

The investigations in this study were performed on two types of waste linear (tubular) T8 and T12 lamps, which are mostly used in Turkey. Total average value of the mercury mass for the T8 and T12 lamps were calculated to be about 6 mg and 12 mg per lamp, respectively. SEM-EDX elemental analysis showed that approximately 52% percent of phosphor powders of waste T8 and T12 lamps was measured as calcium (Ca) by weight. ICP-OES analysis showed that some rare earth elements were traced in the T8 and T12 phosphor powders. These waste lamps could be considered as an ore of secondary raw materials. The use of recycled metals in lamp production instead of virgin metals may have positive environmental impacts through reduced energy use and reduced pollution related to the mining of the virgin source in Turkey.