IEC and CENELEC environmental standardization activity:

overview of IEC TC111 “Environmental standardization for electrical and electronic products and systems” and CENELEC TC 111X “Environment”

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CLC TC 111X
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Outline of IEC TC 111

- Established: October, 2004
- Title: Environmental Standardization for Electrical and Electronic Products and Systems
cf. ISO TC 207 "Environmental management"

- Officers
  - Chairman: Yoshiaki Ichikawa (Japan)
  - Secretary: Andrea Legnani (Italy)
  - Technical Officer: Matei Cocimarov (IEC)
Scope of IEC TC111

Standardization of environmental aspects concerning:

- To prepare the necessary guidelines, *basic and horizontal* standards, including technical reports, in the environmental area, in close cooperation with product committees of IEC, which remain autonomous in dealing with the environmental aspects relevant to their products;

- *To liaise with product committees* in the elaboration of environmental requirements of product standards in order to foster common technical approaches and solutions for similar problems and thus *assure consistency in IEC standards*;

- *To liaise with ACEA and ISO/TC 207*;

- To monitor closely the corresponding regional standardization activities worldwide in order to become a focal point for discussions concerning standardization;

- EMC and EMF aspects are excluded from the scope.
Membership of IEC TC111

- Members (15/2005 => 33/2011)
  - P-members: AU, BE, CA, CN, CZ, DK, FI, FR, DE, IN, IL, IT, JP, KR, MY, MX, NL, NO, RO, SG, ZA, ES, SE, TH, GB, US, BR, PK (28)
  - O-Members: PL, SK, SI, CH, AT (5)
  - Outside liaison: ISO/TC207, ISO/TC61 (Plastics), ECMA
Relationships of Environmental Issues and IEC TC111 Projects

Basic environmental issues:
- Climate Change
  - Greenhouse gas
- Depleted resources
  - Water
  - Rare metal
  - Fossil fuel
- Loss of biodiversity
  - Toxic chemicals
  - Emission

Current highlighted agenda for EE industries:
- Eco-design
- Energy and GHG
- Material efficiency
- Hazardous chemicals management
- Laws & Regulations

TC111 standards & activities:
- IEC 62474: Material declaration
- IEC 62430: Environmentally Conscious Design
- IEC 62321: Hazardous substances testing
- IEC TR 62476: Restricted Substance Guidance
- IEC TR 62635/50: Recycling
- IEC 62452: Terminology
- IEC 62725/26: GHG
Structure of IEC TC 111

- **WG1**: Material Declaration
- **WG2**: Environmentally conscious design (disbanded)
- **WG3**: Test procedures of hazardous substances
- **WG4**: Green House Gasses
- **PT 62476**: Guidance for evaluation of product with respect to substance use restrictions
- **PT 62542**: Terminology
- **PT 62635/62650**: Recyclability
- **VT 62474**: DB for Material Declaration
- **AHG 6**: Environmentally Conscious Design
- **AHG 7**: Design for Recyclability

IEC standards:
- IEC 62430 Ed.1.0
- IEC 62474 Ed.1.0
- IEC 62321 Ed.1.0
- IEC TR 62476 Ed.1.0

**Notes**:
- DB Public available!
- Disbanded after publication
WG1/Material Declaration Strategy

Create a standard that explains process requirements and criteria for a referenced material declaration database

Standard will leverage existing IEC “database” process that enables routine updates to reflect changes

1. Standard strategy
   - Specify base declaration requirements, while still allowing organizations flexibility to go beyond base declarations with optional additional requirements.
   - Will be updated under IEC standards maintenance process

2. “Database” = List of Materials, Substances & Schema
   - IEC 62474 “Database” to ensure consistent with IEC criteria
     - Includes substances, substance groups and material classes to report (mandatory or optional); also specifications for data transfer/exchange.
   - Routine update using IEC Annex J process
     - Validation Team appointed per NC.
   - Database will be available free of charge on IEC web site
IEC 62474 database

IEC 62474 database LIVE site @ http://std.iec.ch/iec62474

- Lookup and search capabilities for substances
- Will have download capability:
  - Declarable Substance Group/Substance Table in excel format;
  - Reference Substances in excel format
  - Material Class Table in excel format
  - XML schema (as .xdsfile)
  - Developers’ Table in excel format
  - Will include use instructions into Introduction

- Public available!
- VT 62474 responsible for maintenance/update
Environmental Subjects in Progress or Potentially to be Addressed by TC111 over The Next 3-5 Years?

1. Chemical substance
   - Testing (revisions & new substances)
   - Material information (in progress)

2. Ecodesign
   - Ecodesign process (revision)
   - Design for recycling

3. Recovery/Recycling/Reuse
   - Recyclability evaluation
   - Information exchange
   - Appropriate processes

4. GHG emission/reduction
   - Carbon footprint
   - Reduction of EE products from the base line

5. Efficiency
   - Generic framework for evaluating energy efficiency for EE products
   - Eco efficiency over the life cycle

6. Ecosystem
   - Water footprint
   - Impact assessment for Biodiversity
CENELEC TC 111X

Title: Environment

Establishment: 2004, as TC ENV

- After establishment of IEC TC 111 (oct. 2004):
  - TC 111X (2005), (to underline differences with IEC TC 111, e.g. fulfil EU Mandates and Advisory functions)

- Secretary
  - Andrea Legnani (IT)

- Chairman
  - Herbert Mrotzek (DE)
CLC TC 111X SCOPE

- To deal with environmental aspects for electrical and electronic products and systems.
- To promote activities in CENELEC relevant to reducing detrimental impacts of electrotechnical activities/products/systems on the natural environment.
- (In this context “reducing” means a process of continual environmental improvement aimed towards an optimum balance with social, economic, safety and performance requirements.)
- To enhance CENELEC’s environmental links with the European legal framework, particularly in the context of standardization aspects of EU environmental regulations and directives.
- To prepare the necessary standards framework and in co-operation with other CENELEC Technical Bodies co-ordinate the development of, or when necessary produce, the needed standardization deliverables. Product TCs remain autonomous in dealing with environmental aspects relevant to the products included in their scope.
- To assist product committees in the elaboration of environmental requirements of product standards in order to foster common technical approaches and solutions for similar problems and thus promote consistency in CENELEC standards.
- To cooperate with recognized standardization bodies and other relevant organizations for matters of common environmental interest.
- To communicate with and to give advice to CENELEC BT and technical committees on questions related to work on environmental issues. EMC and EMF aspects are excluded, but relevant developments will be noted.
CLC TC 111X structure

TC 111X
Chairman
H. Mrotzek
(DE)
Secretary
A. Legnani
(Italy)

WG 1
PUBLICITY

WG 4
END OF LIFE
REQUIREMENTS FOR
HOUSEHOLD
APPLIANCES
CONTAINING VOLATILE
FLUORINATED
SUBSTANCES OR
VOLATILE
HYDROCARBONS

WG 5
Technical documentation
for the assessment of
electrical and electronic
products with respect to
the restriction of
hazardous substances
J.L. Detrez
(Belgium)

WG 6
WEEE Recycling
Standards
T. Shryane
(Ireland).
WG s: EN standards in preparation

WG 4 Collection, logistics & treatment requirements for end-of-life household appliances containing volatile fluorocarbons or volatile hydrocarbons

- EN 50574 in publication

WG 5 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

- EN 50581 final voting

WG 6 WEEE RECYCLING STANDARDS

- to prepare standard for the general technical requirements for treatment of WEEE
- to prepare deliverable for general technical requirements for the sorting and transportation of WEEE
- to prepare deliverable for general technical requirements for collection of WEEE
- to discuss specific technical requirements
Thank you for your attention. Any questions?