



# Environmental Standardization

## A Canadian Perspective

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# The Role of Standards in Environmental Compliance

Standards provide common definitions, framework, and method towards meeting requirements





## IEC/TC111

- ▶ The International Electrotechnical Commission (IEC) established TC111 in 2004
  - ▶ Mandate to create international standards supporting environmental compliance of electronics.
  - ▶ Membership and voting is by Country
  - ▶ 27 participating countries; 4 observer countries
  - ▶ Canada has been a 'P' status member of TC111 since Aug 2005.
    - Diverse Membership from equipment OEMs, manufacturers, suppliers, consultants, and government organizations.



## IEC/TC111 Work Program

- ▶ **IEC 62474: Materials Declaration (WG1)\***
- ▶ IEC 62430: Environmentally Conscious Design (WG2)
- ▶ **IEC 62321: Test Methods of Six Regulated Substances (WG3)\***
- ▶ **IEC TS62476: Guidance for assessing compliance of finished goods with respect to restriction of use of hazardous substances\***
- ▶ **IEC PAS 62596: Sample Disjointment (HWG3)\***
- ▶ IEC/TS62542: Standardization of environmental aspects - Glossary of terms
- ▶ **HWG4: Recycling, Reuse, and Recovery\***



# WG1: Materials Declaration

- ▶ WG1: Material Declaration for Electrical and Electronic Products (IEC 62474)
  - ▶ NP was approved April, 2006
  - ▶ 1st Committee Draft: 25th April, 2008
    - (470 comments)
- ▶ Database of Declarable Substances and Materials
  - ▶ Declarable Substances
    - Based on Substance Restrictions in IEC member countries
    - Industry Defined Declarable Substances
  - ▶ Material Classes
    - Supports Environmentally Conscious Design
- ▶ Declaration Procedure
  - ▶ Declarable Substances
  - ▶ Material Classes
- ▶ Declaration schema for data interchange (XML)



## WG2: Environmentally Conscious Design

- ▶ WG2: Environmentally Conscious Design for Electrical and Electronic Products (IEC62430)
  - ▶ NP was approved May, 2005
  - ▶ Scope: Horizontal standard providing generic procedures to incorporate environmental aspects into design and development of electrical and electronic products.
    - Supports increased focus in several industry sectors on formalized Environmentally Conscious Design (ECD)
    - Supports EU EuP Directive and similar legislation being developed in other countries.
  - ▶ CDV voting closed 5th September, 2008
    - Approved 25/0
  - ▶ Publication of International Standard expected July 2009
  
- ▶ Related Work: International Standards being developed for several EEE vertical segments
  - ▶ IT and Communications equipment (IEC62075)
  - ▶ Medical Equipment (IEC 60601-1-9)



## WG3: Test Methods

- ▶ Title: Procedures for the Determination of Levels of Six Regulated Substances (Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls, Polybrominated Biphenyl Ether) in Electrotechnical Products (IEC62321)
  - ▶ NP was approved March, 2005
  - ▶ 2<sup>nd</sup> CDV was approved 14th December, 2007
    - (Comments: 527)
  - ▶ Final Draft International Standard (FDIS) Approved 3rd October, 2008
  - ▶ Formal Publication Expected 1H 2008
  - ▶ Maintenance team created to improve test methods and add substances as needed.
  
- ▶ This standard provides Internationally common method to testing for RoHS substance
  
- ▶ Critical standard for smooth International trade



## PT3: Sampling

- ▶ IEC/PAS 62596: Electrotechnical products – Guideline for the sampling procedure for the determination of restricted substances
  - ▶ Proposal was approved June, 2006
  - ▶ Decision to make this a Publicly Available Specification (PAS) for expediency
  - ▶ PAS voting: 8th August – 10th October, 2008
    - PAS approved (19Y, 2N, 4A)
  - ▶ Content will be evolved and migrated into IEC 62321



## PT62476 – Assessing Products for Restricted Substances

- ▶ IEC 62476 TS : Guidance for assessing conformity of product with respect to substance use restrictions in electric and electronic equipment
  - ▶ NP was approved May, 2006
  - ▶ 1st Committee Draft: 8th February – 9th May, 2008
    - (382 comments)
  - ▶ 6th meeting: 22nd – 23rd September, 2008 in Munich, Germany
- ▶ Establishes a framework with requirements for compliance assessment.
  - ▶ Uses internationally accepted standards, tools and practices.
  - ▶ Applicable to finished product producer and supply chain



## Recycling, Reuse, Recovery

- ▶ TC111 is considering development of standards related to recycling.
- ▶ HWG4: Recycle, Reuse, Recovery area
- ▶ Two New Work Item Proposals:
  - ▶ NP1: “End of life recyclability calculation for electrotechnical equipment”
  - ▶ NP2: “Communication formats on recycling for electrotechnical equipment between manufacturers and recyclers”



# Terminology

- ▶ Standardization of environmental aspects - Glossary of terms
  - ▶ NP was approved August, 2007
  - ▶ 1<sup>st</sup> Committee Draft reviewed fall 2008



## Summary

Standards provide a toolkit to Electronic Equipment Producers in achieving and proving Environmental Compliance.

International Standards are critical to the harmonization for efficient flow of environmental information and compliance assurance throughout the supply chain.

The sudden surge in environmental regulations has created a gap in available standards; the standards community must catch up.