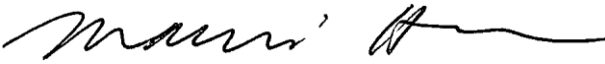


<b>Title</b> Requirements for Qualified Construction and Demolition Receiving and Recycling Facilities	<b>Number</b> SW-405.1	<b>Rev. no.</b> 1
<b>Responsibility</b> Solid Waste Line of Business	<b>Supersedes</b> N/A	<b>Pages</b> 7
<b>General Manager/CEO Approval</b>  Mami Hara	<b>Effective Date</b> June 1, 2017	

**1. PURPOSE**

Seattle Municipal Code 21.36.089 prohibits recyclable materials from disposal in construction and demolition garbage containers and intermodal containers, as well as at the City's transfer station:

- Concrete, bricks and asphalt paving (effective 2012)
- Metal (both ferrous and non-ferrous), cardboard and new construction gypsum scrap (effective 2014)
- Unpainted and untreated wood (effective 2015)
- Tear-off asphalt shingles, carpet and plastic film wrap (effective July 2018)

The General Manager/ CEO of Seattle Public Utilities may adopt a different implementation schedule for any one of the recyclable materials in this section if end markets for these materials are not available or in the event of local receiving or recycling facility closures.

The ordinance also directs SPU through administrative rulemaking to establish criteria for identifying qualified receiving and recycling facilities that meet construction and demolition (C&D) recycling requirements. The criteria are to address, at minimum, compliance with permitting requirements, reporting on incoming and outgoing C&D materials, and performance standards for restricting banned materials from residuals bound for landfill disposal. The General Manager/CEO is to publish an initial list of qualified receiving and recycling facilities by January 1, 2014.

**2. DEFINITIONS**

*Beneficial Use:* As defined in SMC 21.36.010, the use of solid waste as an ingredient in a manufacturing process, or as an effective substitute for natural or commercial products in a manner that does not pose a threat to human health or the environment. Avoidance of processing or disposal cost alone does not constitute beneficial use.

SPU Director's Rule DR-01-07 has defined uses of C&D materials which qualify as beneficial use. These include unpainted and untreated construction wood waste processed into wood chips for use as hog fuel at paper pulp mills or fuel for industrial boilers. Beneficial use does not include processed and unprocessed wastes used as alternative daily cover or industrial waste stabilizer at a landfill.

*C&D Residuals:* The leftovers from sorting activities at construction and demolition mixed waste recycling facilities such as screened fines, post-processing residual waste, alternative daily cover, and industrial waste stabilizer.

*Disposal:* Disposal of materials in a landfill or solid waste incinerator (with or without energy recovery) or placement of processed or unprocessed waste as “alternative daily cover” or “industrial waste stabilizer” at a landfill.

*Mixed Waste Recycling Facilities:* Permitted material recovery facilities that receive mixed recyclable and non-recyclable C&D materials for sorting and processing for a variety of end markets.

*Qualified Receiving and Recycling Facilities:* Source separated recycling facilities, mixed waste recycling facilities or receiving facilities that meet the criteria established in this Director’s Rule. Disposal-only receiving facilities are not qualified facilities under this rule.

*Receiving Facilities:* Interim solid waste handling sites, such as permitted solid waste transfer stations, drop boxes, bailing and compaction sites, and source separation centers, which are not the final site of recycling or processing activities.

*Recycling:* As defined in SMC 21.36.016.2, transforming or remanufacturing waste materials into usable or marketable materials for use other than incineration (including incineration for energy recovery) or other methods of disposal.

SPU Director’s Rule DR-01-07 has defined the processing of C&D materials which qualifies as “recycling.” These processes include transforming untreated and unpainted wood into wood/plastic composite lumber or mulch, gypsum scrap into new wallboard, asphalt shingles into hot mix paving applications, carpet into new carpet or molded plastic products, concrete into new concrete, metals into new metal products, and cardboard into corrugated medium.

*Source Separated Recycling Facilities:* Facilities that receive one material stream from generators or haulers.

### **3. RULE**

#### **CRITERIA FOR QUALIFIED RECEIVING AND RECYCLING FACILITIES**

##### **A. Permits and Regulatory Compliance**

In general, qualifying facilities must obtain all applicable solid waste handling, stormwater management, and air quality permits, and be in compliance with local building, zoning, and flow control regulations. Facilities should also have procedures and monitoring programs in place for keeping out asbestos containing building materials or those with hazardous constituents. The following are requirements for specific facilities:

1. Source separated recycling facilities shall have notified the Washington State Department of Ecology and the local health jurisdiction of their intent to conduct recycling in accordance with WAC 173-350-210 and maintained this solid waste permit exempt status.
2. Receiving facilities shall have a solid waste handling permit from the local health jurisdiction and be in compliance with local flow control regulations.

3. Mixed waste recycling facilities shall have a solid waste handling permit from the local health jurisdiction and be in compliance with local flow control regulations.

#### B. Facility Scales and Weight Receipts

1. Source separated recycling facilities are not required to have scales but must provide all customers from a Seattle construction and demolition project with a receipt that identifies the material delivered for recycling and the estimated cubic yards of this material delivered for recycling. If the facility does have certified scales, the receipts should show the net weight of the load.
2. Receiving facilities and mixed waste recycling facilities are required to have certified scales, and all incoming C&D must be weighed upon arrival at the facility. Scalehouse tickets and customer receipts must clearly identify the material type (such as source separated wood or mixed C&D) and the net weight of the load.
3. Receiving facilities that transfer C&D materials to a mixed waste recycling facility for sorting, must weigh outgoing loads to that facility.

#### C. Protocols at Receiving Facilities

1. Receiving facilities that transfer wastes only to disposal destinations must notify customers that materials banned from landfill disposal are not accepted.
2. Receiving facilities that transfer to recycling destinations must have separate recycling tipping areas for the materials banned from landfill disposal or must transload recyclable construction and demolition materials to a qualified mixed waste recycling facility.

#### D. Annual Recycling Report to City of Seattle

1. All facilities, including source-separated recycling facilities, regardless of location, shall submit the Seattle Recycling Annual Report to the City of Seattle by the end of March of each year, reporting tonnage delivered for recycling from Seattle construction job sites, businesses, or residences.
2. Facilities not located in the city do not need to report a Seattle business license unless they also collect materials from within the city using their own staff and equipment.
3. Facilities not located in the city and that do not collect materials from within the city using their own staff and equipment shall report a Universal Business Identifier (UBI) number.

#### E. Monthly Reporting to SPU on Inbound and Outbound materials by Receiving and Mixed Waste Recycling Facilities

All qualified receiving facilities and mixed waste recycling facilities must submit a monthly report to SPU on a standard template provided by SPU and King County on inbound and outbound materials for reuse, recycling, and beneficial use and disposal with inbound materials from Seattle identified separately from that of King County or other counties. Source separated recycling facilities are not required to submit the monthly reports.

1. The standard monthly report spreadsheet lists inbound tons by origin, hauler type, and material type in the following manner:
  - Seattle origin construction materials (tons) broken out by individual source-separated material types, "mixed C&D for recycling" for mixed C&D loads delivered for recycling and "C&D for disposal" for non-recyclable C&D.

- King County origin construction materials (tons) broken out by individual source-separated material types, “mixed C&D for recycling” for mixed C&D loads for recycling and “C&D for disposal” for non-recyclable C&D.
  - Other county origin construction materials (tons) broken out by individual source-separated material types, “mixed C&D for recycling” for mixed C&D loads for recycling and “C&D for disposal” for non-recyclable C&D.
  - Hauler type includes the categories of “self-haul” or a private company’s account name (if a major recycling hauling company or a franchised hauling company).
2. The standard monthly report lists outbound tons by material type and destination:
    - a) Source separated tons shipped to a named processor
    - b) Mixed C&D tons “transloaded” to another “qualified” mixed C&D recycling facility for sorting of the mixed material
    - c) Outbound tonnages by processed material to different recycling end-markets such as manufacturing or reuse companies.
    - d) Outbound tonnages by processed material to beneficial use end markets such as pulp and paper mills or industrial boilers.
    - e) Outbound tonnages to landfill disposal for “direct disposal,” “alternative daily cover,” or “industrial waste stabilizer” with identification of the receiving landfill.
    - f) A monthly estimate (~~(will be made)~~) of the amount of material remaining in stockpiles on-site awaiting processing.

#### F. Sampling of Processing Residuals from Mixed Waste Recycling Facilities

1. SPU or its consultants will begin a residual monitoring program in March 2014 to ensure targeted recyclable materials are not disposed. Facilities must allow SPU or its consultants reasonable access to residual stockpiles for sampling which may not necessarily be scheduled in advance. Facilities are encouraged to undertake their own testing program.
2. The residual monitoring program is focused on targeted materials subject to the City’s disposal bans that exceed the size thresholds listed in Section G (2) of this rule.
3. Mixed waste recycling facilities are expected to do sorting. Facilities that regularly practice size reduction, as through grinding of material for direct disposal in a landfill or incinerator or to be used as alternative daily cover without any sorting of inbound materials, shall have all residual materials below these size thresholds subject to sampling and characterization for compliance with the City’s disposal bans.
4. SPU or its consultants will visit mixed waste processing facilities 2-4 times per year to sample residual according to the weight based sampling method in “City of Seattle C&D Processing Residuals Method Sampling Protocol” to be posted on the SPU Construction Waste website and in other relevant City publications.
5. The operating procedures of a facility may also be evaluated by SPU for compliance with the City’s disposal bans.
6. The results of sampling by SPU or its consultants shall be shared with individual facility operators. The results for any one visit will not mean removing a facility from the list of qualified facilities which meet the criteria set forth under Section 3. Multiple violations during a year could mean that a facility is removed from the City’s list.
7. The facility may request reinstatement based on the installment of new processing equipment, changes to sort line procedures and the facilities’ own testing procedures. The City will review all the submitted documentation, check with local regulators as to permits and other regulatory issues, and revisit the facility for another round of sampling. The results of the City’s review and sampling reassessment will be communicated to the

facility in writing. The facility will either be placed back on the list of qualified facilities or be kept off of the list until compliance in all areas is determined.

G. Residual Standard for Recyclable Materials for Sampling at Mixed Waste Recycling Facilities

The General Manager/ CEO may adopt a different implementation schedule for any one of the recyclable materials in this section if end markets for these materials are not available or in the event of local receiving or recycling facility closures.

1. Quantity and Dimensions of Target Materials

As of January 1, 2014, the residual from processing may not contain more than 10 percent by total combined weight the following materials.

- a) Concrete, asphalt paving, and bricks – more than 6 inches in its longest dimension
- b) Metal – more than 6 inches in its longest dimension
- c) Cardboard – more than 8 inches in its longest dimension
- d) New construction gypsum scrap – more than 6 inches in its longest dimension

As of January 1, 2015, the residual from processing may not contain more than 10 percent, by total combined weight, of all the construction materials listed above plus the following materials:

- e) Unpainted/untreated wood – more than 6 inches in its longest dimension

As of July 2018, the residual from processing may not contain more than 10 percent, by total combined weight, of all the construction materials listed above plus the following materials:

- f) Tear-off asphalt shingles – more than 8 inches in its longest dimension
- g) Carpet - more than 12 inches in its shortest dimension
- h) Plastic Film Wrap – more than 12 inches in its shortest dimension

2. Other Specifications for Targeted Materials

- a) Concrete, asphalt paving, and bricks – Concrete with or without rebar, asphalt paving and bricks in pieces greater than 6 inches in its longest dimension that are unpainted, do not contain a hazardous constituent and are not attached to other materials. Does not include other types of aggregate material.
- b) Metal – Includes tin/steel food cans, major appliances, other ferrous, aluminum cans and other nonferrous metals greater than 6 inches in its longest dimension. Mixed recoverable metal means composite, multimetal products or products with nonmetal contaminants. The metal content must be more than 90 percent by weight of the material.
- c) Carpet – Carpet that is greater than 12 inches in its shortest dimension and is dry and free of contamination such as paint, grease, grime or dirt. This category does not include rugs, carpet pads, or underlayments.
- d) Cardboard – Cardboard that is greater than 8 inches in its longest dimension and can have tape, staples, and other fasteners and is free of contamination such as paint, grease, grime or dirt.

- e) Plastic film wrap – Plastic film wrap used to package or wrap commercial and industrial products that is at least 12 inches in its shortest dimension. Examples include shrink-wrap and Tyvek building wrap that are dry and free of excessive contamination such as paint, grease, grime, or dirt.
- f) New construction gypsum scrap – Unpainted gypsum wallboard greater than 6 inches in its longest dimension that can be used or unused, broken or whole sheets that does not have adhering spackling compound.
- g) Unpainted/untreated wood – Unpainted and untreated, or stained new and demolition scrap lumber, such as 2 by 4's, 2 by 6's, 2 by 12's, and other residual materials from framing and related construction activities. It also includes engineered wood, pallets and crates in lengths greater than 6 inches in its longest dimension. Such wood can have nails, screws, and metal fasteners. It does not include particle board or laminated veneer wood.
- h) Tear-off asphalt roofing shingles – Composite asphalt shingles and attached roofing tar, and tar paper in lengths greater than 8 inches in its longest dimension.

H. Calculation of Facility Diversion Rates

1. SPU will calculate the quarterly diversion rates (recycling and beneficial use) for the “qualified” mixed C&D recycling facilities based on the monthly data received from those operations using the following methodology:

Total Inbound tonnage will be used as the basis (denominator) for diversion calculations, with outbound tons recycling, outbound tons beneficial use and, where applicable, tons diverted from loads transferred for processing at another facility (transloaded) in the numerator.

$$\text{Diversion}\% = \frac{(\text{Outbound Recycle}) + (\text{Outbound Beneficial Use}) + (\text{Diversion from Transfer})}{(\text{Total Inbound})}$$

On-site storage of materials at some facilities due to the seasonality of material flows and end markets may produce a much lower or much higher (even greater than 100%) diversion rate on a monthly basis. A rolling four quarter average will be published as well as a quarterly rate in order to soften seasonal fluctuations for those facilities that do on-site processing and storage and are not strictly transload or sorting operations.

Facilities that are part of the national Recycling Certification Institute’s (RCI) Certification of Real Rates (CORR) program may instead have their CORR program verified rates published if requested.

2. Soil, sand, rock, gravel and landclearing materials (trees, bushes and other vegetation) will not be counted when calculating the C&D facility diversion rates.
- I. Publication by SPU of List of Seattle Qualified Receiving and Recycling Facilities

The initial list of qualified facilities that meet the criteria set forth under Section 3 of this Director’s Rule will be published by January 1, 2014 and updated quarterly. Requests to be placed on the list can be made at any point to the SPU Project Manager through an e-mail address posted on the SPU Construction Waste website. Facilities which provide adequate documentation of their permitting status can be added through the quarterly updates. They

will be expected to send in monthly reports on the standard SPU and King County reporting template and participate in the residuals sampling program.

SPU will post the list of qualified facilities on the SPU Construction Waste website and in other relevant City publications. The list will be accessible to all building permit applicants who need to file a Waste Diversion Plan and/or Deconstruction and Salvage Assessment during the building permit application process and a Waste Diversion Report at the end of their projects.

#### 4. AUTHORITY/REFERENCES

- SMC 21.36.089, Prohibiting Recyclable Material from Disposal in Construction and Demolition Garbage Containers
- SMC 21.36.089.E.1, Qualified Receiving and Recycling Facilities
- SMC 21.36.089.E.2, Waste Diversion Reports  
City of Seattle C&D Processing Residuals Weighing Method Sampling Protocol, July 2013, <http://www.seattle.gov/util/ForBusinesses/Construction/CDWasteManagement/RecyclingRequirements/CertifiedFacilities>.
- Seattle Recycling Annual Report form and instructions for 2016  
<http://www.seattle.gov/util/ForBusinesses/SolidWaste/RecyclingBusinesses/RecyclerAnnualReports/index.htm>
- Standard Monthly CD Report Template 2016  
<http://www.seattle.gov/util/ForBusinesses/Construction/CDWasteManagement/RecyclingRequirements/CertifiedFacilities>.
- “Construction and Demolition (C&D) Stockpiles” Technical Memorandum, Herrera Environmental Consultants, Nov 11, 2016 to King County Green Tools Program.