

Electrum, Inc.

827 Martin Street
Rahway, NJ 07065
www.electruminc.com

CHOOSING THE MOST ENVIRONMENTALLY SAFE SOLDER RECYCLING SERVICE

The most important factor in the selection of a solder recycler is the level of environmental protection they can provide the generator. USEPA regulation clearly states “the generator is responsible for the proper handling of any waste material from cradle to grave”.

Solder dross is exempt from RCRA compliance when it is recycled, (40CFR261.2). However, the generator must be assured that their selection of a recycler is environmentally sound. USEPA refers to this process as “due diligence” – whereby the generator actively reviews the permits, equipment and environmental record of the recycler.

The decision maker must consider protecting his company from:

Environmental Pollution – In good conscience, every citizen must protect the environment. Recycling is proven to be a better form of environmental protection than landfill or material stabilization.

Environmental Compliance – Be certain your company is in compliance with all federal and state regulations and your recycler of choice has the necessary permits and credentials to satisfy your compliance requirements.

Superfund – This should be a generator’s primary concern. Superfund action occurs when a property (Recycler, TSDF, Landfill) becomes contaminated with hazardous materials. If the private facility cannot afford to cleanup the property, USEPA assumes responsibility for the cleanup effort. The cost of the cleanup is borne by the generators who shipped waste to the site. USEPA determines each generator’s monetary obligation, or share of the cleanup cost. As usual, legal issues abound, and the cleanup cost and related to legal fees at this level are very expensive.

We offer you these Questions and Answers to assist you in choosing the best recycler. These questions are for your discussion with potential dross recyclers.

Question #1 - Who actually recycles the solder dross your company ships for recycling?

ANSWER: The generator should know if their recycler actually recycles the dross or sells the dross to a third party – acting as a broker. Remember, the mere fact the dross is recycled does not eliminate the generator’s environmental responsibility. The generator should require assurances and documentation that the recycler has the proper process equipment, permits and demonstrates sound environmental business practices. The recycler should provide the generator with the details of their process along with permits.

At Electrum, we recycle the dross we receive in our “State of the Art” dross recycling facility located in Rahway, New Jersey.

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Question #2 - As a recycler, can you demonstrate stack testing data from actual supervised testing, using USEPA protocol? What are the emission rates for various air pollution elements?

ANSWER: Emission testing is performed using USEPA published protocol (test methods). At Electrum our stack was probed by a NJDEP approved air testing laboratory. In addition, the tests were conducted under the supervision of NJDEP engineers with the Bureau of Air Quality.

Our test results indicated our process emits less than 30 percent of the USEPA allowable limit for “secondary lead smelters”.

Question #3 - As a recycler, what type of air pollution control system do you operate?

ANSWER: Here at Electrum, our air emission controls consist of a three stage proprietary system. The first stage is an afterburner, which re-burns the gases produced by the flux, used in the soldering process. These gases are liberated during remelting the agglomerated solder skimmings (dross). The temperature controls in the afterburner allow the unburned hydrocarbon to be burned and this process eliminates both hydrocarbon and smoke emissions. The second stage consists of a quench tower which cools the extremely hot, afterburner gases down to below boiling point. The third stage is a ceramic packed tower which washes the gases and removes any particulates prior to discharge.

Our competitors typically use a baghouse to control their air emissions. Baghouses use cloth filters (bags) to remove pollutants. Unfortunately, the baghouse filters only collect the larger size particulate emissions. The smaller particles, such as lead pass thru the filter into the atmosphere. Another item not captured by the baghouse system is the unburned hydrocarbons which pass directly into the atmosphere creating unnecessary air pollution.

Ask yourself – who holds the **BAT?** (**B**est **A**vailable **T**echnology)

The Clear Choice:

Over twenty five major U.S. electronic manufacturers have audited and approved Electrum to recycle solder for their generating facilities. These approvals clearly demonstrate confidence in Electrum’s process and our ability to dramatically reduce generator current and future SUPERFUND RISK.

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Tel: (732) 396-1616

Toll Free: (800) 622-1192

Fax: (732) 396-9390