




Title Requirements for Qualified Construction and Demolition Receiving and Recycling Facilities		Number SW-620	Rev. no. 1
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General Manager/CEO signature  <small>Andrew Lee (Jan 25, 2022 16:47 PST)</small>	Approval date Jan 25, 2022	Effective date February 1, 2022	

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
- Metal (both ferrous and non-ferrous), cardboard, and new construction gypsum scrap
- Unpainted and untreated wood
- Tear-off asphalt shingles, carpet, and plastic film wrap

Refer to SPU Director's Rule SW-640 or subsequent rules for disposal ban implementation schedule delays.

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 maintain a list of qualified receiving and recycling facilities.

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. 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:
- Source separated tons shipped to a named processor.
 - Mixed C&D tons “transloaded” to another “qualified” mixed C&D recycling facility for sorting of the mixed material.
 - Outbound tonnages by processed material to different recycling end-markets such as manufacturing or reuse companies.
 - Outbound tonnages by processed material to beneficial use end markets such as pulp and paper mills or industrial boilers.
 - Outbound tonnages to landfill disposal for “direct disposal,” “alternative daily cover,” or “industrial waste stabilizer” with identification of the receiving landfill.
 - A monthly estimate of the amount of material remaining in stockpiles on-site awaiting processing.

F. Sampling of Processing Residuals from Mixed Waste Recycling Facilities

Qualifying facilities must participate in the processing residual sampling program (described below).

- 1) SPU, King County Solid Waste Division, or their consultants conduct a residual monitoring program to ensure targeted recyclable materials are not disposed. Facilities must allow SPU, King County Solid Waste Division, or their consultants reasonable access to residual stockpiles for sampling which may not necessarily be scheduled in advance.
- 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) 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, King County Solid Waste Division, or their consultants will visit mixed waste processing facilities at least annually 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. SPU will review all the submitted documentation, check with local regulators as to permits and other regulatory issues, and may revisit the facility for another round of

sampling. The results of SPU'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 the list until compliance in all areas is determined.

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

The residual from processing may not contain more than 10 percent by total combined weight of materials banned from disposal. SPU 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. Refer to SPU Director's Rule SW-640 or subsequent rules for disposal ban implementation schedule delays.

1) Quantity and Dimensions of Target 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
- e) Unpainted/untreated wood – more than 6 inches in its longest dimension
- 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. Annual averages will be published as well as quarterly rates to soften seasonal fluctuations for those facilities that do on-site processing and storage and are not strictly transload or sorting operations.

- 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. Third-Party Verification of Facility Diversion Rates

All qualified receiving facilities must participate in third-party verification. The verification methodology should adhere to certification standards such as Recycling Certification Institute’s Certification of Recycling Rates (CORR) Protocol, as recognized by organizations like the U.S. Green Building Council.

J. Publication by SPU of List of Seattle Qualified Receiving and Recycling Facilities

As of January 1, 2014, the list of qualified facilities that meet the criteria set forth in this Director’s Rule will be 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 can be added through the quarterly updates.

SPU will post the list of qualified facilities on the SPU Construction Waste website and in other relevant City publications.

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 Public Utilities Director’s Rules: <http://www.seattle.gov/utilities/about/policies>
- Seattle Recycling Annual Report form and instructions
<http://www.seattle.gov/utilities/businesses-and-key-accounts/solid-waste/recycling/recycler-annual-reports>
- Standard Monthly CD Report Template
<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