

LCRA Pollution Solution Program Consideration
Date: 12/19/95

P2 Project # 02-0012.95

Project Name: Non-Hazardous Fluorescent Lighting

Project Identification:

This project involves the reduction in hazardous fluorescent lamps generated during electrical relamping activities. In an effort to reduce the volume of hazardous waste generated, a purchasing procedure was implemented to insure that only Philips brand fluorescent lamps that are low mercury and can pass the TCLP for mercury are purchased by LCRA to reduce the amount of hazardous waste generated.

The second phase of this project is the crushing of hazardous fluorescent lamps managed in a fluorescent lamp crusher. The lamps were initially managed in the lamp crusher unit to minimize storage space and containerize the lamps more efficiently. As a result of the process change samples were taken of the crushed lamps and TCLP tested for the 8 RCRA metals. The analytical confirmed the crushed fluorescent lamps as a Class 2 nonhazardous waste. Additional composite sampling was performed and the classification remained a Class 2 waste. Periodic sampling will be performed to confirm Class 2 waste classification. The lamp crusher filter was also sampled to determine the classification. The TCLP of the 8 RCRA metals was below hazardous and Class 1 regulated levels and therefore was a Class 2 waste. Although the fluorescent lamps when tested as a unit failed the TCLP for hazardous waste, during crushing the mercury levels are reduced to Class 2. The crushed lamps and filter generated during crushing fluorescent lamps will be managed as a Class 2 based on analytical testing performed.

Project Classification: Source Reduction/Waste Minimization

Project Prioritization: High

Projected Reductions:

Source Reduction has a potential to reduce spent hazardous fluorescent lamps by 1180 pounds or 30 percent in 1996. Waste Minimization has the potential to reduce the generation of hazardous fluorescent lamp waste by the remaining 1.35 tons, or 100%.

Assessment of Risk:

The installation of this project reduces both human health and environmental problems associated with hazardous waste generation. Monitoring of mercury emissions was performed to crushing the lamps and the results of mercury emissions was non detectable.

Schedule of Implementation:

This project is to be implemented immediately upon notification and concurrence from the TNRCC to reduce hazardous waste generation.

Cases of Medium Transfer:

No cases of medium transfer were readily identified with this waste source reduction project.

Economic Considerations :

Last year FPP generated approximately 3,880 pounds of hazardous lighting waste that was recycled off-site at a cost of more than \$5,820. This project is expected avoid these costs by managing as class II waste. It is also possible that additional revenue may be generated as the crushed glass can be recycled.