

DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT 8.781
STATE OF HAWAII 8.782

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Specification for the: 8.784

8.785

8.786

MEASUREMENT STANDARDS INSPECTOR SERIES
(MEASUREMENT STANDARDS INSP SERIES)

Series Definition:

This series includes all classes of positions responsible for performing and/or supervising activities relating to the enforcement of the State's measurement standards program, to assure that equity prevails in all commercial transactions involving determinations of quantity, to detect fraud and misrepresentation, to discourage unfair competition, and to promote consumer confidence in the marketplace. Work assignments include inspecting and testing of commercial weighing and measuring devices (e.g., scales, cordage meters, gas pumps, rackmeters, milk tanks, truck tanks, truck tank meters, odometers, and taximeters) for compliance with measurement standards; taking appropriate actions to ensure compliance; examining packaged commodities and labels to assure delivery of full weight, measure or count and compliance with labeling requirements; testing petroleum products for compliance with established specifications, elimination of contaminated products, and compatibility with environmental and energy related requirements; investigating consumer complaints; and conducting training or workshops for service agents, business owners and representatives of trade associations. Performance of work involves the application of laws, rules, regulations, policies, procedures and guidelines pertaining to weights and measures, packaging and labeling, and petroleum products.

Classes in this series are distinguished on the basis of scope and variety of work, nature of supervision received, nature and purpose of personal contacts, nature and scope of recommendations, decisions, commitments and conclusions; and knowledge and abilities required and nature and extent of supervision exercised.

MEASUREMENT STANDARDS INSPECTOR I 8.781
(MEASUREMENT STANDARDS INSP I)

Distinguishing Characteristics:

This is the entry level trainee class in the series. Positions in this class receive training on the State's measurement standards program, specifications, tolerances (i.e., allowable deviation from standard dimensions or weight) and other technical requirements for commercial measurement devices, with emphasis on weighing principles, elements and devices. Training includes formal instruction, laboratory

applications, and on-the-job training in assisting higher level personnel in the field.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Attends orientation, training sessions and workshops at various designated locations.
2. Completes reading assignments, tests, quizzes and other training requirements.
3. Participates in practical application in the retail market, and field application of procedures involving use of automatic, non-automatic and electronic devices of varying weighing capacities that may range from 500 pounds to 200,000 pounds.
4. Learns the State's measurement standards program, legal and technical basis for inspection, testing and enforcement activities, pertinent methods and procedures and general statistical formulas and commonly-used approaches.
5. Learns mathematical calculations (e.g., to determine conventional mass) and mathematical formulas (e.g., to determine conformance to established specifications and standards such as margin of tolerances).
6. Learns to collect and input necessary measuring device data into computer databases, and prepare notes and written reports on inspection and testing activity.
7. Receives on-the-job training by assisting higher level personnel with inspection and enforcement activities, laboratory applications, and investigation of consumer complaints statewide.

MEASUREMENT STANDARDS INSPECTOR II
(MEASUREMENT STANDARDS INSP II)

8.782

Distinguishing Characteristics:

This is the advanced trainee level in the series. Positions in this class continue to receive formal and on-the-job training designed to provide increased understanding of the State's measurement standards program and specifications, tolerances and other technical requirements for commercial measurement devices, with emphasis on thermal expansion and liquid measuring devices. Training continues to include formal instruction,

laboratory application, and field experience in assisting higher level personnel.

Positions in this class are also required to apply knowledge of measurement standards and requirements, and independently perform routine inspections and testing on weighing devices (e.g., small capacity weighing devices, i.e., ≤ 500 pounds) to ensure conformance with statutes, rules and regulations.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Attends training sessions and workshops at designated locations and receives on-the-job training from higher level personnel.
2. Participates in practical application in the laboratory, and field application involving testing of petroleum and petroleum products, and use of various liquid measuring devices.
3. Makes mathematical calculations (e.g., determine thermal expansion, convert from Fahrenheit to Celsius and vice versa) to assure conformance with established specifications and standards.
4. Inspects and tests weighing devices.
5. Affixes seals, certifies or condemns weighing equipment and makes suggestions to fix or to replace as appropriate.
6. Investigates routine consumer complaints concerning weighing devices.

MEASUREMENT STANDARDS INSPECTOR III
(MEASUREMENT STANDARDS INSP III)

8.783

Distinguishing Characteristics:

This is the independent worker level in the series. Positions in this class inspect and test all types of commercial weighing and measuring devices including liquid measuring devices, examine and check packaged commodities and their labels to assure delivery of stated weights, contents and/or counts; and regularly respond to complaints involving weighing and measuring devices. Positions also receive training and participate

in practical application in the laboratory and the field for the inspection of various linear devices, odometers and taximeters, and quality control of petroleum products, packaging and labeling.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Inspects and tests weighing and measuring devices (e.g., common types of grocery, meat and person scales) for compliance with measurement standards.
2. Investigates consumer complaints statewide concerning weighing and measuring devices, and packaging and labeling which do not require extensive testing.
3. Prepares notes and written reports on the results of inspections and testing of weighing and measuring devices, documentation of evidence, and findings of complaint investigations.
4. Makes mathematical calculations in inspecting devices and determining compliance with the specifications, tolerances and other technical requirements.
5. Provides general information to consumers, employees and officials of commercial establishments, and others.
6. Participates in practical application in the laboratory, and in the field for the inspection of various linear devices, odometers, taximeters, packaging and labeling, and petroleum products.
7. Reviews captured data on weighing and measuring devices to identify problems such as recurring issues with particular types/brands of devices, quality of inspections performed by the service agents, and persistent problems at certain business establishments.
8. May assist in on-the-job training activities for lower level inspectors as assigned.
9. May operate a large mass truck or other equivalent commercial type vehicle between the work site and the business establishments to transport test weights.

MEASUREMENT STANDARDS INSPECTOR IV
(MEASUREMENT STANDARDS INSP IV)

8.784

Distinguishing Characteristics:

This is the journey worker level in the series. Positions in this class independently perform the full range of inspections and testing of all commercially used weighing and measuring devices for conformance with established specifications, tolerances and governing rules; examination of packaged commodities for quantity content through application of prescribed statistical methods and procedures; quality determination on petroleum products in the field (e.g., advertised octane of retail motor fuel, ethanol content of motor fuel, synthetic hydrocarbons or aromatic hydrocarbon content of aviation fuel, and label claimed of after-market additives); investigations and issuance of citations for non-conformance with established specifications, tolerances, and other technical requirements; and provide assistance to commercial establishments on maintaining weighing and measuring devices according to requirements.

A position in this class may occasionally provide guidance and training to lower level inspectors.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Inspects weighing and measuring devices for lighting, readability, missing or defective parts, etc., and for licensure.
2. Tests weighing scales using calibrated standards to ensure conformance with established specifications, tolerances and other technical requirements.
3. Participates in tests of large capacity scales involving special equipment to transport and unload test weights.
4. Inspects petroleum dispensing devices and tests for accuracy in accordance with prescribed tolerances, and makes correction or adjustment to devices.
5. Tests linear measuring devices with different length standards.
6. Road-tests taximeters and odometers for conformance with standards.
7. Tests industry weights for conformance with standards using prescribed procedures,

and confiscates weights as necessary for improper calibration.

8. Rejects faulty weighing and measuring devices, and recertifies devices in accordance with specifications and tolerances after repair.
9. Inspects packaged commodities and calculates sample size for full weight, measure or count, and approves or rejects the lot as necessary.
10. Inspects at the retail level for label violation and recommends corrective actions.
11. Tests ethanol containing petroleum products to determine percentage of ethanol blend, and puts the dispensing device on off-sale status if results are questionable.
12. Informs commercial establishments of the results of inspections and tests, and recommends improvements or corrective actions.
13. Provides consultation on technical matters relating to the inspection and enforcement of standards for weighing and measuring devices.
14. Serves as an expert witness in litigation involving areas of expertise.
15. Trains lower level inspectors and/or provides guidance for on-the-job training.
16. Provides training and workshops to others (e.g., service agents, business establishments and industry representatives) at designated locations.
17. Attends training and workshops at designated locations to learn application of new laws, rules, regulations, techniques and/or procedures.

MEASUREMENT STANDARDS INSPECTOR V
(MEASUREMENT STANDARDS INSP V)

8.785

Distinguishing Characteristics:

This is the senior worker level in the series. Positions in this class perform the full range of journey level work involving inspections, tests, examinations, and other activities of the State's measurement standards program, including the investigation of complaints of unusual and unprecedented nature, liaison, public contact, and work planning activities. Positions in this class are of two general types:

Type A: The sole resident inspector on a neighbor island responsible for appropriate work planning, public contact and the conduct of workshops and examinations for the licensure of weigh masters.

Type B: Positions responsible for assisting the supervisor in work planning, including problem identification, liaison and public contact activities and supervision of lower level inspectors. Positions also conduct field tests of prototype equipment and recommend test approach, review and implement new and modified techniques and procedures, conduct workshops and training for lower level inspectors and others (e.g., service agents and business owners) on matters relating to the inspection and testing of weighing and measuring devices, examination of packaged commodities, and testing of petroleum products.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Tests scales, including large capacity scales, using calibrated standards, to ensure conformance with established specifications, tolerances and other technical requirements.
2. Inspects petroleum dispensing devices, tests for accuracy in accordance with prescribed tolerances, and makes corrections or adjustments to devices.
3. Inspects and tests packaged commodities for quantity compliance utilizing statistical procedures.
4. Inspects and tests packaged commodities for compliance with labeling requirements.
5. Investigates consumer complaints, including unusual and unprecedented cases; prepares written reports on findings and results of inspections; and makes recommendations for resolutions.
6. Tests gasoline containing ethanol, and investigates complaints of adulteration of gasoline.
7. Conducts workshops and administers licensing examinations for weigh masters and prospective weigh masters.
8. Conducts prototype examinations on a newly developed, modified or introduced weighing/measuring device for purposes of determining its applicability for its

intended use.

9. Inspects and tests ultra-high precision devices where no guidelines exist, and device capability is uncertain such as medical balances used in cancer research or diamond merchant scales used to determine carat value.
10. Establishes and monitors quality control at production lines processing consumer commodities.
11. Examines and analyzes the quality control charts generated by the inspectors, and recommends remedial actions.
12. Examines and recommends to supervisor modifications in design and vignette according to federal requirements for consumer commodity labels.
13. Assists supervisor in the work planning for a major component of the program and in developing examination procedure outlines.
14. Serves as lead inspector for testing and safe handling of special equipment.
15. Assists other State and federal agencies in investigating consumer complaints.
16. Maintains close liason and working relationships with other government agencies, the client group and service agencies, neighbor island inspectors, consumer organizations, and the public relating to testing and inspection, development and implementation of new procedures, processes and technology.
17. Prepares notes and written reports on matters such as new developments, techniques and procedures for inspection and testing, findings on complaint investigations and results of inspections and testing, etc.

MEASUREMENT STANDARDS INSPECTOR VI
(MEASUREMENT STANDARDS INSP VI)

8.786

Distinguishing Characteristics:

This is the full-time supervisory level class in the series. A position in this class plans, schedules, implements and evaluates inspection and enforcement functions of a major area of the State's measurement standards program; and directs subordinate staff as well as provide guidance to program staff on the neighbor island.

A position in this class is also responsible for significant liaison and public contact functions.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. This does not preclude the assignment of duties which are not listed.)*

1. Develops procedures and work schedules for inspections.
2. Instructs subordinates and provides guidance to neighbor island inspectors.
3. Provides formal training to inspectional staff as required.
4. Reviews inspectional activities and reports, and monitors program operations.
5. Advises commercial firms and industry regarding appropriate practices.
6. Maintains liaison within the department and program, and with various segments of industry, other State, County and federal agencies, consumer organizations and the public.
7. Oversees and directs field assignments, and participates in program activities as required.

KNOWLEDGE AND ABILITIES REQUIRED: *(The knowledge and abilities required in order to effectively perform the key duties for each of these classes are indicated in the following table. The degree of each knowledge and ability required is commensurate with the scope and level of complexity of the duties and responsibilities that are reflected in each class.)*

*“P” indicates prerequisite knowledge and abilities, that must be brought to the job.
“A” indicates knowledge and abilities that are required for full performance but may be acquired on the job, within the probationary period.*

		Measurement Standards Inspector Class					
		I	II	III	IV	V	VI
KNOWLEDGE OF:							
1.	Basic algebra.	P	P	P	P	P	P
2.	General physics concepts.	A	P	P	P	P	P
3.	Fundamentals of weights and measures, and weighing devices.	A	P	P	P	P	P
4.	Legal and technical basis relating to the inspection and testing of weighing devices.	A	P	P	P	P	P
5.	Pertinent statutes, rules, regulations, methods, policies, procedures, and guidelines.	A	A	P	P	P	P
6.	Fundamentals of thermal expansion and liquid measuring devices.		A	P	P	P	P
7.	Packaging and labeling requirements.		A	P	P	P	P
8.	Methods, techniques and formulas used in testing for quantity compliance.		A	P	P	P	P
9.	Legal and technical basis relating to the inspection and testing of petroleum products, odometers and taximeters.			A	P	P	P
10.	Measurement standards for petroleum products, odometers and taximeters.			A	P	P	P
11.	Protocols, methods and techniques for testing of prototype weighing and measuring devices.					A	P
12.	Pertinent equipment, products, supplies and materials involved in the inspection and enforcement of the State's measurement standards program.						A
13.	Principles and practices of supervision.						A

		Measurement Standards Inspector Class					
		I	II	III	IV	V	VI
ABILITY TO:							
1.	Speak and write clearly and concisely.	P	P	P	P	P	P
2.	Learn and apply pertinent statutes, rules, regulations, methods, policies, procedures and guidelines.	P	P	P	P	P	P
3.	Learn to operate various weighing, measuring and data capturing devices.	P	P	P	P	P	P
4.	Deal effectively with others in providing general program information.	P	P	P	P	P	P
5.	Deal effectively with others in conducting inspections, testing, and investigation of complaints.		P	P	P	P	P
6.	Apply pertinent statutes, rules, regulations, technical methods and policies to all applicable situations.		P	P	P	P	P
7.	Collect pertinent facts from business establishments, consumers, industry representatives, etc.			P	P	P	P
8.	Present summarized data clearly orally and/or in writing.			P	P	P	P
9.	Perform full range of inspections, enforcement activities and complaint investigations relating to the enforcement of measurement standards.				P	P	P
10.	Provide technical advice or consultation on measurement standards inspection.				P	P	P
11.	Serve as expert witness.				P	P	P
12.	Test prototype weighing and measuring devices and develop applicable procedures.					P	P

		Measurement Standards Inspector Class					
		I	II	III	IV	V	VI
13.	Identify and resolve unusual and/or unprecedented situations.					P	P
14.	Plan, develop, assign and direct the work of others.						P
15.	Deal effectively with various public and private groups and individuals in presenting statutory, technical and other requirements.						P

MINIMUM QUALIFICATION REQUIREMENTS

Basic Education/Experience Requirements:

One (1) year of work experience which demonstrated the ability to read, comprehend and apply technical material of average difficulty; express oneself orally in a clear and direct manner; perform mathematical processes including ratios, percentages and solving equations; and prepare written reports of activities.

Graduation from high school with coursework in basic algebra and English may be substituted for the required experience described above.

Experience Requirements:

Except for the substitutions provided for in this specification, applicants must have had experience of the kind described herein and in the amounts as follows:

Class Title	Specialized Experience (Yrs)	Supervisory Experience (Yrs)	Total Experience (Yrs)
Measurement Standards Insp I	0	0	0
Measurement Standards Insp II	1	0	1
Measurement Standards Insp III	2	0	2
Measurement Standards Insp IV	3	0	3
Measurement Standards Insp V	4	0	4
Measurement Standards Insp VI	5	*	5

Specialized Experience: Technical work experience in the inspection and testing of weighing and measuring devices, and examination of packages for conformance with measurement standards, specifications, tolerances or other requirements requiring knowledge of governing laws, rules and regulations, inspectional procedures and methods of testing and calibrating weighing and measuring devices.

For levels II - VI, at least one (1) year of the experience must have been comparable in difficulty, scope and depth to work experience at the next lower level in the State service.

Supervisory Experience: Supervisory work experience which included: 1) planning, organizing, scheduling, and directing the work of others; 2) assigning and reviewing their work; 3) advising them on difficult work problems; 4) training and developing subordinates; and 5) evaluating their work performance, and disciplining them when necessary.

*For the Measurement Standards Inspector VI level, supervisory aptitude rather than actual supervisory experience may be accepted.

Supervisory aptitude is the demonstration of aptitude or potential for the performance of supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities or aspects; by serving as a group or team leader, or in similar work in which opportunities for demonstrating supervisory capabilities exists; by completion of training courses in supervision accompanied by application of supervisory skills in work assignments; or by favorable appraisals by a supervisor indicating the possession of supervisory potential.

Substitutions Allowed:

1. Possession of a bachelor's degree from an accredited college or university with coursework in the physical or biological sciences which required specific knowledge of the operations and functions of components of electromechanical machines and systems may be substituted for one (1) year of the Specialized Experience requirement.
2. Successful completion of a technical school or community college program of at least one (1) year duration involving electromechanical machines and systems may be substituted for one (1) year of the Specialized Experience requirement.

Quality of Experience:

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that he/she has the ability to perform the duties of the position for which he/she is being considered.

Selective Certification:

Specialized knowledge, skills and abilities may be required to perform the duties of some positions. For such positions, Selective Certification Requirements may be established and certification may be restricted to eligibles who possess the pertinent experience and/or training required to perform the duties of the position.

Agencies requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

Tests:

Applicants may be required to qualify on an appropriate examination.

Physical and Medical Requirements:

Applicants must be able to perform the essential duties and responsibilities of the position effectively and safely, with or without reasonable accommodation.

This is an amendment to the class specification and the minimum qualification specification for the MEASUREMENT STANDARDS INSPECTOR (MEASUREMENT STANDARDS INSP) SERIES which were approved on December 11, 1978.

DATE APPROVED: APR 21 2009


for _____
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Director of Human Resources Development