specialized electronic and mechanical equipment and computer systems and software pertaining to seismic recording and data retrieval; retrieve and graphically present past seismic activity and waveforms; manipulate databases on a microcomputer; accurately communicate seismographic data to the public; recognize and resolve data problems in seismic recordings to ensure data integrity. **Skill in:** locating seismic events with microcomputer software; *and all knowledge, skills and abilities required at the lower levels*.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Detailed knowledge of: interpretation of seismic records. **Working knowledge of:** familiarity with quality assurance procedures; public speaking. **Ability to:** train and provide work direction to others; oversee seismic laboratory activities related to workflow and supplies; read and interpret technical manuals and specifications; set up a variety of seismographic equipment and ensure proper operation; run a variety of computer programs in performing duties; work with several computing systems and use computer networking tools. **Skill in:** recognizing a large variety of seismic signals and noise.

MINIMUM QUALIFICATIONS (cont'd)

SEISMIC DATA TECHNICIAN II

EDUCATION AND EXPERIENCE: Associate's degree from an accredited college or university in physical science or math and two years of experience in seismology involving monitoring, recording, and compiling seismic data; **OR** graduation from high school or equivalent education and three years of experience as described above; **OR** two years of experience as a Seismic Data Technician I in Nevada State service; **OR** an equivalent combination of education and experience as described above. *(See Special Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: seismographic terms and equipment; principles and practices of seismology; standard seismic systems; interpretation of seismographic records; standard seismic recording and playback systems; earthquake location and magnitude determination procedures; role of computers in gathering scientific data. **Ability to:** accurately transcribe data; operate a microcomputer and associated software; locate earthquakes with microcomputer software. **Skill in:** recognizing and timing seismic signals; basic computer commands; *and all knowledge, skills and abilities required at the lower level*.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(*These are identical to the Entry Level Knowledge, Skills and Abilities required for Seismic Data Technician III.)*

SEISMIC DATA TECHNICIAN I

EDUCATION AND EXPERIENCE: Graduation from high school or equivalent education and one year of experience working with the public; **OR** an equivalent combination of education and experience as described above. *(See Special Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
General knowledge of: basic laboratory procedures. **Ability to:** perform basic mathematical calculations; work effectively with frequent interruptions; learn seismographic terms and equipment; establish and maintain cooperative working relationships with co-workers and the public; follow oral and written instructions; communicate effectively to obtain information, describe situations and explain data.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
(*These are identical to the Entry Level Knowledge, Skills and Abilities required for Seismic Data Technician II.)*

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.

	6.615	6.618	6.621
ESTABLISHED:	7/18/80	7/18/80	2/1/68
REVISED:		9/27/79R	11/16/72
		10/24/80PAC	
REVISED:			7/18/80
REVISED:	10/24/80		10/24/80
	7/1/93P	7/1/93P	7/1/93P
	8/31/92PC	8/31/92PC	8/31/92PC
REVISED:	1/13/95UC	1/13/95UC	1/13/95UC
REVISED:	6/27/03PC	6/27/03PC	6/27/03PC
REVISED:	6/26/20PC	6/26/20PC	6/26/20PC