INSPECTION BASICS FOR QUALITY ACCEPTANCE AND SAFETY STANDARDS LABELING



COMMUNITY COLLEGE

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INTRODUCTION

All delivered goods must be inspected. The function of a **Quality Acceptance Inspection** is to ensure compliance with the purchase/contract for the item(s) delivered. It should verify the item(s) is/are not damaged, is operational, has no material defects, and meets the technical specifications requested. Additionally, the item(s) shall be inspected to verify that the proper **Safety Standards Label/Marking** is affixed. It is important to remember that even if a label is affixed to the equipment, the product may not meet the proper standards. A suggestion of verification is to search the item by make and model on the listing laboratory's website.

During the 2017 Session of the General Assembly, Senate Bill 16 was ratified and changed the context regarding inspections previously performed by the Department of Administration, Division of Purchase & Contract. The purpose of the bill was for regulatory relief for certain requirements and to give the end-user the ability to complete inspections. Senate Bill 16, Section 6(a); G.S. 66-25 Acceptable listings as to the safety of goods, reads as rewritten:

"(c) The Department of Administration, Division of Purchase and Contract, shall not seek to enforce the provisions of subsection (a) of this section by any means, including requiring acceptance inspections or additional testing of electrical materials, devices, appliances, or equipment purchased by State departments, agencies and institutions."

QUALITY ACCEPTANCE INSPECTION (QAI)

Receiving Department

The initial inspection should be performed by the Receiving Department and should verify that the product delivered is what the college ordered. This function requires a receiving copy of the purchase order to verify line per line information of product, pricing, and that the product meets the requirements. If there is damage to the container/box, this damage should be documented. If there is damage to the product, the Receiving Office should notify the Procurement Office. The product should not be delivered to the user. The Procurement Office should contact the vendor immediately for resolution.

User

When the product is delivered to the User, the User should also inspect the product for any discrepancies or issues. The User should also inspect the product for the appropriate Safety Standards Labeling. Typically, there could be a label on the electrical cord, but there should also be a label affixed to the product.

Quality Acceptance Inspector

The Quality Acceptance (QA) Inspector will provide Quality Acceptance Inspections at the college's request. The QA Inspector will also provide training on inspection and safety standards labeling.

Inspection issues

If the product does not meet the purchase/contract specifications, including the proper Safety Standards Labeling, the Procurement Office should work with the vendor for resolution. If a resolution cannot be reached, the Procurement Office should reach out to the Division of Purchase & Contract (P&C) for further action (over your agency delegation).

SAFETY STANDARDS LABEL/MARKING

All manufactured and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be labeled with an identification marking of the appropriate safety standard organization.

Any product that plugs into an electrical socket or is in some other manner connected to an electrical power source must be inspected to ensure the product is properly labeled per the following North Carolina General Statutes:

§ 66-23. Sale of electrical goods regulated

Every person, firm or corporation before selling, offering for sale, assigning, or disposing of by gift as premiums or in any similar manner any electrical material, devices, appliances or equipment shall first determine if such electrical materials, devices, appliances and equipment comply with the provision of this Article.

§ 66-24. Identification marks required.

All electrical materials, devices, appliances and equipment shall have the maker's name, trademark, or other identification symbol placed thereon, together with such other markings giving voltage, current, wattage, or other appropriate ratings as may be necessary to determine the character of the material, device, appliance or equipment and the use for which it is intended; and it shall be unlawful for any person, firm or corporation to remove, alter, change or deface the maker's name, trademark or other identification symbol.

North Carolina General Statute (G.S. 66-25) states, "All electrical material, devices, appliances, and equipment shall be evaluated for safety and suitability for intended use." It is also required that the evaluation of all electrical material, devices, appliances, and equipment shall be conducted in accordance with nationally recognized standards and shall be conducted by a qualified testing laboratory (e.g., Underwriters Laboratory (UL)), or other approved qualified testing laboratory by the Commissioner of Insurance.

§ 66-25. Acceptable listings as to safety of goods.

(a) All electrical materials, devices, appliances, and equipment shall be evaluated for safety and suitability for intended use. Except as provided in subsections (b) and (c) of this section, this evaluation shall be conducted in accordance with nationally recognized standards and shall be conducted by a qualified testing laboratory. The Commissioner of Insurance, through the Engineering Division of the Department of Insurance, shall implement the procedures necessary to approve suitable national standards and to approve suitable qualified testing laboratories. The Commissioner may assign his authority to implement the procedures for specific materials, devices, appliances, or equipment to other agencies or bodies when they would be uniquely qualified to implement those procedures.

In the event that the Commissioner determines that electrical materials, devices, appliances, or equipment in question cannot be adequately evaluated through the use of approved national standards or by approved qualified testing laboratories, the Engineering Division of the Department of Insurance shall specify any alternative evaluations which safety requires.

The Engineering Division of the Department of Insurance shall keep in file, where practical, copies of all approved national standards and resumes of approved qualified testing laboratories.

Based on these provisions above, it is prohibited that a vendor sale electrical materials, devices, appliances or equipment that does not meet the safety requirements that expose the owner (college) to liability if a student, faculty member, employee or other person is injured or killed using such equipment.

It is the agency's responsibility to prohibit the purchase or use of such products as described. The agency is to ensure that each piece of equipment is safe for its intended purpose and meets the requirements of Chapter 66.

There are similar requirements for inspection and labeling of products operated or connected to gas sources or operated under pressure.

The following provisions address the statutory liability for lack of Safety Standards Labeling:

§ 66-26. Legal responsibility of proper installations unaffected.

This Article shall not be construed to relieve from or to lessen the responsibility or liability of any party owning, operating, controlling or installing any electrical materials, devices, appliances or equipment for damages to persons or property caused by any defect therein, nor shall the electrical inspector, the Commissioner, or agents of the Commissioner be held as assuming any such liability by reason of the approval of any material, device, appliance or equipment authorized herein.

§ 66-27. Violation made misdemeanor.

Any person, firm or corporation who shall violate any of the provisions of this Article shall be guilty of a Class 2 misdemeanor.

PRODUCT INSPECTION LIST BY COMMODITY AND MINIMUM PURCHASE VALUE

	Commodity Code **** All Families & Classes, ** All Classes	Inspection Required	Included, but not limited to
Shop/Lab/Training Equipment			
Air Compressors 4	401516	Over \$5,000	Portable, Stationary
	241016, 251917, 251918, 2714**, 951417	Over \$5,000	Alignment, Brake Equipment, Wheel Changers/Balancers, Test Equipment, Automotive Lifts, Spray Booths, Classroom Trainers
	261116	Over \$5,000	Portable, Stationary
	251728, 2712**, 2713**, 4010**, 492016	Over \$5,000	HVAC, Hydraulic, Pneumatic, Weight Training Equipment
Laboratory/Testing Equipment	432010 4110**, 4111**, 411516, 411915, 421215, 421515-16, 421520, 421522-23, 4216**, 421816-19, 421823-34, 421922-23, 4220**, 422715-17, 422721-22, 422815, 422817, 422820, 423015, 462010	Over \$5,000	Medical, Dental, EMS, Science, Research, Classroom
	2324**, 2325**, 2329**, 241017, 271515	Over \$5,000	Lathes, Milling, Drill Press, Grinders, Band Saws, Measuring Equipment, Conveyors
Welding Shop Equipment	2327**, 461817, 951417	Over \$5,000	Stick, MIG, TIG, Booths, Virtual Trainers
Woodworking Equipment 2	231015, 2323**	Over \$5,000	Table/Band Saws, Jointers, Shapers, Drill Presses
Other Related Shop Equipment	23****	Over \$10,000	Uncategorized or Miscellaneous Equipment
Vehicles and Outdoor Power Equip	oment		I
Agriculture, Lawn, Farm 2 Equipment	211015-22, 251019, 271120	Over \$5,000	Tractors, Riding Mowers, Aerators, Seeders, Implements
	2210**	Over \$5,000	Any Equipment powered by Diesel or Gasoline motor, including Marine
	2510**, 251816	Over \$10,000	Any Customized Chassis (Dump Bed, Plow), Buses/Coaches, Boom Trucks, Campus Business Enclosed Trailers, Emergency Equipment, Armored Vehicle
	221018, 2410**	All	Forklift/Lift Trucks, Scissor Lifts, Cargo Container Lift
Marine Equipment 2	2511**	Over \$10,000	Boats, Outboard Motors, Trailers
Off Road Vehicles	251019	Over \$5,000	Golf Carts, GEM Cars, Gators, Mules, Power Sweepers
Trailers 2	251817	Over \$10,000	Open, Closed, Flatbed
Building/Facility Equipment			
Appliances	2413**, 4810**, 5214**	Over \$10,000	Dishwasher, Washer, Dryer, Refrigeration, Chillers, Ovens, Mixers, Warmers, Freezers
	411117, 4511**, 4512**, 4617**, 5216**	Over \$10,000	Sound System, Security System (Camera, Microphone, Control Room), Presentation System (Monitor, Projector, Smart Board)
	561121, 561123	Over \$10,000	With or Without note taking attachment
Bleachers and Event Seating	492415, 951315	All	Indoor, Outdoor, Portable
Carpet and Flooring	301617	Over \$10,000	Carpet, Ceramic Tile, Vinyl Tile, VCT, LVT, Hardwood, Laminate
	301618, 422815-17, 531316-17, 561118, 561220	All	Chairs, Sinks, Cabinetry, Mirrors, Massage Table, Facial or Manicure Chairs, Other Related Equipment
	301520	All	Chain Link, Wood, Vinyl, Razor Wire, PVC, Iron/Steel/Aluminum
Filing System	561017, 561118	Over \$10,000	Automated, Stationary
	421217, 421517, 421918-21, 421927, 422617, 481020, 5610**, 5611**, 5612**	Over \$10,000	Office, Classroom, Hospital, Library, Lab, Dormitory
Laundry and Dry Cleaning	4711**	Over \$10,000	Washers, Dryers, Steam Presses and Other Cleaning Equipment
	432332, 461716, 561210	All	Security System
Lockers	561015	Over \$10,000	Wall Mount, Free Standing
Modular Storage Buildings, S Greenhouses	951316-17, 9514**	Over \$10,000	If foundation or structural assembly is not required
	301624, 561116	All	Freestanding, Fixed
Stage Curtains 5	521315	Over \$10,000	Retractable, Permanently Fixed
Window/Wall Treatments, Blinds	5213**	Over \$10,000	Curtains, Shades, Sun Screens, Blinds, Drapes
Items on State Term Contract not		Over \$10,000	If total purchase is greater than \$10,000 (exclusive of installation)

APPROVED LABORATORIES AND EQUIPMENT CATEGORIES

North Carolina Department of Insurance (NCDOI) has identified a list of approved laboratories per equipment category (as of July 2020). The approved laboratories and equipment categories are provided in the next few pages. However, to find the most up-to-date list, refer to the <u>NCDOI website</u>.

APPROVED SUITABLE QUALIFIED TESTING LABORATORIES TO LABEL ELECTRICAL & MECHANICAL

Equipment

Applied Research Laboratories 5371 Northwest 161st Street, Miami, Florida 33014 (305) 624-4800

CSA International 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3 (416) 747-2798

Curtis-Straus 527 Great Road, Littleton, Massachusetts 01460 (978) 486-8880 x 296

FM Approvals LLC PO Box 9102, Norwood, Massachusetts 02062 (781) 762-4300

IAPMO EGS 5001 East Philadelphia Drive, Ontario, California 91761 (909) 472-4100

Intertek Testing Services ITS-ETL 3933 US Route 11, Cortland, New York 13045-2014 (607) 753-6711

Intertek Testing Services ITS-Warnock 3933 US Route 11, Cortland, New York 13045-2014 (607) 753-6711

LabTest Certification, Inc. #112-3255 Pepper Lane, Las Vegas, Nevada 89120 (702) 269-0578

MET Laboratories 901 Sheldon Drive, Cary, North Carolina 27513 (919) 481-9319

National Technical Systems (NTS) 533 Main Street, Acton, Massachusetts 01720 (978) 263-2933

NEMKO North America, Inc. 2210 Faraday Avenue, Suite 150, Carlsbad, California 92008 (760) 444-3500 Equipment Categories 12, 14, 15, 22, 24, 31, 43

Equipment Categories

Equipment Categories 7, 26-28

Equipment Categories 4, 5, 9, 13, 17, 19, 24, 28, 31, 32, 39, 43, 47-51

Equipment Categories 12 & 30

Equipment Categories All except 21

Equipment Categories 17, 18, 21, 24, 25

Equipment Categories 17 & 18

Equipment Categories 7, 10-16, 18, 22, 23, 26-31, 37-40, 43, 44, 47, 48, 50

Equipment Categories 26, 27, 28

Equipment Categories 6-16, 22, 23, 26-31, 40, 43, 47, 48 NSF International 789 North Dixboro Road, Ann Arbor, Michigan 48105-9723 (734) 769-8010

Omni-Test Laboratories 13327 NE Airport Way, Portland, Oregon 97230 (503) 643-3788

PFS Corporation 1507 Matt Pass, Cottage Grove, Wisconsin 53527 (608) 839-1013

QPS Evaluation Services, Inc. 1501 Valley Creek Drive, Hillsborough, North Carolina 27278 (919) 414-5381

RADCO 3220 East 59th Street, Long Beach, California 90805 (310) 272-7231

Salus Engineering International 3004 Scott Boulevard, Santa Clara, California 95054 (408) 235-8831

SGS Consumer Testing Services 620 Old Peachtree Road, Suite 100, Suwanee, Georgia 30024 (770) 570-1800

SolarPTL, LLC 1107 West Fairmont Drive, Tempe, AZ 85282 (480) 966-1700

Southwest Research Institute 6220 Culebra Road, San Antonio, Texas 78238-5166 (210) 684-5111

TUV SUD America 10 Centennial Drive, Peabody, Massachusetts 01960 (978) 573-2530

TUV Rheinland of North America 762 Park Avenue, Youngsville, North Carolina 27596 (919) 554-3668

Underwriters Laboratories, Inc. 12 Laboratory Drive, RTP, North Carolina 27709 (919) 549-1400 **Equipment Categories** 11-16, 26-31, 40, 43, 48

Equipment Categories 17, 18, 21

Equipment Categories 17, 21, Replacement Blowers & Coils

Equipment Categories 6-12, 14-16, 22, 23, 26-29, 31, 36, 39, 40, 43, 46-48, 50, 51

Equipment Categories 17, 18, Replacement blowers & coils

Equipment Categories 16, 28, 37, 43, 50

Equipment Categories 1-5, 9-16, 22, 26-31, 33, 35-41, 43, 47-48, 50-51

Equipment Categories 4

Equipment Categories 4

Equipment Categories 4-8, 10-20, 22, 23, 26-29, 31, 35, 36, 38, 39, 43, 46-48, 50

Equipment Categories 7-9, 11-14, 16, 26-29, 31, 40, 43, 47-48, 50

Equipment Categories All

EQUIPMENT CATEGORIES

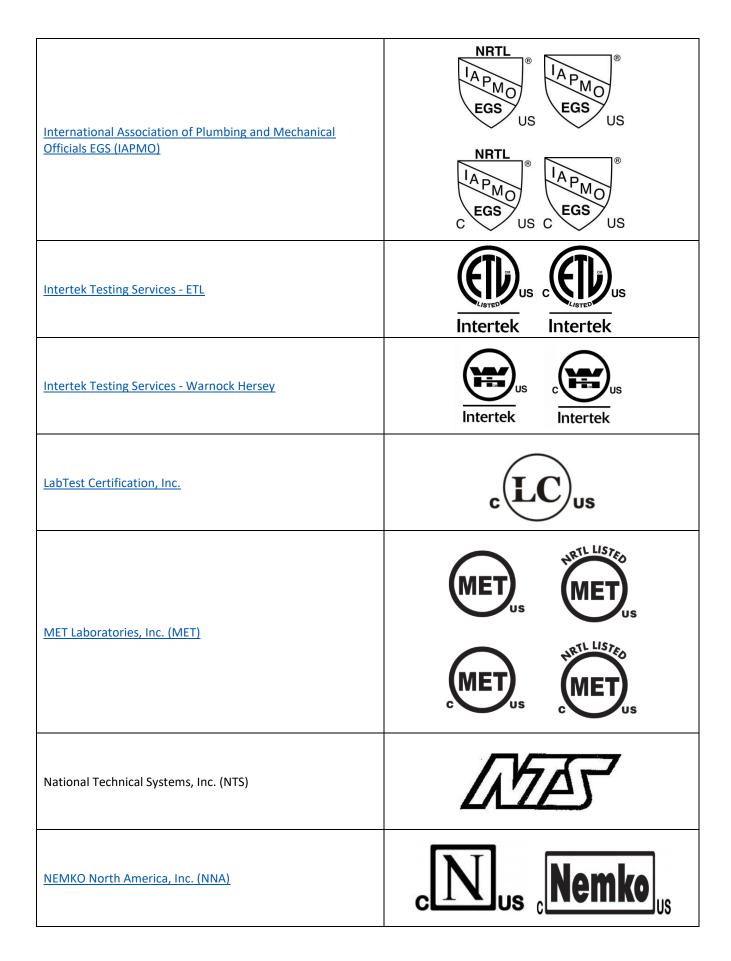
- 1. Conductors for General Wiring
- 2. Flexible Cords
- 3. Wires and Cables for Special Applications
- 4. Materials and Components for Special Applications
- 5. Alarm Signal and Detecting System Components
- 6. CATV and Radio Distribution System Components
- 7. Communication System Components
- 8. Radio and Television Components
- 9. Energy Management System Components and Controllers
- 10. Sound Recording and Reproduction Equipment
- 11. Fixed Office Appliances and Business Equipment
- 12. Electrical Appliances
- 13. Electric Space Heating Equipment and Accessories
- 14. Air Conditioning Equipment and Accessories
- 15. Heat Pump Equipment and Accessories
- 16. Refrigeration Equipment and Accessories
- 17. Gas Fired Heating Equipment and Accessories
- 18. Gas Fired Appliances
- 19. Oil Fired Heating Equipment and Accessories
- 20. Oil Fired Appliances
- 21. Solid Fuel Heating Equipment
- 22. Fans and Ventilators
- 23. Filtering Equipment
- 24. Duct Materials Including Dampers
- 25. Chimneys and Vents
- 26. Electrical Data Processing Equipment
- 27. Medical, Dental, and X-Ray Equipment
- 28. Laboratory Equipment, Electrical Measuring, and Testing Equipment
- 29. Food Preparation Machines
- 30. Swimming Pool and Spa Equipment
- 31. Miscellaneous Fixed Equipment Amusement Machines, Animal Care, Appliances Battery Chargers, Cleaning Machines, etc.
- 32. Fire Extinguishing Equipment
- 33. Circuit Breakers
- 34. Fuses
- 35. Wiring Devices, Attachment Plugs and Toggle Switches
- 36. Switches and Switching Devices Other than Toggle
- 37. Panelboards
- 38. Switchboards
- 39. Transformers
- 40. Electrical Signs and Accessories
- 41. Ground-Fault Circuit Interrupters
- 42. Ground-Fault Sensing and Relaying Equipment
- 43. Industrial Control Equipment Motor Controllers, Industrial Control Panels, Motor Control Centers, Motorized Valves, Solenoids, etc.
- 44. Transient Voltage Surge Suppressors and Filters
- 45. Lightning Protection System Components and Lightning Protection Devices
- 46. Metering Enclosures and Meter Sockets
- 47. Emergency Lighting and Power Equipment System Components
- 48. Lighting Fixtures, Lamp Holders, and Accessories
- 49. Auxiliary Gutters, Junction, Pull and Outlet Boxes, and Cabinets and Cutout Boxes
- 50. Electrical Equipment for Hazardous Locations
- 51. Grounding and Bonding Equipment
- 52. Wire Connectors, Lugs, and Terminal Fittings
- 53. Insulating Tape and Closures

THIRD-PARTY LABORATORIES CERTIFICATION MARKS AND LABELS

The following chart identifies most of the marks and labels used by Third-Party Laboratories approved by the NCDOI. Some labs may have additional marks, and many of the labs have marks approved for use in other jurisdictions, but not in the United States. To find the most up-to-date information about a lab's certification markings, please follow the link associated with the lab's name. A chart containing some non-approved labels follows the chart of approved labels. If you have any questions about the authenticity of any mark, please contact a QA Inspector.

APPROVED CERTIFICATION MARKINGS/LABELS

APPROVED LAB	CERTIFICATION MARKING
Applied Research Laboratories	APL
CSA Group Testing and Certification, Inc.	US NRTL US NRTL/C
<u>Curtis-Straus LLC</u>	
FM Approvals (FM)	FM APPROVED C APPROVED APPROVED FM FM



NSF International (NSF)	NSF CUS US NSF NSF SEPTIFIES
<u>Omni-Test Laboratories</u>	Not 16. OT L
PFS-TECO Corporation	PFS TECO TESTED
QPS Evaluation Services Inc (QPS)	PS us c PS us Certified Certified
RADCO	RADED • CERTIFICATION • UVING • TEATING • INVECTION
Salus Engineering International	SALUS Engineering International
SGS Consumer Testing Services	SGS US SGS PRODUCT SAFETY www.safety.sgs.com

SolarPTL, LLC	CERTIFIED US CERTIFIED
Southwest Research Institute	(SwRI)
<u>TÜV SÜD America, Inc.</u>	
<u>TÜV Rheinland of North America, LLC</u>	c c US C US US US US
<u>Underwriters Laboratories Inc. (UL)</u>	

NON-APPROVED AND UNACCEPTABLE LABELS/MARKINGS

The table below contains examples of non-approved and unacceptable labels/markings. As a rule, if the mark or label has a subscript for any jurisdiction, and it does not also indicate "US" or "NRTL"—or it is not a mark or label from one of the NCDOI-approved Third-Party Laboratories—then it is not acceptable. If you have any question about whether a particular label is acceptable, please contact the QA inspector.

AGENCY	MARKING	NOTES
CSA International	SP:	Mark without any country specified or with only "c" subscript (Canadian standard) is not accepted in the U.S.
Intertek	Intertek	Superscript "EU" shows this mark is approved for EU only
Product Safety mark for European Union (EU)		Based on manufacturer's or importer's self-certification of compliance
Product safety mark for China		Based on manufacturer's self- certification of compliance
Product safety mark for Mexico	NOM	Based on manufacturer's self- certification of compliance

Beware of counterfeit labels and non-approved labs using label designs confusingly similar to those of approved labs.

QUALITY ACCEPTANCE INSPECTION REPORT

Below is an example of the Quality Acceptance Inspection Report that will be used by the QA Inspector.

QUALITY ACCEPTANCE INSPECTION REPORT

PURCHASE ORDER (PO) #:	 VENDOR NAME:	
BID NUMBER:	Using Agency:	
DATE ITEM(S) RECEIVED:	PURCHASING AGENT:	

PO LINE ITEM #	ITEM DESCRIPTION	TESTING METHOD / TEST RESULT OBSERVATION	PASS / FAIL

RE-INSPECTION (if initial inspection failed)				
Date of Re-Inspection:	Re-Inspection:	Pass	Fail	

- NC Government Agencies/Institutions/Community Colleges and Universities are to inspect and assure that all equipment received and projects completed meet all Federal, State, and Local Health and Safety Requirements.
- All goods received must meet terms specified in Statewide Term Contracts.
- Invoices will not be paid until an inspection completed by the using agency receives a "pass inspection" result.

COMMENTS

	PRINTED NAME	SIGNATURE	DATE
Inspected by			
Re-Inspected by (if initial inspection failed)			
Procurement Acknowledgment			

QUALITY ACCEPTANCE INSPECTION CHECKLIST

Below is an example of the Quality Acceptance Inspection Checklist that will be used by the QA Inspector.

QUALITY ACCEPTANCE INSPECTION CHECKLIST

(Subject to modifications when required due to change in requirements)

 PURCHASE ORDER (PO) #:
 ITEM DESCRIPTION:

Vendor Name:

LOCATION:

	Yes	No	N/A
Is product operational?			
Is product free of damage and material/manufacturing defects?			
Does product match the specifications requested in the IFB?			
Is product required to have a Safety Standards Label/Marking?			
If yes, does product meet this requirement? Agency: Model/ID #:			
Is the vendor responsible for installation per IFB?			
If yes, was installation completed to department's satisfaction?			
Have all manuals, instructions, setup media, security codes, and warranty documentation been received?			
If required, has software backup media (DVD, flash drive, online download) been provided?			
If required, has Vendor training been completed or scheduled?			

Any nonconformances found during the inspection shall be repaired by the Vendor, at their cost, prior to passing inspection.

Image of Safety Standards Label/Marking

REVISION HISTORY

Revision	Effective Date	Changes
0	7/13/2020	Initial Document
1	9/2/2020	Updated approved laboratory list and certification mark table to include SolarPTL, LLC per latest revision from NCDOI. Updated example of Quality Acceptance Inspection Report to latest format.