HB 406

HOUSE COMMITTEE REPORT

(11)
Date Referred: February 16, 1990 FURTHER REFERRALS:

Date of Committee Action: 3/6/90

The FINANCE Committee considered: HB 406

HOUSE BILL NO. 406 SALE OF ELECTRICAL PRODUCTS

"An Act relating to the sale, gift, or transfer for value of electrical products."

RECOMMENDATIONS:
[ ] be replaced with CS HB 406 (FIN) [ ] the same title [✓] a new title
[ ] have attached amendment(s)
[✓] do pass
[ ] do not pass
[ ] no recommendation
[ ] individual recommendations
[ ] additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(s): (Dept)
[ ] fiscal impact _____
[✓] zero fiscal note Labor
[ ] zero with analysis _____

APPROVES PREVIOUS: (Date/Dept)
[ ] fiscal note(s) _____
[ ] zero fiscal note(s) _____
[✓] zero fn/analysis 2/16/90 Law

SIGNING DO PASS:

Hoffman
Larson
Swackhammer
Brown
Koponen
Ulmer
Barnes
Phillips
Wallis

SIGNING: (Check approp. column)

	Do Not Pass	No Rec	Amend
Rieger		✓	

Larson
Co-Chairman's Signature
Hoffman

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: CSHB 406 (FIN)
PUBLISH DATE:

FISCAL NOTE

REQUEST:
Revision Date:
Agency Affected: Labor
Title: "An Act relating to the sale or transfer of consumer electrical products."
BRU: Labor Standards & Safety
Sponsor: Cotten
Components: Mechanical Inspection
Requestor: House Labor & Commerce

Adopted

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND&STRUCTURES						
GRANTS,CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Note: there is no fiscal impact in FY 90

Tom Stuart 4pm

Prepared by: Tom Stuart, Director
Phone: 465-2712
Division: Labor Standards & Safety
Date: 2/23/90

Approved by Commissioner: Jim Sampson
Date: 2/23/90
Agency: Department of Labor

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

No.

STATE OF ALASKA
1990 LEGISLATIVE SESSION

BILL VERSION: CSHB 406(L&C)
PUBLISH DATE: HOUSE 2/16/90

FISCAL NOTE

REQUEST:

Revision Date:
Title: "An Act relating to the sale, gift, or transfer for value of electrical products."
Sponsor: Repr. Cotten
Requestor: Repr. Cotten

Agency Affected: Department of Law
BRU: Consumer Protection
Components: Consumer Protection

Adopted

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-	-0-	-0-	-0-
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Please see the attached analysis.

Richard L. Pegues

Prepared by: Richard I. Pegues, Director
Phone: 465-3672
Division: Administrative Services
Date: January 30, 1990

Richard L. Pegues /FOR/

Approved by Commissioner: Douglas B. Baily, Attorney General
Date: January 30, 1990
Agency: Department of Law

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

This bill amends AS 45.45 by adding a new section (AS 45.45.910) that provides that a person may not, in the course of the person's business, sell, give away, or exchange for value an electrical product unless the electrical product is labeled or listed by an approved testing laboratory, in accordance with the minimum electrical standards established by AS 18.60.330.

The bill also provides that the consumer protection section of the Department of Law shall maintain a list of approved testing laboratories. Approved testing laboratory is defined as a laboratory that meets the requirements of the 1984 Standard Guide for Laboratory Accreditation Systems, ASTM E-944, published by the American Society for Testing and Materials.

A previous attempt by the U.S. Department of Labor, to adopt the ASTM E-944 standards, resulted in a lawsuit requiring the Department of Labor to certify 900+ testing laboratories, including many offshore testing firms. Because of the number of potential testing firms that could be certified under ASTM E-944 is so great, it would be nearly impossible for the consumer protection section to maintain a list of approved testing laboratories. The department believes that substitution of ANSI Z-34.1-1987, the American National Standard for Certification - Third Party Certification Program, published by the American National Standards Institute, in place of the ASTM E-944 standards, may eliminate most of this problem. Otherwise, it appears that simply keeping-up with the paperwork for the large number of potential approved testing laboratories could be extremely time consuming and expensive, without any real assurance that a product has been properly tested.

Lastly, the bill amends AS 45.50.471 by providing that violation of proposed AS 45.45.910 is an unlawful act under the state's Unfair Trade Practices and Consumer Protection Act. Approval of this provision will increase the number of unlawful acts specified under AS 45.50.471 from 28 to 29. The consumer protection section currently consists of one attorney, two paraprofessionals, and one and one-half secretaries, in sharp contrast to the three attorneys, seven paraprofessionals, and five secretaries who staffed the section prior to the FY87 budget crisis. Consequently, the section can only handle the most serious violations. The department therefore recommends adoption of the ANSI Z-34.1-1987 certification standards, in order to provide for a workable method of records-keeping and in order to avoid unnecessary cost.

Original sponsor(s): REP. COTTEN

IN THE HOUSE BY THE FINANCE COMMITTEE

CS FOR HOUSE BILL NO. 406 (Finance)

IN THE LEGISLATURE OF THE STATE OF ALASKA

SIXTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to the sale or transfer of consumer electrical products."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 45.45 is amended by adding a new section to read:

Sec. 45.45.910. SALE OR TRANSFER OF CONSUMER ELECTRICAL PRODUCTS. (a) Unless exempted by the department under (d) of this section, a person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that is manufactured after the effective date of this Act, unless the product is clearly marked as being listed by an approved third-party certification program.

(b) A person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that is manufactured before the effective date of this Act, unless the product is clearly marked

(1) as being listed by an approved third-party certification program; or

(2) with a warning label that complies with (e) of this section.

(c) A person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that has been exempted under (d) of this section, unless the product is clearly marked with a warning label that complies with (e) of this section.

(d) If a consumer electrical product is a work of art or an item that has an unusual application that makes approval by a third-party certification program not reasonably available, the department shall upon request exempt the item from (a) of this section. The department shall establish by regulation guidelines to identify consumer electrical products that qualify for an exemption under this section.

(e) The warning label required by this section must be a brightly colored label that contains in simple, direct language a warning that the electrical product is not listed by an approved third-party certification program. The department shall adopt regulations establishing the exact content, color, design, and use of the warning label.

(f) Unless a later version has been adopted by the Department of Labor by regulation, a certification program must meet the requirements of ANSI Z-34.1 - 1987, American National Standards for Certification - Third-Party Certification Program, published by the American National Standards Institute, in order to qualify as an approved third-party certification program under this section. The Department of Labor may adopt by regulation later versions of the American National Standards for Certification - Third-Party Certification Program, as the standard for third-party certification programs under this section. If the Department of Labor has adopted a later version, a certification program must meet the requirements of the most recent version adopted by the department in order to qualify as an approved third-party certification program under this section.

(g) In this section,

(1) "approved third-party certification program" means a program that qualifies under (f) of this section;

(2) "consumer electrical product" means an electrical

product that is marketed for and commonly purchased by the general public and that is

(A) an assembled device that has an electrical circuit that operates at 110 volts AC or higher;

(B) a device that when assembled has an electrical circuit that operates at 110 volts AC or higher; or

(C) an individual component part that is intended to be part of an electrical circuit that operates at 110 volts AC or higher;

(3) "department" means the Department of Labor.

* Sec. 2. AS 45.50.471(b) is amended by adding a new paragraph to read:

(29) violating AS 45.45.910(a), (b), or (c).

6-1823Ed ✓
Bannister

AMENDMENT #1

OFFERED IN THE HOUSE BY REP. BARNES

TO: CSHB 406 (L&C) (6-1823E)

passed
54 4N

Page 2, following line 12:

Insert a new subsection to read:

"(f) This section does not apply to an electrical administrator who is licensed under AS 08.40.005 - 08.40.200 and who installs a consumer electrical product in the course of the electrical administrator's business."

Reletter the following subsection accordingly.

3/1/90

6-1823Eb
Bannister

AMENDMENT #2

OFFERED IN THE HOUSE BY REP. COTTEN

TO: CSHB 406 (L&C)

Adopted
a.c

Page 2, following line 12:

Insert a new subsection to read:

"(f) Unless a later version has been adopted by the Department of Labor by regulation, a certification program must meet the requirements of ANSI Z-34.1 - 1987, American National Standards for Certification - Third-Party Certification Program, published by the American National Standards Institute, in order to qualify as an approved third-party certification program under this section. The Department of Labor may adopt by regulation later versions of the American National Standards for Certification - Third-Party Certification Program, as the standard for third-party certification programs under this section. If the Department of Labor has adopted a later version, a certification program must meet the requirements of the most recent version adopted by the department in order to qualify as an approved third-party certification program under this section."

Reletter the following subsection accordingly.

Page 2, line 15, following "that", through line 17:

Delete all material.

Insert "qualifies under (f) of this section;"

6-1823Ec
Bannister

AMENDMENT #3

OFFERED IN THE HOUSE BY REP. COTTEN

TO: CSHB 406 (L&C)

adopted
u.c.

Page 1, line 15, following "being":

Delete "approved"

Insert "listed"

Page 1, line 21, following "being":

Delete "approved"

Insert "listed"

Page 2, line 9, following "not":

Delete "approved"

Insert "listed"

2/27/90

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y STATE CAPITOL
JUNEAU ALASKA 99811
907 465 3800

MEMORANDUM March 5, 1990

SUBJECT: Coverage of CSHB 406 (L&C)

TO: Representative Sam Cotten

FROM: Theresa L. Bannister TB
Legislative Counsel

You have asked whether employees are covered by CSHB 406 (L&C). Except as indicated at the end of this memo, I do not believe that CSHB 406 (L&C) would be interpreted to impose liability on employees. In sec. 45.45.910 (a), (b), and (c), a person is prohibited from transferring certain products "in the course of the person's business". This phrase establishes liability based on ownership and excludes liability based on employment. It is true that a business can violate the section if its employees sell the products without the appropriate markings, but it is the business entity or owner who is responsible for the violation. Therefore, although an employee may actually make the sale, the employee would not be liable for the violation. The only possible exceptions to this conclusion would be if the employee were also a partner in the partnership that owned the business or if the employee also owned stock in the corporation that owned the business. In those cases, the employees may be determined to be transferring the product in the course of the employee's business because the employee owns an interest in the business.

If I may be of further assistance, please advise.

TLB:gc
G13/118

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907·465·3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM February 28, 1990

SUBJECT: Application of proposed CSHB 406 (L&C) (6-1823E in final form)

TO: Representative Ramona Barnes

FROM: Theresa L. Bannister TLB
Legislative Counsel

With regard to the proposed CSHB 406 (L&C) (6-1823E in final form), you have asked whether an electrician violates proposed sec. 45.45.910 or sec. 45.50.471(b)(29) if the electrician installs for a customer a light switch (supplied by the electrician) that is not marked as required by proposed sec. 45.45.910. Under the hypothetical situation, and assuming that the light switch qualifies as a "consumer electrical product" under the definition, the electrician appears to be violating both sec. 45.45.910 and sec. 45.50.471(b)(29) because the electrician is transferring the product to the customer in the course of the electrician's business without complying with the marking requirements of sec. 45.45.910.

If I may be of further assistance, please advise.

TLB:gc
G13/111

STATE OF ALASKA

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

STEVE COWPER, GOVERNOR

REPLY TO:

☐ *1031 W 4th AVENUE SUITE 200*
ANCHORAGE, ALASKA 99501-1994
PHONE: (907) 276-3550
FAX: (907) 276-3697

☐ *1st NATIONAL CENTER*
100 CUSHMAN ST. SUITE 400
FAIRBANKS, ALASKA 99701-4679
PHONE: (907) 452-1568
FAX: (907) 456-1317

☐ *P.O. BOX K—STATE CAPITOL*
JUNEAU, ALASKA 99811-0300
PHONE: (907) 465-3600
FAX: (907) 463-5295

March 1, 1990

The Honorable Lyman f. Hoffman
The Honorable Ronald L. Larson
Co-Chairmen
House Finance Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Representatives Hoffman and Larson:

I have been asked by Representative Cotten's aide, Bill Stoltze, to comment on the concern on HB 406 raised by Representative Barnes on during yesterday's committee meeting.

I am told Representative Barnes asked whether an electrician installing a light switch supplied by the electrician that was not marked as being approved by a third party certification program would be in violation of this proposed amendment to Alaska's Unfair Trade Practices Act.

The short answer is yes; the electrician likely would not be in compliance with this proposed amendment. However, the committee should be aware that this would be a highly unlikely scenario. I have surveyed both Pay 'n Save and Brown's Electric, and neither store knowingly sells unlisted light switches and/or wall outlets. A physical inspection of the inventories verified that all switches and wall outlets were clearly marked as being in compliance with the proposed amendment. Inasmuch as the listed switches or outlets are readily available, I cannot see how this amendment is unnecessarily restrictive. We should remember that we have recently experienced one terrible example of what can occur when unlisted products are sold.

Sincerely Yours,

DOUGLAS B. BAILY
ATTORNEY GENERAL

By: R.M. Scotty Dawkins

R.M. Scotty Dawkins
Investigator

RMD/jds

03-C5LH

1655 Scott Boulevard
Santa Clara, California 95050-4169
(408) 985-2400
FAX No. (408) 296-3256
MCI Mail No 259-3283
Cable UL NC SANTA CLARA CA
Telex No. (TRT) 184-219

Underwriters Laboratories Inc.®

March 2, 1990

Representative Lyman Hoffman
and Representative Ron Larson
Co-Chairmen House Finance Committee
Alaska State Legislature
P.O. Box V (MS3100)
Juneau, Alaska 99811

Subject: House Bill Number 406

Gentlemen:

We understand that an amendment has been added to House Bill No. 406 which would allow a Licensed Administrator to install consumer electrical products that have not been Listed by an approved third-party certification program. Underwriters Laboratories (UL) strongly urges the Committee to reject this amendment.

As UL testified during the Labor Committee hearings on HB406, Licensed Administrators are qualified by training and licensing to install electrical products. They are not qualified to evaluate the safety of an electrical product. They do not have the knowledge, laboratory test facilities nor experience to conduct product safety evaluations in the field.

Product safety testing requires the ability to test and evaluate a product to nationally recognized product safety standards. This requires an in-depth understanding of the product safety standard which is not part of an Administrator's training. This is recognized in the National Electrical Code (NEC) which the State of Alaska has adopted. The NEC relies on third-party certification since it is widely recognized that there are inadequate laboratory facilities and trained personnel at the installation site to properly evaluate an electrical product.

A product safety evaluation usually requires performing a test program and always a constructional evaluation. Even a simple product may require a test program to determine that the materials used in the product will perform acceptably. Conducting all required tests and disassembling the product to the degree necessary to determine compliance with all constructional requirements would likely result in damage to the equipment. Therefore, manufacturers submit a product for evaluation before it is placed in production and sold to the public.

An electrician has no way of determining by visual inspection that a product complies with the appropriate product safety standard. He would not be able to perform an adequate evaluation and test program without the proper laboratory facilities. He may be installing a product which has a hidden defect which would only be discovered by a detailed constructional inspection and test program performed by trained personnel or by injury to the consumer.

To provide the assurance that a consumer electrical product meets the appropriate nationally recognized product safety standard a product must bear the mark of an approved third-party certification program. Allowing a Licensed Administrator to make this determination will defeat the intent of HB408 by allowing unqualified and untrained administrators to decide which products meet product safety standards and are suitable for use by the public.

Again UL strongly urges the committee to reject the amendment allowing Licensed Administrators to be exempt from installing third-party certified consumer electrical products.

Bob Pollock

Bob Pollock
Senior Staff Engineer
Electrical Department

1655 Scott Boulevard
Santa Clara, California 95050-4169
(408) 985-2400
FAX No. (408) 296-3256
MCI Mail No. 259-3283
Cable ULINC SANTA CLARA CA
Telex No. (TRT) 184-219

Underwriters Laboratories Inc.®

January 24, 1990

Representative Sam Cotten
Speaker of the House
Alaska State Legislature
P. O. Box V
Juneau, Alaska 99811

Dear Mr. Cotten:

Your letter of January 10 to our Mr. Wes Christensen, together with the copy of House Bill 406, has been referred to me for review.

We note that Section 45.45.910(d)(1) states that an approved testing laboratory means a laboratory that meets the requirements of ASTM E994-84, Standard Guide for Laboratory Accreditation Systems. We believe it inappropriate to reference ASTM E994 in this context since it does not include criteria that a laboratory must meet in order to be accredited.

ASTM E994 identifies the important features that operators of laboratory accreditation systems should adhere to in their accreditation procedures and practices. It provides guidelines for the qualifications and section of assessors, the conduct of on-site assessments, the implementation of proficiency testing and the evaluation of laboratories leading to accreditation. In other words, ASTM E994 applies to the accreditor of a laboratory, and not the laboratory.

The title of E994 is "Standard Guide for Laboratory Accreditation Systems." Further, the introduction concludes with the sentence "Laboratory accreditation systems should not be confused with product certification systems." We are enclosing a copy of ASTM E994 for your reference.

If the bill remains essentially in its present form, then we recommend the following changes:

Sec. 45.45.910(a) - Change "...labeled or listed by an approved testing laboratory..." to "... listed or labeled by an approved third-party product safety certifier..."

Sec. 45.45.910(d)(1) - Delete the reference to ASTM E994 and include in its place "ANSI Z34.1-1987, American National Standard for Certification - Third-Party Certification Program, published by the American National Standards Institute." ANSI Z34.1 is a reasonably complete standard for third-party product safety certifiers and includes most, by not all, of the criteria UL recommends for valid third-party product safety certification programs.

Sec. 45.45.910(d)(2)(B) - Change "for which an approved testing laboratory exists" to "for which listing or labeling by an approved third-party product safety certifier is available."

It is important to recognize the significant difference between "laboratory accreditation" and "product certification."

"Laboratory accreditation" is a formal recognition that a testing laboratory is competent to carry out specific tests or types of tests. Laboratory accreditation is directed toward and limited to assessing testing competence. The adequacy of personnel, laboratory facilities and equipment are determined. At best, testing competence should be considered as only one of several elements of a product safety certification system.

"Product certification" includes testing, but, in addition, involves a number of other elements. An over-simplified visual comparison of the two systems might look as follows:

MAIN ELEMENTS OF SYSTEMS

PRODUCT CERTIFICATION	LABORATORY ACCREDITATION
Product standard	
Product testing	Product testing
Product assurance (Follow-up production inspection)	
Certification Mark	

Laboratory accreditation does not include supervision of the use of a certification mark by which the government authorities and the public can identify products produced in accordance with a certification program.

Laboratory accreditation does not include a product follow-up program to assure that factory production continues to comply with minimum safety requirements.

It does not have provision for recall and removal of certification marks from noncomplying products, response to field problems and a host of other elements essential to a product certification system.

The only element of a product certification system that is addressed by laboratory accreditation is testing competence. Without the other elements of a product certification system, accreditation of testing competence is meaningless to the role of protecting the public from unsafe electrical products and installations.

The term "Testing laboratory accreditation" or the equivalent is commonly used in laws and regulations, probably because the organizations involved often have the word "laboratory" in their names and testing is one element of the process. In reality, "product safety certification system" is the subject.

The prevailing view of product safety certification is that it is an activity involving laboratory testing to determine compliance with a standard. Testing is only one of many essential elements in a product safety certification system, however.

"Product certification" is the action of certifying, generally by a registered mark, that a product is in conformity with specific standards, in this case American National Standards for safety, or equivalent. Since product certification is directed to product conformance vis-a-vis testing competence, it is also concerned with conflict of interests, independence, use of United States codes and standards, a production inspection program, contractual provisions for testing and follow-up, and provisions for removal of the certifier's mark from noncomplying products.

There are relatively few organizations (laboratories) operating product safety certification systems. On the other hand, there are thousands of testing laboratories doing commercial testing.

Commercial testing laboratories perform a variety of tests in fields such as metallurgical, chemical and physical analysis, radiological analysis, air and water quality, concrete, soil and weld analysis, and on and on. The list is almost endless. Often, a laboratory is organized to do only one type of analytical testing, such as concrete.

The testing performed by commercial testing laboratories is usually on a lot-by-lot, project-by-project, one-of-a-kind, or similar basis. That is one time testing, as opposed to continuous product testing of mass produced products upon which the public depends for product safety. Potential customers may be interested in knowing that a laboratory has been judged by an independent organization to be capable of performing specific analytical tests. This would motivate a laboratory to seek accreditation of some form.

Accreditation would involve an evaluation of laboratory personnel, test equipment and facilities with respect to performance of specific tests or groups of tests not necessarily to a specific standard nor to all the requirements of the standard.

Product testing is one of many elements of a product certification program. The operator of a certification program, such as UL, conceivably could contract to have testing performed by an outside laboratory. Laboratory accreditation could provide a useful mechanism in assessing the technical competence of a testing laboratory. This is another illustration of how a testing laboratory and laboratory accreditation might serve a useful purpose as one element in a certification system. Laboratory accreditation could never be a substitute for product certification, however.

Historically, the regulatory authority exercising legal jurisdiction over electrical installations has been charged with the responsibility to assure that the health, safety, and property of the people of a state, county or city are reasonably protected.

Requirements for the safe installation of electrical products have been available in the National Electrical Code since 1897, but this Code does not cover the safety of the

products themselves. Most regulatory authorities have not had a staff with technical expertise to devote to the evaluation of product safety, the laboratory facilities in which to conduct such evaluations, the funds to do so, the ability to conduct factory production inspections nor the other necessities to conduct an adequate product certification system.

As a result, those responsible have looked for assistance to organizations specifically established to conduct product safety certification systems. The National Electrical Code makes such a recommendation in the first paragraph of Section 90-6. Up until recently, a statement appeared in a state regulation to the effect that "electrical equipment shall be listed by Underwriters Laboratories." With the advent of competitive certification programs in recent years, reference to "electrical equipment listed by Underwriters Laboratories or by a testing agency approved by the department" has been substituted.

As concern for public safety has increased, so has the number of laboratories claiming to conduct product safety certification programs. Regulatory authorities in general were ill equipped to evaluate the qualifications of laboratories. There were no guidelines, insufficient funds, no spare time and little expertise. Unfortunately, many regulatory authorities were placed in a position of having to recognize laboratories without adequate evaluation.

The result was that products began to appear which some electrical authorities believed did not comply with minimum safety requirements. Accidents and fires were reported, allegedly involving electrical equipment certified by a laboratory whose product certification system was recognized. Concerned authorities decided that it was time that stringent guidelines be established with which to evaluate product safety certification systems.

The states of Texas, North Carolina, Oregon and Washington adopted completely new regulations. Other jurisdictions upgraded their existing requirements. Today, as a result, product safety certification systems and the laboratories operating them are receiving more scrutiny than ever before.

Underwriters Laboratories supports independent third-party product safety certification systems and we support efforts to

develop more stringent criteria for the evaluation of such certification systems. We believe the certifying organizations seeking recognition should be willing to reimburse the state for the cost involved, so that the program will be essentially self-supporting.

We are enclosing a copy of the ANSI Z34.1-1987 document we referenced in our suggested changes. Also, enclosed is a copy of the Washington State product certification rule that may be of interest to you. It is more complete than ANSI Z34.1-1987.

I understand that our Messrs. Bob Pollock and Wes Christensen expect to meet with you February 2. They will be prepared to discuss this matter. In the meantime, if we can be of help, please let us know.

Gene Bockmier

GENE BOCKMIER
Vice President

procedures have been established.

(FPN): These procedures may be found in the "NFPA Regulations Governing Committee Projects."

90-6. Examination of Equipment for Safety. For specific items of equipment and materials referred to in this Code, examinations for safety made under standard conditions will provide a basis for approval where the record is made generally available through promulgation by organizations properly equipped and qualified for experimental testing, inspections of the run of goods at factories, and service-value determination through field inspections. This avoids the necessity for repetition of examinations by different examiners, frequently with inadequate facilities for such work, and the confusion that would result from conflicting reports as to the suitability of devices and materials examined for a given purpose.

It is the intent of this Code that factory-installed internal wiring or the construction of equipment need not be inspected at the time of installation of the equipment, except to detect alterations or damage, if the equipment has been listed by a qualified electrical testing laboratory which is recognized as having the facilities described above and which requires suitability for installation in accordance with this Code.

(FPN No. 1): See Examination of Equipment, Section 110-3.

(FPN No. 2): See definition of "Listed," Article 100.

90-7. Wiring Planning.

(a) Future Expansion and Convenience. Plans and specifications that provide ample space in raceways, spare raceways, and additional spaces will allow for future increases in the use of electricity. Distribution centers located in readily accessible locations will provide convenience and safety of operation. See Sections 110-16 and 240-24 for clearances and accessibility.

(b) Number of Circuits in Enclosures. It is elsewhere provided in this Code that the number of wires and circuits confined in a single enclosure be varyingly restricted. Limiting the number of circuits in a single enclosure will minimize the effects from a short-circuit or ground fault in one circuit.

90-8. Metric Units of Measurement. For the purpose of this Code metric units of measurement are in accordance with the modernized metric system known as the International System of Units (SI).

Values of measurement in the Code text will be followed by an approximate equivalent value in SI units. Tables will have a footnote for SI conversion units used in the table.

Conduit size, wire size, horsepower designation for motors, and trade sizes that do not reflect actual measurements, e.g., box sizes, will not be assigned dual designation SI units.

(FPN): For metric conversion practices, see Standard for Metric Practice, ANSI/ASTM E380-1984.

Guarded: Covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats, or platforms to remove the likelihood of approach or contact by persons or objects to a point of danger.

Hazardous (Classified) Locations: See Article 500.

Header: See Sections 356-1 and 358-2.

Hermetic Refrigerant Motor-Compressor: See Section 440-2.

Hoistway: Any shaftway, hatchway, well hole, or other vertical opening or space in which an elevator or dumbwaiter is designed to operate.

Identified: (As applied to Equipment.) Recognizable as suitable for the specific purpose, function, use, environment, application, etc., where described in a particular Code requirement. (See "Equipment.")

(FPN): Suitability of equipment for a specific purpose, environment, or application may be determined by a qualified testing laboratory, inspection agency, or other organization concerned with product evaluation. Such identification may include labeling or listing: see "Labeled," "Listed," and Section 90-6.

Individual Branch Circuit: See "Branch Circuit, Individual."

In Sight From (Within Sight From, Within Sight): Where this Code specifies that one equipment shall be "in sight from," "within sight from," or "within sight," etc., of another equipment, one of the equipments specified is to be visible and not more than 50 feet (15.24 m) distant from the other.

Insulated Conductor: See under "Conductor."

Intermittent Duty: See under "Duty."

Interrupting Rating: The highest current at rated voltage that a device is intended to interrupt under standard test conditions.

(FPN): Equipment intended to break current at other than fault levels may have its interrupting rating implied in other ratings, such as horsepower or locked rotor current.

Isolated: Not readily accessible to persons unless special means for access are used.

Labeled: Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Lighting Outlet: An outlet intended for the direct connection of a lampholder, a lighting fixture, or a pendant cord terminating in a lampholder.

Listed: Equipment or materials included in a list published by an organization acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials, and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

International Brotherhood of Electrical Workers
Local 1547

2702 DENALI STREET
ANCHORAGE, ALASKA 99503-2779

TELEPHONE (907) 272-6571
DISPATCH (907) 276-1547

GARY BROOKS
BUSINESS MANAGER • FINANCIAL SECRETARY

JOSEPH HODGE
PRESIDENT

January 29, 1990

The International Brotherhood of Electrical Workers, Local 1547 ("IBEW") supports House Bill No. 406. This bill follows our Local's major objective in formulating standards for safe installation and use of electrical materials, devices and appliances. Product manufacturers have the responsibility to supply products that are safe and suitable for the purpose. Listing and labeling of an electrical product assures the consumer that the product manufacturer has met basic fire and life safety tests conducted by an unbiased approved testing laboratory.

IBEW LOCAL UNION 1547

Gary Brooks

Gary Brooks
Business Manager

GB/cfd

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To Janet	From Gary Brooks
Co. Senator Cotton's office	Co. IBEW Local 1547
Dept.	Phone # 272-6571
Fax # 465-4565	Fax # 276-1963

International Association of Electrical Inspectors

The Alaskan Chapter of the International Association of Electrical Inspectors supports House Bill No. 406. This bill follows our associations major objectives in formulating standards for safe installation and use of electrical materials, devices and appliances. Product manufacturers have the responsibility to supply products that are safe and suitable for the purpose. Listing and labeling of an electrical product assures the consumer that the product manufacturer has met basic fire and life safety tests conducted by an unbiased approved testing laboratory.

Gil Chambers
Sec/Tres AK Chapter IAEI
13811 Savage Drive, Box 110
Eagle River, Alaska 99577

HB40

International Brotherhood of Electrical Workers
Local 1547

2702 DENALI STREET
ANCHORAGE, ALASKA 99503-2779

TELEPHONE (907) 272-6571
DISPATCH (907) 276-1547

GARY BROOKS
BUSINESS MANAGER • FINANCIAL SECRETARY

JOSEPH HODGE
PRESIDENT

January 25, 1990

Rep. Dave Donley, Chairman
Labor and Commerce Committee
Alaska State House of Representatives
Pouch V
Juneau, Alaska 99811

Re: House Bill 406

Dear Representative Donley:

In light of the tragic incident that inspired this legislation, the International Brotherhood of Electrical Workers Local Union 1547 would like to go on record as supporting this legislation. We have a longstanding tradition of supporting consumer as well as workplace safety, and legislation such as this will go far in ensuring a higher degree of safety in both areas.

Very Truly Yours,
IBEW LOCAL UNION 1547

Gary Brooks
Business Manager

GB:sb

Researchers identify flaw in lamp that caused electrocution

By [illegible]
Times Writer

Investigators have discovered the flaw that they contend caused a brass lamp to fatally electrocute [illegible] month-old girl in Eagle River last week.

Screws holding the lamp's three legs to the base slowly dug their way through an electrical cord and exposed the bare wire, according to Scotty Dawkins, investigator with the state attorney general's office.

The lamp electrocuted Crystal Thayse on Dec. 3, after she grasped the lamp's base and a hot-water baseboard heater simultaneously in her parents' living room.

Two sets of screws keep the electrical cord sandwiched in the middle of the hollow brass columns, Dawkins said. The screws are long enough that they actually squeezed the cord, he said.

Over the course of the two years the Thayse family owned the lamp, the plastic coating around the cord's wire gave way to the screws, Dawkins said.

The lamp was turned off when it sent 110 volts through the Crystal Thayse's body, he said. When she touched the heater, she allowed the electrical current to complete a circuit from the exposed wire and through the metal base.

Dawkins said he and two other researchers sawed open the lamp on Monday. Inside, they found the screws' indentations in the cord.

Dawkins later checked a similar lamp turned in from an Anchorage home. He found the same design, but no exposed wires.

His investigation has found the electrical system at the Thayse home to be safe. He also ruled out an earlier theory that the polarity of the lamp's plug might be involved.

The Consumer Protection Section, in which Dawkins works, issued another warning Wednesday on the lamp and the 11 others reportedly sold by Liquidation Sales, an Anchorage discount store.

Owners had turned in two similar lamps after an initial alert, one in Anchorage and one in Fairbanks. Dawkins urged the owners of the other nine lamps to call his office, 276-3550.

None of the lamps were certified by Underwriters Laboratories, an industry-supported testing lab, although the socket bore the U.L. label, Dawkins said.

Some states have laws that prohibit sales of electrical appliances without by U.L. or an equivalent lab's certification, Dawkins said.

Alaska is one state without such a law, but Rep. Sam Cotten, D-Eagle River, said he plans to change that.

Although it's not written, Cotten said his proposal would require that stores in Alaska only sell appliances with the U.L. or equivalent label.

"It appears legislation is necessary, and I'd be happy to introduce it," he said. "It's hard to believe we have products that are killing people."

Cotten said he is researching laws of other states and intends to introduce his bill early when the state legislature begins its session in January.

A spokeswoman for U.L. said such legislation is unfortunately necessary to protect the public.

"When you have an (electrocution) death, especially a small child, it wakes everyone up and puts the wheels in motion," said Sharon Dalton, media relations supervisor at the firm's headquarters near Chicago.

Markings on some parts of the lamps indicate it was manufactured in Taiwan, Dawkins said.

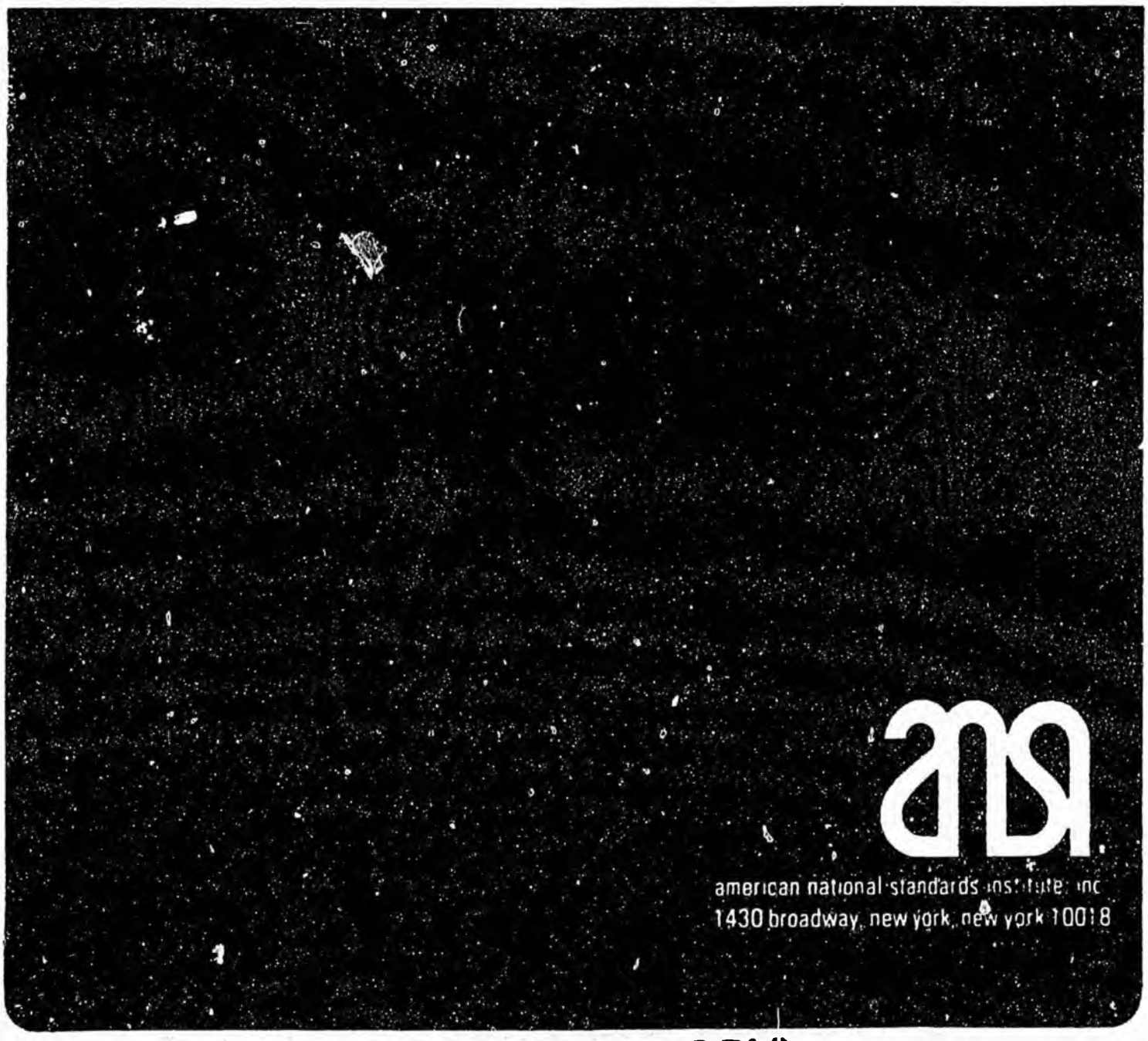
Dalton said place of origin should not lessen a product's chance for safety.

Dec 14, 1989 Times

American National Standard

for certification –

third-party certification program



ANSI Z34.1-1967

ANSI®
Z34.1-1987
Revision of
ANSI Z34.1-1982

American National Standard for Certification –

Third-Party Certification Program

Secretariat

American Council of Independent Laboratories

Approved June 4, 1987

American National Standards Institute, Inc

American National Standard

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Foreword

(This Foreword is not part of American National Standard Z34.1-1987.)

The proximate reason for developing and issuing this revised American National Standard for Certification – Third-Party Certification Program, ANSI Z34.1-1987, was the publication in 1984 of Guidelines for Federal Agency Use of Private Sector Third-Party Certification Programs by the Office of Product Standards Policy, National Bureau of Standards of the United States Department of Commerce. Although that publication drew heavily on the content and philosophical underpinnings of American National Standard for Certification – Third-Party Certification Program. ANSI Z34.1-1982, the Guidelines differed substantially from the standard in their textual organization and in choice of language. Moreover, the development and publication of the Guidelines represented a response by the United States Government to certain obligations it undertook in adhering to the Agreement on Technical Barriers to Trade administered under the Secretariat of the General Agreement on Tariffs and Trade (GATT), popularly known as the "GATT Standards Code." Accordingly, various paragraphs of the Guidelines contain nonspecific references to guides published by nontreaty international standards organizations, which guides, in turn, reference without specificity still other documents of those organizations.

In its deliberations on this revised standard, the Task Group of Accredited Standards Committee on Principles Underlying Valid Certification and Labeling of Products and Services, Z34, chose to harmonize, wherever practicable, the standard's textual organization and language with that of the Guidelines. The premise for that decision has been the belief that users of this standard, whether in government or the private sector, are better served when potential conflict and confusion between two documents directed to the same or similar purposes are minimized. The Task Group determined, however, that incorporation by nonspecific reference of provisions in international documents would be inappropriate to an American standard. The Task Group did consult and take account of the relevant ISO and IEC Guides on questions of substance. Thus, although this and previous revisions of this standard do in fact contain numerous similar and identical provisions in common with those to be found in international guides, those provisions here are set forth explicitly and never by reference.

Suggestions for improvement of this standard will be welcome. They should be sent to the American Council of Independent Laboratories, Inc, 1725 K Street, NW, Washington, DC 20006.

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee on Principles Underlying Valid Certification and Labeling of Products and Services, Z34. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z34 Committee had the following members:

Allen Maxfield, Chair
John Donaldson, Vice-Chair
Leonard Frier, Secretary

Organization Represented	*Name of Representative*
Air Conditioning and Refrigeration Institute	Herb Phillips
American Architectural Manufacturers Association	John Gurniak
American Council of Independent Laboratories, Inc	Allen Maxfield
	Leonard Frier (Alt)
	Joseph O'Neil (Alt)
American Gas Association	Richard J. Schulte
American Home Economics Association	Edna Pyner
American Plywood Association	Thomas R. Flint
	Daniel H. Brown (Alt)

Organization Represented	*Name of Representative*
American Retail Federation	William Key Daines
Detroit Testing Laboratory, Inc.	Roger J. Amorosi
Electronics Industries Association	Pete Levin
ETL Testing Laboratories, Inc.	Earl Gmoser
	James Tucker (Alt)
The Good Housekeeping Institute	George S. Wham
	Roger G. Cook (Alt)
National Association of Garage Door Manufacturers	Frank S. Fitzgerald
National Electrical Manufacturers Association	Frank K. Kitzantides
National Fluid Power Association	Rick Earles
National Forest Products Association	Ward C. Hitchings
	E. G. King (Alt)
National Paint and Coatings Association	John M. Montgomery
	Larry Thomas (Alt)
Safety Equipment Institute	Frank E. Wilcher, Jr
	Catherine J. Morin (Alt)
Safety Glazing Certification Council	Mike Yates
	Richard McGuire (Alt)
Society of the Plastics Industry	Hugh P. Toner
	John R. Lawrence (Alt)
Underwriters Laboratories Inc.	Derek Barton
	Howard C. Kontje (Alt)
U.S. Department of Commerce, National Bureau of Standards	John Donaldson
U.S. Department of Housing and Urban Development	Les Breden
	Mark W. Holman (Alt)
U.S. Department of the Interior, Bureau of Mines	Scott F. Sibley

Individual Members

Lee Donohue
Howard I. Forman
Howard Michener
T. P. Pritsker
Harvey E. Schock
Foster Wilson

The Task Group, which was responsible for the preparation of this revision, had the following members:

Peter Levin, Chair

Derek Barton
Mario Cellarosi
John Donaldson
Leonard Frier
Harvey Schock

Contents

American National Standard for Certification –

Third-Party Certification Program

1. Scope and Purpose

1.1 This American National Standard sets forth generic criteria for third-party certification programs under which a producer is authorized by a third party to use the program's mark (certification mark) or a certificate of conformity to indicate that a product or service is in compliance with applicable standards or specifications.

1.2 The application and utilization of this standard shall not contravene any federal, state, or local statutory requirements.

1.3 This American National Standard shall be open to voluntary adoption and compliance by a certification body under whose authority a certification program is developed and financed, and under whose name the program is identified. When conformance to this standard is claimed, it shall pertain to the provisions of all criteria set forth in this standard.

2. Standards

2.1 A certification program shall be based upon and shall utilize all applicable portions and contents of the standards or specifications, or both, to which conformity is certified. In instances in which deviations from or exclusions of certain portions of a standard are permissible, the certification program shall require that full disclosure of such deviation or exclusion shall be made on the mark, label, or certificate of conformity. Where such a means of disclosure is not practicable, the program's operating procedures shall provide a precise method whereby users shall be advised that the standard has not been utilized in its entirety.

2.2 This document is applicable to certification programs concerned with conformity to available standards and specifications with a broad level of recognized acceptance, selected from any of, or any combination of, the following:

(1) An American National Standard

(2) A standard or specification published by a qualified technical society, trade association, agency, society, or other organization of national or international scope or recognition

(3) A standard or specification published by the federal, state, or local government

3. Definitions

3.1 **Certification.** The procedure by which written assurance is given that a product or service conforms to a standard or specification.

3.2 **Third-Party Certification.** A form of certification in which the producer's claim of conformity is validated, as part of a third-party certification program, by a technically and otherwise competent body other than one controlled by the producer or the buyer.

3.3 **Producer.** The manufacturer, distributor, supplier, or other party providing the product or service who is responsible for assuring conformity with all requirements of the referenced standards or specifications.

3.4 **Third-Party Certification Program.** An organized system (1) under which similar products or services of any number of producers may be certified as conforming to the referenced standards or specifications on a uniform and equitable basis, (2) which uses or is operated by a third-party inspection/testing body, and (3) which authorizes the use of controlled certification marks or certificates of conformity as evidence of conformity.

3.5 **Mark of Conformity (Certification Mark).** The sign or symbol owned or controlled by the certification body that is used exclusively by the third-party certification program to identify products or services as being certified and is registered as a certification mark with the U.S. Patent Office under the Trade Mark Act of 1946.

3.6 **Certificate of Conformity.** A tag, label, nameplate, or document of specified form and content, affixed or otherwise directly associated with a product or service on delivery to the buyer, attesting that the product or service is in conformity with the referenced standards or specifications.

3.7 **Certification Body.** An impartial body possessing the necessary competence and other qualifications to sponsor and operate a certification program. A certification body is that organization under whose authority a certification program is developed, promulgated, operated, and financed, and with whose name the certification program is identified.

3.8 **Third-Party Testing/Inspection Body.** An organization that possesses the necessary technical competence and that is other than one operated or controlled by a manufacturer, supplier, or buyer of a certified product or service in that it has no organizational, financial, or commercial involvements with the producer or buyer that might pose a potential conflict of interest.

3.9 **Standard.** A prescribed set of conditions and requirements, established by authority or agreement, for continuous application. A standard takes the form of a document containing a set of conditions to be fulfilled, or an object of comparison. For the purposes of this document, the provisions of a standard as defined and utilized in this standard shall be such as to be suitable to and capable of certification.

3.10 **Specification.** A concise statement of requirements to be satisfied by a product, material, service, or process indicating, whenever appropriate, the procedure by which it may be determined whether the requirements given are satisfied. Insofar as is practicable, the requirements of a specification are to be expressed in exact numerical terms describing applicable limits.

4. Certification Body

4.1 The certification body whose name is identified with the program shall be one of the following:

(1) A trade association

(2) A professional or technical society

(3) An organization of producers or service-rendering entities

(4) An organization oriented to consumers or users of the product or service

(5) A third-party testing/inspection organization

4.2 The certification body shall be responsible for and qualified to sponsor and operate a program to ensure uniform compliance with the provisions contained in this standard for use of a mark or certificate of conformity. A certification body may delegate certain elements but not the entire operation and administration of a certification program to another party, providing that such a designated party satisfies the requirements for competence and other qualifications within the area of delegation, as set forth in this standard.

4.3 The procedures under which the body operates shall be administered in a nondiscriminatory manner. The body shall make participation in the certification program available to any applicant and shall not require membership as a condition of participation.

4.4 It shall be the responsibility of the certification body to:

(1) Adopt, keep current, and make available on request a systematic set of general and specific rules governing the organizational and administrative structures, operational policies and practices, extents and limitations of authority, appeals and dispute settlement mechanisms, and amendment of the rules for the certification program.

(2) Organize and make available full operating procedures. An application procedure shall be included, with provisions for identifying the applicable standards or specifications, products or services covered, and their places of origin. Procedures shall also be specified for determination of conformity and issuance of authorization to use the mark or certificate of conformity; conditions shall be identified for the appropriateness of a subsequent extension of such authorities; and terms shall be detailed for suspension and subsequent restoration or termination of authorization.

(3) Designate the standards and specifications that shall serve as the basis of the certification program and notify participants of the effective dates of modifications of each.

(4) Provide a system of validation (see Section 7) to determine that products or services bearing the mark or certificate of conformity comply with the applicable standard and other requirements of the program. The certification body may conduct its own validation activities or exercise oversight of these activities carried out on its behalf by other organizations.

(5) Effect the provisions of due process, providing an appeals mechanism for resolving disputes that arise under the program.

(6) Maintain adequate communication with all participating parties in order to assure relevancy, acceptability, and continuity of the program.

(7) Make available and maintain in writing the following:

(a) General information covering the procedures and operations of the program, a description of the mark of conformity, the referenced standards or specifications, and identification of the certification body and other parties to the program in a form that discloses their relationship to participating producers.

(b) A program directory that includes a list of participants and their products or services, or both, authorized to bear the mark or certificate of conformity, identification of the specific referenced standards or specifications; a description of the mark of conformity; and identification of the certification body and other parties to the program in a form that discloses their relationships to the participating producers.

(8) Maintain the confidentiality of proprietary information, access to which results from contacts with participants in the program.

(9) Provide for the operation of the program on a continuing basis. The certification body may itself administer the program's activities or shall oversee the administration carried out on its behalf by another organization meeting the requirements applicable to the functions performed.

(10) Safeguard the use of the mark or certificate of conformity. Procedures shall be established and used to detect incorrect citations of authorization or misleading use of the mark or certificate of conformity. When warranted, corrective action shall be taken. The basis for suspension or cancellation of authorization and procedures for its withdrawal shall be established with respect to participating producers, together with conditions for reinstituting authorization. There shall be conditions for advising the user community of withdrawals of authorization, as well as reinstatement of authorization, and of unauthorized use of the mark or certificate of conformity under circumstances in which public notice is issued.

(11) Implement a uniform, legally binding agreement (contract) between the certification body and the program participants to provide for proper use and control of the mark or certificate of conformity and other key operational elements of the certification program.

NOTE: In circumstances when an organization other than the certification body carries out actual functions respecting participants in the certification program, the certification body shall have given its prior approval to the form and general content of agreements entered into on its behalf by such organization.

5. Quality Assurance

5.1 The producer shall establish, maintain, and use a system that will assure compliance with the requirements of the referenced standards or specifications. The system shall include the methods, procedures, controls, records, and maintenance of the system to provide continuing assurance of compliance with the referenced standards or specifications. The extent of this system will be dependent on the characteristics of the products or services and the requirements of the standards or specifications.

5.2 The producer shall conduct or contract for all necessary inspection and testing. Where appropriate, sampling and the frequency of sampling should be conducted in accordance with accepted quality-control practice. Testing shall be performed by a competent laboratory, properly equipped and with trained personnel.

5.3 The producer shall inform the certification body of any intended modifications in the product, manufacturing process, or quality-assurance system that may affect conformance to standards or specifications covered by the applicable authorization. In such cases, the producer shall not be allowed to release certified products from such modification until the certification body has notified the producer accordingly.

5.4 When the assurance of conformity is provided by a supplier who is not the basic producer, the supplier shall account for these actions of the producer.

5.5 The system shall be documented by the producer to permit review and evaluation by the certification body. The documentation shall include a record of all complaints received relative to conformity, as well as their resolution.

6. Methods of Indicating Conformity

6.1 The program mark of conformity (certification mark) or, when permitted, a certificate of conformity issued under the authority of the certification body shall be used to indicate that the product or service has been found to conform to all requirements for third-party certification.

6.2 The mark of conformity (certification mark) shall be designed and coded to aid the detection of counterfeiting or other forms of misuse and, when practicable, shall be in the form of a nontransferable label or mark

on the product; otherwise, the mark or label shall be on the package or container of the product. Certificates of conformity, as in the case of services and other permissible situations, shall be included with other appropriate documents. The information appearing with the mark or on the certificate of conformity shall identify:

(1) The producer of the product or service.

(2) The product or service: name, type or model number, and supplementary information providing traceability.

(3) The applicable standards or specifications. However, when this is impracticable, the applicable standard or specification shall be disclosed by other means, such as the product directory.

(4) The certification body (and the testing/inspection organization, if different) in a form that discloses any organizational relationship to the producer. When the name of an association or organization describes the relationship between the association or organization and the program participants, such name fulfills this requirement.

(5) In the case of certificates of conformity, the following information shall be added:

(a) Lot, batch, or other identifying source of the product or service covered by the certificate.

(b) Date of issue of the certificate.

(c) Signature and title of the authorized officer or other evidence of company authorization.

6.3 Use of and conformance with these procedures shall in no way authorize, imply, or require the use of any mark or certificate of conformity, except as authorized by the certification body.

6.4 The certification mark authorized and used shall be owned and controlled by the certification body and shall be registered as a certification mark under the Trade Mark Act of 1946.

6.5 As permitted by the certification body, the certification mark may be used in advertising, publicity, or promotions.

6.6 The use of marks or certificates of conformity and other public declarations shall be unambiguous and provide no basis for misinterpretation. The marks, certificates, and declarations shall be clearly distinguished from any other claims, markings, or labels not related to the authorized use of the mark or certificate of conformity. They shall clearly state:

(1) What products are covered

(2) What characteristics are covered by the certificate or declaration

7. Validation

7.1 The certification program shall provide for a system of both initial and continuing validation to determine that products or services conform to the standards or specifications and other program requirements. The certification body shall prescribe detailed requirements for the system and be responsible for its operation by itself performing required inspections, surveillance, and testing, or by overseeing these activities carried out on its behalf by other bodies.

7.2 The validation function shall be performed by a third-party testing and inspection agency. The general requirements for the testing and inspection body shall be as described in Section 8.

7.3 The process of validation shall consist of the following actions on the part of those responsible for its conduct:

(1) Determination that the producer has the necessary facilities, test equipment, and control procedures to ascertain whether the product or service complies with the program requirements and, as applicable, to review and determine action of the suitability of the quality-assurance system. Such action will include review of the system and essential program records and, as applicable, witnessing inspections and tests required by the system.

(2) Initial determination by uniform procedures that representative samples of products or services comply before such products or services are authorized to bear the mark of conformity under the follow-up provisions of the certification program.

(3) Periodic, systematic inspections and tests at a frequency necessary to determine that the producer's program is functioning properly; also, unannounced inspection and testing of the products or services, including: (a) monitoring of the quality-assurance program of the producer, when applicable, and (b) more frequent or otherwise reinforced inspections when a need for additional follow-up is indicated.

(4) Inspection and audit of the quality-assurance program of the producer when such program is utilized as part of the validation system.

7.4 The information required to perform these actions shall be specifically set forth so that consistent rulings will result. Likewise, where testing is required, information covering testing protocol requirements and other criteria shall be specifically set forth and available in advance to participants in the program.

8. General Requirements for Testing/ Inspection Bodies

8.1 Organization. Whether it is itself the program's certification body or has been appointed to carry out the testing/inspection function by the certification body, a testing/inspection body in a third-party certification program shall:

(1) Be legally identifiable

(2) Have an organization structure, including an appropriate quality system, adequate facilities, appropriate equipment, and competent personnel, whereby it can maintain the capability to perform satisfactorily the technical functions for which it has been assigned operational responsibility

(3) Have a technical manager, however named, who is qualified in the operation and who has responsibility for ensuring that the specified criteria are met

(4) Provide procedures for clear demarcation between testing/inspection activities conducted as part of the third-party certification program and any auxiliary or unrelated activities

(5) Ensure that testing/inspection procedures are continuously coordinated with the administrative and other operating functions of the certification body

(6) Have adequate security rules and measures for the protection of proprietary rights and confidential information

(7) Place any part of the work to be subcontracted with an organization complying with these requirements

8.2 Records and Reports. As provided by the rules and procedures of the certification program, a testing/inspection body shall establish and maintain a record system in accordance with the requirements of the program. The body shall retain on record for an appropriate period all original observations, calculations and derived data, calibration records, and final reports. Records for each test shall contain sufficient information to permit satisfactory repetition of the test.

8.2.1 Reports on validation and audit testing and inspection carried out in respect to participants in the certification program shall include at least the following information:

(1) Unique identification of the report (such as date or serial number), and a page number for each page of the report

(2) Name and address of the participant under inspection or testing, or both

(3) Identification and description of the test items

(4) Identification and description of the participant's facilities, as applicable

(5) Identification of the test specifications, methods, and procedure

(6) Description of the sampling procedure, where relevant

(7) Any deviations, additions to, or exclusions from the test specification or inspection procedures, and any other information relevant to a specific test or inspection

(8) Measurements, examinations, and derived results, supported by tables, graphs, sketches, and photographs, as appropriate

(9) Names and titles of the persons having technical responsibility for the report, and the date of issue

8.2.2 The inspection/testing body shall afford the participants reasonable cooperation to enable them to monitor the performance of the inspection or test in relation to their contract.

8.3 Calibration

8.3.1 Measuring and testing equipment shall be calibrated, where appropriate, before being put into service, and thereafter according to an established program.

8.3.2 Where relevant, in-service testing equipment shall be subjected to checks between regular calibrations.

8.3.3 The testing/inspection body's program for calibrating its equipment shall be designed and operated so as to ensure that its measurements are traceable, where the concept is applicable, to the national standards of measurement maintained by the National Bureau of Standards and, where appropriate, to international standards of measurement specified by the International Committee of Weights and Measures. When the certification program does not require traceability to national or international standards, the testing/inspection body can be required to provide evidence of the correlation or accuracy of its test results.

8.3.4 Reference standards of measurement held by a testing/inspection body shall be used for calibration only.

8.3.5 Reference standards for measurements shall be calibrated by a competent organization that can provide traceability to a national or international standard of measurement.

8.3.6 Reference materials shall be traceable to national or international standard reference materials where possible.

8.4 Quality System

8.4.1 The testing laboratory shall operate an internal quality-assurance program appropriate to the type, range, and volume of work performed. The quality-assurance program shall be documented in a quality manual that is available for use by the laboratory staff. The quality manual shall be maintained by a respon-

sible member of the laboratory staff in such manner as to be both relevant and current.

8.4.2 A person or persons having responsibility for quality assurance within the laboratory shall be designated by the laboratory management and have direct access to top management of the laboratory.

8.4.3 The quality manual shall contain the following information:

(1) Structure of the laboratory, which should be illustrated by organization charts, where appropriate

(2) Operational and functional duties and services pertaining to quality, so that each person concerned will know the extent and the limits of her or his responsibility

(3) General quality-assurance procedures

(4) Quality-assurance procedures specific for each test, as appropriate

(5) Proficiency testing, use of reference materials, and any other information that establishes the quality system, where appropriate

(6) Satisfactory arrangements for feedback and corrective action whenever testing discrepancies are detected

(7) Procedure for dealing with technical complaints

8.4.4 The quality system shall be systematically and periodically reviewed by or on behalf of management in order to assure the continued effectiveness of the arrangements, and corrective action initiated. Such reviews shall be recorded, together with details of any corrective action taken.

8.5 Staff

8.5.1 There shall be a job description for each technical position category that includes the necessary education, training, technical knowledge, and experience.

8.5.2 Information on the relevant qualifications, training, and experience of the technical staff shall be maintained by the laboratory.

8.5.3 Staff having responsibility for making initial recommendations for acceptance of producers' quality-assurance systems on products shall be qualified in the appropriate disciplines. Staff having responsibility for subsequent monitoring of a producer's quality control, if not professionally qualified, shall be supervised by qualified staff as a condition that such monitoring will have been properly conducted.

8.6 Testing and Measuring Equipment

8.6.1 The testing laboratory shall be furnished with or have access to all items of equipment required for correct performance of tests and measurements for which it is responsible.

8.6.2 All equipment shall be properly maintained to ensure protection from corrosion and other causes of deterioration. Instruction for a proper maintenance procedure for those items of equipment that require periodic maintenance shall be available.

8.6.3 Any item of equipment that has been subjected to overloading or mishandling, that gives suspect results, or that has been shown by calibration or otherwise to be defective shall be taken out of service and clearly labeled until it has been shown by test or calibration to be performing its function satisfactorily.

8.6.4 Records shall be maintained for each major item of equipment.

8.6.4.1 Each record shall include the following information:

(1) Name of the item of equipment

(2) Manufacturer's name, type identification, and serial number

(3) Date received and date placed in service

(4) Current location, where appropriate

(5) Details of maintenance

8.6.4.2 In the case of measuring equipment, the record shall also include the following:

(1) Date of last calibration, and calibration reports

(2) Maximum period of time between successful calibrations

8.6.5 A label or tag indicating the date of the last calibration and the due date of the next calibration should be attached to equipment requiring calibration.

8.7 Test Methods and Procedures

8.7.1 The testing laboratory shall have adequate documented instructions on the use and operation of all relevant equipment, on the handling and preparation of test items (where applicable), and on standard testing techniques, where the absence of such instructions could jeopardize the efficacy of the testing process. All instructions, standards, manuals, and reference data relevant to the work of the testing laboratory shall be maintained up-to-date and be readily available to the staff.

8.7.2 The testing laboratory shall use methods and procedures required by the specification against which the test items are to be tested. The specification shall be available to staff performing the test.

8.7.3 All manual calculation and data transfers shall be subject to appropriate checks.

8.7.4 When these results are derived by electronic data-processing techniques, the stability of the system shall be such that the accuracy of the results is not affected. This generally implies an ability to detect malfunctions in the hardware during program execution and to take appropriate action.

8.8 Environment

8.8.1 The environment in which the tests are undertaken shall not invalidate the test results or adversely affect the required accuracy of measurement. The

test premises shall be protected as required from excessive conditions, such as excessive temperature, dust, moisture, steam, vibration electromagnetic disturbance, or interference, and shall be maintained accordingly. The premises shall have the equipment and energy sources needed for the testing. When the testing so requires, they shall be equipped with devices to monitor the environmental conditions.

8.8.2 Adequate measures shall be taken to ensure good housekeeping in the test laboratory.

8.9 Handling of Items to Be Tested

8.9.1 A system for identifying the samples or items to be tested or calibrated shall be applied, either through documents or through marking to ensure that there can be no confusion regarding the identity of the samples or test items and the results of the measurements made.

8.9.2 At all stages of storage, handling and preparation for test, precautions shall be taken to prevent damage to the items (such as contamination, corrosion, or the application of stresses), any of which would invalidate the results. Any relevant instructions provided with the items shall be observed.

8.9.3 There shall be clear rules for the receipt, retention, and disposal of samples.

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1430 Broadway
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