



Working for
a safer world

ELECTRICAL PRODUCT TESTING AND CERTIFICATION

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2004 China-US Standards and Conformity
Assessment Workshop

August 18-19, 2004

Certification Process



US System

1. Initial Product Inspection
2. Product Testing
3. Periodic Factory Inspection
4. Mark of Conformity
 - Certification Mark on Product
 - Manufacturer Listed in a Published List

Third Party Product Certification



- Initial Assessment of Compliance
- Ongoing Assessment of Compliance

Initial Assessment



- Testing – ISO/IEC 17025
- Certification – ISO/IEC Guide 65
- Third-Party Certification Mark – ISO/IEC 17030

Ongoing Assessment



- Factory Inspection – ISO/IEC 17020
- Market Surveillance
- Corrective Actions – ISO/IEC Guide 27

Product Evaluation



- Review Product Construction
- Review Product Markings
- Conduct Tests
- Verify Acceptable Test Results
- Make Certification Decision

Product Requirements



- UL Standard
- Installation Code
- Federal Government Regulations

Test Data Sources



- UL Lab Generated Data
- Data Exchange Agreement
 - MoU with VDE
 - IECEE CB Scheme

Test Data Sources



- Client Interactive Programs
 - Witness Tests at Client Facility
 - Client Generated Test Data
 - Third-party Generated Test Data
- Client Agent Program Labs

Non-Compliance



Issue Report that Identifies

- Unacceptable
 - Construction Requirements
 - Test Results
- Information Needed for Resubmittal

Compliance



Document Product Construction and Test Results

- Product Description
 - IECCEE CB Scheme Format
- Test Results
- Conclusion

Compliance



Create Surveillance Document

- Certification Mark
- Frequency and Type of Surveillance
- Production Tests

Application of the UL Mark



- Specific Factory Locations
- Follow-up Service Agreements
- Initial Production Inspection

Inspection of Product



- Initial Product Inspection
- Ongoing Product Inspection

Levels of Surveillance



- Product Inspection
- Production Line Tests
- Periodic Tests at Factory or UL
- Quality Control System Audit
- Review Factory Complaint Records

Factory Inspection



- Unannounced Product Inspections
- Frequency Based on Factory's Compliance History
- Witnessing of Production Tests
- Review of Factory Test and Calibration Records
- Countercheck Testing

Market Surveillance



- Samples Obtained from Market
- Re-evaluation of Product Construction
- Re-testing of Product
- Provides Check on Manufacturer and Certification Process

Field Reports



- Protect the Integrity of the UL Mark
- Utilize Closed-loop Process
 - Investigate
 - Identify Defect
 - Resolve Complaint
 - Mitigate Hazard
 - Improve Process

What is a Field Report?



Allegation of a safety problem with a UL certified product

- Unanticipated End-use
- Manufacturing Defect
- Inadequate Standard Requirements

What is a Field Report?

Misapplication of Mark

- Violation of Follow-Up Agreement
- Inadequate Quality Control
- Error in Assessment of Conformity

What is a Field Report?



Unauthorized Use of UL Mark

- Product
- Packaging
- Advertising



Field Report Process Overview



- Investigate Complaint
- Identify defect and determine if hazardous
- Mitigate Hazard
- Determine why defect occurred
- Identify how to keep defect from reoccurring
- Implement Corrective Actions

Mitigate Hazard

- Eliminate the consequences of the misuse
- Remove the hazard as far as necessary and practically possible

Types of Actions



- Manufacturer Product Recall
- Rebuild Product
- Scrap or Replace Product
- Remove UL Marks
- Issue Public Notice



Corrective Action



Depends On:

- Laws of country in which misuse occurs
- Seriousness of the misuse
- Misuse Inadvertent or Deliberate
- Product Hazardous

Corrective Action



Manufacturer Refuses to take corrective action

- Withdraw authorization to use UL Mark
- Notify relevant Government Authorities
- Take appropriate legal action

Corrective Action - UL Process



- Revise UL Standard
- Increase Factory Inspection
- Additional Factory Follow-up Tests
- Conduct Research Investigation

Thank You!



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