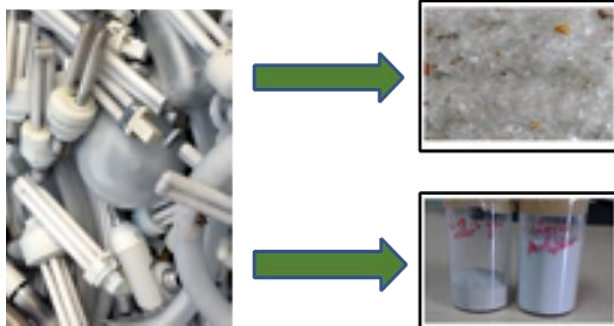


Recycling of Waste CFLs and Tubelights

Introduction

Realizing the need of tools for the safe dismantling of used compact fluorescent lights (CFLs) and tubes, and a subsequent separation of glass and phosphor materials from them, following process technologies have been developed to benefit the Indian industry for recycling of waste:



- Bulb-Eater for safe dismantling

An in-house designed bulb-eater has been assembled. The developed bulb-eater costs significantly lesser than the similar existing devices and protects the workers/environment from mercury contamination.

- Process for separation of glass and Phosphor

A process has been developed to treat the waste CFLs and tubes through an easy and toxic chemical-free method so as to separate glass and phosphor power. The process know-how has been transferred to an Industry.

Applications

In CFL and Fluorescent tubes, the glass is coated with a fluorescent material known as phosphor which is excited by mercury vapours inside the lamp. The recycling industries mainly do their business by separating the glass and phosphor components and selling them again to the interested parties. It is necessary to easily and cleanly separate the glass and phosphor component for an effective recycling.

Status

Field tested ready and technology transferred to an Industry.