WATANABE ING LLP
IAN L. SANDISON 5597
JOYCE W.Y. TAM-SUGIYAMA 10325
RIHUI YUAN 11535
First Hawaiian Center
999 Bishop Street, Suite 1250
Honolulu, Hawaii 96813
Email: isandison@wik.com
jtam@wik.com
ryuan@wik.com

Attorneys for Intervenor
SCHNITZER STEEL HAWAII CORP.

BEFORE THE PLANNING COMMISSION
OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAII

In the Matter of the Application of

DEPARTMENT OF ENVIRONMENTAL SERVICES, CITY AND COUNTY OF HONOLULU

Application to Modify SUP No. 2008/SUP-2 (SP09-403) by Modifying (1) Condition No. 1 of the Planning Commission's Findings of Fact, Conclusions of Law, and Decision and Order, dated June 10, 2019, and (2) Condition No. 5 of the LUC's Findings of Fact, Conclusions of Law, and Decision and Order Approving with Modifications the City and County of Honolulu Planning Commission's Recommendation to Approve Special Use Permit, certified on November 1, 2019

FILE NO. 2008/SUP-2
LUC DOCKET NO. SP09-403

INTERVENOR SCHNITZER STEEL HAWAII CORP.'S **SECOND AMENDED LIST OF EXHIBITS**; CERTIFICATE OF SERVICE

CONTINUED HEARING:
Date: October 18, 2023
Time: 9:00 a.m.

And

Date: November 1, 2023
Time: 9:00 a.m.

INTERVENOR SCHNITZER STEEL HAWAII CORP.'S SECOND AMENDED EXHIBIT LIST

Comes now, Schnitzer Steel Hawaii Corp. ("Schnitzer"), by and through its attorneys, Watanabe Ing LLP, and hereby submits its Second Amended List of Exhibits regarding Applicant's application to modify special use permit in the above-captioned proceeding.

The Second Amended List of Exhibits is a list of exhibits that may be used in support of Schnitzer's case pursuant to the contested case hearing held on August 9, 2023 that has been continued to October 18 and November 1, 2023. Schnitzer reserves the right to further amend its Second Amended List of Exhibits and identify any additional exhibits not expressly identified above for rebuttal purposes in response to any pleadings, arguments, exhibits, issues, and witnesses identified by any party pursuant to the Rules of Planning Commission Section 2-71(c).

For the purpose of identification of its exhibits, Schnitzer will be using the identification letter "S" before each exhibit number.

Exhibit No.	**Description**
S-1	Solid Waste Management Permit (Permit Number RY-0013-20) issued by Director of Health, State of Hawai'I on December 30, 2021, to Schnitzer Steel Hawaii Corp.
S-2	Renewal Application for Solid Waste Management Permit for the Schnitzer Steel Hawaii Corp Facility, to Director of Health, State of Hawai'I, dated March 13, 2020.
S-3	Schnitzer Steel Hawaii Corp Yearly ASR Totals for 2020 – 2023
S-4	Schnitzer Steel's 48C Tax Credit Program Round 1 Draft Concept Paper
S-5	Department of Energy Qualifying Advanced Energy Project Credit (48C) Program Webpage Printout, printed July 27, 2023
S-6	Schnitzer Steel's 48C Tax Credit Program Round 1 Final Concept Paper and Grant Proposal, submitted July 31, 2023
S-7	Photograph of Planned Demonstrative Aid – Sample of Scrap Metal

S-8	Photograph of Planned Demonstrative Aid – Sample of Automobile Shredder Residue
S-9	Confidential Information Agreement between Schnitzer Steel and Covanta Honolulu Resource Recovery Venture ("CHRRV"), dated April 5, 2013
S-10	Powerpoint Presentation from Schnitzer Steel Hawaii Corp to CHRRV re Shredder Residue Analytical Results for September 2008 – October 20122, dated April 18, 2013
S-11	Letter from Kelly Champion of CHRRV re Disposal of Auto Fluff Residue at H-Power, dated July 11, 2013
S-12	Letter from Schnitzer Steel Hawaii Corp to All Scrap Material Suppliers re Scrap Acceptance Policy and Prohibition on Scrap Metal Components Containing > 50 ppm PCBs
S-13	Letter from James Stewart, Counsel for Schnitzer Steel Hawaii Corp and CHRRV, to Environmental Protection Agency ("EPA"), re Regulatory Status of ASR as Alternative Fuel in Municipal Solid Waste Combuster, dated October 16, 2014
S-14	Letter from EPA to James Stewart responding to James Stewart October 16, 2014 Letter Requesting Interpretation, dated February 25, 2015
S-15	Letter from Nolan Hirai, Department of Health Clean Air Branch, to Robert Webster, CHRRV H-Power Facility Manager re ASR Burning in Mass Boil Burner Under Permit No. 0255-02-C, dated May 15, 2015
S-16	Voluntary Procedures for Recyclying Plastics From Shredder Residue or Using Shredder Resiude As Alternative Fule, prepared for Schnitzer Steel Hawaii Corp. by Envirosure, dated May 2015
S-17	Letter from Robert Webster, CHRRV H-Power Manager, to Nolan Hirai, Department of Health Clean Air Branch, responding to May 15, 2015 Letter, dated June 8, 2015
S-18	Schitnzer Steel Hawaii Corp Implementation Review of Voluntary Procedures for Recycling Plastics from Schredder Residue or Using Schredder Residue as Alternative Fuel, dated August 2015
S-19	Letter from Jeffrey S. Ruoss, CHRRV H-Power Facility Manager, to Nolan Hirai, Department of Health Clean Air Branch, re ASR Test Results, dated December 1, 2015

DATED: Honolulu, Hawai'i, September 28, 2023.

IAN L. SANDISON
JOYCE W.Y. TAM-SUGIYAMA
RIHUI YUAN
Attorneys for Intervenor
SCHNITZER STEEL HAWAII CORP.

BEFORE THE PLANNING COMMISSION
OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAII

In the Matter of the Application of DEPARTMENT OF ENVIRONMENTAL SERVICES, CITY AND COUNTY OF HONOLULU Application to Modify SUP No. 2008/SUP-2 (SP09-403) by Modifying (1) Condition No. 1 of the Planning Commission's Findings of Fact, Conclusions of Law, and Decision and Order, dated June 10, 2019, and (2) Condition No. 5 of the LUC's Findings of Fact, Conclusions of Law, and Decision and Order Approving with Modifications the City and County of Honolulu Planning Commission's Recommendation to Approve Special Use Permit, certified on November 1, 2019	FILE NO. 2008/SUP-2 LUC DOCKET NO. SP09-403 CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was duly served upon the parties identified below on the date set forth below:

DEPARTMENT OF ENVIRONMENTAL SERVICES (via Certified Mail)
City and County of Honolulu
1000 Uluohia Street, Suite 308
Kapolei, Hawaii 96707

DEPARTMENT OF PLANNING AND PERMITTING (Hand Delivery)
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

DANA M.O. VIOLA, , ESQ. (Hand Delivery)
Corporation Counsel
KAMILLA C. K. CHAN, ESQ.
JEFFREY HU, ESQ.
Deputy Corporation Counsel
City and County of Honolulu
530 South King Street, Room 110
Honolulu, Hawaii 96813

Attorneys for Applicant
DEPARTMENT OF ENVIRONMENTAL SERVICES,
CITY AND COUNTY OF HONOLULU

CALVERT G. CHIPCHASE (Hand Delivery)
CHRISTOPHER T. GOODIN
Cades Schutte LLP
Cades Schutte Building
1000 Bishop Street, Suite 1200
Honolulu, Hawaii 96813

Attorney for Intervenors
KO OLINA COMMUNITY ASSOCIATION and
MAILE SHIMABUKURO

RICHARD NAIWIEHA WURDEMAN, ESQ. (Hand Delivery)
Attorney at Law, A Law Corporation
Pauahi Tower, Suite 720
1003 Bishop Street
Honolulu, HI 96813

Attorney for Intervenor
COLLEEN HANABUSA

ANNE E. LOPEZ, ESQ. (Hand Delivery)
Attorney General
BRYAN C. YEE, ESQ.
Department of the Attorney General
425 Queen Street
Honolulu,. HI 96813

Attorney for Intervenor
OFFICE OF PLANNING, STATE OF HAWAII

DATED: Honolulu, Hawai'i, September 28, 2023.

IAN L. SANDISON
JOYCE W.Y. TAM-SUGIYAMA
RIHUI YUAN
Attorneys for Intervenor
SCHNITZER STEEL HAWAII CORP.

Schnitzer Steel Industries, Inc.
3200 NW Yeon
Portland, OR 97210

CONFIDENTIAL INFORMATION AGREEMENT

Company: Covanta Honolulu Resource Recovery Venture (CHRRV)_____
_____

Company Subject: Automobile Recycling _____
Schnitzer Steel Industries Subject: _____

Purpose of Disclosure: Review dtata on residue (auto fluff) for processing at CHRRV
_____

Disclosing Party (check either or both, as appropriate):

Schnitzer Steel Industries, Inc. _X__ Company ___

1. The disclosing party has certain information regarding the above-identified Subject that is considered by the disclosing party to be confidential and proprietary. The receiving party desires to receive such information solely for the purpose stated above.

2. To be considered confidential under this Agreement, information disclosed in written or other tangible form must be marked as confidential or proprietary, and information disclosed orally or visually must be identified as confidential at the time of disclosure and summarized in a writing delivered to the receiving party within fourteen (14) days thereafter. In addition, the information must have been received by the receiving party within __six____ (_6_) months (or thirty (30) days if no time specified) after the date of this Agreement.

3. The receiving party shall limit disclosure of confidential information of the disclosing party to those of its employees or agents who have a need to know and shall not use the information except in support of the stated Purpose, nor disclose the information to any third party (other than legal and financial advisors who agree in writing to maintain the information in confidence) without the prior written consent of the disclosing party. The receiving party shall protect the information against unauthorized use or disclosure with at least the same degree of care as the receiving party normally exercises to protect its own information of like character and importance, but in no event less than reasonable care.

4. The obligations imposed by this Agreement shall not apply or shall cease to apply to any information that:

   4.1 Is lawfully known by the receiving party at the time of disclosure;

   4.2 Is or becomes available to the general public through no fault of the receiving party;

   4.3 Is independently developed by the receiving party;

   4.4 Is lawfully received by the receiving party from a third party not having an obligation of confidentiality to the disclosing party;

   4.5 Is disclosed by the disclosing party to a third party free of restriction; or

   4.6 Is disclosed by the receiving party in response to government or judicial request, provided the disclosing party is given notice of the request and a reasonable opportunity to object or seek a protective order;

and shall not extend for more than three years (or three (3) years if no time specified) from the date of signature

5. All materials provided by the disclosing party under this Agreement shall remain the property of the disclosing party and be returned upon request, together with all copies. The receiving party of tangible products or materials embodying confidential information agrees not to analyze or have a third party analyze any such products or materials except as specifically permitted in writing by the disclosing party.

6. Neither this Agreement nor any disclosure hereunder shall be construed as granting by implication, estoppel or otherwise, any right in or license under any patent or copyright or other proprietary right now or hereafter owned or controlled by the disclosing party. Neither party has any obligation under this Agreement to develop, announce or deliver any product or service to the other party, or to purchase any product or service from the other party.

7. Any claim arising under this Agreement will be barred and unenforceable unless the party asserting the claim files an action on the claim within one (1) year after the party knew or reasonably should have known of the grounds for the claim.

8. The disclosing party is not obligated to furnish confidential information to the receiving party. All confidential information is provided on an "AS IS" basis. The receiving party agrees to comply with all applicable laws, including without limitation the export control laws of the United States, in dealing with the confidential information received from the disclosing party.

9. The opportunity to receive information under this Agreement may be terminated at any time upon written notice by one party to the other party. Such termination shall not affect any obligation imposed by this Agreement with respect to information received prior to such termination.

10. No failure or delay by either party in exercising any right, power or privilege hereunder shall operate as a waiver thereof or preclude the exercise of any other or further right, power or privilege hereunder.

11. This Agreement is not assignable. Any attempt by one party to assign or transfer any of the rights, obligations or duties of this Agreement without the prior written consent of the other party is void.

12. The parties shall not publicize the existence of or scope of this Agreement.

13. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon.

14. This Agreement contains the entire understanding regarding the protection of information covered by this Agreement and supersedes all prior and collateral communications, reports and understandings, if any, between the parties regarding the same information.

Dated this 5th day of April, 2013.

SCHNITZER STEEL INDUSTRIES, INC

Signature: [signature]

Name (print): Scott B. Sloane

Title: Nat. Environmental Dir.

Date: 4/5/13

Covanta Honolulu Resource Recovery Venture
Company

Signature: [signature]

Name: (print): J M Norris

Title: VP - Business Management

Date: 4/5/2013

Shredder Residue Analytical Results
September 2008 – October 2011

Presented to:
CHRRV

April 18, 2013

Schnitzer Steel Hawaii Corp.
91-056 Hanua Street
Kapolei, Hawaii

Hawaii Metal Recycling

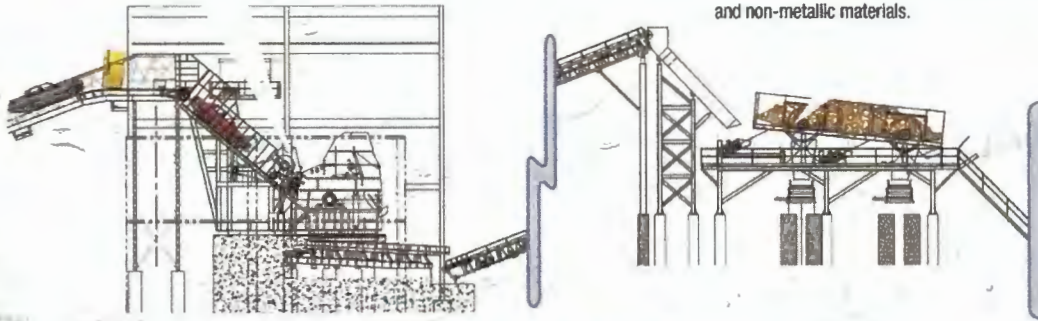
How Shredder Residue is Produced

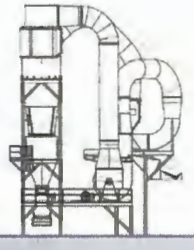
THE RECYCLING PROCESS

SHREDDING PROCESS: End-of-life products, such as automobiles and appliances, are loaded into the shredder. Materials are free of contaminants prior to processing.

1 **MAGNETIC SEPARATION:** Stationary magnets separate ferrous metals from nonferrous metals and non-metallic materials.

2 **Z-BOX AIR SEPARATOR:** To improve the quality of the final product, any remaining shredder residue is removed from the ferrous metals using air jets.

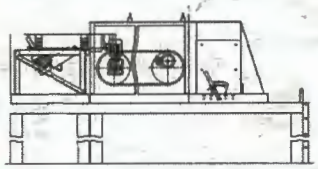




FERROUS METALS are sent to the z-box air separator.

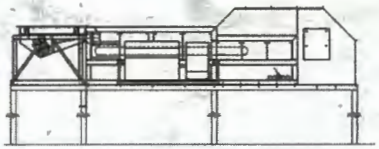
NONFERROUS MATERIALS are sent to the eddy current separator for further processing.

5 **X-RAY DENSITY SEPARATION:** X-ray technology measures the atom density of particles and uses air ejection to separate aluminum from other nonferrous metals.



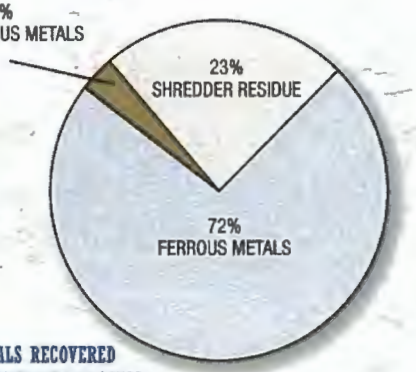
MIXED NONFERROUS METALS are sent to the x-ray density separator.

STAINLESS STEEL AND SHREDDER RESIDUE are sent to the induction sorting system.



3 **EDDY CURRENT SEPARATION:** Using a short conveyor with a rapidly rotating system of permanent magnets in the head drum that generates high-frequency changing magnetic fields, nonferrous metals and shredder residue materials are sorted further.

4 **INDUCTION SORTING SYSTEM:** This technology combines sophisticated sensors and computer-controlled air jets to quickly detect and eject stainless steel metal, separating it from shredder residue materials.



MATERIALS RECOVERED FROM SHREDDING PROCESS

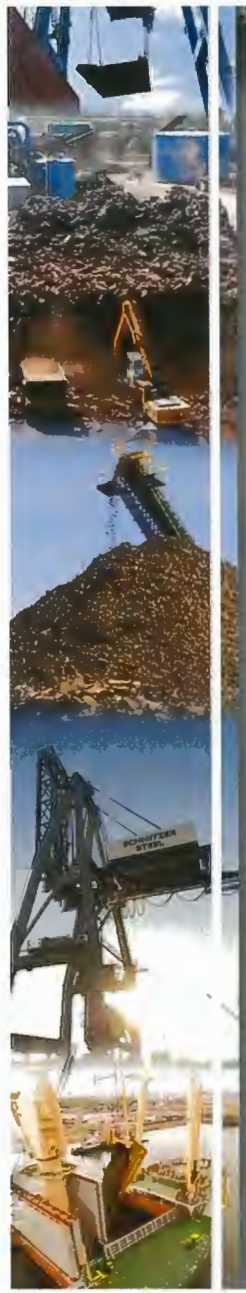
Typical Shredder Residue Composition

- Plastics
- Foam
- Fabric
- Rubber
- Glass
- Wood
- Paper
- Residual Metals
- Soil/Gravel/Rocks

Material is heterogeneous but typically profiles as Municipal Solid Waste

SR Source Control Efforts

- Scrap Acceptance Policy
- Hazardous Materials Compliance Contract (CFC, Hg, PCB)
- Contractual agreements with commercial accounts
- Radiation detection equipment
- Inspections at scale and during unloading
- Rejection logs
- Source control training for employees
- Main issues for SR are electrical capacitors and batteries as potential sources of PCBs, lead, & cadmium

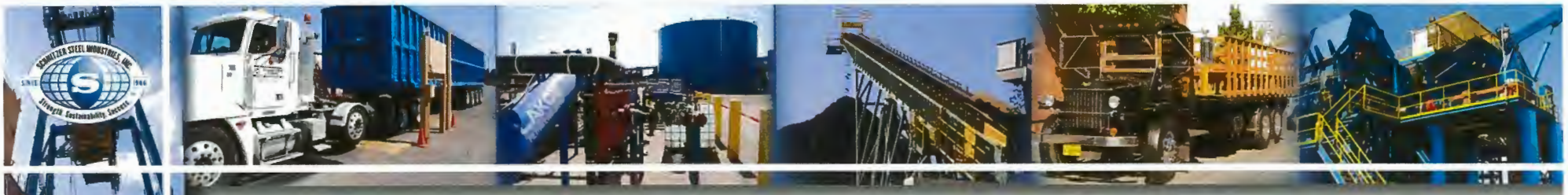


SR Characterization at HMR

- Annual profiling required by disposal facility (WGSL)
- No current HDOH characterization requirements
- Sampling/testing conducted in 4th quarter of each year
- Additional voluntary verification evaluation testing often conducted
- Samples collected and/or processed by 3rd party engineers
- Analytical testing for TCLP RCRA-8 Metals (As, Ba, Cd, Cr, Pb, Se, Ag, Hg) and total PCB
- Main constituents of interest include Cd, Pb & total PCB
- Other constituents always ND or well below regulatory levels

Representative Results

- Challenges presented by SR's inherent heterogeneity
- Material character varies spatially, temporally, and gradationally
- Challenges overcome by:
  - ✓ Composite sampling (addresses spatial and temporal variation)
  - ✓ Sample preparation to ensure size fractions are appropriately represented (addresses gradational variation)
  - ✓ Testing multiple sample aliquots (for computation of mean concentration values per SW-846)
  - ➢ Following Baumgartner Protocol



On-going Verification

- In addition to annual waste characterization required by disposal facility, testing is also important to evaluate potential trends and confirm long-term regulatory compliance
- 3rd-party consultants and independent state-certified laboratories used to collect, prepare and analyze samples
  - ✓ Ensures appropriate and consistent sample collection & preparation protocols
  - ✓ Ensures appropriate laboratory QA/QC requirements
  - ✓ Results of testing are reliable
- On-going testing programs consistently validate that SR profiles as solid waste

Summary of 3-year SR Profiling Analytical Data Set (2008 – 2011)

- 13 data sets
  - No exceedences for any constituent – 10
  - Single constituent exceedence for one test – 3
    - ✓ Isolated slight exceedences for TCLP Pb (2) and Cd (1)
    - ✓ All event averages passed

Summary of SR Analytical Data

- TCLP cadmium and lead data
- All other constituents ND or well below regulatory thresholds
  - TCLP Cd – 85 tests
    - 84 of 85 passed (99%)
  - TCLP Pb – 85 tests
    - 83 of 85 passed (98%)

COVANTA ENERGY

Inter office Memo

Date: 11 July 2013

To: Robert Webster
Sonni Escuadro
Mike Norris

From: Kelly Champion

CC: Chris Baker
Russ Johnston
Karen Stepsus
Gary Thein

Subject: Disposal of auto fluff residue at HPower

I have put some regulatory references below and included citations in case you want to review the language. Regulations for PCBs are found in 40 CFR Part 761. EPA also has a 2009 PCB Q&A Manual which I will post on the SharePoint portal.

As far as PCBs go there are two main issues. The first is what the overall PCB concentration of the auto fluff. If is<50 ppm and was sampled according to Subpart R then HPower may be able to dispose of the material.

The second is what procedures Schnitzer has in place to ensure the removal of PCB items/articles from cars before they are shredded. As I see it we need guarantees that any PCB capacitors are removed from the car prior to shredding. EPA states that capacitors manufactured before July 2, 1979 are assumed to contain PCBs unless there is other definitive information to the contrary. These capacitors must be removed prior to shredding or we can't take the auto fluff regardless of the overall auto fluff analytical results. In addition, it's the concentration of individual components when the automobile is designated a waste that matters not just the PCB levels of the entire waste stream. From EPA's Q&A it seems clear that the designation as a waste applies on or before the automobile heads to the recycler (i.e. Schnitzer Steel)

If Schnitzer cannot provide the assurances we need then we cannot dispose of the material at HPower unless we are prepared to apply to EPA for approval as "alternate disposal." This would be a long and drawn out process.

Mercury is also a concern, specifically how Schnitzer ensures mercury containing switches, etc. are removed prior to shredding.

I think we need to take the following steps:

1. Conduct an audit of Schnitzer Steel to determine
    a. review procedures for removing PCB Articles and Items from the automobiles prior to shredding. (See definitions below)
    b. review procedures for removing mercury switches and other mercury containing items from the automobiles prior to shredding
    c. determine if Schnitzer's sampling procedures are consistent with §761.340 through §761.359
    d. determine Schnitzer's disposal methods for any removed PCB or mercury containing items.

2. We also need to ask Schnitzer for any total metals data for mercury. If they don't have it they need to do some additional analysis and provide us with the results.

If all of that looks good then we need to have them submit the required documentation to C4Recovery for approval.

Attached are some regulatory citations that might be helpful. Please call if you have questions or need additional information.

Regulatory Excerpts

1. Definitions of concern (see §761.3)
   a. PCB Article "means any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes..."
   b. PCB bulk product waste: "means waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was ≥50 ppm PCBs. PCB bulk product waste does not include PCBs or PCB Items regulated for disposal under §761.60(a) through (c), §761.61, §761.63, or §761.64. PCB bulk product waste includes, but is not limited to:
      i. Non-liquid bulk wastes or debris from the demolition of buildings...
      ii. PCB-containing wastes from the shredding of automobiles, household appliances, or industrial appliances.
      iii. Plastics (such as plastic insulation from wire or cable; radio, television and computer casings; vehicle parts....
      iv. Fluorescent light ballasts containing PCBs in the potting material.
   c. PCB Capacitor means any capacitor that contains ≥500 ppm PCB. Concentration assumptions applicable to capacitors appear under §761.2.
   d. PCB Item "means any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.

2. PCB concentration assumptions for use (See §761.2 (4))
   "Any person must assume that a capacitor manufactured prior to July 2, 1979, whose PCB concentration is not established contains ≥500 ppm PCBs. Any person may assume that a capacitor manufactured after July 2, 1979, is non-PCB (i.e., ‹50 ppm PCBs). If the date of manufacture is unknown, any person must assume the capacitor contains ≥500 ppm PCBs. Any person may assume that a capacitor marked at the time of manufacture with the statement "No PCBs" in accordance with §761.40(g) is non-PCB."

3. Storage and Disposal (Subpart D, beginning at §761.50)
   a. PCB Items (see §761.50(b)(2)) "Any person removing from use a PCB Item containing an intact and **non-leaking** (emphasis added) PCB Article must dispose of it in accordance with §761.60(b), or decontaminate it in accordance with §761.79. PCB Items where the PCB Articles are no longer intact and **non-leaking** (emphasis added) are regulated for disposal as PCB bulk product waste under §761.62(a) or (c)..."
   b. PCB bulk product waste – "(i) *General.* Any person disposing of PCB bulk product waste must do so in accordance with §761.62 PCB bulk product waste, as that term is defined in §761.3, is waste that was ≥50 ppm when originally removed from service, even if its current PCB concentration is ‹50 ppm..."
   c. PCB Capacitors (see §761.60 (b)(2)) "(i) The disposal of any capacitor shall comply with all requirements of this subpart unless it is known from label or nameplate information, manufacturer's literature...or chemical analysis that the capacitor does not contain PCBs.

Schnitzer Steel Hawaii Corp.
91-056 Hanua Street
Kapolei, HI 96707
(808) 682-5810

TO: All Scrap Material Suppliers

SUBJECT: Schnitzer Steel Hawaii Corp. Scrap Acceptance Policy and Prohibition on Scrap Metal Components Containing ≥ 50 ppm PCBs

Dear Valued Supplier:

Hazardous materials can be found in components of some types of scrap metal. When hazardous materials are included in scrap metal shipments it places an undue burden on the receiving facility because the presence of hazardous materials in metal recycling feedstock substantially complicates our ability to recycle scrap metal and/or properly recycle or dispose of recycling byproducts.

Enclosed with this letter is a copy of our Scrap Acceptance Policy which describes items that may not be delivered to and will not be accepted by our facility. Compliance with environmental regulations is critical to our company's goals, and we strive for full compliance with local, state and federal regulations. We ask that you assist us in these efforts by reviewing the Scrap Acceptance Policy and ensuring that scrap metal you bring to our facility complies with the policy.

Due to special requirements associated with Schnitzer Steel Hawaii Corp.'s Voluntary Procedures for Recycling Plastics from Shredder Residue, we ask that you carefully review the Scrap Acceptance Policy section regarding polychlorinated biphenyls (PCBs). While we would prefer that no PCB-containing materials be brought to our facilities, please note that **SCHNITZER STEEL HAWAII CORP. specifically cannot accept any materials for recycling which include components containing PCBs at concentrations of 50 parts per million (ppm) or more.** All materials that once contained PCBs must have the PCBs removed prior to delivery to our facilities.

Schnitzer Steel Hawaii Corp. requires suppliers of shredder feedstock material (SFM) to sign a Hazardous Substance Removal Compliance Certification (HSRCC) prior to delivering SFM to our facilities. The HSRCC certifies that PCB containing capacitors have been removed from SFM, and that no scrap metal containing 50 ppm PCB or more will be delivered go our facilities. If you initiate SFM delivery to our facilities and do not already have a signed HSRCC on file, scale personnel will provide you with a copy for your signature upon arrival at our facility. Alternatively, you can contact us at the number listed below to arrange for completing an HSRCC prior to delivering SFM to our facility.

We look forward to your continued business. If you have any questions or need further assistance, please feel free to contact us at (808) 682-0604.

Thank you for your attention to this important matter.

Mahalo,

Schnitzer Steel Hawaii Corp.

Lowenstein Sandler LLP

James Stewart
Partner

65 Livingston Avenue
Roseland, NJ 07068
T 973 597 2522
F 973 597 2523
jstewart@lowenstein.com

October 16, 2014

Ms. Tanya Mottley, Director
National Program Chemicals Division
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue
Mail Code 7407M
Washington, DC 20004

Re: Regulatory Status of Auto Shredder Residue

Dear Ms. Mottley:

I am writing on behalf of Schnitzer Steel Hawaii Corp. and Covanta Honolulu Resource Recovery Venture ("Covanta") to clarify the regulatory status of Auto Shredder Residue ("ASR") in the circumstances of a proposed business relationship between Schnitzer Steel Hawaii and the City of Honolulu, by which ASR would be burned for energy recovery at the municipal solid waste ("MSW") combustor in Kapolei, Hawaii commonly known as the "H-Power Facility". The HPOWER Facility is owned by the City and County of Honolulu and operated by Covanta. Schnitzer Steel Hawaii Corp. operates a metal recycling facility, which includes an automobile shredder, in Kapolei, Hawaii.

The HPOWER Facility is a three (3) unit facility: Units 1 and 2 burn refuse-derived-fuel ("RDF"), while Unit 3 is a mass-burn unit. *The proposed co-burning of ASR relates to Unit 3 only.* The air emission permit for Unit 3, issued by the State of Hawaii Department of Health pursuant to Title V of the Clean Air Act and Hawaii's Air Pollution Control Act (Covered Source Permit No. 0255-02-C) (the "Air Permit"), contains provisions that allow as acceptable operating procedures the blending of ASR with MSW. The Air Permit requires that the supplier of the ASR analyze representative samples of the ASR for hazardous constituents, such as PCBs and heavy metals to determine if the ASR is non-hazardous. The Air Permit also contains emission limits, and monitoring requirements, for dioxins and other contaminants. Covanta operates Unit 3in accordance with Clean Air Act regulations at 40 C.F.R. Part 60 Subparts Eb. A copy of the relevant section of the Air Permit is provided in the Appendix to this letter.

Schnitzer Steel Hawaii Corp.'s metal recycling facility generates ASR. The facility complies with the Voluntary Procedures of the Institute of Scrap Recycling Industries, Inc., which EPA acknowledged as a way to establish that the ASR is an Excluded PCB Product under the Toxic Substances Control Act ('TSCA") in an April 5, 2013 TSCA interpretation published at 78 Fed.Reg.20640, Docket No. EPA-HQ-OPPT-2012-0092 ("The Voluntary Procedures

Interpretation"). In the Voluntary Procedures Interpretation, EPA determined that the Voluntary Procedures contained two parts that justified classification of the ASR as an Excluded PCB Product under TSCA: (1) controls on the source of feedstock to the shredder to prevent the introduction of PCBs for disposal into the feedstock; and (2) output controls on the facility to which the ASR would be sent.

In a February 4, 2014 interpretation letter to the Cement Kiln Recycling Coalition, a copy of which is enclosed, EPA applied the Voluntary Procedures Interpretation to the burning of ASR in cement kilns ("The Feb. 14 Letter"). In the Feb. 14 Letter, EPA found that the shredder's compliance with the Voluntary Procedures constituted adequate source control to exclude PCBs for disposal in the ASR and the Clean Air Act emission standards at the cement kilns constituted sufficient output controls at the cement kilns so that in those circumstances the ASR to be burned should be treated as an excluded PCB product under TSCA when burned at the cement kilns.

Schnitzer Steel Hawaii Corp. and Covanta Honolulu Resource Recovery Venture ask EPA to confirm that the same analysis as used in the February 14 letter applies to the burning of ASR from Schnitzer Steel Hawaii Corp.'s recycling facility at the H-Power Facility's Unit 3 as an excluded PCB product under TSCA. The compliance with the Voluntary Procedures at the Schnitzer Steel Hawaii Corp. metal recycling facility and shredder constitutes adequate source control to exclude PCBs for disposal from the feedstock to its shredder. And, the Air Permit conditions and emission controls at the H-Power Facility;s Unit 3 constitute adequate output controls such that this use of ASR meets the Voluntary Procedures Interpretation. The use of ASR in the feedstock for the H-Power Facility has environmental benefits and significant potential economic value to Schnitzler Steel Hawaii Corp., Covanta, and the City and County of Honolulu. Please provide confirmation of our interpretation of the Voluntary Procedures Interpretation and the February 14 letter to the burning of ASR in H-Power Unit 3 consistent with its Air Permit.

Respectfully submitted,

James Stewart

James Stewart

JS:ddt

22354/5
10/16/14 33233799.1
Enclosure(s)

i. Commodity Wastes – Waste generated by commercial operations or retail outlets and are accumulated as a result of material being off-specification, outdated, or deemed no longer fit for distribution, sale, or consumption. Commodity waste includes, but is not limited to, food products, health care products, cosmetics, and other store products. Also included in Commodity waste are confidential documents and electronic media.

ii. Pharmaceutical Wastes – Waste that include prescription and non-prescription pharmaceuticals, controlled substances, and pharmaceutical waste regulated by the U.S. Drug Enforcement Agency (DEA). The waste is accumulated by pharmaceutical manufacturers, wholesalers, retailers, and hospitals or confiscated by law enforcement officers. Waste can either be final formulation, intermediate, or raw materials used in the pharmaceutical process.

iii. Manufacturing Wastes – Waste generated as a result of industrial and manufacturing processes. This category of waste includes, but is not limited to, floor sweepings, nonhazardous sludge, industrial filters (e.g., paint filters, air filters, etc.), adhesives, paints, and inks. No bulk liquid manufacturing wastes shall be accepted.

iv.a. Oily Wastes – Include any of the following waste categories: (1) filters, (2) solid wastes containing "virgin oil;" and (3) solid wastes containing used oil. The acceptable oily waste streams include, but are not limited to, rags, paper towels, granular or fiber absorbents, fabric pads and booms. Booms and pads shall be prepared as needed for processing. Filters shall only be accepted if classified as non-hazardous, punctured, and drained of free liquids (40 CFR Part 261). Solid wastes containing "virgin oil" shall only be accepted if certified as a non-hazardous waste and if the waste contains no free liquids.

iv.b. Oily Wastes – Solid wastes containing used oil are considered Hawaii Special Waste and shall be managed as such. The used oil waste shall also be managed in accordance with federal standards outlined in 40 CFR Part 279 (EPA Standards for the Management of Used Oil). Used oil waste containing equal to or greater than two (2) ppm of polychlorinated biphenyls (PCBs) shall not be accepted.

v. Used Cooking Oil – Oil generated primarily by, but not limited solely to, restaurants. The used cooking oil shall be transported and decanted by contractors to remove water and particles.

vi. Triple-Rinsed Containers – Waste containers, including but not limited to, containers comprised primarily of high density polyethylene (HDPE) plastic and may include polystyrene and polyurethane containers. The containers shall be triple rinsed according to federal regulation 40 CFR Part 261.7 or the definition set forth in the Hawaii Solid Waste Management Control Regulations (Title 11), whichever is less stringent. The supplier shall provide a statement certifying that the containers were triple-rinsed according to acceptable rinsing methods.

vii. Tires and Automobile Shredder Residue – Tire and automobile shredder residue are both considered Hawaii Special Wastes and shall be managed as such. Tires shall be blended with other MSW prior to charging the mass-burn boiler with the waste. Mitigation of effects from tire sulfur content shall be accomplished by materials management and blending. Automobile shredder residue consists of items such as foam rubber, seat covers, gaskets, plastics, etc. Prior to acceptance, the supplier must analyze representative samples of automotive shredder residue for hazardous constituents, such as PCBs and heavy metals.

Automobile shredder residue shall be blended with MSW prior to charging the MWC boiler if the automobile shredder residue is determined to be nonhazardous and acceptable for processing.

viii. Treated Medical Wastes – Treated medical wastes include sterilized waste generated from medical, veterinary, or other health care facilities and are considered Hawaii Special Wastes. Waste components include, but are not limited to bandages, dressings, syringes/sharps, cultures, injectables, and infectious or pathological wastes that have been subject to sterilization (i.e., autoclave). The supplier is required to provide a statement that the treated medical wastes were sterilized appropriately.

ix. Treated Foreign Wastes – Treated foreign wastes include sterilized solid waste generated by carriers leaving foreign ports and entering Hawaii and are considered Hawaii Special Wastes. Waste components include airline carrier garbage or solid waste from sea-going vessels. Foreign waste must comply with regulations set forth by the U.S. Department of Agriculture. In addition, foreign waste shall be processed in a manner similar to that for the management and processing of medical wastes in accordance with Hawaii regulations. The supplier is required to provide a statement certifying that the treated foreign wastes were sterilized appropriately.

b. The mass-burn boiler may combust specification used oil. For firing the boiler on specification used oil, the following shall apply:

i. The permit conditions prescribed herein may be revised at any time by the Department of Health to reflect state or federal promulgated rules on used oil;

ii. This permit shall not release the permittee from compliance with all applicable state and federal rules and regulations on the handling, transporting, storing, and burning of used oil;

iii. This permit does not authorize the permittee to burn hazardous waste. The permittee shall not burn the used oil if it is declared to be hazardous waste. The Department of Health shall be contacted to determine the proper disposal method for each used oil delivery determined to be hazardous waste;

iv. The specification used oil fired by the mass-burn MWC boiler shall meet the following limits:

Constituent/Property	Limit
Arsenic	≤ 5 ppm
Cadmium	≤ 2 ppm
Chromium	≤10 ppm
Lead	≤ 100 ppm
Total Halogens	≤ 1,000 ppm
Sulfur	≤ 0.5% by weight
Flash Point	≥ 100 ^{o}F
PCBs	< 2 ppm

v. Used oil generated within the H-POWER facility may be burned in accordance with the conditions specified in this alternate operating scenario;

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 23 2015

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

James Stewart
Lowenstein Sandler LLP
65 Livingston Avenue
Roseland, NJ 07068

Dear Mr. Stewart:

Thank you for your October 16, 2014 letter regarding the U.S. Environmental Protection Agency's regulation of polychlorinated biphenyls under the Toxic Substances Control Act. In particular, your letter asks the EPA to clarify its April 5, 2013 interpretation, *Polychlorinated Biphenyls; Recycling Plastics from Shredder Residue* (78 FR 20640), in regard to the use of automobile shredder residue as an alternative fuel in a municipal solid waste combustor.

As outlined in your letter, ASR produced by a facility following the Institute for Scrap Recycling Industries Inc.'s Voluntary Procedures for Recycling Plastics from Shredder Residue would be burned as fuel in a municipal solid waste combustor operating under an air emission permit issued by the State of Hawaii Department of Health pursuant to Title V of the Clean Air Act, specifically the CAA regulations at 40 CFR Part 60, Subpart Eb, as well as state air regulations. You note this permit allows the blending of ASR with municipal solid waste for fuel, provided the supplier analyzes representative samples of the ASR for hazardous constituents such as PCBs (concentration not specified). It also regulates emissions of dioxins, among other contaminants. You ask for EPA confirmation that these emission standards constitute adequate output controls such that the proposed use of ASR as fuel at this MSW combustor falls within the agency's interpretation, as the EPA previously concluded for the use of ASR as a fuel in cement kilns.

The conclusion of the EPA's April 5, 2013 interpretation is that shredder feedstock generally can be treated as an excluded PCB product if shredders and their suppliers follow the voluntary procedures developed by ISRI, as the EPA believes those procedures can prevent the introduction of $\geq$50 ppm PCBs into the feedstock; therefore, the feedstock and the ASR produced from it would contain <50 ppm PCBs. My February 4, 2014 letter to the Cement Kiln Recycling Coalition concluded that the burning of such ASR for fuel in certain cement kilns is analogous to the output control procedures in the ISRI voluntary procedures, noting that such use of fuels is consistent with the TSCA regulations permitting the burning of another category of excluded PCB product, used oil at concentrations $\geq$2ppm to <50 ppm PCBs, in cement kilns.

It is not clear from the information you provided in your letter whether the MSW combustor is permitted under the CAA regulations and its state air permit to accept ASR at concentrations <50 ppm PCBs. The permit requires analysis of ASR for PCB content, apparently to determine whether the ASR is hazardous waste under state law and therefore not acceptable. I do not know what PCB levels would render the

waste hazardous under state law, but note that, unlike cement kilns, the municipal solid waste combustor is prohibited from accepting used oil with ≥2ppm PCBs.

Provided you have confirmed that the combustor is permitted under the CAA regulations and its state air permit to accept and burn ASR containing <50 ppm PCBs as a fuel (a matter about which I express no opinion), this burning of ASR as a fuel obtained from shredders and suppliers following the voluntary procedures developed by ISRI is consistent with the EPA's April 5, 2013 interpretation of the TSCA PCB regulations.

Again, thank you for your letter and I hope the information provided is helpful to you. If you have any further questions, please contact Peter Gimlin of my staff at 202-566-0515 or *gimlin.peter@epa.gov*.

Sincerely,

Tanya Hodge Mottley
Director
National Program Chemicals Division
Office of Pollution Prevention and Toxics

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to
File:

15-278E CAB
File No. 0255

May 15, 2015

Mr. Robert A. Webster
Facility Manager
Covanta Honolulu Resource Recovery
Venture (CHRRV)
Honolulu Program of Waste Energy
Recovery (H-POWER)
91-174 Hanua Street
Kapolei, Hawaii 96707-1735

Dear Mr. Webster:

SUBJECT: Automobile Shredder Residue (ASR) Burning in the Mass-Burn Boiler
Covered Source Permit No. 0255-02-C
CHRRV/H-POWER
Located At: 91-174 Hanua Street, Kapolei, Oahu
UTM: Zone 4, 592,618 m E, 2,356,415 m N (NAD-27)

In accordance with the subject permit, Attachment II, Special Condition No. C.13.a.vii, it is required that the supplier analyze representative samples of ASR for hazardous constituents, such as PCBs and heavy metals prior to acceptance, and for CHRRV to determine if the material received for boiler burning is non-hazardous.

During the meeting held on April 28, 2015, the ASR supplier, Schnitzer Steel Hawaii Corp., only identified tests for PCB concentration (no heavy metal testing) being performed on a quarterly basis. Our concern is that CHRRV cannot ensure the ASR received from each delivery is non-hazardous with only a quarterly test for PCB. The ASR supplier should identify all incoming sources of ASR and the quantity of ASR received from each source. This information should be used to develop a sampling methodology and frequency that would give the Department of Health (DOH) confidence that the material received and fired in the boiler is non-hazardous. Attached please find the table summarizing the heavy metals, volatiles, and semi-volatiles that the DOH Solid and Hazardous Waste Branch regulates using the TCLP test method. This table is cited from Hawaii Administrative Rules, Title 11, Chapter 261, Hazardous Waste Management, Subchapter C. The ASR delivered to your site shall be tested for all heavy metals listed in the table (in addition to PCB) to ensure the non-hazardous waste requirement is met.

Attachment II, Special Condition No. C.13.a, requires that ASR be blended with municipal solid waste (MSW) prior to charging the boiler to ensure compliance with the boiler emission limits and opacity limits specified in Attachment II, Special Condition Nos. C.8 and C.9. How often will H-POWER burn the ASR? Provide the maximum rate, in lb/hr, that ASR will be mixed into the MSW. Provide the frequency and quantity of ASR to be fired in the boiler on a daily, weekly, and monthly basis.

In the meeting, CHRRV mentioned that compliance with the specified emission limits will be demonstrated during annual source performance testing. Will ASR be burned during the annual source performance test?

Please identify how CHRRV will demonstrate compliance with the permit requirements of non-hazardous waste and boiler emission limits concerning ASR burning.

If you have any questions regarding this matter, please contact Ms. Jing Hu of my staff at (808) 586-4200.

Sincerely,

NOLAN S. HIRAI, P.E.
Manager, Clean Air Branch

JH:mah

Enclosure

c: Solid and Hazardous Waste Branch

VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL

Prepared For:

SCHNITZER STEEL INDUSTRIES, INC.
Schnitzer Steel Hawaii Corp.
91–056 Hanua Street, Kapolei, Hawaii 96707

May 2015

Provided By:

1979 east broadway road, tempe, az 85282
ph: 480-784-4621 fax: 480-784-2207
www.envirosuresolutions.com

S-16

TABLE OF CONTENTS

APPENDICES

Voluntary Procedures for Recycling Plastics from Shredder Residue or Using Shredder Residue as Alternative Fuel

1.0 Facility Detail

Facility Name:	Schnitzer Steel Hawaii Corp.
Facility Address:	91-056 Hanua Street, Kapolei, HI 96707
County:	Honolulu
Phone:	(808) 682-5810
SIC:	5093: Scrap & Waste Materials
Primary Business Activity:	Metal Recycling
Latitude:	21° 17' 53" N
Longitude:	158° 06' 07" W
Acreage:	5.8 acres

2.0 Purpose

These Voluntary Procedures have been established at the Schnitzer Steel Hawaii Corp. (Schnitzer Hawaii) facility for the following reasons:

- The Institute of Scrap Recycling Industries (ISRI), in consultation with Environmental Protection Agency (EPA), developed a set of voluntary procedures (Voluntary Procedures) which can prevent the introduction of poly chlorinated biphenyls (PCBs) regulated for disposal into recycled plastics. Schnitzer Hawaii intends to comply with these voluntary requirements by implementing the procedures contained within this policy to comply with EPA interpretations which allow the use of shredder residue as alternative fuel provided that certain requirements are met. ISRI/EPA Voluntary Procedures are included in Appendix A.

- Raw materials received by the Schnitzer Hawaii facility are required to conform to EPA Toxic Substance Control Act (TSCA) standards. Failure to maintain these standards could potentially compromise compliance with TSCA regulations under which Schnitzer Hawaii operates.

- The scrap materials entering any Schnitzer Hawaii facility are used as raw materials in the company's recycling processes. Failure to comply with the facility's Scrap Acceptance Policy (Appendix B) or these Voluntary Procedures could negatively impact the quality of the company's products and potentially result in products that fail to meet consumers' specifications.

- Schnitzer Hawaii seeks to prevent risk to the health and safety of its employees, contractors, community and the environment by not processing materials which may be toxic when released to the environment. Therefore, substances with $\geq$50 parts per million (PPM) PCBs will be deemed unacceptable.

- The EPA issued interpretation letters dated February 4, 2014 and February 25, 2015 indicating that shredder feedstock generally can be treated as an

excluded PCB product if shredders and their suppliers follow the Voluntary Procedures developed by ISRI. EPA has further indicated in these letters that shredder residue generated at facilities which follow the Voluntary Procedures developed by ISRI can be used as alternative fuel in cement kilns and municipal solid waste combustors; provided that the consuming facilities maintain air permits which contain emission standards which can be interpreted as adequate output controls. Copies EPA's referenced interpretation letters are included in Appendix C.

3.0 Unacceptable Materials

This section defines what Schnitzer Hawaii may and may not receive in regards to controlling the introduction of PCBs regulated under TSCA. Schnitzer Hawaii may only receive certain recyclable materials at its facility. To assure that no materials containing PCBs ≥50 PPM are received at its location, Schnitzer Hawaii has identified the scrap metal materials and components which could contain PCBs ≥50 PPM, and thus has identified certain materials which cannot be accepted at its facilities.

A material inspection program has been established for inbound materials to minimize the likelihood of receiving unacceptable materials containing PCBs ≥50 PPM. All materials are inspected by facility personnel to ensure they meet the guidelines outlined in these Voluntary Procedures. If materials are found to violate the Voluntary Procedures, these materials are rejected and documented in a rejection log (see Appendix D – Source Materials Rejection Log).

The following materials will NOT be accepted by Schnitzer Hawaii:

- *Appliances (conditional terms)* – Schnitzer Hawaii requires that all electrical components (e.g., capacitors and ballasts) and compressors must have been removed. The compressors must be drained of fluid for acceptance.

- *Automobiles (conditional terms)* – Schnitzer Hawaii currently requires that all vehicles to be accepted as scrap metal must have all fluids drained before acceptance. This includes fuels, oils, hydraulic fluids and antifreeze. Schnitzer's Solid Waste Permit Operating Plan allows acceptance of un-drained "wet" automobiles. Schnitzer does not currently accept wet automobiles. If Schnitzer opts to accept wet automobiles in the future, proper depollution activities (draining of all liquids and removal of other hazardous components) will be performed on-site prior to processing such automobiles originally received in "wet" condition. Automobiles must not be filled with items that may contain PCBs ≥50 PPM.

- *Building Demolition Materials (conditional terms)* – Schnitzer Hawaii requires that PCB-containing caulk be removed from building demolition scrap materials offered for recycling.

- *Drums/Barrels* – Schnitzer Hawaii will not accept drums or barrels unless they have at least one end removed and have been certified to be triple rinsed and cleaned, or unless they have clearly and visibly contained only food type products. Closed containers of any type must have at least one end

open for inspection in order to be accepted for recycling purposes. Drums with HAZMAT or PCB markings, or having contained hazardous, toxic, or biohazard materials, wastes, or other like substances will not be accepted.

- *Fluorescent or Mercury Vapor Lamps and Related Fixtures (conditional terms)* – Schnitzer Hawaii will not accept these types of lamps in any load. Fixtures and ballasts must say "NO PCB's" or "NON-PCB" for acceptance or they will be rejected.

- *Free-Flowing Liquids* – Schnitzer Hawaii will not accept any scrap metal materials containing free-flowing liquids of any kind, including water.

- *Gasoline, Diesel Fuel, Oils, Propane, Petroleum Products or Antifreeze (conditional terms)* – Schnitzer Hawaii will not accept these substances. Supplier must certify that all fluids have been drained from all components or containers before delivery or pick-up to or by Schnitzer Hawaii. Loads containing these substances will be rejected for non-compliance. Schnitzer's Solid Waste Permit Operating Plan allows acceptance of un-drained "wet" automobiles. Schnitzer does not currently accept wet automobiles. If Schnitzer opts to accept wet automobiles in the future, proper depollution activities (draining of all liquids and removal of other hazardous components) will be performed on-site prior to processing such automobiles originally received in "wet" condition.

- *Hazardous and/or Toxic Materials, Substances or Waste* – Schnitzer Hawaii will not accept any type of hazardous or toxic substance or waste (e.g., paint, pesticides, water sealers, spent laboratory chemicals, etc.) nor containers with hazardous or toxic labeling.

- *Paint, Lacquer, Thinner, or Water Sealer Containers (conditional terms)* – Schnitzer Hawaii will only accept these containers if they are drained of contents and clean.

- *PCBs or PCB-Containing Materials* – Schnitzer Hawaii will not accept under any circumstances. Furthermore, Schnitzer Hawaii will not accept sealed electrical equipment such as capacitors, ballasts or transformers unless specifically marked "NO PCBs" or "NON-PCB" which are certified as such by the seller through provision of valid analytical testing certificates documenting the PCB content of liquids previously contained within the scrap materials. Electrical equipment such as air conditioners, microwaves, tumble dryers, refrigerators, ceiling fans, cameras, etc. can contain capacitors which may contain PCBs.

- *Tar or Grease Containers (conditional terms)* – Schnitzer Hawaii will not accept tar or grease containers unless the contents are removed and the containers are clean.

- *Transformers (conditional terms)* – Schnitzer Hawaii will not accept these items unless they are certified-empty (Non-PCB criteria), have been punctured or cut, and valid analytical testing certificates are provided by the

seller documenting the PCB content of liquids previously contained within the transformer(s).

- *Trash, Organic Waste or Excessive Dirt, Rocks, Glass, Plastic or Concrete* – Schnitzer Hawaii will not accept loads that contain these items.

- *Underground or Aboveground Storage Tanks (UST's/AST's, conditional terms)* – Schnitzer Hawaii will not accept these items unless they are certified empty and have been punctured or cut.

4.0 Source Control Procedures

Documented source control procedures are implemented by Schnitzer Hawaii to prevent the introduction of materials containing ≥50 ppm PCBs (including, but not limited to, small capacitors and light ballasts containing ≥50 ppm PCBs and non-liquid materials containing ≥50 ppm PCBs, e.g., PCB-containing caulk) to any shredder residue destined for use as an alternative fuel or from which plastics will be recovered for recycling. As noted below, Schnitzer Hawaii will accept compacted feedstock materials from suppliers only if the supplier also implements documented source control procedures as described below. Schnitzer Hawaii's procedures will include provisions for:

Feedstock: Not Baled, Logged or Otherwise Comparably Compacted

When Schnitzer Hawaii accepts feedstock that is not baled, logged or otherwise comparably compacted, it will:

- **Post Signage:** Post signage at the accepting facility describing the prohibition against accepting any materials containing ≥50 ppm PCBs.

- **Employee Training:** Ensure all employees involved in purchasing, receiving, inspecting or movement of feedstock materials prior to shredding operations are trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually. Training materials are included in Appendix E. File annual training documentation within Appendix E.

- **Informational Materials:** Provide handouts at the entrance to the accepting facility or the scale describing the prohibition against accepting any materials containing ≥50 ppm PCBs to suppliers of feedstock that is not baled, logged or otherwise comparably compacted. Scrap Acceptance Policy handout is included in Appendix B.

- **Conditions for Accepting Materials:** Schnitzer Hawaii will accept scrap that can be effectively inspected at the shredder facility without using additional equipment to pry apart or disassemble (e.g., crushed, baled, logged or otherwise comparably compacted material that cannot be visually inspected which is addressed by alternative provisions described below). Schnitzer Hawaii may also use additional measures to ensure that materials that may contain ≥50 ppm PCBs are not in the feedstock, such as:

- Schnitzer Hawaii may establish a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs.

or

- Schnitzer Hawaii may require non-compacted feedstock suppliers to provide a certification (signed Hazardous Substance Removal Compliance Contract for Non-Compacted Feedstock – see Appendix F) for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year. A letter that may be used to notify non-compacted feedstock suppliers and vendors of Schnitzer Hawaii's "*Hazardous Substance Removal Compliance Contract*" is included in Appendix G.

- **Visual Inspection:** Schnitzer Hawaii will ensure properly trained individuals conduct visual inspections of all loads of scrap that are not baled, logged or otherwise comparably compacted brought into the facility before acceptance for articles or other materials that may contain ≥50 ppm PCBs.

- **Prohibited Items:** If trained Schnitzer Hawaii inspectors identify any articles or other materials that may contain ≥50 ppm PCBs, then Schnitzer Hawaii will either reject the load that included such articles or materials, or, separate such prohibited articles or other materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements.

Feedstock: Which Is Baled, Logged or Otherwise Comparably Compacted

When Schnitzer Hawaii accepts feedstock that is baled, logged or otherwise comparably compacted that cannot be effectively inspected without being pried apart, it will:

- **Post Signage:** Post signage at the accepting facility describing the prohibition against accepting any materials containing ≥50 ppm PCBs.

- **Employee Training:** Ensure all employees involved in purchasing, receiving, inspecting or movement of feedstock materials prior to shredding operations are trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually. Training materials are included in Appendix D. File annual training documentation within Appendix D.

- **Informational Materials:** Provide awareness or educational materials to suppliers of these feedstock materials regarding the potential presence of PCBs in various materials and the prohibition against such materials containing ≥50 ppm PCBs. Scrap Acceptance Policy handout is included in Appendix B.

- **Visual Inspections:** Conduct periodic visual inspections, by a trained individual, of compacted scrap brought into the facility for articles or other materials that may contain ≥50 ppm PCBs before acceptance, unless:

    - Schnitzer Hawaii has established a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs.

or

    - Schnitzer Hawaii may require compacted feedstock suppliers to provide a certification (signed Hazardous Substance Removal Compliance Contract for Compacted Feedstock – see Appendix H) for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year. A letter that may be used to notify compacted feedstock suppliers and vendors of Schnitzer Hawaii's "*Hazardous Substance Removal Compliance Contract*" is included in Appendix I.

- **Prohibited Items:** If trained Schnitzer Hawaii inspectors identify any articles or other materials that may contain ≥50 ppm PCBs, then Schnitzer Hawaii will either reject the load that included such articles or materials, or, separate such prohibited articles or other materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements.

- **Additional Conditions for Accepting Compacted Materials from Suppliers Using Mechanical Methods of Compacting, Baling or Logging:** Schnitzer Hawaii will only accept compacted feedstock (baled, logged or otherwise comparably compacted material that cannot be visually inspected without using additional equipment to pry apart or disassemble) from suppliers using mechanical methods of compacting, baling or logging that have a signed contract with Schnitzer Hawaii (Appendix H) that stipulates:

    1. That the supplier implements a documented source control program that includes visual inspection of all material prior to compaction/baling to ensure that the materials that they supply do not contain PCBs at concentrations ≥50 ppm;

    2. Provides clear written notice that portions of their mechanically compacted, baled or logged feedstock materials may be used for plastics recycling or alternative fuel, and emphasize the importance of conforming to the required documented source control program;

    3. Requires such suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Such suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year.

Other Provisions for Documenting and Verifying Source Control Procedures

- **Preventive and Corrective Action:** Schnitzer Hawaii's documented voluntary procedures include conducting periodic (at least annual) internal audits on the adequacy and effectiveness, including Schnitzer Hawaii's performance, of these procedures, and promptly correcting any deficiencies that are detected.

- **Records:** Schnitzer Hawaii will maintain and make available records that document the facility's implementation of each element of the voluntary procedures described above. Schnitzer Hawaii will retain these records for a minimum of five (5) years from the date of their creation.

- **Third Party Certification:** Schnitzer Hawaii will have its implementation of these voluntary procedures reviewed and verified by a qualified, independent, professional third party (using the criteria set forth in this procedure) before beginning such operations and annually thereafter. Annual third party verification will include both review of the program documentation and onsite inspection/observation of the program being implemented. Any deficiencies detected by such third party will be promptly corrected and verified by the third party evaluator. Schnitzer Hawaii will maintain and make available records of the results of all such audits, including all deficiencies and related corrective actions, for a minimum of five (5) years from the date of their creation.

5.0 Material Sales Conditions

Suppliers of shredder feedstock material to Schnitzer Hawaii will be required to sign a "*Hazardous Substance Removal Compliance Contract*" on an annual basis, a copy of which is included in Appendix F (Non-Compacted Feedstock) and Appendix H (Compacted Feedstock). All shredder feedstock suppliers will be required to sign a "*Hazardous Substance Removal Compliance Contract*" prior to their first delivery of each calendar year. Once received, all signed agreements should be retained for a minimum of five (5) years.

Appendix A

ISRI/EPA Voluntary Procedures

Voluntary Procedures for Recycling Plastics from Shredder Residue

The Institute of Scrap Recycling Industries (ISRI), in consultation with EPA, has developed a set of voluntary procedures related to separating and recycling plastic materials from shredder residue ("residue") generated by metals recycling facilities ("shredders"). Where the entities involved in a plastic recycling stream are all following the applicable portions of these procedures, verified as directed below by a qualified, independent third party, these procedures can prevent the introduction of PCBs regulated for disposal into the recycled plastics. These procedures include development and implementation of a documented materials management system by using:
(1) documented source control programs aimed at preventing the introduction of PCBs regulated for disposal into the shredder feedstock materials that contribute to any shredder residue from which plastics will be recovered for recycling; and (2) documented output control programs for facilities processing/producing/recycling plastics from shredder residue.

A. Source Control Procedures for Shredder Facilities and Their Suppliers.

Documented source control procedures will be implemented by shredder facilities to prevent the introduction of materials containing > 50 ppm PCBs (including, but not limited to, small capacitors and light ballasts containing > 50 ppm PCBs and non-liquid materials containing > 50 ppm PCBs (e.g., PCB-containing caulk) to any shredder residue from which plastics will be recovered for recycling. As noted below, shredders will accept compacted feedstock materials from suppliers only if the supplier also implements documented source control procedures as described below. A shredder's procedures will include provisions for:

Feedstock: Not Baled, Logged or Otherwise Comparably Compacted
Shredder facilities accepting feedstock that is not baled, logged or otherwise comparably compacted will:

- Post Signage. Post signage at the accepting facility describing the prohibition against accepting any materials containing > 50 ppm PCBs.
- Employee Training. Ensure all employees involved in receiving, inspecting or movement of feedstock materials prior to shredding operations are trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually.
- Informational Materials. Provide handouts at the entrance to the accepting facility or the scale describing the prohibition against accepting any materials containing > 50 ppm PCBs to suppliers of feedstock that is not baled, logged or otherwise comparably compacted.
- Conditions for Accepting Materials. Only accept scrap that can be effectively inspected at the shredder facility without using additional equipment to pry apart or disassemble (e.g., crushed, baled, logged or otherwise comparably compacted material that cannot be visually inspected will not be accepted under these provisions). Shredders may also use additional measures to ensure that materials that may contain > 50 ppm PCBs are not in the feedstock, such as:
    - The shredder facility has an established program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain > 50 ppm PCBs.

      OR

- The shredder facility requires the suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations > 50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year.

- Visual Inspection. Have properly trained individual conduct visual inspections of all loads of scrap that is not baled, logged or otherwise comparably compacted brought into the facility before acceptance for articles or other materials that may contain > 50 ppm PCBs.
- Prohibited Items. If any articles or other materials that may contain > 50 ppm PCBs are identified, then the facility will either reject the load that included such articles or materials, or, separate such prohibited articles or other materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements.

Feedstock: Baled, Logged or Otherwise Comparably Compacted

Shredder facilities accepting feedstock from all suppliers of baled, logged or otherwise comparably compacted feedstock that cannot be effectively inspected without being pried apart will:

- Post Signage. Post signage at the accepting facility describing the prohibition against accepting any materials containing > 50 ppm PCBs.
- Employee Training. Ensure all employees involved in receiving, inspecting or movement of feedstock materials prior to shredding operations will be trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually.
- Informational Materials. Provide awareness or educational materials to suppliers of these feedstock materials regarding the potential presence of PCBs in various materials and the prohibition against such materials containing > 50 ppm PCBs.
- Visual Inspections. Conduct periodic visual inspections, by a trained individual, of compacted scrap from all suppliers brought into the facility for articles or other materials that may contain > 50 ppm PCBs before acceptance, unless:
    - The shredder facility has an established program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain > 50 ppm PCBs.

      OR

    - The shredder facility requires the suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations > 50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year.
- Prohibited Items. If any articles or other materials that may contain > 50 ppm PCBs are identified, then the facility will either reject the load that included such articles or materials, or separate such prohibited articles or other materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements.
- Additional Conditions for Accepting Compacted Materials from Suppliers Using Mechanical Methods of Compacting, Baling or Logging. Only accept compacted feedstock (baled, logged or otherwise comparably compacted material that cannot be visually inspected without using additional equipment to pry apart or disassemble) from suppliers using mechanical methods of compacting, baling or logging that have a signed contract

with the shredder facility that stipulates: (1) that the supplier implements a documented source control program that includes visual inspection of all material prior to compaction/baling to ensure that the materials that they supply do not contain PCBs at concentrations > 50 ppm; (2) provides clear written notice that their mechanically compacted, baled or logged feedstock materials may be used for plastics recycling, and emphasize the importance of conforming to the required documented source control program; (3) provides written notice that the presence of PCBs at > 10 ppm in the recycled plastics will trigger an investigation to determine the source of such PCBs; and (4) requires such suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations > 50 ppm (such suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year).

Other Provisions for Documenting and Verifying Source Control Procedures

- Preventive and Corrective Action. Each facility's documented voluntary procedures will include conducting periodic (at least annual) internal audits on the adequacy and effectiveness, including the facility's performance, of those procedures, and promptly correcting any deficiencies that are detected.
- Records. Each facility will maintain and make available records that document the facility's implementation of each element of the voluntary procedures described above. The facility will retain these records for a minimum of five years from the date of their creation.
- Third Party Certification. Each shredder will have its implementation of these voluntary procedures reviewed and verified by a qualified, independent, professional third party (using the criteria set forth in this procedure) before beginning such operations and annually thereafter. Annual third party verification will include both review of the program documentation and onsite inspection/observation of the program being implemented. Any deficiencies detected by such third party will be promptly corrected and verified by the third party evaluator. Shredders will maintain and make available records of the results of all such audits, including all deficiencies and related corrective actions, for a minimum of five years from the date of their creation.

B. Output Control Procedures.

Shredders

Shredders following this process will only provide residue to a plastic processer/producer/recycler if the sales (or other) contract states that both parties are following all applicable provisions of these voluntary procedures.

Plastic Recyclers

Plastic processers/producers/recyclers, including shredders who recycle their own residue, will as part of their documented output control procedures:

- Contractual Provisions. Include provisions in sales contracts for any plastics containing recycled material separated from residue expressly stating that such plastics may contain PCBs and are not suitable for use in the manufacture of toys, food or drink containers, or any products with oral applications (e.g., toothbrushes). In addition to the contract, plastic recyclers may also use material specifications, labeling, or other means that will effectively communicate this particular limitation to their customers.
- Maintaining Records. Maintain and make available records of all sales of plastics produced with any material separated from shredder residue, including: the identity of the customer;

the volume and category of the plastics sold; the applicable contract provision; documentation of any supplemental methods, if used, of communicating to the customer the limitation on the plastics' suitability; and the date of sale. These records will be maintained for a minimum of five years from the date of their creation.

- Monitoring Plan. Establish and follow a documented plan for sampling and analyzing for total PCBs in the final recycled materials intended for distribution in commerce. Such plan will include the following provisions:
    - Establish the number of samples that will be analyzed: For every facility, a minimum of one composite sample of each type of plastic for every 2,000 tons of plastic recovered, or a composite sample of each type every 90 days, whichever occurs first.
    - Specify appropriate sample collection procedures (i.e., where, when and how the samples will be taken and composited).
    - *Sample Preparation and Analysis*. Plastic samples (no less than 30 g per sample) will be ground, sheared or otherwise reduced in size prior to extraction of PCBs. The extraction procedure shall be according to EPA SW-846 Method 3550C. Cleanup steps should be taken to reduce the interference of phthalates in the analysis. PCB concentrations shall be measured on all samples by certified laboratories using EPA SW-846 Method 8082A – *Polychlorinated Biphenyls (PCBs) By Gas Chromatography* and reported as both Total and Aroclor concentrations.
- Response to Monitoring Results. If the results of analysis for any monitoring sample indicate the presence of > 10 ppm total PCBs, the facility will, within 30 days of receiving such data, send those results (including a copy of laboratory data) to EPA at: Director, National Program Chemicals Division, Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460-0001. All submissions that contain information claimed as Confidential Business Information (CBI) must clearly be marked as such. CBI must be mailed or hand-delivered to: Document Control Office (7407M), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., N.W., Washington, DC 20460-0001. To arrange deliveries, contact the Document Control Office at (202) 564-8930. In addition to notifying EPA, the facility will notify all shredders which contributed plastic feedstock processed in that sampling period. Upon obtaining such data, both the shredder and the plastic recycler will review their operations and practices to determine if the cause of such results can be identified, and improve their operations and practices as appropriate to prevent recurrence of the event.

Appendix B

Scrap Acceptance Policy

Schnitzer Steel Hawaii Corp.
Campbell Industrial Park
91-056 Hanua St., Kapolei, HI 96707
Ph: (808) 682-5810 Fax: (808) 682-0604
www.hawaiimetal.com www.schnitzersteel.com

SCRAP ACCEPTANCE POLICY

Aloha Customers,

This brochure clarifies our guidelines for accepting recyclable metals. These requirements reflect our commitment to responsible environmental management. Please be aware that many of our policies are controlled by state and federal environmental regulations which apply both to us and to our customers.

This list is not inclusive; other items not listed may be inappropriate for recycling as scrap metal. Please read this brochure carefully, and contact us at 682-5810 if you have questions about specific items.

Remember that any load may be rejected at your cost if these guidelines are not followed.

MANDATORY POLICIES to ENTER PROPERTY:

1. **You must have a valid photo ID**
2. **You must wear covered shoes**
3. **You must be 18 years or older.**

The following materials will NOT be accepted at our facility:

- Refrigerants (including CFCs and HCFCs) in refrigerators and air conditioners. Please note that Clean Air Act regulations §608(b)(1) and §608(c) prohibit any release of refrigerants to the atmosphere, and require persons handling refrigerants to follow specific procedures. Our customers are REQUIRED to sign a statement certifying that all refrigerants have been properly removed (40 CFR §82).

Will NOT be accepted:

- Asbestos or asbestos containing materials, such as pipe insulation and surfacing material commonly found on I-beams, tanks, and other structural and demolition debris (40 CFR §61.150).
- Oils, gasoline, other petroleum products and antifreeze. This includes hydraulic fluids, gear oils and grease. Hydraulic equipment must have hydraulic hoses removed and cylinders cut open and drained.
- Any materials for recycling which include **components containing PCBs** at concentrations of 50 parts per million (ppm) or more. All materials that once contained PCBs must have the PCBs removed prior to delivery to our facilities. Items that contain or have contained PCBs, including transformers, capacitors and fluorescent light ballasts.
- Automobile airbags, which contain sodium azide (40CFR §261).
- Paint cans or other paint containers
- Acetylene bottles and other sealed containers. Sealed containers are described as air or water tight containers without visible openings.
- Fluorescent lights, neon, high intensity or mercury vapor lights.
- Any material containing hazardous or toxic substances.
- Munitions; Explosives or explosive residues.
- Radioactive materials of any kind.
- Microwave ovens.
- Tires, wood, dirt, yard debris, concrete, asphalt, glass, rubber, or other non-metallic materials.
- Manhole covers.

The following items will be accepted ONLY if prepared as described:

- Appliances: ALL electrical components and compressors/sealed units must be removed.
- Automobiles: ALL fluids, including refrigerants, must be drained. Tires, batteries, lead wheel weight, mercury switches and un-deployed air bags must be removed. Gas tank must be punctured in 3 places on bottom. Title/ownership papers required. Engine compartment hood and trunk must be removed or bent back for inspection.
- Air conditioning compressors: MUST be removed from item, cut in half, and/or punctured and drained.
- Drums, barrels and other containers: MUST be thoroughly cleaned and open for inspection. Customer MUST provide letter stating that drums do not contain any hazardous materials or wastes.
- Gas cylinders, including air bottles, shock absorbers, and propane and other gas tanks, must be cut in half or have a hole to allow inspection.
- Cable wire and banding: MUST be cut in 3-foot lengths.
- Metal banding: MUST be cut in 1-foot lengths.
- Aerosol cans: MUST be empty and crushed or punctured. Plastic caps must be removed.
- Lead-acid or NiCad batteries or battery parts, including automobile batteries must be free of leaks, cracks, holes, erosion.

Mahalo for your cooperation. We value your support and friendship.

Malama Pono!

Revised 03/04/15

METAL THEFT POLICY

In an effort to curtail the rising incidence of metal theft, Schnitzer Steel Hawaii Corp. (SSHIC) refuses to accept the following materials unless ownership is clearly established:

- New production scrap or new materials that are part of a manufacturing process that are being sold by an individual, not a company.
- Items used only by governments, utilities, railroads or for very specific purposes. This includes guardrails, manhole covers, certain cables used only in high voltage transmission lines, historic markers, cemetery plaques and artwork.
- Full-sized, new materials such as those used in construction or equipment tools used by contractors.
- Materials that may not be new but are clearly suspect such as bleachers from an athletic field or traffic signs.
- Beer kegs, soda cylinders and shopping carts.
- End-of-life vehicles from an unknown customer unless a written record of title is presented.
- Materials that have been reported stolen.

SSHIC maintains records of all transactions, and cooperates fully with local law enforcement in the prosecution of metal theft.

"Recycling for a Sustainable Future"

SCHNITZER STEEL HAWAII CORP.

- 1906 - Start of Schnitzer Steel
- Help Hawai`i's environment; bring your scrap metal to Schnitzer Steel Hawaii for recycling

SCHNITZER STEEL HAWAII CORPORATION
Campbell Industrial Park
91-056 Hanua Street
Kapolei, Hawaii 96707
Ph: 808-682-5810 Fax: 808-682-0604
www.hawaiimetal.com www.schn.com

Hours of Operation

Mon - Fri - 7:30 AM - 3:45 PM

Closed for Lunch between 12 and 12:30

Saturday - 7:30 AM - 10:45 AM

Closed on Sundays

SCHNITZER STEEL HAWAII CORP.

- premier scrap metal recycler
- automobile bodies and hulks
- pipes, beams, posts, cables, wires
- cast iron, motor blocks, bicycles

SCRAP ACCEPTANCE GUIDELINES

Appendix C

EPA Interpretation Letters

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

FEB - 4 2014

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Michel R. Benoit
Executive Director
Cement Kiln Recycling Coalition
P.O. Box 7553
Arlington, VA 22207

Dear Mr. Benoit:

Thank you for your letter of August 15, 2013, regarding the U.S. Environmental Protection Agency's regulation of Polychlorinated Biphenyls under the Toxic Substances Control Act. In particular, your letter asks EPA to clarify its April 5, 2013 interpretation, *Polychlorinated Biphenyls (PCBs); Recycling Plastics from Shredder Residue* (78 FR 20640), in regard to the use of automobile shredder residue (ASR) as an alternative fuel in kilns that produce portland cement.

In the April 5, 2013 interpretation, the EPA noted:

> The burden of demonstrating that a regulatory exclusion applies rests with the party seeking that exclusion. EPA believes that, for shredders and their suppliers that follow the Voluntary Procedures for Recycling Plastics from Shredder Residue, it is appropriate to generally treat the feedstock as consisting of excluded PCB products unless there is information specifically indicating that the feedstock does not qualify. If shredders and suppliers do not follow the Voluntary Procedures for Recycling Plastics from Shredder Residue, they will need to be able to otherwise demonstrate that the feedstock and residue meet the exclusion. [78 FR 20642]

The Voluntary Procedures, developed by the Institute of Scrap Recycling Industries, Inc., consists of two parts: (A) Documented source control programs aimed at preventing the introduction of PCBs regulated for disposal into the shredder feedstock materials that contribute to any shredder residue from which plastics will be recovered for recycling; and (B) Documented output control programs for facilities recycling plastics from shredder residue.

Your correspondence notes that your members operate units pursuant to the provisions of the Clean Air Act regulations at 40 CFR Part 63, subparts EEE or LLL (or in some instances, 40 CFR Part 60, subparts CCCC or DDDD). The EPA believes these Clean Air Act regulations are analogous to the output control procedures outlined in Part B of ISRI's Voluntary Procedures. Provided that ASR is obtained from shredders that follow the source control procedures outlined in Part A of ISRI's Voluntary Procedures and burned in cement kilns that are subject to emissions standards under these Clean Air Act regulations, such ASR may generally be treated as consisting of excluded PCB products such that the burning would be permissible (unless there is information specifically indicating that the feedstock does

not qualify). Such use is consistent with the regulations at 40 CFR 761.20(e)(1)(iii), which specify that another category of excluded PCB product, used oil, may be burned in burners listed in 40 CFR 279.61(a)(1), which includes cement kilns (when operating at normal operating temperatures, but not during startup/shutdown – 40 CFR 761.20(e)(3)(i)).

Again, thank you for your letter and I hope the information provided is helpful to you. If you have any further questions, please contact Peter Gimlin of my staff at 202-566-0515 or *gimlin.peter@epa.gov*.

Sincerely,

Tanya Hodge Mottley
Director
National Program Chemicals Division
Office of Pollution Prevention and Toxics

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 27 2015

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

James Stewart
Lowenstein Sandler LLP
65 Livingston Avenue
Roseland, NJ 07068

Dear Mr. Stewart:

Thank you for your October 16, 2014 letter regarding the U.S. Environmental Protection Agency's regulation of polychlorinated biphenyls under the Toxic Substances Control Act. In particular, your letter asks the EPA to clarify its April 5, 2013 interpretation, *Polychlorinated Biphenyls; Recycling Plastics from Shredder Residue* (78 FR 20640), in regard to the use of automobile shredder residue as an alternative fuel in a municipal solid waste combustor.

As outlined in your letter, ASR produced by a facility following the Institute for Scrap Recycling Industries Inc.'s Voluntary Procedures for Recycling Plastics from Shredder Residue would be burned as fuel in a municipal solid waste combustor operating under an air emission permit issued by the State of Hawaii Department of Health pursuant to Title V of the Clean Air Act, specifically the CAA regulations at 40 CFR Part 60, Subpart Eb, as well as state air regulations. You note this permit allows the blending of ASR with municipal solid waste for fuel, provided the supplier analyzes representative samples of the ASR for hazardous constituents such as PCBs (concentration not specified). It also regulates emissions of dioxins, among other contaminants. You ask for EPA confirmation that these emission standards constitute adequate output controls such that the proposed use of ASR as fuel at this MSW combustor falls within the agency's interpretation, as the EPA previously concluded for the use of ASR as a fuel in cement kilns.

The conclusion of the EPA's April 5, 2013 interpretation is that shredder feedstock generally can be treated as an excluded PCB product if shredders and their suppliers follow the voluntary procedures developed by ISRI, as the EPA believes those procedures can prevent the introduction of $\geq$50 ppm PCBs into the feedstock; therefore, the feedstock and the ASR produced from it would contain <50 ppm PCBs. My February 4, 2014 letter to the Cement Kiln Recycling Coalition concluded that the burning of such ASR for fuel in certain cement kilns is analogous to the output control procedures in the ISRI voluntary procedures, noting that such use of fuels is consistent with the TSCA regulations permitting the burning of another category of excluded PCB product, used oil at concentrations $\geq$2ppm to <50 ppm PCBs, in cement kilns.

It is not clear from the information you provided in your letter whether the MSW combustor is permitted under the CAA regulations and its state air permit to accept ASR at concentrations <50 ppm PCBs. The permit requires analysis of ASR for PCB content, apparently to determine whether the ASR is hazardous waste under state law and therefore not acceptable. I do not know what PCB levels would render the

waste hazardous under state law, but note that, unlike cement kilns, the municipal solid waste combustor is prohibited from accepting used oil with ≥2ppm PCBs.

Provided you have confirmed that the combustor is permitted under the CAA regulations and its state air permit to accept and burn ASR containing <50 ppm PCBs as a fuel (a matter about which I express no opinion), this burning of ASR as a fuel obtained from shredders and suppliers following the voluntary procedures developed by ISRI is consistent with the EPA's April 5, 2013 interpretation of the TSCA PCB regulations.

Again, thank you for your letter and I hope the information provided is helpful to you. If you have any further questions, please contact Peter Gimlin of my staff at 202-566-0515 or *gimlin.peter@epa.gov*.

Sincerely,

Tanya Hodge Mottley
Director
National Program Chemicals Division
Office of Pollution Prevention and Toxics

Appendix D

Source Material Rejection Log

Schnitzer Steel Hawaii Corp.
Source Material Rejection Log

DATE	VENDOR/CUSTOMER	REASON	INITIALS

Appendix E

Voluntary Procedures/Material Acceptance Policy Training and Documentation

Schnitzer Steel Hawaii Corp.
Voluntary Procedures/Material Acceptance Policy Training

The following employees participated in the referenced training:

NAME (Print)	SIGNATURE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	

Instructor Name:_____ Date:_____

Instructor Signature:_____

envirosure SOLUTIONS,LLC.

Voluntary Procedures for Recycling Plastics from Shredder Residue or using Shredder Residue as Alternative Fuel

Presented to: Schnitzer

Schnitzer Steel Hawaii Corporation

Purpose

Voluntary Procedures have been established at the Schnitzer Steel Hawaii Corporation facility for the following reasons:

- The Institute of Scrap Recycling (ISRI), in consultation with Environmental Protection Agency (EPA), developed a set of voluntary procedures which can prevent the introduction of polychlorinated biphenyls (PCBs) regulated for disposal into recycled plastics.
- Schnitzer Hawaii intends to comply with these voluntary requirements by implementing the procedures contained within this policy to comply with EPA interpretations which allow the use of shredder residue as alternative fuel provided that certain requirements are met.

Purpose (continued)

- Raw materials received by the Schnitzer Hawaii facility are required to conform to EPA Toxic Substance Control Act (TSCA) standards. Failure to maintain these standards could potentially compromise compliance with TSCA regulations under which Schnitzer Hawaii operates.
- The scrap materials entering any Schnitzer Hawaii facility are used as raw materials in the company's recycling processes. Failure to comply with the facility's Scrap Acceptance Policy or these Voluntary Procedures could negatively impact the quality of the company's products and potentially result in products that fail to meet consumers' specifications.

Toxic Substances Control Act

Purpose (continued)

NO PCB

- Schnitzer Hawaii seeks to prevent risk to the health and safety of its employees, contractors, community and the environment by not processing materials which may be toxic when released to the environment. Therefore, substances with ≥50 parts per million (PPM) PCBs will be deemed unacceptable.
- The EPA issued interpretation letters indicating that shredder feedstock generally can be treated as an excluded PCB product if shredders and their suppliers follow the Voluntary Procedures developed by ISRI. EPA has further indicated in these letters that shredder residue generated at facilities which follow the Voluntary Procedures developed by ISRI can be used as alternative fuel in cement kilns and municipal solid waste combustors; provided that the consuming facilities maintain air permits which contain emission standards which can be interpreted as adequate output controls.

Unacceptable Materials

- Schnitzer Hawaii may only receive certain recyclable materials at its facility. To assure that no materials containing PCBs ≥50 PPM are received at its location, Schnitzer Hawaii has identified the scrap metal materials and components which could contain PCBs ≥50 PPM, and thus has identified certain materials which cannot be accepted at its facilities.
- A material inspection program has been established for inbound materials to minimize the likelihood of receiving unacceptable materials containing PCBs ≥50 PPM. All materials are inspected by facility personnel to ensure they meet the guidelines outlined in these Voluntary Procedures. If materials are found to violate the Voluntary Procedures, these materials are rejected and documented in a rejection log.

Unacceptable Materials (continued)

The following materials will NOT be accepted by Schnitzer Hawaii:

- *Appliances (conditional terms)* – Schnitzer Hawaii requires that all electrical components (e.g., capacitors and ballasts) and compressors must have been removed. The compressors must be drained of fluid for acceptance.

Unacceptable Materials (continued)

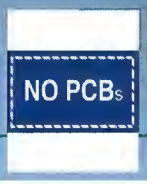
- *Automobiles (conditional terms)* – Schnitzer Hawaii currently requires that all vehicles to be accepted as scrap metal must have all fluids drained before acceptance. This includes fuels, oils, hydraulic fluids and antifreeze. Schnitzer's Solid Waste Permit Operating Plan allows acceptance of undrained "wet" automobiles. Schnitzer does not currently accept wet automobiles. If Schnitzer opts to accept wet automobiles in the future, proper depollution activities (draining of all liquids and removal of other hazardous components) will be performed on-site prior to processing such automobiles originally received in "wet" condition. Automobiles must not be filled with items that may contain PCBs ≥50 PPM.

Unacceptable Materials (continued)

- *Building Demolition Materials (conditional terms)* – Schnitzer Hawaii requires that PCB-containing caulk be removed from building demolition scrap materials offered for recycling.
- *Drums/Barrels* – Schnitzer Hawaii will not accept drums or barrels unless they have at least one end removed and have been certified to be triple rinsed and cleaned, or unless they have clearly and visibly contained only food type products. Closed containers of any type must have at least one end open for inspection in order to be accepted for recycling purposes. Drums with HAZMAT or PCB markings, or having contained hazardous, toxic, or biohazard materials, wastes, or other like substances will not be accepted.

Unacceptable Materials (continued)

- *Fluorescent or Mercury Vapor Lamps and Related Fixtures (conditional terms)* – Schnitzer Hawaii will not accept these types of lamps in any load. Fixtures and ballasts must say "NO PCB's" or "NON-PCB" for acceptance or they will be rejected.
- *Free-Flowing Liquids* – Schnitzer Hawaii will not accept any scrap metal materials containing free-flowing liquids of any kind, including water.

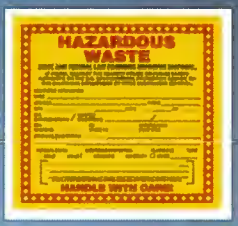


Unacceptable Materials (continued)

- *Gasoline, Diesel Fuel, Oils, Propane, Petroleum Products or Antifreeze (conditional terms)* – Schnitzer Hawaii will not accept these substances. Supplier must certify that all fluids have been drained from all components or containers before delivery or pick-up to or by Schnitzer Hawaii. Loads containing these substances will be rejected for non-compliance. Schnitzer's Solid Waste Permit Operating Plan allows acceptance of un-drained "wet" automobiles. Schnitzer does not currently accept wet automobiles. If Schnitzer opts to accept wet automobiles in the future, proper depollution activities (draining of all liquids and removal of other hazardous components) will be performed on-site prior to processing such automobiles originally received in "wet" condition.

Unacceptable Materials (continued)

- *Hazardous and/or Toxic Materials, Substances or Waste* – Schnitzer Hawaii will not accept any type of hazardous or toxic substance or waste (e.g., paint, pesticides, water sealers, spent laboratory chemicals, etc.) nor containers with hazardous or toxic labeling.



Unacceptable Materials (continued)

- *Oil Cans, Un-Punctured Oil Filters or Oil Pans on Vehicles (conditional terms)* – Schnitzer Hawaii will only accept if these items are punctured, drained, and clean. Used oil filters and oil pans still on vehicles must have been punctured and completely drained of oil to be accepted. Schnitzer's Solid Waste Permit Operating Plan allows acceptance of un-drained "wet" automobiles. Schnitzer does not currently accept wet automobiles. If Schnitzer opts to accept wet automobiles in the future, proper depollution activities (draining of all liquids and removal of other hazardous components) will be performed onsite prior to processing such automobiles originally received in "wet" condition.

Unacceptable Materials (continued)

- *Paint, Lacquer, Thinner, or Water Sealer Containers (conditional terms)* – Schnitzer Hawaii will only accept these containers if they are drained of contents and clean.
- *PCBs or PCB-Containing Materials* – Schnitzer Hawaii will not accept under any circumstances. Furthermore, Schnitzer Hawaii will not accept sealed electrical equipment such as capacitors, ballasts or transformers unless specifically marked "NO PCBs" or "NON-PCB" which are certified as such by the seller through provision of valid analytical testing certificates documenting the PCB content of liquids previously contained within the scrap materials. Electrical equipment such as air conditioners, microwaves, tumble dryers, refrigerators, ceiling fans, cameras, etc. can contain capacitors which may contain PCBs.


envirosure

Unacceptable Materials (continued)

- *Tar or Grease Containers (conditional terms)* – Schnitzer Hawaii will not accept tar or grease containers unless the contents are removed and the containers are clean.
- *Transformers (conditional terms)* – Schnitzer Hawaii will not accept these items unless they are certified empty (Non-PCB criteria), have been punctured or cut, and valid analytical testing certificates are provided by the seller documenting the PCB content of liquids previously contained within the transformer(s).

envirosure

Unacceptable Materials (continued)

- *Trash, Organic Waste or Excessive Dirt, Rocks, Glass, Plastic or Concrete* – Schnitzer Hawaii will not accept loads that contain these items.
- *Underground or Aboveground Storage Tanks (UST's/AST's, conditional terms)* – Schnitzer Hawaii will not accept these items unless they are certified empty and have been punctured or cut.

envirosure

Source Control Procedures

Documented source control procedures are implemented by Schnitzer Hawaii to prevent the introduction of materials containing ≥50 ppm PCBs (including, but not limited to, small capacitors and light ballasts containing ≥50 ppm PCBs and nonliquid materials containing ≥50 ppm PCBs, e.g., PCB-containing caulk) to any shredder residue destined for use as an alternative fuel or from which plastics will be recovered for recycling. As noted below, Schnitzer Hawaii will accept compacted feedstock materials from suppliers only if the supplier also implements documented source control procedures as described below. Schnitzer Hawaii's procedures will include provisions for both:

- **Feedstock: Not Baled, Logged or Otherwise Comparably Compacted**
- **Feedstock: Which Is Baled, Logged or Otherwise Comparably Compacted**

envirosure

Source Control Procedures (continued)

Feedstock: Not Baled, Logged or Otherwise Comparably Compacted

When Schnitzer Hawaii accepts feedstock that is not baled, logged or otherwise comparably compacted, it will:

- **Post Signage:** Post signage at the accepting facility describing the prohibition against accepting any materials containing ≥50 ppm PCBs.

envirosure

Source Control Procedures (continued)

- **Employee Training:** Ensure all employees involved in purchasing, receiving, inspecting or movement of feedstock materials prior to shredding operations are trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually.
- **Informational Materials:** Provide handouts at the entrance to the accepting facility or the scale describing the prohibition against accepting any materials containing ≥50 ppm PCBs to suppliers of feedstock that is not baled, logged or otherwise comparably compacted. See Scrap Acceptance Policy handout.

envirosure

Source Control Procedures (continued)

- **Conditions for Accepting Materials:** Schnitzer Hawaii will accept scrap that can be effectively inspected at the shredder facility without using additional equipment to pry apart or disassemble (e.g., crushed, baled, logged or otherwise comparably compacted material that cannot be visually inspected which is addressed by alternative provisions described below). Schnitzer Hawaii may also use additional measures to ensure that materials that may contain ≥50 ppm PCBs are not in the feedstock, such as:
  - Schnitzer Hawaii may establish a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs.

envirosure

Source Control Procedures (continued)

or

- Schnitzer Hawaii may require suppliers to provide a certification (signed Hazardous Substance Removal Compliance Contract) for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year. A letter will be used to notify suppliers and vendors of Schnitzer Hawaii's "*Hazardous Substance Removal Compliance Contract*"

envirosure

Source Control Procedures (continued)

- **Visual Inspection:** Schnitzer Hawaii will ensure properly trained individuals conduct visual inspections of all loads of scrap that are not baled, logged or otherwise comparably compacted brought into the facility before acceptance for articles or other materials that may contain ≥50 ppm PCBs.
- **Prohibited Items:** If trained Schnitzer Hawaii inspectors identify any articles or other materials that may contain ≥50 ppm PCBs, then Schnitzer Hawaii will either reject the load that included such articles or materials, or, separate such prohibited articles or other materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements.

envirosure

Source Control Procedures (continued)

Feedstock: Which <u>Is</u> Baled, Logged or Otherwise Comparably Compacted

When Schnitzer Hawaii accepts feedstock that <u>is</u> baled, logged or otherwise comparably compacted that cannot be effectively inspected without being pried apart, it will adhere to the previously discussed procedures being followed for feedstock that <u>is not</u> baled, logged or otherwise comparably compacted with the additional responsibility of:

- **Informational Materials:** Providing awareness or educational materials to suppliers of these feedstock materials regarding the potential presence of PCBs in various materials and the prohibition against such materials containing ≥50 ppm PCBs. Schnitzer's Scrap Acceptance Policy handout will be utilized as educational material.

envirosure

Source Control Procedures (continued)

- **Visual Inspections:** Conduct periodic visual inspections, by a trained individual, of compacted scrap brought into the facility for articles or other materials that may contain ≥50 ppm PCBs before acceptance, unless:
  - Schnitzer Hawaii has established a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs.

envirosure

Source Control Procedures (continued)

or

- Schnitzer Hawaii may require suppliers to provide a certification (signed Hazardous Substance Removal Compliance Contract) for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification (signed *Hazardous Substance Removal Compliance Contract*) with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year.

envirosure

Source Control Procedures (continued)

- **Additional Conditions for Accepting Compacted Materials from Suppliers Using Mechanical Methods of Compacting, Baling or Logging:** Schnitzer Hawaii will only accept compacted feedstock (baled, logged or otherwise comparably compacted material that cannot be visually inspected without using additional equipment to pry apart or disassemble) from suppliers using mechanical methods of compacting, baling or logging that have a signed contract with Schnitzer Hawaii that stipulates:

1. That the supplier implements a documented source control program that includes visual inspection of all material prior to compaction/baling to ensure that the materials that they supply do not contain PCBs at concentrations ≥50 ppm;

envirosure

Source Control Procedures (continued)

2. Provides clear written notice that portions of their mechanically compacted, baled or logged feedstock materials may be used for plastics recycling or alternative fuel, and emphasize the importance of conforming to the required documented source control program;

3. Requires such suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Such suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year.

envirosure

Source Control Procedures (continued)

Other Provisions for Documenting and Verifying Source Control Procedures

- **Preventive and Corrective Action:** Schnitzer Hawaii's documented voluntary procedures include conducting periodic (at least annual) internal audits on the adequacy and effectiveness, including Schnitzer Hawaii's performance, of these procedures, and promptly correcting any deficiencies that are detected.
- **Records:** Schnitzer Hawaii will maintain and make available records that document the facility's implementation of each element of the voluntary procedures described above. Schnitzer Hawaii will retain these records for a minimum of five (5) years from the date of their creation.

envirosure

Source Control Procedures (continued)

- **Third Party Certification:** Schnitzer Hawaii will have its implementation of these voluntary procedures reviewed and verified by a qualified, independent, professional third party (using the criteria set forth in this procedure) before beginning such operations and annually thereafter. Annual third party verification will include review of the program documentation and onsite inspection/observation of the program being implemented. Any deficiencies detected by such third party will be promptly corrected and verified by the third party evaluator. Schnitzer Hawaii will maintain and make available records of the results of all such audits, including all deficiencies and related corrective actions, for a minimum of five (5) years from the date of their creation.

envirosure

Material Sales Conditions

Suppliers of shredder feedstock material to Schnitzer Hawaii will be required to sign a "*Hazardous Substance Removal Compliance Contract*" on an annual basis. All shredder feedstock suppliers will be required to sign a "*Hazardous Substance Removal Compliance Contract*" prior to their first delivery of each calendar year. Once received, all signed agreements should be retained for a minimum of five (5) years.

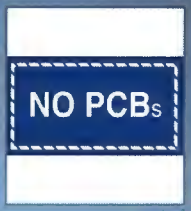
envirosure

Identifying Polychlorinated Biphenyls (PCBs) in Scrap Materials

envirosure

Identifying PCBs in Scrap Materials

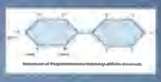
Scrap suspected of containing PCBs must be segregated from process scrap and disposed of in a compliant and safe manner.



Where can PCB's be found?

PCB's are a family of chemicals with an exceptional resistance to breakdown at high temperatures. PCB manufacturing was banned in the US in 1979 although some use continues in closed systems such as capacitors and transformers. PCB's can be found in:

- Fluids (coolants or lubricants) containing PCBs within transformers, capacitors, ballasts, motors, appliances
- Voltage regulators
- High temperature casting machines
- Scrap impacted with oily dust accumulated from roads
- Pesticides
- Plastics, sealants and caulks
- Paints, inks and adhesives
- Fire retardants



It is critical that Inspectors and Scale Operators know where PCB's can be found.

PCB Identification

- Inspectors should look for the labels required by law to be placed on equipment that contains or is contaminated with a certain level of PCB's. For the scrap to be accepted, the label should say "NO PCBs" or "NON PCB". If it does not have those words, you must assume there are PCBs inside the transformer, capacitor, etc.
- Materials containing PCBs must be disposed of as TSCA waste.

Identifying PCBs in Scrap Materials

PCB caulk and sealants may be found in demolition scrap

Transformers

Ballasts

Capacitors

Capacitors

Capacitors

Capacitors

Capacitors

Identifying PCBs in Scrap Materials

PCB light ballasts

Identifying PCBs in Scrap Materials

Transformer found on a fluorescent light fixture - is only acceptable if the markings on this transformer say "NO PCB" or "NON PCB"

Identifying PCBs in Scrap Materials

Capacitor on piece of equipment

Identifying PCBs in Scrap Materials

Ballasts and Capacitors must be clearly marked "No PCB's"

Identifying PCBs in Scrap Materials

- The best control to avoid the introduction of PCBs into the shredder feed stock is stopping them entering the facility.
- Being able to identify PCB sources is a key component to achieving this.
- The Voluntary Procedures Program success depends on this.

Questions?

Employee Name: _____

Date: _____

Quiz: Voluntary Procedures for Recycling Plastics from Shredder Residue or using Shredder Residue as Alternative Fuel

1. What two (2) organizations originally developed a set of voluntary procedures which can prevent the introduction of polychlorinated biphenyls (PCBs) regulated for disposal into recycled plastics?

    a) Occupational Safety & Health Administration (OSHA)
    b) Environmental Protection Agency (EPA)
    c) Toxic Substance Control Act (TSCA)
    d) Pipeline & Hazardous Materials Safety Administration (PHMSA)
    e) Instituate of Scrap Metal Recycling Industries (ISRI)

2. Identify three (3) unacceptable shredder feed stock materials

    a) Washing machine with all capacitors and ballasts removed
    b) Compresors filled with oil
    c) Building demolation scrap with caulking attached that has not been verified as <50 PPM PCBs
    d) Sealed containers
    e) Punctured and drained autmobile oil filters

3. List four (4) Source Control Procedures to prevent PCBs being introducted into shredder feed stock

    a) Post signage at front of facility identify unacceptable scrap items
    b) Train employees on procedures to keep PCBs out of shredder feed stock
    c) Provide handouts detailing unacceptable scrap to supliers of shredder feed stock when they come to the yard
    d) Ensure suppliers provide written documentation stating that they will not send scrap material to yard with ≥50 PPM PCBs
    e) Assume all sealed containers are empty, all oil is PCB free, all capacitors and ballasts are PCB free

4. The Voluntary Procedures Progam, when implemented correctly, allows the facility to send its shredder residue to a nearby electrial power plant incinerator which will turn shredder residue into electrial energy

    a) True
    b) False

5. The successful implementation of the Voluntary Procedures will be verified by a third-party inspector on an annual basis.

    a) True
    b) False

Employee Name: _____

Date: _____

Answer Sheet Quiz: Voluntary Procedures for Recycling Plastics from Shredder Residue or using Shredder Residue as Alternative Fuel

1. What two (2) organizations originally developed a set of voluntary procedures which can prevent the introduction of polychlorinated biphenyls (PCBs) regulated for disposal into recycled plastics?

    a) Occupational Safety & Health Administration (OSHA)
    b) Environmental Protection Agency (EPA)
    c) Toxic Substance Control Act (TSCA)
    d) Pipeline & Hazardous Materials Safety Administration (PHMSA)
    e) Instituate of Scrap Metal Recycling Industries (ISRI)

2. Identify three (3) unacceptable shredder feed stock materials

    a) Washing machine with all capacitors and ballasts removed
    b) Compresors filled with oil
    c) Building demolation scrap with caulking attached that has not been verified as <50 PPM PCBs
    d) Sealed containers
    e) Punctured and drained autmobile oil filters

3. List four (4) Source Control Procedures to prevent PCBs being introducted into shredder feed stock

    a) Post signage at front of facility identify unacceptable scrap items
    b) Train employees on procedures to keep PCBs out of shredder feed stock
    c) Provide handouts detailing unacceptable scrap to supliers of shredder feed stock when they come to the yard
    d) Ensure suppliers provide written documentation stating that they will not send scrap material to yard with >50 PPM PCBs
    e) Assume all sealed containers are empty, all oil is PCB free, all capacitors and ballasts are PCB free

4. The Voluntary Procedures Progam, when implemented correctly, allows the facility to send its shredder residue to a nearby electrial power plant incinerator which will turn shredder residue into electrial energy

    a) True
    b) False

5. The successful implementation of the Voluntary Procedures will be verified by a third-party inspector on an annual basis.

    a) True
    b) False

EPA Fact Sheet - PCBs in Caulk

PCBs

- Polychlorinated biphenyls (PCBs) are man-made chemicals that persist in the environment and were widely used in construction materials and electrical products prior to 1979.
- PCBs can affect the immune system, reproductive system, nervous system and endocrine system and are potentially cancer-causing if they build up in the body over long periods of time.
- Congress banned manufacture and use of PCBs in 1976 and they were phased out in 1979 except in certain limited uses.

PCBs in Caulk

- PCBs may be present in the caulk used in windows, door frames, and masonry columns, and other building materials in many schools and other buildings built or renovated between 1950 and 1979.
- In some cases, PCBs represent a high percentage of the caulk, e.g. 100,000 parts per million (ppm) or higher.
- Because PCBs can migrate from the caulk into air, dust, surrounding materials and soil, EPA is concerned about potential PCB exposure to school children and other building occupants.
- The link between PCBs in caulk and exposures to PCBs in the air or dust is not well understood. EPA has conducted research to better understand the link between PCBs in caulk and exposures to PCBs in the air and in dust.
- People are exposed to PCBs from many sources, including diet, but air or dust levels in buildings may account for a significant portion of exposure.
- The air levels of PCBs to which individuals may be exposed vary depending on the age of the person exposed and the amount of time the person spends in building areas where PCBs are present. EPA has calculated prudent public health levels that maintain PCB exposures below the "reference dose" – the amount of PCB exposure that EPA does not believe will cause harm. Those levels vary depending on the age group and use assumptions about potential PCB exposures in schools and from other sources, such as diet.

Immediate Steps to Reduce Exposure

- Though this is a serious issue, the potential presence of PCBs in schools and buildings should not be a cause for alarm – there are steps school administrators and building owners can take to protect students, teachers and others.
- One important step that a school system can do is to minimize the potential for PCBs to be present in the indoor air. Indoor air levels of PCBs within a school can be reduced by ensuring that the ventilation system is operating as designed, and to repair or improve the system if it is not.

EPA recommends the following "best practices" to minimize potential exposure:

- Clean frequently to reduce dust and residue inside buildings
- Use a wet or damp cloth or mop to clean surfaces
- Using vacuums with high efficiency particulate air filters
- Do not sweep with dry brooms; minimize the use of dusters
- Wash children's hands with soap and water often, particularly before eating
- Wash children's toys frequently
- Wash hands with soap and water after cleaning, and before eating or drinking.

Testing the Air for PCBs and Addressing Elevated Levels

- If school administrators and building owners are concerned about exposure to PCBs and wish to supplement these steps, EPA recommends testing to determine if PCB levels in the air exceed EPA's suggested public health levels.
- Schools should attempt to identify any potential sources of PCBs that may be present in the building, including testing samples of caulk and looking for other potential PCB sources (e.g., old transformers, capacitors, or fluorescent light ballasts that might still be present at the school). While it is possible that PCBs could be released into the environment through the cracking or flaking of caulk, EPA believes the old caulk that is still flexible or is in visibly good condition could be a significant source of PCBs into the air. The only way to be sure that caulk has PCBs is to have a professional test the caulk.
- If elevated air levels of PCBs are found, schools should have the ventilation system evaluated to determine if it is contaminated with PCBs. Although the ventilation system is unlikely to be an original source of PCB contamination, it may have been contaminated before other sources of PCBs were removed from the school and may be contributing to elevated air levels. Contaminated ventilation systems should be carefully cleaned. Ideally, such cleaning should be planned in concert with removal of any sources of PCBs that are found to avoid re-contamination of the system.
- During the search for potential sources, schools should be especially vigilant in implementing to minimize exposures and should retest to determine whether those practices are reducing PCB air levels.
- If these measures do not reduce exposures, caulk and other known sources of PCBs should be removed as soon as practicable.

Removal of PCB-contaminated Caulk during Renovations and Repairs

- Where schools or other buildings were constructed or renovated between 1950 and 1979, EPA recommends that PCB-containing caulk be removed during planned renovations and repairs (when replacing windows, doors, roofs, ventilation, etc.)
- It is critically important to ensure that PCBs are not released into the air during renovation or repair of affected buildings. EPA is recommending simple, common sense work practices to prevent the release of PCBs during these operations.
- Assessment of the ventilation system for potential contamination, proper cleaning when required, and isolation of the system to prevent further contamination are also important.
- A list of these work practices can be found at www.epa.gov/pcbsincaulk
- Encapsulation of PCB-containing Caulk Based on EPA's Office of Research and Development's laboratory research, encapsulation was found to be most effective for interior surfaces that contain low levels of PCBs (i.e. several hundred parts per million).
- Depending on the PCB reduction goal, the performance of the encapsulant, and the conditions of the building, the upper limit of the PCB concentration for successful encapsulation may vary.
- Therefore, post-encapsulation monitoring is an essential part of the encapsulation process. Building owners should consult EPA's research on this issue for more specifics (see ORD report).
- Encapsulation may be useful for the reduction of emissions from secondary sources such as contaminated building materials under and around PCB-containing caulk or paint that has been removed.
- Encapsulation was not found to be effective in reducing emissions from sources that have a high PCB content (for example caulk) for more than a short period of time.
- Because each site will present unique circumstances, please consult your EPA PCB Regional Coordinator regarding the application of encapsulation measures on a case by case basis.

EPA Research on PCBs in Buildings

- EPA has conducted research to: 1) characterize potential sources of PCB exposures in schools (caulk, coatings, light ballasts, etc.); 2) investigate the relationship of these sources to PCB concentrations in air, dust, and soil; and, 3) evaluate methods to reduce exposures to PCBs in caulk and other sources.
- Read more about the results of this research.

For More Information

- Building owners and school administrators seeking additional guidance and information can call the Toxic Substances Control Act (TSCA) Hotline **(888) 835-5372**.
- Schools, parents, building owners and contractors can find information on the safe handling and renovation of potentially contaminated caulk here: www.epa.gov/pcbsincaulk

Appendix F

Hazardous Substance Removal Compliance Contract (HSRCC) for Non-Compacted Feedstock

Schnitzer

Hazardous Substance Removal Compliance Certification

Schnitzer Steel of Hawaii is required by 40 CFR §§ 63, 82 & 761 to have all scrap customers certify the following:

Refrigerants:

Seller hereby certifies that all appliances, including without limitation motor vehicle air conditioning units, delivered to Hawaii Metal Recycling, dba Schnitzer Steel of Hawaii Corp. (SSH) are, and/or will be, free of any and all "refrigerants" and any substitutes (including but not limited to chlorofluorocarbons (CFCs) and hydro chlorofluorocarbons (HCFCs)), as defined in §608 of the Clean Air Act Amendments and 40 CFR Part 82) and that all such refrigerants or substitutes were, and/or will be, removed and recovered in accordance with the requirements of 40 CFR 82.156(g) or (h) prior to delivery of the appliances to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

PCB-Containing Materials:

Seller hereby represents and warrants that all appliances to be delivered to SSH have been, and/or will be, inspected for small capacitors and ballasts, and that all PCB-containing small capacitors and ballasts have been, and/or will be, removed before delivery to SSH. Seller will not deliver any scrap metal, or scrap metal components, containing PCB concentrations of 50 parts per million or more to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Mercury Switches:

Seller further certifies that all vehicles delivered to SSH have been, and/or will be, inspected for mercury switches in hood and trunk convenience lights, and that all such switches were, and/or will be, removed or stripped of mercury-containing components prior to crushing and delivery to SSH. Seller also certifies that these mercury-containing components were, and/or will be, managed in accordance with state and federal requirements. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorney's fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Seller:

_____
VENDOR NUMBER IF KNOWN

_____
SELLER (COMPANY)

_____
ADDRESS CITY, STATE & ZIP CODE

_____
CONTACT NAME AND PHONE NUMBER

_____ _____
AUTHORIZED SIGNATURE DATE

91-056 Hanua Street; Kapolei, HI 96707
Phone 808-682-5810 FAX 808-682-0604

Appendix G

HSRCC Non-Compacted Feedstock Supplier Notification Letter

Schnitzer Steel Hawaii Corp.
91-056 Hanua Street
Kapolei, HI 96707
(808) 682-0604

TO: All Scrap Material Suppliers

SUBJECT: Schnitzer Steel Hawaii Corp. Scrap Acceptance Policy and Prohibition on Scrap Metal Components Containing ≥ 50 ppm PCBs

Dear Valued Supplier:

Hazardous materials can be found in components of some types of scrap metal. When hazardous materials are included in scrap metal shipments it places an undue burden on the receiving facility because the presence of hazardous materials in metal recycling feedstock substantially complicates our ability to recycle scrap metal and/or properly recycle or dispose of recycling byproducts.

Enclosed with this letter is a copy of our Scrap Acceptance Policy which describes items that may not be delivered to and will not be accepted by our facility. Compliance with environmental regulations is critical to our company's goals, and we strive for full compliance with local, state and federal regulations. We ask that you assist us in these efforts by reviewing the Scrap Acceptance Policy and ensuring that scrap metal you bring to our facility complies with the policy.

Due to special requirements associated with Schnitzer Steel Hawaii Corp.'s Voluntary Procedures for Recycling Plastics from Shredder Residue, we ask that you carefully review the Scrap Acceptance Policy section regarding polychlorinated biphenyls (PCBs). While we would prefer that no PCB-containing materials be brought to our facilities, please note that **SCHNITZER STEEL HAWAII CORP. specifically cannot accept any materials for recycling which include components containing PCBs at concentrations of 50 parts per million (ppm) or more.** All materials that once contained PCBs must have the PCBs removed prior to delivery to our facilities.

Schnitzer Steel Hawaii Corp. requires suppliers of shredder feedstock material (SFM) to sign a Hazardous Substance Removal Compliance Certification (HSRCC) prior to delivering SFM to our facilities. The HSRCC certifies that PCB containing capacitors have been removed from SFM, and that no scrap metal containing 50 ppm PCB or more will be delivered go our facilities. If you initiate SFM delivery to our facilities and do not already have a signed HSRCC on file, scale personnel will provide you with a copy for your signature upon arrival at our facility. Alternatively, you can contact us at the number listed below to arrange for completing an HSRCC prior to delivering SFM to our facility.

We look forward to your continued business. If you have any questions or need further assistance, please feel free to contact us at (808) 682-0604.

Thank you for your attention to this important matter.

Mahalo,

Schnitzer Steel Hawaii Corp.

Appendix H

Hazardous Substance Removal Compliance Contract (HSRCC) for Compacted Feedstock

Schnitzer

Hazardous Substance Removal Compliance Contract

Schnitzer Steel of Hawaii is required by 40 CFR §§ 63, 82 & 761 to have all scrap customers certify the following:

Refrigerants:

Seller hereby certifies that all appliances, including without limitation motor vehicle air conditioning units, delivered to Schnitzer Steel of Hawaii Corp. (SSH) are, and/or will be, free of any and all "refrigerants" and any substitutes (including but not limited to chlorofluorocarbons (CFCs) and hydro chlorofluorocarbons (HCFCs), as defined in §608 of the Clean Air Act Amendments and 40 CFR Part 82) and that all such refrigerants or substitutes were, and/or will be, removed and recovered in accordance with the requirements of 40 CFR 82.156(g) or (h) prior to delivery of the appliances to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

PCB-Containing Small Capacitors:

Seller hereby represents and warrants that all appliances to be delivered to SSH have been, and/or will be, inspected for small capacitors, and that all PCB-containing small capacitors have been, and/or will be, removed before delivery to SSH. Seller will not deliver any scrap metal, or scrap metal components, containing PCB concentrations of 50 parts per million or more to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Mercury Switches:

Seller further certifies that all vehicles delivered to SSH have been, and/or will be, inspected for mercury switches in hood and trunk convenience lights, and that all such switches were, and/or will be, removed or stripped of mercury-containing components prior to crushing and delivery to SSH. Seller also certifies that these mercury-containing components were, and/or will be, managed in accordance with state and federal requirements. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorney's fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Baled, Flattened or Crushed Scrap Metal:

Suppliers of baled, flattened or crushed scrap metal acknowledge that they understand SSH may dispose of shredder residue derived from shred feed material (SFM) as an alternative fuel pursuant to approvals which require implementation of the Institute of Scrap Recycling Industries' Voluntary Procedures for Recycling Plastics from Shredder Residue (ISRI Voluntary Procedures). Facilities which supply SSH with baled, flattened or crushed SFM certify that their operations comply with the ISRI Voluntary Procedures (attached). Facilities supplying baled, flattened or crushed SFM will legally uphold, at a minimum, the SSH scrap acceptance policy and will inspect, remove, and properly dispose of all hazardous materials that SSH would be otherwise unable to identify within baled, flattened or crushed materials. Employee training on the requirements of the ISRI Voluntary Procedures must be completed annually and documented. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorney's fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Seller Certification:

VENDOR NUMBER IF KNOWN

SELLER (COMPANY)

ADDRESS CITY, STATE & ZIP CODE

CONTACT NAME AND PHONE NUMBER

AUTHORIZED SIGNATURE DATE

91-056 Hanua Street; Kapolei, HI 96707
Phone 808-682-5810 Fax 808-682-0604

Appendix I

HSRCC Compacted Feedstock Supplier Notification Letter

Schnitzer Steel Hawaii Corp.
91-056 Hanua Street
Kapolei, HI 96707
(808) 682-5810

TO: _____

SUBJECT: Schnitzer Steel Hawaii Corp. Scrap Acceptance Policy and Prohibition on Scrap Metal Components Containing ≥ 50 ppm PCBs

Dear _____:

Hazardous materials can be found in components of some types of scrap metal. When hazardous materials are included in scrap metal shipments, this places an undue burden on us as the receiving facility because it complicates our ability to recycle scrap metal and/or properly recycle or dispose of recycling byproducts.

Enclosed with this letter is a copy of our Scrap Acceptance Policy, which describes items that may not be delivered to and will not be accepted by our facility. Compliance with environmental regulations is critical to our company's goals, and we strive for full compliance with local, state and federal regulations. We ask that you assist us in these efforts by reviewing the Scrap Acceptance Policy and ensuring that scrap metal you bring to our facility complies with the policy.

Due to special requirements associated with Schnitzer Steel Hawaii Corp.'s Voluntary Procedures for Recycling Plastics from Shredder Residue, we ask that you carefully review the Scrap Acceptance Policy section regarding polychlorinated biphenyls (PCBs). While we would prefer that no PCB-containing materials be brought to our facilities, please note that **SCHNITZER STEEL HAWAII CORP. specifically cannot accept any materials for recycling which include components containing PCBs at concentrations of 50 parts per million (ppm) or more.** All materials that once contained PCBs must have the PCBs removed prior to delivery to our facilities.

Schnitzer Steel Hawaii Corp. requires suppliers of shredder feedstock material (SFM) to sign a Hazardous Substance Removal Compliance Certification (HSRCC) prior to delivering SFM to our facilities. Schnitzer Steel Hawaii Corp. may dispose of shredder residue derived from SFM as an Alternative Fuel. By signing the HSRCC, suppliers of baled, flattened or crushed scrap metal acknowledge that they understand Schnitzer Steel Hawaii Corp. may dispose of shredder residue derived from SFM as an alternative fuel pursuant to certain approvals that require implementation of the Institute of Scrap Recycling Industries' Voluntary Procedures for Recycling Plastics from Shredder Residue (ISRI Voluntary Procedures). Facilities that supply Schnitzer Steel Hawaii Corp. with baled, flattened or crushed SFM also certify that their operations comply with the ISRI Voluntary Procedures, which are attached to the HSRCC. Facilities supplying baled, flattened or crushed SFM will legally uphold, at a minimum, the Schnitzer Steel Hawaii Corp.'s Scrap Acceptance Policy and will inspect, remove, and properly dispose of all hazardous materials that Schnitzer Steel Hawaii Corp. would be otherwise unable to identify within baled, flattened or crushed materials. Employee training on the requirements of the ISRI Voluntary Procedures must be completed annually and documented.

The HSRCC specifically certifies that PCB containing capacitors have been removed from SFM, and that no scrap metal containing 50 ppm PCB or more will be delivered to

our facilities. If you initiate SFM delivery to our facilities and do not already have a signed HSRCC on file, the General Manager or Site Environmental Engineer will provide you with a copy for your signature upon arrival at our facility.

We look forward to your continued business. If you have any questions or need further assistance, please feel free to contact us at (808) 682-5810.

Thank you for your attention to this important matter.

Mahalo,
Schnitzer Steel Hawaii Corp.

COVANTA
ENERGY
for a cleaner world

Covanta Honolulu Resource Recovery Venture
91-174 Hanua St
Kapolei, HI 96707
Tel 808 682 2099
Fax 808 682 5203

June 8, 2015

Mr. Nolan Hirai, P.E.
Manager, Clean Air Branch
Environmental Management Division
Hawaii Department of Health
919 Ala Moana Blvd., Room 203
Honolulu, HI 96814

Subject: Response Letter to Automobile Shredder Residue (ASR) Burning in the Mass-Burn Boiler
Reference Letter 15-278E, File No. 0255

Dear Mr. Hirai:

We have received your letter regarding ASR and the concerns associated with adding the material as a fuel source to our supplemental waste inventory. Below, and in the attached, we provide responses to all points directed in the letter. Each comment is reiterated verbatim and a response from Covanta Honolulu Resource Recovery Venture (CHRRV) follows:

1. Comment:
   Our concern is that CHRRV cannot ensure the ASR received from each delivery is non-hazardous with only a quarterly test for PCBs.

1. Response:
   CHRRV Solid Waste Permit (IN-0049-11) and two Covered Source Permits (0255-01-C, and 0255-02C) prohibit the acceptance of hazardous waste. Our internal review procedures help to maintain compliance with those conditions. Additionally, we understand that supplemental or special wastes like ASR will have a slight degree of variability in its characteristics; this is typical of all fuel we receive. Schnitzer's Solid Waste Permit indicates their requirements to test annually for hazardous waste characteristics via the U.S. EPA Toxicity Characteristic Leachate Procedure (TCLP) Method (reference 40 CFR 261, Appendix II) for heavy metals and total concentrations of Polychlorinated Biphenyls (PCBs). The annual frequency was determined because it is recognized that their waste stream is consistent and predictable with regards to analysis results, and regularly determined to be a non-hazardous waste. However, Schnitzer conducts quarterly tests of TCLP and total PCBs as a proactive approach to waste management, which further supports their position of ASR being consistent and non-hazardous. Schnitzer's quarterly analytical results for the past three years, demonstrating consistent ASR designation as non-hazardous, were shared and reviewed during our May 27th meeting. At the request of the HDOH we will also be conducting sampling and analysis of the post-combustion residue or ash for TCLP, Total Metals, Dioxin/Furans, and other hazardous constituents to ensure the ash characteristics remain unchanged.

2. Comment:
   The ASR supplier should identify all incoming sources of ASR and the quantity of ASR received from each source.

2. Response:
Similar to our screening and pre-acceptance procedures, Schnitzer monitors incoming feedstock through multiple different programs. Attached to this letter is the "Voluntary Procedure for Recycling Plastics from Shredder Residue or Using Shredder Residue as an Alternative Fuel," (VP) which outlines Schnitzer's responsibilities with Source Evaluation, and Inspection Procedures of incoming feedstock. Schnitzer conducts assessments prior to accepting and processing inbound streams in order to ensure their outgoing material will not be affected and remain non-hazardous. The VP outlines procedures at Schnitzer's facility that provide further safeguards for recognizing and eliminating potential high PCB waste streams, please refer to pages 2 through 7 for a list of unacceptable wastes. While the VP document focuses on reducing the potential to receive PCB-containing materials, the procedures outlined in the VP also reduce the potential for receiving other hazardous materials at the Schnitzer facility. Schnitzer's Scrap Acceptance Policy (Appendix B of the VP) lists the materials which are not accepted by the Schnitzer facility because they may contain various hazardous materials. Schnitzer maintains records of all incoming tonnage feedstock by supplier for a period of five years. For continuous improvement, the VP is audited regularly, and we will be receiving results from their third party audit to ensure the procedures are implemented accordingly. This helps to assure CHRRV that our inbound material is non-hazardous.

3. Comment:
The ASR delivered to your site shall be tested for all heavy metals listed in the table (HAR 11-261-24, Table 1) (in addition to PCB) to ensure the non-hazardous waste requirement is met.

3. Response:
Schnitzer tests the ASR for TCLP heavy metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver), and total PCBs on a quarterly basis, and submits results to the Solid and Hazardous Waste Branch annually in accordance with their permit.

4. Comment:
How often will HPOWER burn the ASR? Provide the maximum rate, in lb/hr, that ASR will be mixed into the MSW.

4. Response:
We expect to burn ASR up to six days per week, as Schnitzer cannot provide delivery on Sundays. Additionally, their current operations are such that we can expect to receive approximately 1,800 tons per month of material. We anticipate that the material will be mixed and fed within a 12 hour period because the tonnage ratio is minimal. The below table is based on the maximum amount of ASR to be delivered at 1,800 tons per month (TPM) or 75 tons per day (TPD), with all units combusting at maximum load. The maximum rate of ASR is indicated in the table below:

Boiler	Boiler Limit (TPD)	Boiler Limit (lb/hr)	ASR Feed Rate (lb/hr), 12hrs	ASR to MSW Ratio
RDF Unit 1	854	71,166	4,000	5.6%
RDF Unit 2	854	71,166	4,000	5.6%
Mass Burn	900	75,000	4,000	5.3%

5. Comment:
   Provide the frequency and quantity of ASR to be fired in the boiler on a daily, weekly, and monthly basis.

5. Response:
   Please see below table to indicate our proposed schedule of ASR delivery, and quantity we anticipate will be fired based on a maximum delivery of 1,800 TPM.

	Daily Mon-Sat Delivery	Weekly	Monthly
RDF Unit 1	25 TPD	150 TPW	600 TPM
RDF Unit 2	25 TPD	150 TPW	600 TPM
Mass Burn	25 TPD	150 TPW	600 TPM

6. Comment:
   Will ASR be burned during the annual Source Performance Test? Please identify how CHRRV will demonstrate compliance with the permit requirements of non-hazardous waste and boiler emission limits concerning ASR burning.

6. Response:
   Yes, we will be adding ASR to the fuel feed during the Source Performance Test for both the Mass Burn and RDF units. We will be performing test runs with ASR to determine any effects the ASR may have on emissions. We do not anticipate any issues during the source test or following in the results.

During our meeting on May 27th, it was discussed that our operator should be trained on mitigation measures in the event we encounter emissions issues during the ASR test runs. Our operators are certified to EPA standards, and undergo continuous training and tailgates on monitoring and controlling of air emissions. The operators will receive supplemental training on mixing ratios, feeding requirements, and operational/emission mitigation plans prior to accepting ASR. Additionally, operators know they can refer to the procedures in our Environmental Compliance and Operations Manuals which include procedures for addressing emissions events specific to the pollutant.

We look forward to working with you on the future use of this material. Please feel free to contact Ms. Amanda Hayasaka or Ms. M. Sonni Escuadro at 808-682-0264 or me at 808-682-0201, should you have any questions.

Sincerely,

Robert A. Webster
Facility Manager

AMH:iml
1S06002raw

cc: Wayne Hamada, City and County of Honolulu
Janice Fujimoto, Solid and Hazardous Waste Branch
Scott Sloan, Eric Hildebrand, Schnitzer Steel HI

Statement of Certification

Facility Name: Covanta Honolulu Resource Recovery Venture

Permit Number: 0255-02-C

Certification by Responsible Official

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Robert A. Webster.....Name of designated responsible official
Facility Manager ..... Title of responsible official

Robert A Webster 6-8-15

Signature of responsible official Date

SCHNITZER STEEL INDUSTRIES, INC - SCHNITZER STEEL HAWAII CORP

IMPLEMENTATION REVIEW OF VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL

Schnitzer Steel Hawaii Corp (Schnitzer Hawaii) is a scrap metal recycling company. The facility collects, trades, brokers, processes and recycles metal, both ferrous and nonferrous.

Scrap metal at Schnitzer Hawaii is processed by shredding or torch cutting. Shredding scrap metal generates a by-product known as shredder residue. Shredder residue is comprised of the non-metal components which are commonly found in scrap metal shredder feedstock such as plastic, foam, rubber, wood, paper, card, rock, soil, etc.

Shredder residue it typically disposed of at local solid waste landfills, frequently as landfill cover. If successful Voluntary Procedures for Recycling Plastics from Shredder Residue or Using Shredder Residue as Alternative Fuel (Voluntary Procedures) are implemented at a facility to remove polychlorinated biphenyls (PCBs) equal to or more than $\geq$50 parts per million, and the shredder residue consuming facilities maintain adequate output controls, a facility may recycle plastics from shredder reside or utilize it as an alternative fuel in cement kilns and municipal solid waste combustors.

A requirement of the Voluntary Procedures adopted and implemented at Schnitzer Hawaii is for a qualified, independent, professional third party to review and verify the implementation of the Procedures on an annual basis before plastics can be recycled from shredder residue or before shredder residue can be utilized as an alternative fuel source. This report is intended to satisfy that requirement.

Schnitzer Hawaii is located on a secure site in an industrial business area. Schnitzer Hawaii's facility is comprised of the following areas: scale, scrap metal inspection areas, offices, maintenance area, non-ferrous scrap metal receiving and storage areas, employee break and changing areas, ferrous metal storage areas (pre and post processing), scrap metal processing areas (shredder, joint products, torch cutting), equipment storage area, shredder residue storage area, processed product loading area and shredder residue loading area. The facility currently generates approximately 200-400 tons of shredder residue per week.

Facility management and employees who purchase, inspect, move, process and manage shredder feedstock were interviewed during the inspection. A facility tour was conducted while shredder source material was being delivered to the facility and shredding operations were occurring. Facility records relating to Voluntary Procedures management were also reviewed.

Facility Name:	Schnitzer Steel Industries, Inc., Schnitzer Steel Hawaii Corp.
Facility Address:	91-056 Hana Street, Kapolei, Hawaii 96707
Inspection Date:	August 4, 2015
Auditor:	Graham Twaddell, Director, Industrial EHS Compliance and Sustainability - Envirosure Solutions, L.L.C.
Observer(s):	Eric Hildenbrand, EHS Engineer – Schnitzer Steel Hawaii Corp.
Contacts:	Scott Sloan, R.G., L.Hg., Environmental Director – Schnitzer Steel Industries, Inc. Nick Garofalo, General Manager – Schnitzer Steel Hawaii Corp. Eric Hildenbrand, EHS Engineer – Schnitzer Steel Hawaii Corp.

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
1.1	All inbound materials are inspected by facility personnel to ensure they meet the guidelines outlined in these Voluntary Procedures (§ 3.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	On 08/04/2015, shredder feedstock loads of scrap ferrous metal were observed being inspected prior to entering the facility by the Primary Inspector at scale from an elevated truck load inspection station and by the Secondary Inspector after unloading at the shredder feedstock (tin) pile. **Continue to ensure all uncompacted loads are inspected by Primary and Secondary Inspectors. Continue to ensure nonconforming scrap metal is either rejected or removed from shredder feedstock and placed in designated area prior to further processing or disposal.**
1.2	All inbound materials are inspected by facility personnel to ensure they meet the guidelines outlined in these Voluntary Procedures (§ 3.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	On 08/04/2015, perimeter of tin pile was inspected. No nonconforming scrap was identified. **Continue to ensure all uncompacted loads are inspected by Primary and Secondary Inspectors. Continue to ensure nonconforming scrap metal is either rejected or removed from shredder feedstock and placed in designated area prior to further processing or disposal.**
2	If inbound materials are found to violate the Voluntary Procedures, these materials are rejected and documented in a rejection log (§ 3.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Facility maintains a nonconforming scrap metal Rejection Log. Log was inspected. As of 08/10/2015, 81 loads had been rejected in 2015 (see Attachment A). Rejection log identifies date, vendor name, vendor license plate, reason for rejection and employee responsible for initiating rejection. **Continue to reject nonconforming loads of scrap metal and maintain rejection log.**
3	Post signage at the accepting facility describing the prohibition against accepting any materials containing ≥50 ppm PCBs (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	A large yellow sign is posted at front entrance scale that identifies materials containing ≥50 ppm are prohibited (see Attachment B, Photo 1). **Continue to display signage that informs suppliers entering facility that material containing PCBs ≥50 ppm is prohibited.**
4	Ensure all employees involved in purchasing, receiving, inspecting or movement of feedstock materials prior to shredding operations are trained to be aware of, identify, and, for designated employees, remove prohibited items and materials. All employees responsible for any of these procedures will be trained and made aware of such responsibilities, with refresher training provided annually (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	On 05/05/2015, 27 employees were trained on Voluntary Procedures/Material Acceptance. A training attendance sign-in sheet and completed training quizzes were on file at facility. **Ensure documented training occurs annually for all employees involved in purchasing, receiving, inspecting or movement of feedstock materials prior to shredding operations.**

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
5	Provide handouts at the entrance to the accepting facility or the scale describing the prohibition against accepting any materials containing ≥50 ppm PCBs to suppliers of feedstock that is not baled, logged or otherwise comparably compacted (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Facility Scrap Acceptance Guidelines handout identifies that materials containing ≥50 ppm PCBs are not accepted. This handout was available at the scale located at the entrance to the facility. **Continue to keep an inventory of Scrap Acceptance Guideline handouts at front scale. Provide handouts to all new scrap suppliers crossing scale.**
6	Either, establish a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs or Require suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Facility does not currently offer incentives to suppliers for identifying and removing articles from scrap loads that may contain more than ≥50 ppm PCBs. Facility has issued Hazardous Substance Removal Compliance Certifications (stating that scrap with ≥50 ppm PCBs will not be delivered to facility) to all current suppliers of shredder feedstock. Facility has received signed Certifications from all major suppliers. If a supplier offers scrap for sale without a 2015 signed Certificate, they are provided with one and material is not accepted until a signed copy is received. **Continue to maintain annually signed Certifications from all suppliers of shredder feedstock.**
7	Ensure properly trained individuals conduct visual inspections of all loads of non-compacted scrap brought into the facility before acceptance for articles or other materials that may contain ≥50 ppm PCBs (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Primary and Secondary Facility Inspectors received Voluntary Procedures/Material Acceptance training on 05/05/2015. Additional task training in regards to Voluntary Procedures was provided to Inspectors and other employees on 06/10/2015 and 07/15/2015 (see Attachment C). **Continue to provide documented Inspector task training at least on an annual basis.**

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
8	Either, reject loads that may contain ≥50 ppm PCBs or Separate such materials from the load and properly manage and dispose of them in accordance with all applicable regulatory requirements (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass* ❑Fail ❑ N/A	Facility documents load rejections (Attachment A) from main scale. Documented disposal of non-conforming scrap segregated from shredder feedstock material includes: PCB capacitors (10/17/2013), asbestos lined tank (2/10/2015) and Freon 3/18/2015. One PCB waste (ballasts and capacitors) accumulation container was observed in the waste storage area (see Attachment B, Photo 2). This drum had an accumulation start date of 05/18/2015 (see Attachment B, Photo 3). Secondary Inspector removes any nonconforming scrap that passes the Primary Inspection at main scale. *No nonconforming scrap accumulation containers were observed at Secondary Inspector Hut. These items are currently accumulated on the ground in front of Inspector Hut (Attachment B, Photo 4). Non-PCB capacitors are currently being removed and accumulated with other nonconforming scrap. Please note that it is not required to remove and accumulate non-PCB capacitors from shredder feedstock material. **Place labeled and covered containers at Secondary Inspector Hut that can be used to accumulate nonconforming scrap such as: PCB items ≥50 ppm, sealed units, pressurized aerosols, cylinders, batteries, etc. Ensure PCB waste is accumulated and stored compliantly (in sealed and labeled containers). Avoid double handling nonconforming scrap as much as possible.** **Ensure PCB waste is shipped for compliant disposal within one (1) year from accumulation start date per 40 CFR 761.65(a)(1).**

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
9	Conduct periodic visual inspections of compacted scrap brought into the facility for articles or other materials that may contain >50 ppm PCBs before acceptance, unless: Establish a program or policies to provide incentives (e.g., "bounties") for suppliers to identify and remove from supplied materials any articles or other materials that may contain ≥50 ppm PCBs or Require suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year (§ 4.0)	☒Yes ☐No ☐ N/A	☒Pass ☐Fail ☐ N/A	Facility does not currently perform documented visual inspections of compacted scrap using equipment to pry apart or disassemble compacted loads. Facility does not currently offer incentives to suppliers for identifying and removing articles from scrap loads that may contain ≥50 ppm PCBs. Facility has received signed Hazardous Substance Removal Compliance Certifications (stating that scrap with ≥50 ppm PCBs will not be delivered to facility) from current suppliers of shredder feedstock (Attachment D). **Continue to require suppliers of compacted scrap to sign the Hazardous Substance Removal Compliance Certifications specific to suppliers of compacted scrap on an annual basis. Reject loads from any suppliers who have not provided signed annual Certifications until signed paperwork is submitted.**

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
10	Before accepting compacted shredder feedstock material at the facility, ensure each suppler of has submitted a signed a contract that stipulates: 1. Supplier implements a documented source control program that includes visual inspection of all material prior to compaction/baling to ensure that the materials that they supply do not contain PCBs at concentrations ≥50 ppm 2. Provides clear written notice that portions of their mechanically compacted, baled or logged feedstock materials may be used for plastics recycling or alternative fuel, and emphasize the importance of conforming to the required documented source control program 3. Requires such suppliers to provide a certification for each delivery that they are aware of the prohibition and that the materials they supply do not contain PCBs at concentrations ≥50 ppm. Such suppliers that make multiple deliveries in a year may provide a contractual certification with first delivery in a calendar year that covers all of the subsequent deliveries for that calendar year (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Hazardous Substance Removal Compliance Certification (Attachment D) sent to suppliers who provide compacted shredder feedstock material does identify that suppliers of compacted scrap: 1.Must implement a documented source control program that includes visual inspection of all material prior to compaction/baling to ensure that the materials that they supply do not contain PCBs at concentrations ≥50 ppm 2. Are provided with clear written notice that portions of their mechanically compacted feedstock materials may be used for plastics recycling or alternative fuel. The Certification emphasizes the importance of conforming to the required documented source control program 3. Provide Certification with each load - or annually - that identifies materials ≥50 ppm PCBs are prohibited. **Continue to require suppliers of compacted scrap to annually submit a signed Hazardous Substance Removal Compliance Certification which specifies the requirements listed above. Reject loads from any suppliers who have not provided signed annual Certifications until signed paperwork is submitted.**
11	Conduct periodic (at least annual) internal audits on the adequacy and effectiveness, including performance, of the written Voluntary Procedures, and promptly correct any deficiencies that are detected (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass* ❑Fail ❑ N/A	A Voluntary Procedure internal audit has not yet been performed. *Mr. Scott Sloan, Environmental Director, Schnitzer Steel Industries, Inc. has been identified as the individual responsible for conducting the Voluntary Procedure internal audits (at least annually). Mr. Sloan is scheduled to conduct the first internal audit some time in Quarter 1 2016 (01/01/2016-03/31/2016). **Ensure periodic Voluntary Procedure internal audits are performed at least annually.**

#	Procedure Item	Inspected?	Pass/Fail?	Observation & Corrective Action Needed
12	Maintain and make available records that document the facility's implementation of each element of the Voluntary Procedures. Retain records for a minimum of five (5) years from date of creation (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Voluntary Procedures training records and signed Hazardous Substance Removal Compliance Certifications are maintained. **Ensure all Voluntary Procedures records are organized and saved electronically in one location (with back-ups) for easy access during internal and external audits. Retain electronic records indefinitely.**
13	Employ the services of a qualified, independent, professional third party to review and verify the implementation of the Voluntary Procedures before beginning such operations and annually thereafter (§ 4.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	This audit report represents the initial qualified, independent, professional third party review of the Voluntary Procedures implementation. **Continue to annually employ the services of a qualified, independent, professional third party to review the Voluntary Procedures implementation.**
15	Promptly correct any deficiencies detected by third party auditor and provide documentation to demonstrate the deficiencies have been addressed (§ 4.0)	❑Yes ❑No ☒ N/A	❑Pass ❑Fail ☒ N/A	Generate corrective action paperwork for each third party audit action item and send to auditor at gtwaddell@envirosure.com
14	Maintain and make available records of the results of all third party audits, including all deficiencies and related corrective actions, for a minimum of five (5) years from the date of their creation (§ 4.0)	❑Yes ❑No ☒ N/A	☒Pass ❑Fail ❑ N/A	All Voluntary Procedures records were available for review. **Continue to ensure all Voluntary Procedures records are organized and saved electronically in one location (with back-ups) for easy access during internal and external audits. Retain electronic records indefinitely.**
16	Ensure suppliers of shredder feedstock material sign a "Hazardous Substance Removal Compliance Certification" on an annual basis (§ 5.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Facility has issued Hazardous Substance Removal Compliance Certifications (stating that scrap with ≥50 ppm PCBs will not be delivered to facility) to all current suppliers of shredder feedstock. Facility has received signed Certifications from all major suppliers. If a supplier offers scrap for sale without a 2015 signed Certificate, they are provided with one and material is not accepted until a signed copy is received. **Continue to maintain annually signed Certifications from all suppliers of shredder feedstock.**
17	Retain all signed Certifications for a minimum of five (5) years (§ 5.0)	☒Yes ❑No ❑ N/A	☒Pass ❑Fail ❑ N/A	Hard copy signed certifications are currently on file. **Ensure all Voluntary Procedures records are organized and saved electronically in one location (with back-ups) for easy access during internal and external audits. Retain electronic records indefinitely.**

Additional items:

Three (3) facilities currently supply compacted shredder feedstock to facility: Resource Recovery, Kauai; Business Services/Paragon Metals, Big Island; and Schnitzer Steel, Maui. Each of these suppliers received onsite Voluntary Procedures/Material Acceptance training. Training presentation, completed quizzes and student attendance sign-in sheets are on file at the facility. Training dates were:
Resource Recovery, Kauai – 05/15/2015
Business Services/Paragon Metals, Big Island – 08/03/2015
Schnitzer Steel, Maui – 06/16/2015

Continue to provide documented Voluntary Procedures/Material Acceptance training to all three (3) suppliers of compacted shredder feedstock on a periodic (at least annual) basis.

Name (Print)	Title	Date	Signature
Graham Twaddell	Director, Envirosure Solutions, LLC	08/11/2015	

ATTACHMENT A

SCHNITZER STEEL HAWAI'I CORP.
2015 REJECT LOG

01/05/15	PEDDLER	JDP408	CHOPPED UP VEHICLE/NO TITLE.	
01/12/15	ASSOCAITED STEEL	SSHIC65	PROPANE TANKS	
01/13/15	LEEWARD AUTO WRECKERS	969TNB	FUEL	
01/20/15	PEDDLER	NO LIC#	VEHICLE/NO TITLE	
01/27/15	GREEN RECYCLING	673TVG	AUTO-NO PUKA GAS TANK	
01/30/15	WET N WILD		SEALED TANKS NO HOLE	
02/11/15	PEDDLER	GBT416	REF-COMPRESSOR	
02/13/15	JONAH SNIFFEN	091TRA	KEIKI	
02/25/15	GREEN RECYCLING	673TVG	AUTO-NO PUKA GAS TANK	
03/04/15	BRIAN TAJIRI	424TVG	CONCRETE	
03/07/15	HERTZ TRUCK (RENTAL)	883TTG?	INSULATION/PLASTIC	
03/09/15	GREEN RECYCLING	673TVG	OIL PAN NO PUKA	
03/09/15	LEEWARD AUTO RECYCLING (LAR)	939TTY	OIL PAN NO PUKA	
03/09/15	GREEN RECYCLING	673TVG	NO PUKA GAS TANK	
03/09/15	GREEN RECYCLING	673TVG	OIL PAN NO PUKA	
03/09/15	LAR	939TTY	OIL PAN NO PUKA	
03/09/15	LAR	939TTY	OIL PAN NO PUKA	
03/09/15	LAR	939TTY	OIL PAN NO PUKA	
03/09/15	GREEN RECYCLING	673TVG	OIL PAN NO PUKA	
03/10/15	TOWS R US	316TTU	OIL PAN NO PUKA	
03/10/15	TOWS R US	316TTU	OIL PAN NO PUKA	
03/12/15	LAR	939TTY	BATTERY	
03/14/15	PEDDLER	JZJ789	NO ID	
03/14/15	PEDDLER	RJJ221	COMPRESSOR	
03/16/15	TOWS R US	316TTU	NO PUKA GAS TANK	
03/31/15	REFRIGERANT RECYCLING	101TVN	3 PALLET BOXES LOADED W/RUBBISH	
03/31/15	PEDDLER	RXZ101	INSULATION	
03/31/15	BIL MAHAS	056TTR	RUBBISH/OIL	
04/08/15	PEDDLER	SCF841	AUTO-NO TITLE	
04/08/15	TOWS R US	316TTU	REF-FREE ON	
04/08/15	WALTER GAYLORD	T19465	CONCRETE	

04/16/15	CONCRETE CORING	849TRV	CARDBOARD, RUBBISH	
05/05/15	PEDDLER	606TSG	NO ID	
05/07/15	LEEWARD AUTO WRECKERS	969TNB	AUTO-NO PUKA OIL PAN	SR
05/11/15	TOWS R US	316TTU	NO PUKA GAS TANK	SR
05/12/15	TOWS R US	316TTU	GAS!	SR
05/12/15	TOWS R US	200189	PLENTY OIL!	NICK/ELI
05/12/15	GREEN RECYCLING	673TVG	GAS!	
05/14/15	TOWS R US	316TTU	MICROWAVES	
05/16/15	SEAN MICHAEL GALLAGHER	117TTB	MICROWAVES	
05/18/15	PEDDLER	971TVC	KEIKI	
05/19/15	PEDDLER	810TTY	NO TITLE	
05/21/15	TOWS R US	316TTU	AIR BAGS NOT DEPLOYED	
05/22/15	GREEN RECYCLING	673TVG	GAS!	
05/26/15	ROGER HATZKY	955TTJ	MANHOLE COVERS-NEED PAPERWORK	
05/26/15	DISCOUNT AUTO PARTS	678TRF	GAS!	
05/27/15	TOWS R US	RT7	AIR BAGS NOT DEPLOYED	
05/28/15	TOWS R US	RT7	GAS!	
06/02/15	TOWS R US	316TTU	GAS!	
06/03/15	TOWS R US	316TTU	GAS!	
06/09/15	TOWS R US	316TTU	AIR BAGS NOT DEPLOYED	
06/18/15	JASON BAGIOU	958TNS	NO HOLES IN SEALS	
06/19/15	PEDDLER	PJT440	NO TITLE	
06/22/15	REFRIGERANT RECYCLING	338TRT	REF/COMPRESSOR	ELI
06/22/15	GREEN RECYCLING	878TRP	AUTO-GAS	SR
06/23/15	GREEN RECYCLING	878TRP	NO PUKA GAS TANK	SR
06/26/15	GREEN RECYCLING	878TRP	NO PAPERWORK/VIN	CNR
06/27/15	GREEN RECYCLING	878TRP	AUTO/GAS	JR
06/27/15	GREEN RECYCLING	878TRP	AUTO/GAS	JR
06/27/15	PEDDLER	415HDR	MOTORCYCLE NO VIN#	CNR
06/29/15	ALFRED VAKA	875TSY	TV'S, BALLASTS	EH
07/01/15	ALOHA SAFETY TOWING INC.	209TVA	AUTO/FLUID/TIRES	CK
07/02/15	PEDDLER	PVC044	AUTO CAB-NO PAPERWORK	CNR
07/06/15	WILLIAM MAHAS	399TTV	AC/FIRE EXTINGUISHER	CK/EH
07/08/15	PEDDLER	RCV979	EXPIRED IDS	CNR

07/08/15	PEDDLER	SGC881	AUTO/NO PAPERWORK	CK
07/09/15	PEDDLER	ETC280	AUTO/NO PAPERWORK	CK
07/16/15	GREEN RECYCLING	673TVG	AUTO-GAS	
07/16/15	COMMERCIAL EQUIPMENT SERV.	3AQUA	AIR BAGS NOT DEPLOYED	
07/16/15	DAVID KA'AHA'AINA	TRK#00	AUTO-FLUIDS	
07/17/15	RESOURCE RECOVERY SOLUTIONS	782TRP	RADIATION DETECTED	
07/21/15	PEDDLER	862TVA	NO HOLE IN GAS TANK	
07/22/15	HMS CONSTRUCTION	799TSV	RADIATION DETECTED	
07/23/15	NAN INC.	188TTG	TRANSFORMERS - NO LAB PAPERS	CK
07/23/15	GREEN RECYCLING	673TVG	AUTO - BULLETS	CK
07/27/15	PEDDLER	115 TSR	NO SHOES	GA
08/04/15	PEDDLER	NDC988	NO TITLE	CK
08/05/15	GREEN RECYCLING	673TVG	AUTO - GAS	CK
08/06/15	HAULING FOR CAMERON CHEMICAL	875TSY	RADIATION DETECTED	EH
08/10/15	PEDDLER	SNA107	NO ID	CK
08/10/15	GREEN RECYCLING	673TVG	GAS!	CK

ATTACHMENT B

IMPLEMENTATION REVIEW OF VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL PHOTO LOG

Schnitzer Steel Industries, Inc., Schnitzer Steel Hawaii Corp.
91-056 Hana Street, Kapolei, Hawaii 96707

Photo 1: Sign identifying materials containing ≥50 ppm are prohibited

IMPLEMENTATION REVIEW OF VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL PHOTO LOG

Schnitzer Steel Industries, Inc., Schnitzer Steel Hawaii Corp.
91-056 Hana Street, Kapolei, Hawaii 96707

Photo 2: Accumulated PCB waste

IMPLEMENTATION REVIEW OF VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL PHOTO LOG

Schnitzer Steel Industries, Inc., Schnitzer Steel Hawaii Corp.
91-056 Hana Street, Kapolei, Hawaii 96707

Photo 3: Accumulated PCB waste storage label

IMPLEMENTATION REVIEW OF VOLUNTARY PROCEDURES FOR RECYCLING PLASTICS FROM SHREDDER RESIDUE OR USING SHREDDER RESIDUE AS ALTERNATIVE FUEL PHOTO LOG

Schnitzer Steel Industries, Inc., Schnitzer Steel Hawaii Corp.
91-056 Hana Street, Kapolei, Hawaii 96707

Photo 4: Accumulated nonconforming shredder feedstock material

ATTACHMENT C

Schnitzer Steel Hawaii Corp.
Voluntary Procedures/Material Acceptance Policy
Audit/Corrective Actions Refresher

The following employees participated in the referenced training:

NAME (Print)	SIGNATURE
1. TRACY HAYAKAWA	
2. Cheyenne Nahulu-Roberts	
3. CLARENCE K. KALILI	
4. Glenn Adrialico	
5.	
6. SAM W	
7. RUSS	

Instructor Name: Eric Hubbard Date: 7/15/15 08/4/15

Instructor Signature:

Nick Gurule	

Internal audit/corrective action fieldwork training with employees (fieldwork not documented for visual confirmation of adherence to scrap acceptance policy only):

5/11/15 – 2 inspectors at the pile, found a sealed unit, had discussion on removing sealed units from shred feed and placing in separate storage containers

5/15/15 – 1 inspector at pile, EE showed inspector how he removes capacitors from refrigerated units, EE identified no-PCB

5/22/15 – 2 inspectors at the pile, one EE asked if capacitor had PCBs; inspector searched the internet for an answer, but results were inconclusive. Capacitors were placed in hazardous waste storage

5/26/15 – 1 inspector at tin pile, removed capacitors and ballasts collected by inspector; placed bin and instructed inspector to continue to do this the same way, inspector will come and remove to hazardous waste storage area regularly.

5/28/15 – 1 inspector at the pile continues to inspect for PCB containing items and removes anything in question.

6/8/15 – Re-covered some of the findings from the previous internal audit; inspection process continues to show improvements as more aerosol cans and capacitors are being segregated from customer loads and stored properly if the customer has left them.

6/10/15 – internal audit covered with all employees in the safety training office and some of the success/experience stories shared during this meeting

6/12/15 – 1 inspector at the tin pile, inspector was visually checking loads and communicating with the front scale when there was a non-conformance

6/16/15 – 1 inspector at the tin pile, non-ferrous employee, working on sweeping through the loads and identifying anything out of the ordinary. A dryer was opened which had seatbelt pyrotechnics inside, the load was rejected and customer was provided a copy of our scrap acceptance policy by the front scale inspector

6/19/15 – Discussion with two inspectors at the pile to continue to be vigilant about compressors at the pile. Drained are ok, but need to be handled properly and can be stored in separate area.

6/29/15 – 1 inspector at the pile, front inspector identified hazardous waste in the load, CRT TV's ballasts and florescent light bulbs, front inspector called pile inspector. Items were rejected, buyer was notified who notified the customer.

7/6/15 – EE had pulled out a cylinder with the valve on it, the inspector rejected the load

7/15/15 – internal audit covered with all employees in the safety training office and some of the success/experience stories shared during this meeting

Schnitzer Steel Hawaii Corp.
Voluntary Procedures/Material Acceptance Policy
Audit/Corrective Actions Refresher

The following employees participated in the referenced training:

NAME (Print)	SIGNATURE
1. TRACY HAYAKAWA	
2. CHEYENNE NAHULU-ROBERTS	
3. CLARENCE K. KALILI	
4. Glenn Adriatico	
5.	
6. Sam N.	Sam N.
7. RUSS JOAO	8/4/15

Instructor Name: Eric Hildenbrand Date: 6/10/15

Instructor Signature:

	Nick Gurofski

Internal audit/corrective action fieldwork training with employees (fieldwork not documented for visual confirmation of adherence to scrap acceptance policy only):

5/11/15 – 2 inspectors at the pile, found a sealed unit, had discussion on removing sealed units from shred feed and placing in separate storage containers

5/15/15 – 1 inspector at pile, EE showed inspector how he removes capacitors from refrigerated units, EE identified no-PCB

5/22/15 – 2 inspectors at the pile, one EE asked if capacitor had PCBs; inspector searched the internet for an answer, but results were inconclusive. Capacitors were placed in hazardous waste storage

5/26/15 – 1 inspector at tin pile, removed capacitors and ballasts collected by inspector; placed bin and instructed inspector to continue to do this the same way, inspector will come and remove to hazardous waste storage area regularly.

5/28/15 – 1 inspector at the pile continues to inspect for PCB containing items and removes anything in question.

6/8/15 – Re-covered some of the findings from the previous internal audit; inspection process continues to show improvements as more aerosol cans and capacitors are being segregated from customer loads and stored properly if the customer has left them.

6/10/15 – internal audit covered with all employees in the safety training office and some of the success/experience stories shared during this meeting

ATTACHMENT D

Schnitzer

Hazardous Substance Removal Compliance Contract

Schnitzer Steel of Hawaii is required by 40 CFR §§ 63, 82 & 761 to have all scrap customers certify the following:

Refrigerants:

Seller hereby certifies that all appliances, including without limitation motor vehicle air conditioning units, delivered to Schnitzer Steel of Hawaii Corp. (SSH) are, and/or will be, free of any and all "refrigerants" and any substitutes (including but not limited to chlorofluorocarbons (CFCs) and hydro chlorofluorocarbons (HCFCs), as defined in §608 of the Clean Air Act Amendments and 40 CFR Part 82) and that all such refrigerants or substitutes were, and/or will be, removed and recovered in accordance with the requirements of 40 CFR 82.156(g) or (h) prior to delivery of the appliances to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

PCB-Containing Small Capacitors:

Seller hereby represents and warrants that all appliances to be delivered to SSH have been, and/or will be, inspected for small capacitors, and that all PCB-containing small capacitors have been, and/or will be, removed before delivery to SSH. Seller will not deliver any scrap metal, or scrap metal components, containing PCB concentrations of 50 parts per million or more to SSH. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorneys' fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Mercury Switches:

Seller further certifies that all vehicles delivered to SSH have been, and/or will be, inspected for mercury switches in hood and trunk convenience lights, and that all such switches were, and/or will be, removed or stripped of mercury-containing components prior to crushing and delivery to SSH. Seller also certifies that these mercury-containing components were, and/or will be, managed in accordance with state and federal requirements. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorney's fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Baled, Flattened or Crushed Scrap Metal:

Suppliers of baled, flattened or crushed scrap metal acknowledge that they understand SSH may dispose of shredder residue derived from shred feed material (SFM) as an alternative fuel pursuant to approvals which require implementation of the Institute of Scrap Recycling Industries' Voluntary Procedures for Recycling Plastics from Shredder Residue (ISRI Voluntary Procedures). Facilities which supply SSH with baled, flattened or crushed SFM certify that their operations comply with the ISRI Voluntary Procedures (attached). Facilities supplying baled, flattened or crushed SFM will legally uphold, at a minimum, the SSH scrap acceptance policy and will inspect, remove, and properly dispose of all hazardous materials that SSH would be otherwise unable to identify within baled, flattened or crushed materials. Employee training on the requirements of the ISRI Voluntary Procedures must be completed annually and documented. Seller agrees to defend, indemnify and hold SSH harmless from any claim, penalty, fine, fee, cost or other liability (including reasonable attorney's fees at trial and appeal) resulting in whole or part from Seller's breach of this certification.

Seller Certification:

VENDOR NUMBER IF KNOWN

SELLER (COMPANY)

ADDRESS CITY, STATE & ZIP CODE

CONTACT NAME AND PHONE NUMBER

AUTHORIZED SIGNATURE DATE

91-056 Hanua Street; Kapolei, HI 96707
Phone 808-682-5810 Fax 808-682-0604

COVANTA
ENERGY
for a cleaner world

DEC - 3

Covanta Honolulu Resource Recovery Venture
91-174 Hanua St
Kapolei, HI 96707
Tel 808 682 2099
Fax 808 682 5203

RETURN RECEIPT REQUESTED
 # 7015 0640 0003 6703 1856

December 1, 2015

Mr. Nolan Hirai
Manager, Clean Air Branch
Hawaii Department of Health
919 Ala Moana Blvd., Room 203
Honolulu, HI 96814

SUBJECT: Covanta Honolulu Resource Recovery Venture
Covered Source Permit Nos. 0255-01-C & 0255-02-C
Automobile Shredder Residue (ASR) Pilot Test Results

Dear Mr. Hirai:

As you know, Covanta planned to perform trial runs of ASR processing as discussed in April 2015 with your department, the Solid and Hazardous Waste Branch (SHWB), and Schnitzer Steel Hawaii Corporation. With input from your department and the SHWB, the pilot tests were conducted in July 2015. The attached data and information includes the remaining portions of the Source Performance Test results for both the Refused Derived Fuel and Mass Burn Boilers which was previously omitted.

Based on the Source Performance Test results, a preliminary assessment indicates processing ASR may be possible while still maintaining permitted emissions limits. However, we are still evaluating all data, including equipment data as there were operational issues related to the ASR processing during the test period.

Should you have any questions, or require further information, please contact me at 682-0206 or Ms. Amanda Hayasaka at 682-0264.

Very truly yours,

Jeffrey S. Ruoss
Facility Manager

AMH iml
1512001jsr

Attachment

cc: Manny Lanuevo, City and County of Honolulu
Lene Ichinotsubo, Dept. of Health, Solid and Hazardous Waste Branch

Statement of Certification

Facility Name: Covanta Honolulu Resource Recovery Venture

Permit Numbers: 0255-01-C and 0255-02-C

Certification by Responsible Official

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Jeffrey S. Ruoss ....Name of designated responsible official
Facility Manager ....Title of responsible official

[signature] 12/1/15

Signature of responsible official Date

Covered Source Permit Nos. 0255-01-C & 0255-02-C
Source Performance Test Results

COMPLIANCE TEST REPORT

COVANTA HONOLULU RESOURCE RECOVERY VENTURE, H-POWER UNITS 1 AND 2

Source Location:

Covanta Honolulu Resource Recovery Venture, H-Power
91-174 Hanua Street
Kapolei, Hawaii 96707
Facility ID: Covered Source Permit (CSP) No. 0255-01-C

Test Dates: July 19-25 and 30-31, 2015
Issue Date: September 24, 2015

Prepared for:

Covanta Honolulu Resource Recovery Venture, H-Power
91-174 Hanua Street
Kapolei, Hawaii 96707

Prepared by:

AirKinetics, Inc.
1308 S. Allec Street
Anaheim, California 92805
(714) 254-1945 Fax: (714) 956-2350
AKI No.: 14311B

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION
AND TESTING SERVICES

COMPLIANCE TEST REPORT

COVANTA HONOLULU RESOURCE RECOVERY VENTURE, H-POWER UNITS 1 AND 2

Test Dates: July 19-25 and 30-31, 2015
Issue Date: September 24, 2015

Prepared for:
Covanta Honolulu Resource Recovery Venture, H-Power
91-174 Hanua Street
Kapolei, Hawaii 96707

Prepared by:
AirKinetics, Inc.
AKI No.: 14311B

Prepared By: _____
Jason Mai
Report Writer

Reviewed By: _____
Tony Wong
President

AirKinetics, Inc. operated in conformance with the requirements set forth in ASTM D7036-04 and AirKinetics' Quality Manual during this test project.

Certified By: _____
Tony Wong
President

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

APPENDICES

1.0 SUMMARY

1.1 Source Information

Plant Name and Address:	Covanta Honolulu Resource Recovery Venture, H-Power 91-174 Hanua Street Kapolei, Hawaii 96707
Facility ID No.:	Covered Source Permit (CSP) No. 0255-01-C
Permit ID No.:	CSP 0255-01-C
Source Tested:	Units 1 and 2 Mass Burn
Plant Contact:	Amanda Hayasaka 808-202-6530 ahayasaka@covanta.com

1.2 Testing Firm Information

Firm Name and Address:	AirKinetics, Inc. 1308 S. Allec Street Anaheim, California 92805
Firm Contact:	Tony Wong 714-254-1945 ext. 102 wongt@airkineticsinc.com
Test Personnel:	Tony Wong, President Daniel Ramos, Project Supervisor Craig Wendling, Project Supervisor Erick Estrada, Laboratory Technician Jorge Gonzalez, Team Leader Kenny Lieu, Team Leader

1.3 Test Information

Test Requested By:	Covanta Honolulu Resource Recovery Venture, H-Power
Firm Contact:	Daryll Fickling 201-970-4837 dfickling@Covanta.com
Test Objective:	To conduct Annual Source Performance Test to demonstrate compliance with the State of Hawaii Covered Source Permit No. 0255-01-C.
Test Protocol:	Covanta H-Power Units 1 & 2 Standard Emissions Source Test Plan (3988) Dated March 25, 2015

Test Dates:	July 19-25 and 30-31, 2015	
Test Methods:	EPA 1	Sampling Point Determination
	EPA 2	Velocity and Flow Rate
	EPA 3B	O_2 and CO_2
	EPA 4	Flue Gas Moisture Content
	EPA 5/202	Particulate
	EPA 9	Opacity
	EPA 13B	Hydrogen Fluoride
	EPA 23	Dioxins/Furans
	EPA 25A	VOCs
	Modified EPA 26	Hydrogen Chloride
	EPA 29	Metals
	BAAQMD ST-1B	Ammonia
Agency Contact:	Hawaii Department of Health Clean Air Branch Environmental Management Division 919 Ala Moana Boulevard, Room 203 Honolulu, HI 96814	

1.4 Subcontractors:

Laboratory Name: EPA Method 13B	Exova Louis Albanese Client Services Director (562)948-2225 Ext. 303 Louis.albanese@exova.com
Laboratory Name: EPA Method 23 Analysis	SGS Analytical Perspectives Amy Boehm (910) 667-0135 Amy.Boehm@sgs.com
Laboratory Name: EPA Method 26 And EPA Method 29 Analysis	Test America Robert Weidenfeld 916-374-4333 Robert.Weidenfeld@testamericainc.com

2.0 TEST RESULTS AND DATA PRESENTATION

The test program results are summarized in Tables 2-1 through 2-4. All data pertaining to the tests are included in the appendices to this report. The results tabulations, calculations and field data for Units 1 and 2 are presented in Appendices A and B, respectively. Analytical data is presented in Appendix C. Calibration and certification information are presented in Appendix D. Sampling method descriptions and schematics are presented in Appendix E. AETB and QI Certifications are presented in Appendix F. Raw analytical data are presented in Appendices G and H.

TABLE 2-1

UNIT NO. 1 TEST RESULTS WITH ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ppmvd @ 7% O_2					
Volatile Organic Compounds (as Carbon)	1.03	2.02	2.70	1.92	21
Hydrogen Fluoride	0.0101	0.0214	0.0104	0.0140	
Hydrogen Chloride					
Inlet	480	505	506	497	
Outlet	10.5	12.8	11.6	11.6	29
Removal Efficiency (%)	97.8	97.5	97.7	97.7	≥ 95
Ammonia	< 0.642	< 0.648	< 0.654	< 0.648	
Concentration, mg/dscm @ 7% O_2					
Particulate (Front Half)	6.84	6.46	7.25	6.85	25
Total Particulate	9.99	9.24	9.79	9.68	
Beryllium	< 0.000154	< 0.000141	< 0.000136	< 0.000144	
Cadmium	0.00103	0.000725	0.000511	0.000754	0.035
Lead	0.00654	0.00810	0.00425	0.00630	0.400
Mercury	< 0.0128	< 0.0102	< 0.00901	< 0.0107	0.050
Concentration, ng/dscm @ 7% O_2					
Total PCBs	7.26	8.18	8.40	7.95	
Total PAHs	58	3140	15	1071	
Total PCDD/PCDF*	19.0	20.8	23.3	21.1	30
Emission Rate, lb/hr					
Volatile Organic Compounds (as Carbon)	0.17	0.33	0.45	0.31	
Particulate (Front Half)	2.45	2.12	2.40	2.32	
Total Particulate	3.58	3.03	3.24	3.28	

TABLE 2-1 (Cont.)

UNIT NO. 1 TEST RESULTS WITH ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Hydrogen Fluoride	0.00309	0.00611	0.00313	0.0411	2.6
Hydrogen Chloride					
Inlet	260	291	285	279	
Outlet	5.35	6.99	6.43	6.26	
Removal Efficiency (%)	97.9	97.6	97.7	97.8	≥ 95
Ammonia	< 0.149	< 0.151	< 0.153	< 0.151	
Beryllium	< 0.0000518	< 0.0000508	< 0.0000498	< 0.0000508	0.0009
Cadmium	0.000345	0.000261	0.000187	0.000264	
Lead	0.00220	0.00292	0.00156	0.00222	
Mercury	< 0.00429	< 0.00367	< 0.00330	< 0.00376	
Opacity, %	0	0	0	0	10

< The compound catch weight was below the detection limit. The method detection limit was used to calculate the emissions.
* ND = 0, EMPC = EMPC
(1) VOC testing was conducted using USEPA Method 25A which reports VOCs as total hydrocarbons (THCs) including methane and ethane.
< The compound catch weight was below the detection limit. The reporting limit was used to calculate the emissions, except for Beryllium.

TABLE 2-2

UNIT NO. 2 TEST RESULTS WITH ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ppmvd @ 7% O_2					
Volatile Organic Compounds (as Carbon)	6.47	4.98	4.61	5.35	21
Hydrogen Fluoride	0.0247	0.0246	0.0123	0.0205	
Hydrogen Chloride					
Inlet	527	442	284	418	
Outlet	17.6	12.1	13.5	14.4	29
Removal Efficiency (%)	96.7	97.3	95.3	96.4	≥ 95
Ammonia	< 1.01	< 0.640	1.06	< 0.903	
Concentration, mg/dscm @ 7% O_2					
Particulate (Front Half)	8.47	6.46	6.13	7.02	25
Total Particulate	11.1	9.15	8.28	9.51	
Beryllium	< 0.000179	< 0.000150	< 0.000155	< 0.000161	
Cadmium	0.00119	0.000771	0.000580	0.000848	0.035
Lead	0.00759	0.00862	0.00483	0.00701	0.400
Mercury	< 0.0394	< 0.0248	< 0.0112	< 0.0251	0.050

TABLE 2-2 (Cont.)

UNIT NO. 2 TEST RESULTS WITH ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ng/dscm @ 7% O_2					
Total PCBs	6.28	5.80	6.09	6.06	
Total PAHs	518	0	416	311	
Total PCDD/PCDF*	17.6	17.9	23.2	19.6	30
Emission Rate, lb/hr					
Volatile Organic Compounds (as Carbon)	1.04	0.80	0.83	0.89	
Particulate (Front Half)	2.73	2.34	2.14	2.40	
Total Particulate	3.57	3.31	2.89	3.26	
Hydrogen Fluoride	0.00663	0.00657	0.00326	0.00549	2.6
Hydrogen Chloride					
Inlet	257	243	151	217	
Outlet	8.61	6.67	7.13	7.47	
Removal Efficiency (%)	96.7	97.3	95.3	96.4	≥ 95
Ammonia	< 0.230	< 0.164	0.261	< 0.218	
Beryllium	< 0.0000560	< 0.0000528	< 0.0000529	< 0.0000539	0.0009
Cadmium	0.000373	0.000272	0.000198	0.000281	
Lead	0.00237	0.00304	0.00165	0.00236	
Mercury	< 0.0123	< 0.00876	< 0.00382	< 0.00830	
Opacity, %	0	0	0	0	10

< The compound catch weight was below the detection limit. The method detection limit was used to calculate the emissions.
* ND = 0, EMPC = EMPC
(1) VOC testing was conducted using USEPA Method 25A which reports VOCs as total hydrocarbons (THCs) including methane and ethane.
< The compound catch weight was below the detection limit. The reporting limit was used to calculate the emissions, except for Beryllium.

TABLE 2-3

UNIT NO. 1 TEST RESULTS WITHOUT ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ng/dscm @ 7% O_2					
Total PCBs	31.8	18.5	15.0	21.8	
Total PAHs	0	6721	830	2517	
Total PCDD/PCDF*	16.5	13.6	17.8	16.0	30

* ND = 0, EMPC = EMPC

TABLE 2-4

UNIT NO. 2 TEST RESULTS WITHOUT ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ng/dscm @ 7% O_2					
Total PCBs	3.25	5.08	2.49	3.60	
Total PAHs	0	22	0	7	
Total PCDD/PCDF*	2.34	3.86	1.72	2.64	30

* ND = 0, EMPC = EMPC

COMPLIANCE TEST REPORT

COVANTA HONOLULU RESOURCE RECOVERY VENTURE
UNIT 3

Source Location:

Covanta Honolulu Resource Recovery Venture
91-174 Hanua Street
Kapolei, Hawaii 96707
Facility ID: Covered Source Permit (CSP) No. 0255-02-C

Test Dates: July 6-11 and 27, 2015
Issue Date: September 15, 2015

Prepared for:

Covanta Honolulu Resource Recovery Venture
91-174 Hanua Street
Kapolei, Hawaii 96707

Prepared by:

AirKinetics, Inc.
1308 S. Allec Street
Anaheim, California 92805
(714) 254-1945 Fax: (714) 956-2350
AKI No.: 14310

AirKinetics, Inc.
EMISSIONS CHARACTERIZATION
AND TESTING SERVICES

COMPLIANCE TEST REPORT

COVANTA HONOLULU RESOURCE RECOVERY VENTURE
UNIT 3

Test Dates: July 6-11 and 27, 2015
Issue Date: September 15, 2015

Prepared for:
Covanta Honolulu Resource Recovery Venture
91-174 Hanua Street
Kapolei, Hawaii 96707

Prepared by:
AirKinetics, Inc.
AKI No.: 14310

Prepared By: _____
Jason Mai
Report Writer

Reviewed By: _____
Tony Wong
President

AirKinetics, Inc. operated in conformance with the requirements set forth in ASTM D7036-04 and AirKinetics' Quality Manual during this test project.

Certified By: _____
Tony Wong
President

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

APPENDICES **Page**

1.0 SUMMARY

1.1 Source Information

Plant Name and Address:	Covanta Honolulu Resource Recovery Venture 91-174 Hanua Street Kapolei, Hawaii 96707
Facility ID No.:	Covered Source Permit (CSP) No. 0255-02-C
Permit ID No.:	CSP 0255-02-C
Source Tested:	Unit 3 Mass Burn
Plant Contact:	Amanda Hayasaka 808-682-0264 ahayasaka@covanta.com

1.2 Testing Firm Information

Firm Name and Address:	AirKinetics, Inc. 1308 S. Allec Street Anaheim, California 92805
Firm Contact:	Tony Wong 714-254-1945 ext. 102 wongt@airkineticsinc.com
Test Personnel:	Tony Wong, President Daniel Ramos, Project Supervisor Erick Estrada, Project Supervisor Craig Wendling, Project Supervisor Kelly Nguyen, Team Leader

1.3 Test Information

Test Requested By:	Covanta Honolulu Resource Recovery Venture
Firm Contact:	Daryll Fickling 862-345-5031 dfickling@Covanta.com
Test Objective:	To conduct Annual Source Performance Test to demonstrate compliance with the State of Hawaii Covered Source Permit No. 0255-02-C.
Test Protocol:	Covanta H-Power Unit 3 Standard Emissions Source Test Plan (4002) Dated May 29, 2015, revised schedule June 16, 2015

Test Dates:	July 6-11 and 27, 2015	
Test Methods:	EPA 1	Sampling Point Determination
	EPA 2	Velocity and Flow Rate
	EPA 3B	O_2 and CO_2
	EPA 4	Flue Gas Moisture Content
	EPA 5/29	Particulate and Metals
	EPA 3A, 6C, 7E, and10	O_2, CO_2, SO_2, NO_x, & CO
	EPA 8	Sulfuric Acid Mist
	EPA 9	Opacity
	EPA 13B	Hydrogen Fluoride
	EPA 22	Fugitive Emissions
	EPA 23	Dioxins/Furans, PCBs, and PAHs
	EPA 25A	VOCs
	Modified EPA 26	Hydrogen Chloride
	EPA 29	Metals
	EPA 201A/202	$PM_{2.5}$ and PM_{10}
	BAAQMD ST-1B	Ammonia
Agency Contact:	Hawaii Department of Health Clean Air Branch Environmental Management Division 919 Ala Moana Boulevard, Room 203 Honolulu, HI 96814	

1.4 Subcontractors:

Laboratory Name: EPA Methods 8 and 13B	Exova Louis Albanese Client Services Director (562)948-2225 Ext. 303 Louis.albanese@exova.com
Laboratory Name: EPA Method 23 Analysis	SGS Analytical Perspectives Amy Boehm (910) 667-0135 Amy.Boehm@sgs.com
Laboratory Name: EPA Method 26 and EPA Method 29 Analysis	Test America Karen Dahl 916-374-4384 Karen.dahl@testamericainc.com

2.0 TEST RESULTS AND DATA PRESENTATION

The test program results are summarized in Tables 2-1 through 2-3. All data pertaining to the tests are included in the appendices to this report. The results tabulations, calculations and field data for Unit 3 are presented in Appendix A. Fugitive emissions data is presented in Appendix B. Analytical data is presented in Appendix C. Calibration and certification information are presented in Appendix D. Sampling method descriptions and schematics are presented in Appendix E. AETB and QI Certifications are presented in Appendix F. Raw analytical data are presented in Appendices G and H.

TABLE 2-1

UNIT NO. 3 TEST RESULTS WITH ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ppmvd @ 7% O_2					
Sulfur Dioxide	0.33	2.57	0.34	1.08	44
Nitrogen Oxides	101	107	94.5	101	110
Carbon Monoxide	19.4	16.8	19.1	18.4	100
Volatile Organic Compounds (VOCs) as methane	1.84	1.85	3.72	2.47	10
Sulfuric Acid	1.09	0.95	1.06	1.03	5
Hydrogen Fluoride	0.0231	0.0119	0.0107	0.0152	3.5
Hydrogen Chloride					
Inlet	564	555	554	558	
Outlet	4.41	5.71	4.48	4.87	25
Removal Efficiency (%)	99.2	99.0	99.2	99.1	≥ 95
Ammonia					15
Concentration, mg/dscm @ 7% O_2					
Particulate (Front Half)	0.932	1.58	1.65	1.39	12
$PM_{2.5}$	6.79	33.8	26.4	22.3	30
PM_{10}	7.35	33.8	26.5	22.6	32
Concentration, ug/dscm @ 7% O_2					
Beryllium	< 0.154	< 0.153	< 0.156	< 0.154	
Cadmium	1.02	0.79	0.58	0.80	10
Lead	6.52	8.83	4.86	6.74	140
Mercury					
Inlet	54.6	30.5	24.1	36.4	
Outlet	< 0.917	< 1.13	< 0.688	< 0.912	28
Removal Efficiency (%)	98.3	96.3	97.1	97.5	
Concentration, ng/dscm @ 7% O_2					
Total PCBs	8.15	9.32	7.09	8.19	
Total PAHs	0	0	0	0	
Total PCDD/PCDF*	1.07	0.914	0.425	0.804	13

< The compound catch weight was below the detection limit. The method detection limit was used to calculate the emissions.
* ND = 0, EMPC = EMPC

TABLE 2-1

UNIT NO. 3 TEST RESULTS WITH ASR (CONT.)

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Emission Rate, lb/hr					
Particulate (Front Half)	0.363	0.633	0.618	0.538	
$PM_{2.5}$	2.50	11.5	10.0	8.00	
PM_{10}	2.71	11.5	10.1	8.08	
Sulfur Dioxide	0.35	2.64	0.37	1.12	
Nitrogen Oxides	76.3	80.1	72.9	76.4	
Carbon Monoxide	8.87	7.69	8.99	8.52	
Volatile Organic Compounds (as Carbon)	0.36	0.36	0.75	0.49	
Sulfuric Acid	1.78	1.41	1.82	1.67	
Hydrogen Fluoride	0.00732	0.00374	0.00362	0.00489	
Hydrogen Chloride					
Inlet	366	325	318	336	
Outlet	2.46	2.94	2.58	2.66	
Removal Efficiency (%)	99.3	99.1	99.2	99.2	≥ 95
Ammonia	0.203	0.211	0.169	0.194	
Beryllium	< 5.99E-05	< 6.14E-05	< 5.81E-05	< 5.98E-05	
Cadmium	4.00E-04	3.16E-04	2.18E-04	3.11E-04	
Lead	2.54E-03	3.54E-03	1.82E-02	2.63E-03	
Mercury					
Inlet	0.0231	0.0132	0.00982	0.0154	
Outlet	< 3.58E-04	< 4.53E-04	< 2.57E-04	< 3.56E-04	
Removal Efficiency (%)	98.4	96.6	97.4	97.7	
Emission Rate, lb/day					
Mercury					
Outlet	< 0.00858	< 0.0109	< 0.00617	< 0.00854	7.1
Opacity, %	0	0	0	0	10

[1] VOC testing was conducted using USEPA Method 25A which reports VOCs as total hydrocarbons (THCs) including methane and ethane.
< The compound catch weight was below the detection limit. The reporting limit was used to calculate the emissions, except for Baryllium.

TABLE 2-2

UNIT NO. 3 TEST RESULTS WITHOUT ASR

	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Concentration, ng/dscm @ 7% O_2					
Total PCBs	11.9	8.05	17.8	12.6	
Total PAHs	0	0	0	0	
Total PCDD/PCDF*	0.790	0.932	0.511	0.744	13

* ND = 0, EMPC = EMPC

TABLE 2-3

ASH HANDLING SYSTEM RESULTS

PARAMETER	RUN 1	RUN 2	RUN 3	AVERAGE	LIMIT
Fugitive, %	0	0	0	0	5*

* % is amount of time that visible emissions occur during the observation period.