

The Management of Mercury Lamps

A presentation of the strategic approach
and treatment technologies

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THE MANAGEMENT OF MERCURY LAMPS



Environmental and Economic Aspects

- Power saving
- Cost x Efficiency
- Technology Substitution / incandescent lamps
 - Project Reluz (Brazil)
 - Programs for Energetic Efficiency
 - Prohibition of the production



THE MANAGEMENT OF MERCURY LAMPS



Environmental and Economic Aspects

- Consumption in Brazil (over 290 million in 2012)
- The presence of mercury (functional aspect)
- Logistics with capillary
- Source of environmental pollution and occupational risks





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LEGISLATION IN BRAZIL



The Brazilian legislation on fluorescent lamps are primarily related to two aspects:

1 - The storage, transportation and disposal: Mercury lamps are consider hazardous waste – Class I (NBR 10.004/04). It is assigned the responsibility for proper disposal to the generators.

- Why do we have customers?



2 - The responsibility of manufacturers and importers, and other participants in the distribution chain: through the National Policy on Solid Waste (Act Nº. 12.305/2010 - Decree Nº. 7.404/2010), it was established the responsibility of the collection, transportation and disposal of fluorescent lamps to all participants of the chain.

- Some principles similar to WEEE Directive
- Reverse logistics



THE SOLID WASTE POLICY IN BRAZIL



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- **Developments in environmental aspects / control / legislation**
- **Approved the National Policy on Solid Waste (2010)**
- **Creates the expectation of society, and interest in environmental projects by government and companies (all segments)**



THE NPSW AND IMPLEMENTATION OF REVERSE LOGISTICS IN BRAZIL



- Created the Technical Working Group
 - Established shared responsibility
 - Presentation of a model (ABILUX - manufacturers)
 - Next step: the presentation of new models and the sectoral agreement (between the manufacturers and importers)
- Features and problems in Brazil



SITUATION IN BRAZIL



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SITUATION IN BRAZIL



Legal, Environmental and Technological Aspects

- Just 4-5% (aprox. 12-14 million) are collected
- It's allowed the crushing of lamps, and the waste disposal on landfill (with no recycling and mercury control)
- No specific legislation (emissions of mercury, landfill, quality parameters for recycling, etc..)



SITUATION IN BRAZIL



Legal, Environmental and Technological Aspects

- There is no national reference to licensing the decontamination companies
- The bureaucratic aspects
- There is no obligation to the point of sale to receive the lamps
- No concentration points (periodic storage)
- There are large stocks (cost)





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System Operation

- **Customer sale (technical explanation and the pursuit of consciousness)**
- **Collection Schedule**
- **Collection and transport**
- **Treatment, decontamination and recovery of mercury**





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Guidance for Handling and Storage





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Collection and Transport





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* Figura ilustrativa do processo.

Occupational and Environmental Controls



Atmospheric Emissions



By-products



Water and Soil



Occupational Exposure

Business Plan

- **Installation of two storage points (Rio Grande do Sul-South and Rio de Janeiro-Southeast)**
- **Development of new technologies**
- **Exploration of other markets (WEEE)**
- **Development of the recycling in Latin America and Caribbean**





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THANK YOU!

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Institutional Video

