



# WASHINGTON STATE DIRECT PROCESSOR

# PERFORMANCE STANDARDS AUDIT REPORT

*Ace Metal Company*  
Mukilteo, Washington

**April 15, 2016**

Prepared for:



**ACE METAL CO.**  
11110 Mukilteo Speedway  
Mukilteo, WA 98275

Prepared by:



**ENVIRONMENT INTERNATIONAL LTD.**  
5505 34<sup>th</sup> Ave NE  
Seattle, WA 98105  
(206) 525-3362

---

Dr. P. J. Bridgen Lead Auditor, CEO of Environment International Ltd.

# WASHINGTON STATE DIRECT PROCESSOR PERFORMANCE STANDARDS AUDIT REPORT

Prepared for:

**Ace Metal Company**

---

## REVIEW AND APPROVAL

---

Program QA  
Manager:

\_\_\_\_\_  
**PAMELA BRIDGEN**  
Environnement International Ltd.

\_\_\_\_\_  
April 15, 2015  
Date

Ace Metal Co.  
President:

\_\_\_\_\_  
**JAMES YOO**  
11110 Mukilteo Speedway  
Mukilteo, WA 98275

\_\_\_\_\_  
Date

# CONTENTS

---

EXECUTIVE SUMMARY .....	1
Facility Information .....	1
Methodology .....	1
PERFORMANCE STANDARDS FOR DIRECT PROCESSORS .....	3
1. Responsible Management Priorities .....	3
2. Legal Requirements .....	4
3. Environmental, Health, and Safety Management Systems (EHSMS) .....	5
4. Recordkeeping .....	8
5. On-site Requirements .....	9
6. Materials of Concern .....	14
7. Recycling .....	14
8. Reuse .....	15
9. Disposal of Residuals .....	16
10. Refurbishment .....	17
11. Transport .....	18
12. Prison Labor .....	18
13. Facility Access .....	19
14. Notification of Penalties and Violations .....	20
15. Due Diligence Downstream .....	20
16. Exporting .....	21
17. Insurance .....	21
18. Closure Plan and Financial Responsibility .....	22
19. Facility Security .....	22
CONCLUSIONS .....	23

## ACRONYMS AND ABBREVIATIONS

---

CEP	Covered (or Consumer) Electronic Product
CRT	Cathode Ray Tube
EHSMS	Environmental, Health, and Safety Management System
OECD	Organization for Economic Co-operation and Development
OSHA	Occupational Safety and Health Administration
PCB	Printed Circuit Board
WAC	Washington Administrative Code

## **Executive Summary**

---

Under contract with Ace Metal Company, Environment International Ltd. (EI) performed an audit on March 7, 2016, at the Ace Metal facility in Mukilteo, WA. The purpose of the audit was to assess the facility's conformance with Washington State Direct Processor Performance Standards in accordance with WAC 173-900-650. The conclusion of the auditors is that Ace Metal's Mukilteo facility currently meets all minimum standards and preferred standards. This report presents the results and findings from the audit.

### **Facility Information**

The Ace Metal facility is a portion of a warehouse located at 11110 Mukilteo Speedway in Mukilteo, WA. The facility is approximately 10,000 sq ft and consists of a large open warehouse floor with an indoor dismantle line, an outdoor work space, and smaller attached office space.

### **Methodology**

One Auditor (Whitney Fraser, Principal) from Environment International Ltd. (EI) performed the third-party audit on March 7, 2016 and prepared this report under the direction of Dr. Pamela Bridgen, Senior Scientist and CEO, a Registrar Accreditation Board Certified Lead Auditor. Ms. Fraser and Dr. Bridgen have previously have been certified by the Washington State Department of Ecology to conduct third-party audits under the Washington State Direct Processor Performance Standards. The auditor inspected the site's facilities, interviewed Ace Metal personnel, and reviewed facility records. After a brief opening meeting, the auditor toured the site and reviewed facility records. Staff interviews were conducted with the Office Manager and a Disassemble Line worker. The auditor reviewed the facility's compliance with environmental performance standards for direct processors of electronic waste in Washington State.

At the conclusion of the site visit, an informal closing meeting was held. The most senior representative present at the closing briefing was Nahvi Toum, Office Manager. Table 1 presents a summary of all Washington State direct processor performance standards (minimum and preferred) and indicates whether or not Ace Metal's facility and operations conform to each standard.

**Table 1: Conformance of Mukilteo Facility of Ace Metal Co. with Washington State Direct Processor Performance Standards (Minimum and Preferred).**

<b>Performance Standard</b>	<b>Minimum Standard</b>	<b>Preferred Standard</b>
1. Responsible Management Priorities	✓	N/A
2. Legal Requirements	✓	N/A
3. Environmental, Health, and Safety Management Systems	✓	✓
4. Recordkeeping	✓	✓
5. On-site Requirements	✓	✓
6. Materials of Concern	✓	N/A
7. Recycling	✓	✓
8. Reuse	✓	✓
9. Disposal of Residuals	✓	✓
10. Refurbishment	N/A	✓
11. Transport	✓	✓
12. Prison Labor	✓	N/A
13. Facility Access	✓	N/A
14. Notification of Penalties and Violations	✓	N/A
15. Due Diligence Downstream	N/A	✓
16. Exporting	N/A	✓
17. Insurance	N/A	✓
18. Closure Plan and Financial Responsibility	N/A	✓
19. Facility Security	N/A	✓

# Performance Standards for Direct Processors

---

## 1. Responsible Management Priorities

### Minimum Performance Standards

*A direct processor must periodically evaluate its management strategies to assure it takes advantage of new more effective technologies and is otherwise continuously improving its practices and processes.*

Ace Metal Co. utilizes a written Environmental Health and Safety Management System (EHSMS) with a commitment to continuously improving its environmental practices. James Yoo, Ace Metal's president, holds regular meetings with his managers in order to discuss facility operations and opportunities for advancing environmental performance. The office manager documents these meetings and also keeps official management review meeting minutes.

### Preferred Performance Standards

*No additional performance standards.*

## 2. Legal Requirements

### Minimum Performance Standards (no preferred performance standards)

*(a) A direct processor must comply with all federal, state, and local requirements and, if it exports, those of all transit and recipient countries that are applicable to the operations and transactions in which it engages related to the processing of CEPs, components, parts, and materials and disposal of residuals. These include but are not limited to applicable legal requirements relating to:*

- (i) Waste and recyclables processing, storage, handling, and shipping; and*
- (ii) Air emissions and waste water discharge, including storm water discharges; and*
- (iii) Worker health and safety; and*
- (iv) Transboundary movement of electronic equipment, components, materials, waste, or scrap for reuse, recycling, or disposal.*

*(b) Upon request by a covered entity, a direct processor must make available information to that covered entity about any financial penalties, regulatory orders, or violations the direct processor received in the previous three years. If the direct processor receives subsequent penalties or regulatory orders, the direct processor must make that information available within sixty days after any subsequent penalties or regulatory orders are issued.*

Per Ace Metal's EHSMS, Ace Metal will comply with all federal, state, and local standards.

During the site visit, issues regarding the labeling of universal waste were noted. The office manager confirmed that labeling in compliance with regulations has been added to the containers, and no other violation of federal, state, or local regulations was observed in the storage, handling, and preparation for shipment of waste and recyclables.

During the site visit and staff interviews, no violation of federal, state, or local regulations was observed regarding air emissions and water and stormwater discharges, nor of regulations regarding worker health and safety.

Ace Metal staff indicated that upon request they will make available information about financial penalties, regulatory orders, or violations the direct processor received in the previous three years.

### 3. Environmental, Health, and Safety Management Systems (EHSMS)

#### Minimum Performance Standards

*(a) A direct processor must develop, document, fully implement, and update at least annually a written EHSMS that includes all of the following:*

- (i) Written goals and procedures that require the direct processor to systematically manage its environmental, health, and safety matters.*
- (ii) Utilization of a "plan, do, check, act" model that identifies environmental aspects, implements operational controls, and provides corrective action procedures. Elements of this model must include:*

**(A) Plan**

- (I) Identification of environmental impacts, and legal and regulatory requirements;*
- (II) Establishment of environmental goals, objectives and targets;*
- (III) Plan actions that work toward achieving identified goals;*
- (IV) Plan for emergency preparedness and response; and*
- (V) Commitment of management support.*

**(B) Do**

- (I) Establish roles and responsibilities for the EHSMS and provide adequate resources;*
- (II) Assure that staff are trained and capable of carrying out responsibilities; and*
- (II) Identify and correct problems and prevent recurrence; and*
- (III) Provide a measurement system that quantifies the application of the model.*

Ace Metal has developed and documented a written EHSMS in the form of an Environmental, Health, and Safety Manual (EHSM) (last revision dated February 26, 2016) that was made available to the auditor.

The EHSM includes plans and procedures covering the required topics and the company's plan-do-check-act model.

The emergency preparedness and response plan is adequate and appropriate for the scope of operations, and there is a written commitment of management support.

Roles are accurately described in the EHSM. Ace Metal's president, James Yoo, is very involved in the day-to-day operation and ensures that adequate resources are allocated for environmental, health, and safety plans.

Employee training records were examined and an employee was interviewed. The employee was aware of his responsibilities and aware of potential hazards of the materials he processes. Review of signed training records revealed that some employees had not dated and/or signed their training records. Subsequent to the site visit, those employees received refresher training and documentation was provided to the auditor.

*(III) Establish a process for communicating about the EHSMS within the business.*

**(C) Check**

*(I) Monitor key activities and track performance;*

**(D) Act**

*(I) Conduct annual progress reviews;*

*(II) Act to make necessary changes to the EHSMS; and*

*(III) Create and implement an action plan for continual improvement.*

*(iii) A worker safety and health management plan that conforms to a consensus-based standard covering worker health and safety such as ANSI Z10 or to a similarly rigorous in-house standard.*

*(iv) A plan for responding to and reporting exceptional releases that could pose a risk to worker safety, public health, or the environment. Such releases include emergencies such as accidents, spills, fires, and explosions. The direct processor must submit this plan to all appropriate emergency responders, e.g., police, fire department, hospitals.*

*(v) A plan is conformable with ISO 14001, Institute of Scrap Recycling Industries' Recycling Industry Operating Standards ("RIOS"), the International Association of Electronic Recyclers' ("IAERs") standard, or other standards designed at a level appropriate for processing at the facility.*

*(b) A direct processor must ensure all employees understand and follow the portions of the EHSMS relevant to the activities they perform.*

Progress reviews are discussed as part of overall evaluation of management strategies during weekly management meetings, after which any necessary changes are communicated to staff. More significant issues are discussed at monthly meetings. Updates and improvements to the EHSM are not limited to once per year but are implemented as necessary.

Ace Metal's EHSM contains sections fulfilling these requirements, identifying requisite health and safety measures that workers must take at the facility, as well as potential risks and systems to reduce those risks.

Staff interviews indicated that staff are familiar with emergency plans and are prepared to implement them if it should become necessary.

The EHSM follows the framework required for conformance with ISO 14001 although the system is not certified as conforming to ISO 14001.

Staff interviews indicated that the personnel are familiar with the EHSM as it relates to their activities.

## Preferred Performance Standards

*(c) The EHSMS must also include a procedure for:*

- (i) Identifying and evaluating the environmental, health, and safety impacts of downstream vendors, and*
- (ii) Utilizing the information in (a) in the selection of downstream vendors.*

Ace Metal utilizes downstream vendors only once the vendors have submitted answers to a due diligence audit questionnaire that is filed with the written EHSM. Responsible Recycling (R2) certification is considered to be an acceptable substitute for answering Ace Metal's own questionnaire.

Ace Metal staff produced downstream vendor audit questionnaires and current R2 certification attesting to the vendors' compliance with environmental, health, and safety regulations. During interviews, Ace Metal staff demonstrated a commitment to ensuring that their materials are not sent downstream to companies with poor environmental records. The CEO, Mr. Yoo, keeps up to date with industry standards and best available vendors through networking.

## 4. Recordkeeping

### Minimum Performance Standards

*(a) A direct processor must maintain documentation such as commercial contracts, bills of lading, or other commercially accepted documentation for all transfers of CEPs, components, parts, materials, and residual into and out of its facilities.*

*(b) A direct processor must retain documents required for at least three years.*

Per interviews with Ace Metal's staff, Ace Metal has a policy to retain all transaction records that document downstream disposition of materials. During the audit, Ace Metal showed the auditor the system of binders and electronic filing used to keep such records, which appeared to be complete. Ace Metal staff indicated that they understood the three-year requirement for maintaining records and appeared to have retained all records for the required time period.

### Preferred Performance Standards

*(c) The direct processor must also maintain records for any brokering transactions for at least three years.*

Ace Metal staff confirmed that no brokering transactions had taken place since the previous audit and none were planned for the future.

## 5. On-site Requirements

### Minimum Performance Standards

(a) *General*

(i) *Direct processors must take all practicable steps to maximize recycling.*

(ii) *A direct processor must have the expertise and technical capability to process each type of CEP and component it accepts in a manner protective of worker safety, public health, and the environment.*

(iii) *A direct processor must use materials handling, storage and management practices, that assure that all work and storage areas are kept clean and orderly.*

(iv) *Speculative accumulation:*

(A) *"Speculative accumulation" means holding, storing or accumulating CEPs, components, parts, materials, or residual derived therefrom for more than one hundred eighty days.*

(B) *Generators and facilities holding, storing, or accumulating CEPs, components, parts, materials, or residual derived there from for more than one hundred eighty days will be considered holding, storing, accumulating solid or hazardous waste and subject to applicable treatment, storage or disposal regulations or equivalent.*

(v) *A direct processor must use a certified scale to weigh CEPs and components counted towards a plan's equivalent share.*

During the site visit, all steps to ensure recycling were being taken. CEPs were disassembled by hand and separated into components for recycling and disposal streams. Materials were handled according to acceptable industry standards of care.

During the audit, all handling and storage areas were observed and regular housekeeping procedures such as sweeping were taking place, although an outdoor processing area was accumulating a lot of debris.

During interviews, staff indicated that they were aware of the requirement not to accumulate CEPs for more than 180 days. Ace Metal ships CEPs on average two times per month. No CEPs were observed with an accumulation date earlier than September 7, 2015 (180 days prior to the audit).

Ace Metal provided its current scale calibration certification for inspection by the auditors.

*(b) Storage*

*A direct processor must store materials of concern removed from CEPs, components, parts, materials, or residuals in accordance with WAC 173-900-650(11) in a manner that:*

- (i) Protects them from adverse atmospheric conditions and floods and, as warranted, includes a catchment system;*
- (ii) Is secure from unauthorized entrance; and*
- (iii) Is in clearly labeled containers and/or storage areas.*

*(c) Exceptional releases posing risks*

*A direct processor must be prepared to immediately implement the practices set forth in its EHSMS for responding to and reporting exceptional releases that could pose a risk to worker safety, public health, or the environment, including emergencies such as accidents, spills, fires, and explosions.*

Ace Metal's storage area is indoors and can be closed off to protect the facility from the weather. Gaylord boxes are stored off the ground on pallets, and as necessary are wrapped in plastic.

During the audit, Ace Metal's storage area appeared secure, with a lockable perimeter fence and security system.

All CEP storage containers were clearly labeled at the time of the audit.

The potential release posing the greatest risk at Ace Metal is broken glass containing lead. According to interviews with employees and a supervisor conducted during the audit, workers are trained to handle such a situation, as well as other release situations.

## Preferred Performance Standards

### *(d) Workforce and Environmental Protection*

*(i) Hazards identification and assessment: A direct processor must conduct on an ongoing basis (as new types of CEPs, components, parts and materials are processed or new processes are utilized) a hazards identification and assessment of occupational and environmental risks that exist or could reasonably be expected to develop at the facility.*

*Such risks could result from any sources, including but not limited to:*

- Emissions of and/or exposure to substances*
- Noise*
- Ergonomic factors*
- Thermal stress*
- Substandard machine guarding*
- Cuts and abrasions*

*(ii) The hazards identification and assessment is captured in writing and incorporated as a component of the direct processor's EHSMS.*

Specific staff members are tasked with keeping up with new types of CEPs and components and their concomitant hazards, as well as new recycling processes that may become available. One or more staff members subscribe to industry magazines, and communicate with peers and consultants in order to stay up to date on current hazards and recycling practices. Ace Metal's EHSMS has a written hazard identification and assessment that includes requirements for protections against all risks listed in the standard that apply at the facility.

During the 2015 audit, the auditor found that a CRT glass processing procedure at the facility (glass crushing) had not gone through a hazard assessment prior to implementation. Ace Metal no longer engages in this procedure.

(iii) A direct processor must manage the hazards and minimize the releases it identifies using an appropriate combination of strategies in the following order of priority:

- Engineering controls
- Administrative and work practice controls
- Personal protection equipment

(A) Engineering controls:

(I) A direct processor must use at least one of the following:

- Substitution (e.g., replacing a toxic solvent with one less toxic),
- Isolation (e.g., automating a process to avoid employee exposure), or
- Ventilation and, if appropriate, capture (e.g., fume hood), And

(II) All of the following:

- Dust control, capture, and clean up, and
- Emergency shut-off systems, and
- Fire suppression systems.

(B) Administrative and work practice controls:

A direct processor must use administrative and work practice controls including appropriate combinations of:

- (I) Regular, documented health and safety training that covers information from the hazardous assessment, safe management handling, spill prevention, engineering controls, equipment safety, and use and care of personal protection equipment; with training for new hires and refresher courses for all employees that is understandable to them given language and level-of-education considerations,
- (II) Job rotation, as feasible, given workforce size,
- (III) Safe work practices,
- (IV) Medical monitoring,
- (V) Safety meetings.

(C) Personal protective equipment, including respirators, protective eyewear, cut-resistant gloves, etc. as appropriate for the risks involved in the tasks being performed.

Ace Metal's work space is well-ventilated.

Dust control is not applicable as there is no shredding, grinding or other dust-generating operation at Ace Metal's facility. One machine, a baler, has an emergency shut-off system. Ace Metal's facility has a network of extinguishers for fire suppression.

Initial health and safety training records for employees were made available to auditors for inspection, and covered all topics listed in the standard. Regular monthly staff training is documented.

According to a staff member, Ace Metal's employees rotate jobs on a regular basis, but the staff size is quite small.

Safe work practices are documented in Ace Metal's EHSM.

According to staff interviews and the EHSM, Ace Metal employees are required to wear personal protective equipment depending on the task they are performing, including, among other items, boots, gloves, safety glasses, and masks as needed. The EHSM indicates the requirement for training regarding personal protective equipment as part of each employee's training record and documentation of such training for each employee was verified during the site visit.

*(iv) A direct processor must use and document monitoring and sampling protocols according to state and federal standards and provide assurances that the practices it employs are effective and continuously managing the risks it has identified. This includes complying with all applicable Federal or State (Occupational Safety and Health Administration) OSHA standards and sampling and/or monitoring protocols.*

*(v) A direct processor must treat anyone performing activities in its facilities, using the standard of care established in this section. Direct processors are not required to provide medical monitoring for short-term, temporary and volunteer workers.*

*(vi) A direct processor must designate a qualified employee or consultant to coordinate its efforts to promote worker health and safety. This individual is identified to all employees and two-way communication is encouraged between employees and this individual regarding potential hazards and how best to address them.*

Ace Metal complies with state and federal monitoring requirements at safety meetings. The Office Manager who was interviewed during the audit indicated that the meetings cover a range of safety and risk management topics, and that impromptu meetings are held if issues arise between meetings.

During the audit, a Disassemble Line employee confirmed that he is treated by Ace Metal with the standard of care established in its EHSM. The auditor observed other employees at work and confirmed that they appeared to be treated with the same standard of care.

Responsibility for hazard communication is in the Ace Metal EHSM. Employees are encouraged to talk with the hazard communication manager or their own manager if they have safety concerns. The Disassemble Line employee interviewed indicated that he felt the facility had few safety concerns and was a safe place to work.

## 6. Materials of Concern

### Minimum Performance Standards (no preferred performance standards)

*Materials of concern must be handled according to the standards in this section. "Materials of concern" are any of the following:*

- (a) Any devices, including fluorescent tubes, containing mercury or PCBs;*
- (b) Batteries;*
- (c) CRTs and leaded glass; and*
- (d) Whole circuit boards.*

Per Ace Metal's EHSM, all sources of materials of concern have been identified. Specific disposition of each material concern, including end-of-life processing destination country, is listed in a table in that document.

## 7. Recycling

### Minimum Performance Standards

#### *(a) Recycling*

*(i) A direct processor must remove from CEPs and components destined for recycling any parts that contain materials of concern that would pose a risk to worker safety, public health, or the environment during subsequent processing.*

*(ii) A direct processor must remove any parts that contain materials of concern prior to mechanical or thermal processing and handle them in a manner consistent with the regulatory requirements that apply to the items, or any substances contained therein. Circuit boards and materials derived therefrom will be allowed to be shredded prior to separating.*

Ace Metal's EHSM lays out specific procedures for properly handling, classifying, and storing materials of concern and all other materials. During the audit, CRT glass was observed by the auditor to be packaged for shipment in a manner consistent with regulatory requirements. The auditor also observed separate storage for circuit boards and batteries.

### Preferred Performance Standards

#### *(b) Recycling:*

*(i) A direct processor must dismantle, separate, and/or mechanically process, as appropriate, CEPs, components, and parts from which materials are to be recovered for recycling into separate "material streams" to generate value, recover materials and minimize waste, and to enable safe management through to final disposition.*

During the audit, all CEPs and components were observed being separated into distinct material streams for recycling or recovery to the greatest extent possible.

## 8. Reuse

### Minimum Performance Standards

#### *(a) Reuse*

*(i) "Reuse" means any operation by which an electronic product or component of a covered electronic product changes ownership and is used, as is, for the same purpose for which it was originally purchased.*

*(ii) For a CEP, component or part to be put to reuse it must be fully functioning.*

*(iii) CEPs, components and parts gleaned for reuse shall not be included in the weight totals submitted to a plan for compensation.*

Per interviews with Ace Metal staff, CEPs are not tested for reuse possibilities and are only dismantled or processed. No CEPs are reused.

### Preferred Performance Standards

#### *(b) Reuse:*

*(i) Before shipping CEPs, components, or parts for reuse, the direct processor must:*

*(A) Test and ensure that the CEPs, components, and parts are functioning properly for the same purpose for which they were originally purchased.*

*(B) Accurately label, package, and ship the CEPs, components, and parts in a manner that will minimize damage during transport.*

*(ii) A direct processor must verify a legitimate end-use market for the intended purpose of any CEPs, components or parts shipped for reuse.*

Per interviews with Ace Metal staff, CEPs are not tested for reuse possibilities and are only dismantled or processed. No CEPs are reused.

## 9. Disposal of Residuals

### Minimum Performance Standards

*(a) Disposal of residuals*

*(i) "Residuals" are leftover materials from processing CEPs, components, parts and materials. Residuals are materials that cannot be used for their original function or cannot be recycled and are sent by a processor to a disposal facility.*

*(ii) Residuals must be properly designated and managed under applicable solid waste and hazardous waste laws at the location where disposal occurs.*

*(iii) A direct processor must not send residuals containing materials of concern to incinerators or solid waste landfills if doing so will pose a higher risk to worker safety, public health, or the environment than alternative management strategies.*

*(iv) Residuals from processing of materials of concern must not be mixed with other residuals for the purpose of disposal.*

During the audit, staff interviews indicated that Ace Metal properly designates and

manages residuals under their applicable solid and hazardous waste regulations.

Per a review of records of transport at Ace Metal, residuals containing materials of concern are not sent to incinerators or solid waste landfills.

Ace Metal separates all material streams for recycling, recovery, or disposal; residuals from processing materials of concern are not mixed with other waste streams.

### Preferred Performance Standards

*(b) Residuals must be disposed of in a regulated solid waste disposal facility. Residuals containing materials of concern must be disposed in a regulated hazardous waste disposal facility.*

Ace Metal uses a system to track disposition of residuals, and these records were reviewed by the auditor. Based on this review, Ace Metal appears to be following regulations regarding disposal of residuals to regulated facilities.

# 10. Refurbishment

## Minimum Performance Standards

*No minimum performance standards from WAC 173-900-650.*

## Preferred Performance Standards

*(a) Refurbishment:*

*(i) A direct processor must adhere to all the performance standards in this document for all on-site activities relating to CEPs, components, and parts destined for refurbishment.*

*(A) A direct processor must conform to all performance standards in this document for its onsite and downstream vendors' refurbishment operations, and when shipping CEPs, components, or parts to downstream vendors for refurbishment.*

*(ii) CEPs, components and parts gleaned for refurbishment shall not be included in the weight totals submitted to a plan for compensation.*

*(iii) A direct processor must verify a legitimate end-use market for the intended purpose of any CEPs, components or parts shipped for refurbishment.*

During the audit, staff indicated that Ace Metal does not currently refurbish CEPs or send CEPs to downstream vendors for same.

## 11. Transport

### Minimum Performance Standards

*(a) A direct processor must ensure that all CEPs, CEP components and materials to be transported are packaged in compliance with all applicable transport laws and rules.*

Ace Metal assures that its CEPs, CEP components, materials, and residuals will be transported appropriately so as to prevent spillage, contamination, or any other risks posed to public health or the environment. During the site visit, all CEPs, components, and residuals that were packed in preparation for transport appeared to be in compliance with transport laws.

### Preferred Performance Standards

*(b) A direct processor must ensure all CEPs, components, parts, materials, and residuals to be transported are packaged appropriately in light of the risk they could pose during transportation to public health or the environment and the level of care warranted by their intended use.*

Ace Metal assures that its CEPs, CEP components, materials, and residuals will be transported appropriately so as to prevent spillage, contamination, or any other risks posed to public health or the environment. During the site visit, all CEPs, components, and residuals that were packed in preparation for transport appeared to be in compliance with transport laws.

*(c) A direct processor must obtain written documentation or a third-party certification indicating that their transporters have all the necessary regulatory authorizations and no significant violations of relevant legal requirements during the past three years.*

Ace Metal shared with the auditor written documentation regarding the regulatory authorizations and lack of significant legal violations during the past three years of their contracted transporter, BG Trucking.

## 12. Prison Labor

### Minimum Performance Standards (no preferred performance standards)

*Direct processors may not use federal or state prison labor for processing.*

Per the Office Manager, Ace Metal does not participate in the hiring of federal or state prison inmates.

## 13. Facility Access

### Minimum Performance Standards (no preferred performance standards)

*(a) Direct processors must allow access to the facility and the documentation required in this section for the purposes of assessing compliance with the requirements in this chapter and for sampling to:*

- (i) Ecology and ecology's designee(s);*
- (ii) Third-party observers for the purposes of sampling;*
- (iii) For processors used by the standard plan:*

*(A) The authority;*

*(B) The authority's designee(s);*

- (iv) For processors used by an independent plan:*

*(A) That plan's authorized party;*

*(B) The authorized party's designee(s) for that plan.*

Ace Metal will allow Ecology, third-party observers (for the purpose of sampling), and members of the Authority access to its facilities for the purpose of assessing compliance. During interviews, staff indicated that they were familiar with this requirement.

## 14. Notification of Penalties and Violations

### Minimum Performance Standards (no preferred performance standards)

*Each direct processor must notify ecology within thirty days if the direct processor receives any penalties, violations or regulatory orders related to processing activities.*

Ace Metal will notify Ecology within 30 days if any penalties, violations, or regulatory orders related to processing activities are received. During interviews, staff indicated that they were familiar with this requirement.

## 15. Due Diligence Downstream

### Minimum Performance Standards

*No minimum performance standards in WAC 173-900-650.*

### Preferred Performance Standards

*(a) For materials of concern and residuals containing materials of concern a direct processor must only use downstream vendors who conform with all of the performance standards in this document.*

*(i) A direct processor must review its downstream vendors' conformity to these standards at least every two years and more frequently as changes in circumstances warrant. The direct processor must provide the verification and documentation to Ecology upon request.*

*(ii) A direct processor must document the chain of custody of all materials of concern and their residuals through final disposition.*

*(iii) A direct processor does not need to conduct the due diligence for downstream vendors certified to the performance standards in this document by an accredited body.*

Ace Metal partners only with downstream vendors that meet Ace Metal's labor, health, and environmental standards, and ensures that downstream vendors meet these requirements by requesting that they fill out a detailed questionnaire. Ace Metal is prepared to provide all documentation to Ecology upon request.

During the audit, the auditor inspected records for shipments containing materials of concern. For most shipments that left Ace Metals prior to January 2016, a return invoice was provided verifying final disposition by a conforming downstream vendor.

For a few months of 2015, Ace Metals utilized a vendor (Closed Loop) that would not provide the required final documentation, only verification that they had received the materials. For that reason, Ace Metals discontinued use of the vendor and returned to using their prior vendor, TDM.

## 16. Exporting

### Minimum Performance Standards

*No minimum performance standards in WAC 173-900-650.*

### Preferred Performance Standards

*(a) A direct processor that exports materials of concern must ensure that each transit and recipient country legally accepts such imports. For each country that is not a member of the Organization for Economic Co-operation and Development (OECD), this entails either:*

- (i) Requesting and receiving documentation, prior to shipping, from the Competent Authority<sup>2</sup> of each such transit and/or import country, that clearly verifies in English that the country legally accepts such imports, or*
- (ii) Requesting and receiving, prior to shipping, confirmation—that the country(ies) legally accepts such imports—from the United States Environmental Protection Agency, which in turn will communicate with the other country's Competent Authority to get a determination.*

Per staff interviews, Ace Metal ensures that CEPs, components, and residuals are legally accepted by any importing countries. Ace Metal currently exports materials of concern to OECD countries and India. Ace Metal provided a signed memorandum from the government of India Ministry of Environment and Forests clearly authorizing the import of recycled glass cullets for manufacture of new color TV glass shells, and indicating that the importation will be monitored by the Gujarat State Pollution Control Board for hazardous contamination.

## 17. Insurance

### Minimum Performance Standards

*No minimum performance standards in WAC 173-900-650.*

### Preferred Performance Standards

*(a) A direct processor possesses adequate Comprehensive or Commercial General Liability Insurance including coverage for:*

- (i) Bodily injury,*
- (ii) Property damage,*
- (iii) Pollutant releases,*
- (iv) Accidents and*
- (v) Other emergencies.*

Ace Metal maintains \$2 million general aggregate insurance, as well as insurance for employee liability, bodily injury, property damage, pollutant damage, accidents, and other emergencies. During the site visit, Ace Metal provided documentation of the insurance to the auditor.

## 18. Closure Plan and Financial Responsibility

### Minimum Performance Standards

*No minimum performance standards in WAC 173-900-650.*

### Preferred Performance Standards

*A direct processor must develop and keep current a closure plan and a sufficient financial instrument that assures proper closure of the facility and assures against abandonment of any CEPs, components, parts, materials or residuals.*

The auditor reviewed Ace Metal's estimated costs for a third-party closure and found the analysis to be reasonable. Ace Metal provided documentation that they maintain a bank account assigned to the State of Washington with funds sufficient to cover those costs.

## 19. Facility Security

### Minimum Performance Standards

*No minimum performance standards in WAC 173-900-650.*

### Preferred Performance Standards

*A direct processor must have a functioning security program that controls access to all or parts of the processing facility in a manner and to a degree appropriate given the type of CEPs, components, parts, materials, and residuals handled and the needs of the customers served and may include such items such as indoor and outdoor lighting, secured facilities, and perimeter fencing.*

in place with outdoor CCTV cameras and indoor motion sensors, as well as secure perimeter fencing.

During the site visit, Ace Metal was observed to have a security system monitored by ADT

## **Conclusions**

---

Ace Metal Co.'s Mukilteo facility for direct processing of electronic waste shows every sign of being an exemplary operation in terms of its commitment to employee safety and environmental performance. In the opinion of the auditors from Environment International, Ace Metal's Mukilteo facility meets all minimum and preferred standards dictated by WAC 173-900-650 and laid out in the document, "Environmentally Sound Management and Performance Standards for Direct Processors," Washington State Department of Ecology publication # 07-07-046, from the Washington State Electronic Products Recycling Program, prepared by the Solid Waste and Financial Assistance Program, dated November 2007.

## ACE Metals Materials of Concern Chart 2016

Materials	Recycling Process	Fate of Recycling Process	End-of-life Processing Destination Country
<b>MATERIALS OF CONCERN</b>			
<b>CRT Glass</b>	Removed from CEP by hand dismantling separated panel and funnel, all metal removed	Glass to glass, all materials are reused in new glass product	Mexico / India /Spain
<b>Circuit Boards</b>	Removed from CEP by hand dismantling	Precious metals recovery	Belgium
<b>Batteries</b>	Hand removed from CEP and sorted by type	Metal Recovery	USA
<b>Mercury Devices</b>	Hand removed from CEP managed as universal waste	Retort Mercury Recovery	USA
<b>MATERIALS OF NON-CONCERN</b>			
<b>Steel</b>	Hand removed from CEP and sorted	Metal Recovery	USA
<b>Plastics</b>	Hand removed from CEP and sorted	Plastic Recovery	China
<b>Insulated Wire</b>	Hand removed from CEP and sorted	Metal Recovery	USA
<b>Aluminum</b>	Hand removed from CEP and sorted	Metal Recovery	USA
<b>Wood</b>	Hand removed from CEP and sorted	Wood Recovery	USA

**CONTRACT FOR DIRECT PROCESSING SERVICES 2016  
BETWEEN THE  
WASHINGTON MATERIALS MANAGEMENT AND FINANCING AUTHORITY  
AND  
ACE METAL COMPANY**

This Contract for Processing Services ("Contract") is made and entered into by and between the Washington Materials Management and Financing Authority, hereinafter referred to as the "AUTHORITY," and the below-named firm, hereinafter referred to as "CONTRACTOR."

CONTRACTOR Name: Ace Metal Company  
Address: 11110 Mukilteo Speedway Suite 202

City, State & Zip Code: Mukilteo, WA 98275  
Phone: (425) 493-6802  
E-mail Address: info@acemetalco.com  
Washington State UBI No.: 602 711 134  
Federal ID No.: 208826123

**SECTION 1: SERVICES**

1.1 Scope of Work. CONTRACTOR agrees to provide services and staff, and otherwise do all things necessary for or incidental to processing covered electronic products (or "CEPs") provided by the AUTHORITY or an authorized representative. This Contract is not a guarantee of Work or any level of Work during the term hereof. The AUTHORITY reserves the right to procure services from any qualified CONTRACTOR on the basis of the price, quality and convenience of services provided. The scope of this Agreement shall be interpreted to be consistent with applicable law, now and during the term of this CONTRACT.

1.2 Definitions.

1.2.1 Collector. The term "collector" means an entity that is licensed to do business in Washington state and that gathers unwanted covered electronic products from households, small businesses, school districts, small governments, and charities for the purpose of recycling and meets the registration and collector performance standard requirements set forth in WAC 173-900.

1.2.2 Covered Electronic Products. The term "covered electronic products" includes any one of the following four types of products that has been used in Washington state by any covered entity, regardless of original point of purchase: (a) any monitor having a viewable area greater than four inches when measured diagonally; (b) a desktop computer; (c) a laptop or portable computer; or (d) any video display device having a viewable area greater than four inches when measured diagonally including a portable DVD player, e-reader or tablet device.

The term "covered electronic products" does not include: (a) a motor vehicle or replacement parts for use in motor vehicles or aircraft, or any computer, computer monitor, or television that is contained within, and is not separate from, the motor vehicle or aircraft; (b) monitoring and control instruments or systems; (c) medical devices; (d) products including materials intended for use as ingredients in those products as defined in the federal Food, Drug, and Cosmetic Act (21 U.S.C. Sec. 301 et seq.) or the Virus-Serum-Toxin Act of 1913 (21 U.S.C. Sec. 151 et seq.), and regulations issued under those acts; (e) equipment used in the delivery of patient care in a health care setting; (f) a computer, computer monitor, or television that is contained within a clothes washer, clothes dryer, refrigerator, refrigerator and freezer, microwave

Contract for Direct Processing Services, Page 1 of 21

oven, conventional oven or range, dishwasher, room air conditioner, dehumidifier, or air purifier; automatic teller machines, vending machines or similar business transaction machines; or (g) hand-held portable voice or data devices used for commercial mobile services as defined in 47 U.S.C. Sec. 332 (d)(1).

1.2.3 Covered Entity. The term "covered entity" means any household, charity, school district, small business, or small government located in Washington state.

1.2.4 Direct Processor. The term "direct processor" means a processor contracted with a CEP recycling plan to provide processing services for the plan.

1.2.5 Processing Facility. The term "processing facility" means a facility where the processing of CEPs for a plan is conducted by a direct processor.

1.2.6 Processor. The term "processor" means an entity: (a) engaged in disassembling, dismantling, or shredding electronic products to recover materials contained in the electronic products and preparing those materials for reclaiming or reuse in new products in accordance with processing standards established by this chapter; and (b) that may salvage CEPs, components, and parts to be used in new products.

1.2.7 Processing. The term "processing" means disassembling, dismantling, or shredding electronic products to recover materials contained in the CEPs received from registered collectors or transporters and preparing those materials for reclaiming or reuse in accordance with the performance standards for direct processors set forth in this Contract.

1.2.8 Transporter. The term "transporter" means an entity that transports covered electronic products from collection sites or services to processors or other locations for the purpose of recycling, but does not include any entity or person that hauls their own unwanted electronic products.

## **SECTION 2: PERIOD OF PERFORMANCE**

The period of performance under this Contract will be from January 1, 2016, through December 31, 2016. The AUTHORITY shall have the option of renewing the Contract for additional annual periods.

## **SECTION 3: RECEIPT OR DELIVERY OF COVERED ELECTRONIC PRODUCTS**

3.1 Delivery. The AUTHORITY shall deliver covered electronic products to CONTRACTOR at those times and places, in those quantities, and in the manner agreed to by AUTHORITY and CONTRACTOR. CONTRACTOR's receipt of covered electronic products at its processing facilities and CONTRACTOR's taking of possession and control of covered electronic products at the point of delivery shall constitute acceptance of covered electronic products for the purpose of processing.

3.2 Examination of Materials. The AUTHORITY shall permit CONTRACTOR reasonable access to delivered covered electronic products for purposes of examining and sampling prior to accepting the covered electronic products. CONTRACTOR shall accept conforming covered electronic products which have been tendered and delivered in conformance with this Contract.

3.3 Documents. For each delivery of covered electronic products to the CONTRACTOR, the AUTHORITY or its authorized representative shall provide CONTRACTOR those completed documents, shipping papers or manifests as are required for lawful transfer of the covered electronic products to CONTRACTOR at the point of delivery. Such documents shall meet applicable federal, state or local rules and regulations, including, but not limited to, the Electronic Products Recycling Act, RCW 70.95N, et seq., Hazardous Materials Transportation Act, 49 U.S.C. §§1801, et seq., as amended, the Toxic Substances Control Act, 15U.S.C. §§ 2601 et seq., as amended, and the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901 et seq., as amended.

Contract for Direct Processing Services, Page 2 of 21

8.1 **Termination.** The AUTHORITY may, in its sole discretion, terminate the Contract, without incurring any termination charges or penalties to the AUTHORITY, by giving CONTRACTOR thirty (30) days' written notice of cancellation. The notice of termination shall specify the date when this Contract or services terminates. The AUTHORITY shall have no responsibility to CONTRACTOR for any services performed by CONTRACTOR after the effective termination date.

8.2 **Termination for Breach.** Either party may terminate this Contract or any services under this Contract upon five (5) days prior written notice if the other party (i) has breached any material provision of this Contract, including non-payment and/or improper partial payment of invoices; or (ii) has violated applicable federal, state, or local laws, ordinances, or regulations. The notice of termination shall specify the date when this Contract terminates and the reason for termination.

**SECTION 9: CONTRACT MANAGEMENT**

The Contract Manager designated below for each party shall be the contact person for all communications and billings regarding the performance of this Contract.

CONTRACTOR Contract Manager	AUTHORITY Contract Manager
Jay Lee, General Manager Ace Metal Company 11110 Mukilteo Speedway Suite 202 Mukilteo, WA 98275 Phone: (425) 493-6802 Fax: (425) 493-6809 Cell: (206) 707-2666 E-mail: info@acemetalco.com	John Friedrich, Executive Director Washington Materials Management and Financing Authority 116 N. Oakes Ave. Ste B Cle Elum, WA 98992 Phone (509) 674-5871 Fax: (509)-674-5350 Cell: (360) 442-1106 E-mail: info@wmmfa.net or jfriedrick@wmmfa.net

**SECTION 10: NOTICE**

Except where otherwise expressly authorized, notice shall be by fax, by first class certified or registered mail, or by commercial delivery service issuing a receipt for delivery and addressed as set forth above, unless changed in writing by the party to whom the notice is being sent. Notice shall be effective upon delivery.

**SECTION 11: INDEMNIFICATION**

To the fullest extent permitted by law, CONTRACTOR shall indemnify, defend, and hold harmless the AUTHORITY, the State, agencies of State and all officials, agents and employees of State from all liability of any nature or kind, including costs, expenses, and attorney's fees, for all actions or claims, losses, personal injuries or property damages sustained by any person or property, resulting from or arising out of, directly or indirectly, any error, omission, or negligent or wrongful acts of CONTRACTOR, or any SUBCONTRACTOR, employee, agent, or representative of CONTRACTOR or anyone directly or indirectly employed by them, in the performance of this Contract.

CONTRACTOR expressly agrees to indemnify, defend, and hold harmless the AUTHORITY and State for any claim, expense, fee or penalty arising out of or incident to CONTRACTOR's or any subcontractor's performance or failure to perform the Contract. CONTRACTOR's obligation to indemnify, defend, and hold harmless the State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials.

CONTRACTOR waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

Contract for Direct Processing Services, Page 5 of 21

THIS CONTRACT is executed by the persons signing below, who warrant they have the authority to execute the Contract.

CONTRACTOR

James Goo  
Signature  
OWNER  
Title  
Dec 10 - 2015  
Date

Washington Materials Management and Financing Authority

John P. ...  
Signature  
EXEC. DIRECTOR  
Title  
12-18-15  
Date

Contract for Direct Processing Services. Page 10 of 21