



EU' s ELV Directive – Issues for the Indian Automotive Industry

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ELV Directive 2000/53/EC





Objectives

- Reduce the use of hazardous substances when designing vehicles;
- Design and produce vehicles which facilitate the dismantling, re-use, recovery and recycling of end-of-life vehicles;
- Increase the use of recycled materials in vehicle manufacture;
- Ensure that components of vehicles placed on the market after 1 July 2003 do not contain mercury, hexavalent chromium, cadmium or lead, except in the applications listed in Annex II.

Scope of ELV Directive

The ELV covers only new and end-of-life vehicles, including their components and materials:

- ❖ Any end-of-life vehicle designated as category M1 or N1:
 - Category M1: Vehicles used for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat
 - Category N1: Vehicles used for the carriage of goods and having a maximum weight not exceeding 3.75 metric tons.

- ❖ Three-wheel motor vehicles – to comply only with the collection and treatment requirements of the ELV.

Limited regulations apply to special purpose vehicles such as motor caravans, ambulances and hearses

Deadlines and Targets

- **01 Jan. 2006** - reuse and recovery of ELV to be at a minimum of 85% by average weight per vehicle, reuse and recycling of ELV to be at a minimum of 80% by average weight per vehicle.
- **01 Jan 2007** - ELV vehicles put on market before 01 July 2002 to be delivered to the authorized treatment facilities without additional cost to the last owner.
- **01 Jan. 2015** - reuse and recovery of ELV increased to a minimum of 95% by average weight per vehicle, reuse and recycling of ELV to be at a minimum of 85% by average weight per vehicle

Concentration Limits and Definitions

The maximum concentration values for banned substances are

- 0.1% weight (1000 ppm) of lead, mercury, hexavalent chromium, in “homogeneous materials” and
- 0.01% weight (100 ppm) of cadmium in “homogeneous materials”

for Hexavalent Chromium – permissible level 2gm per vehicle

Homogeneous material- “a unit that cannot be mechanically disjointed into single materials”



Use of MoC in Automobiles

MoC – Materials of Concern/Restricted Substances

- Steel containing Lead
- Zinc Coatings
- Copper alloys contain up to 4% Pb
- Lead/Bronze Pistons

Lead & Lead Compounds:

- Batteries
- Fuel Tanks
- Vibration Dampers
- Lead in Paints



Use of MoC in Automobiles (Contd..)

- Lead as Stabilizer in Plastics
- Soldering
- Wheel Balancing Weights
- **Other MoC**
- Cr- Corrosion Preventive Coatings / Pigments used in Paints
- Hg- Gas Discharge Devices for Headlamps
- Cd- Batteries containing Cd



Issues for the Indian Automotive Industry

- End-of-life Vehicle (ELV) regulations
- Restriction of hazardous materials regulations
- Requirements for greater fuel efficiency (EuP)
- Emission reductions
- Improved safety
- Aesthetic design
- Cost competitiveness



Issues related to the ELV Directive

Restriction in the material of concern to the stipulated levels

- Exempt materials and components from the heavy metals ban if the use of Pb, Hg, Cd or hexavalent chromium is unavoidable and
- Delete from the list of exemptions those materials and components in which the use of lead, mercury, cadmium or hexavalent chromium is avoidable

(Source: Stakeholder Consultation Documents – 2004)





Issues related to the ELV Directive (Contd..)

Designing for easy reuse, recycling & recovery (Design for recycling)

- Material selection
- Marking of plastic components
- Design of components to facilitate dismantling



Issues related to the ELV Directive (Contd..)

Proactive Preparation for Regulation

- Sensitizing the company management
- Identify products/components that will be implicated
- Search for alternatives
- Identify non-compliance areas
- Identify compliance project team
- Identify departments/professionals that need to be contacted
- Formation of consortia to take collective steps towards compliance
- Seek the help of external service providers





Implications on Indian Suppliers

- Rejection of automotive components in the face of non-compliance
- Loss of a major export market
- Reduced competitiveness compared to the other compliant suppliers
- Reduced customer appreciation



Possible Opportunities

- **Increase in recycling percentage will demand higher inputs from suppliers**
- **Review of exemptions, opportunities to provide inputs in consultation documents**
- **Search alternatives for specialized materials**
- **Modification in the physical form of components facilitating disassembly**



What the industry can gain

- **Continued exports to the European countries**
- **Competitive advantage over non-compliant suppliers**
- **Environmental friendly products**
- **Customer preference for quality**

Comply and flourish!

