

CHAPTER 453D – ADULT USE OF MARIJUANA

Requirements for Marijuana Testing Facilities

Sec. () **Scientific director: Responsibilities; qualifications.** (NRS 453D.())

1. *Each marijuana testing facility must employ a scientific director who must be responsible for:*
 - (a) *Ensuring that the testing facility achieves and maintains quality standards of practice; and*
 - (b) *Supervising all staff of the testing facility.*
2. *The scientific director of a marijuana testing facility must have earned:*
 - (a) *A doctorate degree in chemical or biological sciences from an accredited college or university and have at least 2 years of post-degree laboratory experience;*
 - (b) *A master's degree in chemical or biological sciences from an accredited college or university and have at least 4 years of post-degree laboratory experience; or*
 - (c) *A bachelor's degree in chemical or biological sciences from an accredited college or university and have at least 6 years of post-degree laboratory experience.*

Sec. () **Testing methodologies; practices, procedures and programs relating thereto; inspections.** (NRS 453D.())

1. *Each marijuana testing facility must:*
 - (a) *Follow the most current version of the Cannabis Inflorescence: Standards of Identify, Analysis, and Quality Control monograph published by the American Herbal Pharmacopoeia;*

- (b) Follow the recommendations for regulators-cannabis operations: Laboratory operations from the American Herbal Product Association (AHPA); and*
 - (c) Be licensed by the State and accredited to the ISO/IEC 17025 standard; the assessment and accreditation process must be carried out by an accreditation body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement operating in conformance with the ISO/IEC 17011 standard.*
 - (d) Follow AOAC International Guidelines for Laboratories performing Microbiological and Chemical Analyses of Food, Dietary Supplements, and Pharmaceuticals – An Aid to the Interpretation of ISO/IEC 17025 or the most current revisions.*
- 2. Each marijuana testing facility shall become proficient in testing samples using analytical methods approved by the Department within 6 months after the date upon which the marijuana testing facility is issued a marijuana establishment license.*
 - 3. The Department may require a marijuana testing facility to have its basic proficiency to execute correctly the analytical testing methodologies used by the testing facility validated and monitored on an ongoing basis by an independent third-party.*
 - 4. Each marijuana testing facility shall:*
 - (a) Adopt and follow minimum good laboratory practices which must, at a minimum, satisfy the OECD Principles of Good Laboratory Practice and Compliance Monitoring published by the Organization for Economic Co-operation and Development; and*

- (b) *Become certified by the International Organization for Standardization and agree to have the inspections and reports of the International Organization for Standardization made available to the Department.*
 - (c) *Maintain internal standard operating procedures.*
 - (d) *Maintain a quality control and quality assurance program.*
5. *The Department or an independent third-party authorized by the Department may conduct an inspection of the practices, procedures and programs adopted, followed and maintained pursuant to subsection 4 and inspect all records of the marijuana testing facility that are related to the inspection.*
6. *The Department hereby adopts by reference:*
- (a) *The Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control monograph published by the American Herbal Pharmacopoeia. A copy of that publication may be obtained from the American Herbal Pharmacopoeia, P.O. Box 66809, Scotts Valley, California 95067.*
 - (b) *The OECD Principles of Good Laboratory Practice and Compliance Monitoring published by the Organization for Economic Co-operation and Development. A copy of that publication may be obtained free of charge from the Organization for Economic Co-operation and Development.*

Sec. () Required quality assurance tests. (NRS 453D.())

1. *Each marijuana testing facility must use the sampling protocols required in this section and the general body of required quality assurance tests for usable marijuana, as received, concentrated marijuana, marijuana products and edible marijuana products set forth in this section. Such tests may include moisture content, potency analysis, foreign*

matter inspection, microbial screening, pesticide and other chemical residue and metals screening and residual solvents levels. A marijuana testing facility may request additional sample material for the purposes of completing required quality assurance tests. A marijuana testing facility shall retrieve samples from the premises of another marijuana establishment and transport the samples directly to the testing facility.

2. *The tests required pursuant to subsection 1 by a marijuana testing facility are as follows:*

Product	Tests Required	Tolerance Limit
<i>Usable marijuana and collected resins, as received, excluding wet marijuana</i>	<ol style="list-style-type: none"> 1. <i>Moisture content</i> 2. <i>Potency analysis</i> 3. <i>Terpene analysis</i> 4. <i>Foreign matter inspection</i> 5. <i>Mycotoxin screening</i> 6. <i>Heavy metal screening</i> 7. <i>Pesticide residue analysis</i> 8. <i>Herbicide screening</i> 9. <i>Growth regulator screening</i> 10. <i>Total yeast and mold</i> 11. <i>Total Enterobacteriaceae</i> 12. <i>Salmonella</i> 13. <i>Pathogenic E. coli</i> 14. <i>Aspergillus fumigatus</i> 15. <i>Aspergillus flavus</i> 16. <i>Aspergillus terreus</i> 17. <i>Aspergillus niger</i> 	<ol style="list-style-type: none"> 1. <i><15%</i> 2. <i>N/A</i> 3. <i>N/A</i> 4. <i>No foreign matter detected</i> 5. <i><20ug/kg for the total of Aflatoxins B1, B2, G1 and G2 combined. <20ug/kg for Ochratoxin A.</i> 6. <i>Arsenic: <2 ppm Cadmium <0.82 ppm Lead <1.2 ppm Mercury <0.4 ppm</i> 7. <i>See monitoring list</i> 8. <i>See monitoring list</i> 9. <i>See monitoring list</i> 10. <i><10,000 CFU/g</i> 11. <i><1000 CFU/g</i> 12. <i>ND</i> 13. <i>ND</i> 14. <i>ND</i> 15. <i>ND</i> 16. <i>ND</i> 17. <i>ND</i>

Product	Tests Required	Tolerance Limit
<p><i>Wet marijuana, as received, which is destined for extraction</i></p>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 3. <i>Foreign matter inspection</i> 4. <i>Mycotoxin screening</i> 5. <i>Heavy metal screening</i> 6. <i>Pesticide residue analysis</i> 7. <i>Herbicide screening</i> 8. <i>Growth regulator screening</i> 9. <i>Total yeast and mold</i> 10. <i>Total Enterobacteriaceae</i> 11. <i>Salmonella</i> 12. <i>Pathogenic E. coli</i> 13. <i>Aspergillus fumigatus</i> 14. <i>Aspergillus flavus</i> 15. <i>Aspergillus terreus</i> 16. <i>Aspergillus niger</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i> 3. <i>No foreign matter detected</i> 4. <i><20ug/kg for the total of Aflatoxins B1, B2, G1 and G2 combined.</i> <i><20ug/kg for Ochratoxin A.</i> 5. <i>Arsenic: <2 ppm</i> <i>Cadmium <0.82 ppm</i> <i>Lead <1.2 ppm</i> <i>Mercury <0.4 ppm</i> 6. <i>See monitoring list</i> 7. <i>See monitoring list</i> 8. <i>See monitoring list</i> 9. <i>< 10,000 CFU/g</i> 10. <i><1000 CFU/g</i> 11. <i>ND</i> 12. <i>ND</i> 13. <i>ND</i> 14. <i>ND</i> 15. <i>ND</i> 16. <i>ND</i>
<p><i>Extract of marijuana (nonsolvent) like hashish, bubble hash, infused dairy butter, or oils or fats derived from natural sources, including concentrated cannabis extracted with CO2</i></p>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 3. <i>Foreign matter inspection</i> 4. <i>Total yeast and mold</i> 5. <i>Total Enterobacteriaceae</i> 6. <i>Salmonella</i> 7. <i>Pathogenic E. coli</i> 8. <i>Aspergillus fumigatus</i> 9. <i>Aspergillus flavus</i> 10. <i>Aspergillus terreus</i> 11. <i>Aspergillus niger</i> 12. <i>Heavy metal screening</i> 13. <i>Mycotoxin screening</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i> 3. <i>No foreign matter detected</i> 4. <i>< 1,000 CFU/g</i> 5. <i><100 CFU/g</i> 6. <i>ND</i> 7. <i>ND</i> 8. <i>ND</i> 9. <i>ND</i> 10. <i>ND</i> 11. <i>ND</i> 12. <i>TBD</i> 13. <i>TBD</i>
<p><i>Extract of marijuana (solvent-based) made with any approved solvent, including concentrated cannabis extracted by means other than with CO2</i></p>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 3. <i>Foreign matter inspection</i> 4. <i>Residual solvent test</i> 5. <i>Total yeast and mold</i> 6. <i>Total Enterobacteriaceae</i> 7. <i>Salmonella</i> 8. <i>Pathogenic E. coli</i> 9. <i>Aspergillus fumigatus</i> 10. <i>Aspergillus flavus</i> 11. <i>Aspergillus terreus</i> 12. <i>Aspergillus niger</i> 13. <i>Heavy metal screening</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i> 3. <i>No foreign matter detected</i> 4. <i>Under 500ppm</i> 5. <i>< 1,000 CFU/g</i> 6. <i><100 CFU/g</i> 7. <i>ND</i> 8. <i>ND</i> 9. <i>ND</i> 10. <i>ND</i> 11. <i>ND</i> 12. <i>ND</i> 13. <i>TBD</i>

Product	Tests Required	Tolerance Limit
	14. <i>Mycotoxin screening</i>	14. <i>TBD</i>
<i>Edible marijuana product, including a product which contains concentrated cannabis</i>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 3. <i>Foreign matter inspection</i> 4. <i>Total Enterobacteriaceae</i> 5. <i>Salmonella</i> 6. <i>Pathogenic E. coli</i> 7. <i>Homogeneity testing</i> 8. <i>Clostridium botulinum</i> 9. <i>Shelf-life testing (on first run and upon any change)</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i> 3. <i>ND</i> 4. <i><100 CFU/g</i> 5. <i>ND</i> 6. <i>ND</i> 7. <i>10% of product contains no more than 20% of total THC of product</i> <i>Variance of no more than 15%</i> 8. <i>ND</i> 9. <i>N/A</i>
<i>Liquid marijuana product, including, without limitation, soda or tonic, including a product which contains concentrated cannabis</i>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 3. <i>Foreign matter inspection</i> 4. <i>Total Enterobacteriaceae</i> 5. <i>Salmonella</i> 6. <i>Pathogenic E. coli</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i> 3. <i>No foreign matter detected</i> 4. <i><100 CFU/g</i> 5. <i>ND</i> 6. <i>ND</i>
<i>Topical marijuana product, including a product which contains concentrated cannabis</i>	<ol style="list-style-type: none"> 1. <i>Potency analysis</i> 2. <i>Terpene analysis</i> 	<ol style="list-style-type: none"> 1. <i>N/A</i> 2. <i>N/A</i>

3. *A sample size for usable marijuana shall be 5 grams or more. A sample size for a production run must be 1% of the product weight or more.*
4. *A marijuana establishment shall not submit wet marijuana to a marijuana testing facility for testing unless the wet marijuana is destined for extraction and weighed within two hours of harvest.*
5. *As used in this section, “as received” means the unaltered state in which a sample was collected, without any processing or conditioning, which accounts for all mass, including moisture content.*

Sec. () Cannabinoid and Terpenoid Testing (NRS 453D.())

Marijuana Testing Facilities shall test for and quantify the presence of the following cannabinoids and terpenoids in order to satisfy labeling requirements and provide results to consumers:

<ol style="list-style-type: none"> 1. <i>Cannabinoids</i> <ol style="list-style-type: none"> a. <i>THC</i> b. <i>THCA</i> c. <i>CBD</i> d. <i>CBDA</i> e. <i>CBN</i> 	<ol style="list-style-type: none"> 2. <i>Terpenoids</i> <ol style="list-style-type: none"> a. <i>Alpha-Bisabolol</i> b. <i>Alpha-Humulene</i> c. <i>Alpha-Pinene</i> d. <i>Alpha-Terpinolene</i> e. <i>Beta-Caryophyllene</i> f. <i>Beta-Myrcene</i> g. <i>Beta-Pinene</i> h. <i>Caryophyllene Oxide</i> i. <i>Limonene</i> j. <i>Linalool</i>
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3. *Each marijuana testing facility will collect a random sample from a cultivator or production facility for testing, as specified in NAC 453D.(), and will test it for the cannabinoids and terpenoids.*
4. *After identifying and quantifying cannabinoids and terpenoids, marijuana testing facilities shall provide the written report to the cultivator or production facility from which the sample was drawn and to the Department within 24 hours of obtaining the results.*
5. *Marijuana establishments shall label products to identify the cannabinoid and terpenoid profile based on the marijuana testing facility results in accordance with NAC 453D.(), NAC 453D.() and NAC 453D.(). If a marijuana establishment wishes to include “Potential Total THC” on a label of a product which contains THCA, it shall calculate it as: Potential Total THC = THC + (THCA*0.877). No other method of calculating potential total THC is authorized.*

Sec. () Homogeneity Testing and Adulterants. (NRS 453D.()) *Homogeneity testing of a production run for edibles will require testing of multiple units of a single production run to ensure the manufacturer's process is validated. The subsequent testing of single units or serving of a production run will serve as a spot check.*

1. Edible product approval and homogeneity testing:

- (a) Product pre-approval will be required by the Department and potency homogeneity verified by a marijuana testing facility;*
- (b) For a production kitchen, the recipe with procedures ensuring consist concentration of THC for the edible manufacturing process will need to be approved by the Department for each different product;*
- (c) The marijuana testing facility will need to demonstrate their process which produces homogeneous product;*
- (d) Changes in recipe, production run size and/or equipment must be pre-approved by the Department and may require a revalidation of the process and production run homogeneity testing.*

2. Production Run Testing

- (a) Serving size (or unit) will be analyzed from each production run for testing;*
- (b) Variation is the difference between the marijuana testing facility measured concentration and producer's expected serving size concentration;*
- (c) The Department will allow variation including weight and homogeneity between the marijuana testing facility results and the intended concentration of +/-15% with 10% of the product containing no more than 20% of the total THC of the product.*

Sec. () Pesticide use and testing. (NRS 453D.()) *A marijuana establishment shall only use a pesticide if the pesticide has been approved by the Nevada Department of Agriculture for use on marijuana. The marijuana testing facility must analyze for pesticides designated by the Department at detection levels specified by the Department. Further, at its discretion, the Department may require marijuana testing facilities to test for other substances including fungicides, herbicides, or growth regulators that are not identified above.*

- 1. Any measurable and positively verified detection of a pesticide/analyte not on the list of pesticides approved by the Nevada Department of Agriculture will result in a failed test.*
- 2. The results of all failed pesticide tests will be reported to the Department via electronic copy to the Inspector, Program Supervisor and Program Manager. The report will include the analyte name and concentration of residue detected.*
- 3. If a batch fails a pesticide test, it shall not be manufactured, packaged, labeled for sale or otherwise processed, but shall be destroyed. Upon notification of the failed test, the marijuana establishment will continue to quarantine the batch per NAC 453D.(), and schedule an appointment with the Department for its destruction. A staff member shall witness the destruction of the batch. If this destruction procedure is not strictly complied with, disciplinary action may be taken pursuant to NAC 453D.()*
- 4. If a marijuana establishment believes that the results of the pesticide testing were not accurate, the marijuana establishment may request one retest at its own expense from the Nevada Department of Agriculture.*
- 5. If the marijuana establishment wishes to reserve the option of requesting a retest from the Nevada Department of Agriculture per Section (), then twice the sample size needed to complete all tests must be collected by the marijuana testing facility at the time*

of sample collection with one of the samples remaining at the facility in a tamper proof package..

Sec. () General requirements. (NRS 453D.())

A marijuana testing facility shall not handle, test or analyze marijuana unless:

- 1. The testing facility has been issued a marijuana establishment license;*
- 2. The testing facility is independent from all other persons involved in the marijuana industry in Nevada; and*
- 3. No person with a direct or indirect interest in the testing facility has a direct or indirect financial interest in:*
 - (a) A retail marijuana store;*
 - (b) A marijuana product manufacturing facility;*
 - (c) A marijuana cultivation facility;*
 - (d) A marijuana distributor*
 - (e) A physician who provides or has provided written documentation for the issuance of registry identification cards or letters of approval; or*
 - (f) Any other entity that may benefit from the cultivation, manufacture, dispensing, sale, purchase or use of marijuana or marijuana products.*
- 4. Notwithstanding the forgoing, testing facilities are exempted from using a marijuana distributor to collect and move testing samples.*

Sec. () Sample testing; disposal of samples; standards; testing facility test results; grounds for disciplinary action. (NRS 453D.())

- 1. Immediately before packaging:*

(a) Usable marijuana for sale to a retail marijuana store, marijuana product manufacturing facility or another marijuana cultivation facility, a marijuana cultivation facility shall segregate all harvested marijuana into homogenized lots of flower and trim, respectively, and allow a marijuana testing facility to select a representative sample for testing from each lot the marijuana cultivation facility has segregated. The marijuana testing facility which performs the test must collect the samples. If the cultivation facility has segregated the lot of harvested material into packages or container sizes smaller than the entire lot as defined in NAC 453A.061, the marijuana testing facility must sample and test each package containing harvested material from the lot presented for testing.

(b) Concentrated marijuana, edible marijuana products or marijuana products, a marijuana product manufacturing facility shall allow a marijuana testing facility to select a random sample from each production run for testing by the marijuana testing facility. The marijuana testing facility performing the testing must collect the samples.

(c) Using tamper resistant products, record the lot or production run, record the batch number, record the weight or quantity and seal each package of harvested material or production run which is included in a single testing facility test.

3. A marijuana testing facility that receives a sample pursuant to this section shall:

(a) Test the sample as provided in NAC 453D.().

4. From the time that a lot or production run has been homogenized for sample testing and eventual packaging and sale to a retail marijuana store, marijuana product manufacturing facility or, if applicable, another marijuana cultivation facility until the

marijuana testing facility provides the results from its tests and analysis, the facility which provided the sample shall segregate and withhold from use the entire lot or production run, except the samples that have been removed by the marijuana testing facility for testing. During this period of segregation, the facility which provided the sample shall maintain the lot or production run in a secure, cool and dry location so as to prevent the marijuana from becoming contaminated or losing its efficacy and maintain the product in quarantine. Under no circumstances shall the facility which provided the sample sell the marijuana, edible marijuana products or marijuana product as applicable, to a retail marijuana store, marijuana product manufacturing facility or, if applicable, another marijuana cultivation facility before the time that the marijuana testing facility has completed its testing and analysis and provided those results, in writing, to the facility which provided the sample.

- 5. Labs shall keep failed sample retains or any random sample collected by the Department of Agriculture for confirmation testing for up to 30 days. Samples in retain should be stored in an approved manner. After 30 days, they should be destroyed by the lab according to the lab disposal policy.*
- 6. Other than failed samples, a marijuana testing facility shall immediately return or dispose of any sample received pursuant to this section upon the completion of any testing, use or research. If a marijuana testing facility disposes of a sample received pursuant to this section, the testing facility shall document the disposal of the sample using its inventory control system pursuant to NRS 453D.() and NAC 453D.() and section ()of this regulation.*

7. *Except as otherwise provided in NAC 453D.(), if a sample provided to a marijuana testing facility pursuant to this section does not pass the testing required by NAC 453D.(), the facility which provided the sample shall dispose of the entire lot or production run from which the sample was taken and document the disposal of the sample using its inventory control system pursuant to NRS (453D.()) and NAC 453D.() and section () of this regulation.*
8. *If a sample provided to a marijuana testing facility pursuant to this section passes the testing required by NAC 453D.(), the marijuana testing facility shall release the entire lot or production run for immediate manufacturing, packaging and labeling for sale to a retail marijuana store, a marijuana product manufacturing facility or, if applicable, another marijuana cultivation facility.*
9. *A marijuana testing facility shall file with the Department, in a manner prescribed by the Department, an electronic copy of all testing facility test results and the time they are obtained and compiled, regardless of the outcome of the test, including all testing required by NAC 453D.(). If a facility chooses to utilize two marijuana testing facilities for the same lot, and one of the two tests fails, the lot is considered a fail.*
 - (a) *The marijuana testing facility will transmit a PDF copy of the test results to the Department by emailing a copy to one of two email addresses, depending on the outcome of the tests performed (pass/fail).*
 - (1) *If the test result is a pass, test results are sent to: mmelabpass@tax.state.nv.us;*
 - (2) *If the test result is a fail, test results are sent to: mmelabfail@tax.state.nv.us.*
 - (b) *In the subject line of the email, enter the name of the establishment. The file containing the test results must be named using the following format:*

- (1) *[4 Digit Identifier number of the testing facility]_[4 Digit Identifier of the MME for which the testing was being performed]_[batch number]_[lot number]; or [4 Digit Identifier number of the testing facility]_[4 Digit Identifier of the MME for which the testing was being performed]_[production run number];*
- (2) *Example: If ABC Testing Facility, Inc., L005, performed testing for JT's Cultivation, LLC, C204, on batch number xy and lot number xyz, the file would be named: "L005-C204-xy-xyz.pdf"*
- (c) *When retesting a previously failed lot, the file containing the test results must be named using the following format:*
- (1) *[4 Digit Identifier number of the testing facility]_[4 Digit Identifier of the MME for which the testing was being performed]_[batch number]_[lot number] [Retest].*
- (2) *Example: If ABC Testing Facilities, Inc., L005, performed retesting for JT's Cultivation, LLC, C204, on batch number xy and lot number xyz, the file would be named: "L005-C204-xy-xyz-Retest.pdf"*
- (d) *When amending a report, the file containing the test results must state "Amended" in bold red font at the top center of the report and the reason for change must be indicated in the report. The file containing the test results must be named using the following format:*
- (1) *[4 Digit Identifier number of the testing facility]_[4 Digit Identifier of the MME for which the testing was being performed]_[batch number]_[lot number] [Amended].*

(2) Example: If ABC Testing Facilities, Inc., L005, performed retesting for JT's Cultivation, LLC, C204, on batch number xy and lot number xyz, the file would be named: "L005-C204-xy-xyz-Amended.pdf"

10. The Department will take immediate disciplinary action against any marijuana establishment which fails to comply with the provisions of this section or falsifies records related to this section, including, without limitation, revoking the marijuana establishment license of the marijuana establishment.

11. A marijuana testing facility may subcontract its testing of marijuana and marijuana products only to another marijuana testing facility.

Sec. () Certification program. (NRS 453D.())

Marijuana testing facilities may be audited and certified by Nevada Department of Agriculture.

- 1. The appropriate technical inspection of marijuana testing facilities and testing activities will be performed by the Nevada Department of Agriculture.*
- 2. Requirements for quality standards for both general testing facility requirements as well for each category of methods for each test will be audited.*
- 3. Marijuana testing facilities will be scheduled for an annual audit by Nevada Department of Agriculture that will include:*
 - (a) Record review*
 - (b) Testing facility compliance audit*
 - (c) On-site verification of labs ability to execute test methods*
 - (d) On-site verification of sampling procedure*
- 4. Labs will be subject to unannounced check audits that will include:*

(a) Review of marijuana testing facility method validation.

Sec. () Proficiency testing program: Establishment by Department; participation.

(NRS 453D.())

1. *The Department will establish a proficiency testing program for marijuana testing facilities.*
2. *Each marijuana testing facility must participate in the proficiency testing program established pursuant to this section.*
3. *If required by the Department as part of being issued or renewing a marijuana establishment license, the marijuana testing facility must have successfully passed the proficiency testing program.*
4. *To maintain continued registration as a marijuana testing facility, a testing facility must participate in a Department approved proficiency testing program with continued satisfactory performance as determined by the Department.*
5. *A marijuana testing facility must analyze proficiency test samples using the same procedures with the same number of replicate analyses, standards, testing analysts and equipment as used for product testing.*
6. *The scientific director of the marijuana testing facility and all testing analysts that participated in a proficiency test must sign corresponding attestation statements.;*
7. *The scientific director of the marijuana testing facility must review and evaluate all proficiency test results.*
8. *Successful participation in the positive identification of 80 percent of the target analytes that the marijuana testing facility reports to include quantitative results when applicable.*

Any false positive results reported will be considered an unsatisfactory score for the proficiency test.

9. *Unsuccessful participation in a proficiency test may result in limitation, suspension or revocation of the marijuana establishment license of the marijuana testing facility.*

10. *The procedures for proficiency testing which the Department will use to determine whether a marijuana testing facility demonstrates the requisite proficiency to continue to operate as a registered marijuana establishment in Nevada are as follows:*

(a) An approved certified proficiency testing provider will conduct the proficiency testing program for Nevada marijuana testing facilities. The Department will determine the schedule the proficiency testing provider will follow when sending the proficiency testing samples to the marijuana testing facilities for analysis.

(b) Participation

(1) Each marijuana testing facility must participate in this proficiency testing program and must:

(i) Obtain single-blind proficiency test samples from the proficiency testing provider;

(ii) Analyze the proficiency test sample for all required analytes listed in NAC 453D()-(); and

(iii) Report the results of the analysis to the proficiency testing provider;

(iv) Analyze the proficiency testing sample pursuant to the program not less than once every 12 months

(2) Each marijuana testing facility shall pay the costs of subscribing to a proficiency testing program specified in () subsection of this regulation.

- (3) *Each marijuana testing facility shall, before obtaining a proficiency test sample pursuant to paragraph (), authorize the provider of the proficiency test sample to submit to the Department the results of any test taken pursuant to the provisions of NAC 453D.(). If the ITL fails to provide an authorization, the Department may refuse to consider the results of any test taken pursuant to the provisions of NAC 453D.().*
- (4) *The Department shall consider the results of any test taken to be satisfactory if results are within the limits of acceptance range according to the proficiency testing provider.*
- (5) *If the Department determines that the results of a test are satisfactory, a marijuana testing facility will be eligible to renew its license.*
- (6) *If the Department determines that the results of a test are not satisfactory, the Department may allow a marijuana testing facility to retest once before a license may be limited, suspended or revoked.*

Sec. () Surveillance and Confirmation Testing. (NRS 453D.())

The Nevada Department of Agriculture may collect and test random and equitable surveillance samples.

- 1. To prevent sample tampering by producers and prevent inadvertently or fraudulently inaccurate test results from marijuana testing facilities, the Nevada Department of Agriculture will:*
 - (a) Use data to help revise test requirements and limits in addition to aiding in creating a statistically significant sample size;*

(b) Randomly collect surveillance samples of lots of product recently sampled by marijuana testing facilities; and

(c) Test these samples and compare results to marijuana testing facility results. Discrepancies may be investigated to determine a cause and appropriately report to the Department.

Sec. () Establishment of policies for adequate chain of custody and requirements for samples of products provided to testing facility. (NRS 453D.()) *Each marijuana testing facility must establish policies for an adequate chain of custody and requirements for samples of products provided to the testing facility for testing or research purposes, including, without limitation, policies and requirements for:*

- 1. Issuing instructions for the minimum sample and storage requirements;*
- 2. Documenting the condition of the external package and integrity seals utilized to prevent contamination of, or tampering with, the sample;*
- 3. Documenting the condition and amount of the sample provided at the time of receipt;*
- 4. Documenting all persons handling the original samples, aliquots and extracts;*
- 5. Documenting all transfers of samples, aliquots and extracts referred to another marijuana testing facility for additional testing or whenever requested by a client;*
- 6. Maintaining a current list of authorized marijuana establishment agents and restricting entry to the testing facility to only those authorized;*
- 7. Securing the testing facility during nonworking hours;*
- 8. Securing short- and long-term storage areas when not in use;*
- 9. Utilizing a secured area to log-in and aliquot samples;*
- 10. Ensuring samples are stored appropriately; and*

11. *Documenting the disposal of samples, aliquots and extracts.*

Sec. () Requirements for testing facility claiming to be accredited. (NRS 453D.())

1. *Each marijuana testing facility must agree to become accredited pursuant to standard ISO/IEC 17025 of the International Organization for Standardization within one year after licensure.*
2. *Each marijuana testing facility that claims to be accredited must provide the Department with copies of each annual inspection report upon receipt from the accrediting organization, including, without limitation, any deficiencies identified in and any corrections made in response to the report.*
3. *Inspection by an accrediting organization is not a substitute for inspection by the Department.*

Sec. () Random quality assurance compliance checks. (NRS 453D.())

1. *Upon the request of the Department, a marijuana cultivation facility and a marijuana product manufacturing facility must provide a marijuana testing facility designated by the Department with a sample of marijuana or a marijuana product in an amount determined by the marijuana testing facility to be sufficient for random quality assurance compliance checks in a secure manner such that the testing facility can confirm that it has received and is testing the correct sample.*
2. *The marijuana testing facility that receives a sample pursuant to subsection 1 shall, as directed by the Department:*
 - (a) *Screen the sample for pesticides, chemical residues , herbicides, growth regulators and unsafe levels of metals;*

(b) *Perform any other quality assurance test deemed necessary by the Department;*
and

(c) *Report its results to the Department.*

3. *The marijuana cultivation facility or marijuana product manufacturing facility is responsible for all costs involved in screening or testing performed pursuant to this section.*

Sec. () Requirements regarding amount of usable marijuana and marijuana products allowed on premises of testing facility. (NRS 453D.()) *A marijuana testing facility is not limited in the amount of usable marijuana and marijuana products it may have on the premises of the testing facility at any given time, but the testing facility must maintain records to prove that all usable marijuana and marijuana products on the premises are there for testing purposes only.*

Sec. () Authorized use of marijuana upon failure of quality assurance test; requirements for retesting. (NRS 453D.())

1. *Upon approval of the Department, a lot of marijuana that fails a microbial screening may be used to make an extract. After processing, the extract must pass all required quality assurance tests.*

2. *If a sample from a marijuana product manufacturing facility fails a quality assurance test, the entire production run from which the sample was taken automatically fails the quality assurance test.*

3. *At the request of a marijuana cultivation facility or a marijuana product manufacturing facility, the Department may, on a case-by-case basis, authorize a retest to validate the results of a failed test. The marijuana cultivation facility or marijuana*

product manufacturing facility is responsible for all costs involved in a retest performed pursuant to this section.

4. *A marijuana cultivation facility or a marijuana product manufacturing facility may not request a retest pursuant to this section unless, at the time samples are initially taken for testing, two samples are collected at the same time by a marijuana testing facility using tamper-resistant bags. One of the samples must be taken by the marijuana testing facility for testing and the facility must place the other sample in a secure quarantine storage area at the facility for further retesting by a secondary marijuana testing facility and the State Department of Agriculture.*

5. *A marijuana cultivation facility or a marijuana product manufacturing facility shall submit a request for retesting to the Department in writing and on a form designated by the Department.*

6. *If the Department grants a request for retesting, the Department will select the marijuana testing facility that will perform the retest.*

7. *Except as otherwise provided in this subsection, a marijuana cultivation facility or a marijuana product manufacturing facility may submit a request for retesting of not more than 50 lots each calendar year. For any subsequent failure of a quality assurance test in a calendar year, the facility shall destroy the lot or the entire production run, as applicable. A lot which only fails a quality assurance test for moisture content must not be counted for the purpose of this subsection.*

8. *A failed quality assurance test for pesticide residue must be retested by the State Department of Agriculture.*

9. *If a sample passes the same quality assurance test upon retesting, the marijuana cultivation facility or marijuana product manufacturing facility need not destroy the lot or production run and may sell the lot or production run to a marijuana cultivation facility, retail marijuana store or marijuana product manufacturing facility, as applicable.*

10. *If a sample fails the same quality assurance test upon retesting, the Department denies a request for retesting or a marijuana cultivation facility or a marijuana product manufacturing facility does not request retesting after a sample fails a quality assurance test, the facility shall destroy the entire lot or production run from which the sample was taken.*