



## **Operational Plan for SU 160501 – Cinco Electronics**

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## I. Introduction

Cinco Electronics Recycling (CER) is an electronics recycler providing services dedicated to returning end of life electronic materials to productive use.

These services are provided to a wide range of customers through three market streams.

- CER provides recycling services to customers who wish to dispose of electronic equipment.
- CER may refurbish, or tear down equipment to provide usable equipment (reuse) and components to used equipment retailers and end user customers.
- Materials which cannot be reused are sent to downstream processors who recover recycled base materials for reuse.

CER has developed an Environmental Quality, Health and Safety Management System to protect our employees, interested parties doing business with CER and the environment. The Environmental Quality Management System has been certified under **ISO 14001:2004** (April 2009) and the “R2” (Responsible Recycling Standard ( October 2010) as documented in this manual. The Health and Safety System has been certified under **OHSMS 18001:2007** (May 9, 2010) and is documented in **CER Form 6.01.XX – OHSMS Manual**.

All existing certifications apply to the leased facilities at:

2725 S. State Hwy. 360  
Suite 200  
Grand Prairie, Texas, 75052  
and  
2235 Southwest Blvd.  
Suite A  
Grove City, Ohio 43123

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CER's Management Systems are based on the principles of:

**Plan** – by establishing objectives and processes necessary to deliver results in accordance with CER's Responsible Recycling requirements and quality standards.

**Do** – by implementing the processes which will accomplish the goals for Responsible Recycling and provide the highest quality recycling services.

**Check** – by monitoring and measuring the processes against the policies, objectives, legal requirements, and customer feedback.

**Act** - by continually improving performance and compliance to the Environmental Quality, Health and Safety Management Systems.

## II. Scope

CER is dedicated to the United States Environmental Protection Agency's guidelines for accreditation and Certification known as **R2**, or Responsible Recycling. The **Scope** of this certification is the management of all CER equipment and materials passing through CER facilities. Special attention will be applied to **Focused Materials** which pass through the facilities.

A. The physical scope of the system and this manual includes the CER leased facility at 2301 East St. Elmo, Grand Prairie, Texas 78744, and 2235 Southwest Blvd, Suite A, Grove City, Ohio 43123.

B. Responsibility for the external physical plant and all external inputs (water, sprinklers, driveways etc.) in both locations resides with the landlord. Climate control, internal amenities, and equipment such as forklifts, fire extinguishers, and other individually assigned items are the responsibility of Cinco.

C. The principles of the Environmental Quality Management System will apply to all CER employees, contractors, and interested parties.

## III. Environmental Quality, Health, and Safety Management System

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A. **CER Policy 7.03.XX Management of End Of Life Materials** outlines the hierarchy CER follows in its business model:

1. **Reuse** - CER will take all practical steps to direct properly functioning equipment and components to reuse unless a customer requires other disposition.
2. **Recovery** – CER will separate as needed, through manual dismantling and/or mechanical processing, the materials in equipment and components that cannot be directed to reuse, and direct them to properly equipped materials recovery facilities when technically and economically feasible.
3. **Disposal** – CER will direct remaining material to properly equipped energy recovery and/or disposal facilities in conformance with Section 5 of the R2 standard.

All down stream vendor's activities will be managed to insure compliance with all legal regulations and EPA guidelines to insure that exported materials are processed responsibly.

B. R2 Compliance is assured through system and compliance audits concurrent with the specific reviews of the Environmental Quality Management System (ISO 14001) and the Occupational Health and Safety Management System (OHSAS 18001). These audits may be done in segments to insure that the entire system is thoroughly audited each year prior to the ongoing Surveillance Audits.

C. CER documents its hazard exposure using **CER Form 6.03.XX OHSMS Hazards Matrix, 6.07.01 Hazardous Materials Summary Matrix, 6.08.XX Hazardous Tools Summary List**. Monitoring and continuous improvement is accomplished through Compliance Audits and Monthly Walkthroughs and recorded on **CER Form 6.12.01 Monthly Walkthrough Checklist**.

D. CER SOP **1.12.XX Emergency Action Plan – English**, provides an outline for response to emergencies in the workplace as well as Health risks.

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#### IV. Reuse, Recover. Hierarchy of Responsible Management System

A. CER's first priority is to provide services to make products available for **reuse**. CER maintains Test Departments for: Hard Drives, Optical Drives, LCDs, Portable Computer Batteries, and Portable Computer AC Adaptors, and Desktop Computer Power Supplies and Cellular Phones. Written Test Procedures (the **5.XX.XX** series) and documentation exists for each of these areas. At customer request, Daily Work Instructions may temporarily take precedent over SOPs as long as no Environmental, Health, Safety, or Quality risks are incurred. All of these products may be purchased individually, or removed from higher assemblies through dismantling. Material which can not be immediately refurbished for resale will be sent to downstream processors for further dismantling and processing for reuse at a lower level.

B. Material which can be sent to a downstream processor for further processing to **recover** materials include: CRT glass, Circuit Boards, Portable Computer Batteries, Printers, and Toner Cartridges. Each of these materials are handled under SOPs (the **4.XX.XX** series) specific to their requirements. Downstream Processors may either refurbish such materials, or recycle them based on market needs, and business cycles. Overall movement of these materials governed by **CER Form 7.03.XX**

C. Material which CER cannot reuse, or turn over to a downstream processor for reuse, or recovery such as plastics, metals, and Foam Packaging is sent directly to downstream Disposers to **recover** base material for reuse/recycling as a base raw material.

#### V. Legal Requirements

A. **CER Form 1.07.XX Downstream Vendor Questionnaire** is used to screen downstream Vendors to insure that they are in compliance with all applicable laws and best practices.

B. Legal Requirements are documented on **CER Form 2.20.XX EMS Legal Registry**, and **CER Form 6.03.XX OHSMS Hazards Matrix**.



C. Recyclers using offshore facilities must provide CER with the appropriate documentation authorizing them to do so. These documents are maintained in the vendors folder.

## VI. On-site Environmental Quality, Health, and Safety

A. **CER SOP 6.04.XX Warehouse Safety – English**, and **CER Form Warehouse Safety – Spanish** govern general Warehouse Operations. CER SOPs in the “4.XX.XX” series govern material handling requirements for specific materials.

B. Hazards are identified and ranked on **CER Form 6.03.XX - Hazards Matrix**. **SOP 6.05.XX - Environmental and Safety Aspect Determination** specifies the process to be followed during evaluation.

C. CER manages Hazards through the previously mentioned Forms and also maintains an Employee Hazard Communication Program to insure employee awareness. In addition to Material Safety Data Sheets available in the Break Area for viewing, **CER Form 6.07.XX Hazardous Materials Summary**, and **CER Form 6.08.XX Hazardous Tools Summary** provide concise summaries of Hazard exposure.

1. Engineering Controls at CER are included in the various test procedures in the 5.XX.XX series of SOPs.

2. Administrative and work practice controls are maintained through a variety of methods:

- a. Health and Safety Training Meetings are conducted regularly and documented in **CER Form 6.06.XX – OEHS Employee Training Matrix**.

- b. Job rotation maintains employee sharpness and interest.

D. CER monitors its activities through Monthly Walkthroughs recorded on **CER Form 6.12.XX Monthly Walkthrough Checklist**. Additionally, System audits and Compliance Audits are conducted to insure compliance with Legal, Environmental, and Safety standards.

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E. CER has Designated its President, Rob King as Executive Sponsor, and designate Ray Changelon as the Environmental, Health, and Safety Manager.

F. In addition the aforementioned Emergency Action Plans to deal with unexpected events, CER maintains **SOP 6.10.XX - Incident Investigation, CER SOP 6.11.XX Non-Conformance, Corrective and Preventive Action, and CER Form 1.37.XX Corrective Action Report** to deal with new discoveries.

## VII. Focus Materials Quality Plan

A. CER's Focus Materials Planning identifies the procedures and routing each type of material to insure responsible handling throughout the end of life chain. Downstream Processors are identified in **CER Form 7.17.XX - Authorized Vendor List – Focus Materials**.

1. **CRT monitors** are processed without de-manufacturing to basic components. The CRT monitor is sent to a responsible downstream recycler who de-manufactures the monitors and processes the CRT glass and circuit boards responsibly. (See **CER Form 7.17.XX – Authorized Vendor List – Focus Materials**).

2. **Loose CRT Glass** is also de-manufactured to remove the yoke and sent to a responsible downstream recycler who processes the glass responsibly.

3. **Printed Circuit Boards** destined for customer verified destruction at CER's facility are removed from their parent product and shredded, or drilled at CER's facility and the "shred" is sent to a responsible downstream recycler.

4. **Printed Circuit Boards** which are not destined for verified destruction are separated based on component recovery potential and shipped to responsible downstream recyclers.

5. **Toner Cartridges** may be left in the equipment for the responsible recycler to process, or removed from Printers and Copiers and recycled individually through a responsible downstream recycler depending on business needs.

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6. **Computer Batteries** are sorted and those with market potential are tested and resold for reuse. Those which fail will be added to the unmarketable batteries and sent to a responsible downstream recycler..

7. **Miscellaneous Batteries** are recycled through a single multiple responsible downstream recyclers depending on their type and chemistry.

8. **Printers and Copiers** are shipped intact to a responsible recycler who dismantles the printer and forwards the Lamp, Toner Cartridge, and Printed Circuit Board are processed to downstream processors for recovery, recycle/reuse, and shredding respectively.

9. **Mercury Containing Devices** such as thermostats are seldom encountered at CER. When encountered, they are sent to responsible downstream recycler.

10. Devices containing **Polychlorinated Biphenyls (PCBs)** are very uncommon except in used oil such as from CER's shredder (see **CER SOP 2.14.XX**).

B. CER provides potential vendors with a questionnaire which is used to evaluate their suitability. Their responses must:

1. Conform to the FM Plan
2. Have a documented OHSMS
3. List their permits
4. Confirm each vendor in the chain
5. Insure reuse in conformance with R2 Standards.
6. Provide export documentation if appropriate.

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7. Tracking throughput and report on changes to the chain.
  8. Assure the compliance of their downstream recyclers. I writing.
- C. CER requires an annual update to the Vendor Questionnaire and an audit of each downstream vendor at the next tier level.

#### **VIII. Reusable Equipment and Components**

- A. CER insures its clients that materials will be processed in the manner requested. CER will insure the destruction, and provide Certificates Of Destruction when requested. CER will not refurbish and resell any material sent to it for destruction. CER maintains records of all transactions to insure traceability as needed.
- B. Materials for reuse are inspected and tested per CER Quality and Test SOPs and most sales include a minimum of a fourteen day warranty.
1. All tested materials must meet the technical standards appropriate to its intended use.
  2. The recipient must assure CER that the product is intended for resale/reuse.
  3. If the recipient intends further refurbishment, he must insure that all residual materials are handled correctly.
  4. Shipments of less than fifteen (15) units are considered to be samples and are exempt from the above requirements. However, continued business activity will require assurances that the recipient is in compliance.

#### **IV. Tracking throughput**

- A. CER maintains records (Bills of Lading etc.) and documents (Certificates of Destruction etc.) for at least three (3) years.
- B. Retention Procedures are documented in **CER SOP 1.35.XX Records Management**.

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## X. Data Destruction

- A. CER performs shredding services on request, for Hard Drives (see **CER SOP 4.07.XX Hard Drive Destruction**), Optical Drives, and loose software/storage media. Cell phones received are from collectors who have erased all of their data.
- B. Hard Drives collected for reuse, are tested using Proprietary software or Hi –Ren 9 which tests each sector, then “purges” in accordance with NIST 800-88 and overwrites each sector with zeroes which conforms to the U.S. DOD 5220 standard UCSD’s Sure Wipe utility.
- C. Volatile Memory is “wiped” when power is removed.
- D. Non-Volatile memory affixed to Printed Circuit Boards is destroyed by shredding the printed Circuit Board at a responsible downstream processor.
- E. Materials which are not functional are forwarded to downstream recyclers.
- F. **CER SOP 5.01.XX Hard Drive Testing**, documents the test procedure for hard drives.

## XI. Storage

- A. All of CER’s facilities store all Material indoors
- B. **Hard Drives** awaiting destruction are secured in appropriate containers in a secure area.
- C. **Hard Drives** awaiting test are secured within lockable Hard Drive Test area.

## XII. Security

- A. The facility is secured by an alarm system and an after hours roving patrol.



- B. The Warehouse Security Cages are used to store items requiring enhanced security.
- C. A security camera system provides observation capabilities over the key areas of the facility.
- D. A roving security patrol assures after hours coverage.

### **XIII. Insurance, Closure Plan, and Financial Responsibility**

- A. CER maintains Insurance through Travelers Insurance.
- B. CER has “Debris Removal” and “Pollutant Clean Up and Removal” riders included in its Insurance Coverage.
- C. **CER SOP 7.13.XX – Facility Closure Plan** outlines the specifics of the steps required to close the facility in case of an interruption, or cessation of activities.

### **XIV. Transport**

- A. CER purchases are generally “FOB CER Dock” with transport provided by the seller which is not under CER Control.
- B. Materials collected locally may be transported by CER truck. All CER Drivers submit to a Motor Vehicle Record Check and operate under **CER SOP 1.41.01 Driving on CER Business**.
- C. UPS. Bison Logistics is CER’s exclusive transporter for outbound shipments of recyclable materials. Bison Logistics has received a “Satisfactory” rating from the U.S. Department of Transportation Federal Motor Carrier Safety Administration. This rating is defined as, a “SATISFACTORY” rating indicates that Bison has adequate safety management controls in place to meet the safety fitness standard proscribed in 49 CFR 365.5.”

**15. Recordkeeping** – CER maintains Audit related documents on line on a shared server. Hard copy records are maintained in the Accounting area. CER SOP 1.35.XX Document Control and Retention.

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