



Date: June 7, 2016
To: Solid Waste Alternatives Advisory Committee (SWAAC)
From: Roy Brower, Chair – Material Recovery Facility/Conversion Technology Subcommittee (MRF/CT)
Subject: **DRAFT** MRF/CT Subcommittee Recommendations **DRAFT**

Executive Summary

This document provides the MRF/CT Subcommittee recommendation to SWAAC regarding Metro's role in oversight and regulation of material recovery facilities that process source-separated recyclable materials (SSR MRFs). This recommendation was developed after holding five subcommittee meetings that evaluated this class of facilities, discussed public impacts and reviewed the public benefits of increased oversight. This document addresses recommendations for SSR MRFs and single stream recyclers. Conversion technology (CT) facility regulation will be addressed in a subsequent recommendation memo.

The key recommendations are as follow:

1. **Authorization required for SSR MRFs.** Material recovery facilities that receive and process commingled residential and commercial source-separated recyclable materials should be authorized and inspected by Metro similar to other classes of material recovery facilities.
2. **Establish broad operating standards for SSR MRFs.** SSR MRFs should be subject to general operating standards similar to those for other material recovery facilities and meet the following goals described in Metro Code Chapter 5.01:
 - a. Protect the environment
 - b. Ensure human health and safety
 - c. Avoid nuisances
 - d. Ensure material recovery
 - e. Ensure record-keeping and reporting
3. **Maintain Metro Code exemption for single stream recyclers.** Facilities that exclusively receive and process single stream materials that have intrinsic value and well-established markets (such as scrap metal, plastics, paper/fiber or other similar commodities) should continue to be exempt from obtaining Metro authorization.

Background

This document provides background information leading to the MRF/CT Subcommittee recommendations regarding Metro's potential role in oversight and regulation of SSR MRFs that receive and process commingled recyclable materials (aka "curbside recyclable materials"). These

are also known as “program” recyclable materials which local collection programs prioritize for recovery.

In early 2015 Metro staff proposed updates to Metro’s solid waste code (Title V: Solid Waste) in order to bring greater consistency and flexibility in how Metro reviews and authorizes solid waste facilities and bring greater transparency to ensure that different classes of solid waste facilities handle materials responsibly to protect the environment and the public’s health.

As the agency tasked with planning and management of the region’s solid waste system, Metro has an obligation to the public to ensure the materials intended for reuse, recycling, and other purposes are handled properly and sent to appropriate and legitimate markets. Certain facilities have been largely exempted from Metro’s licensing and oversight responsibilities, creating different rules for similar types of facilities and limiting Metro’s ability to ensure that discarded materials are handled properly. Metro is also obligated to ensure that facilities operate in a way that protects the health and safety of the public, local communities, and environment.

A public workshop was held in September 2015 at which Metro staff presented information about a range of proposed changes to the solid waste code. These proposed changes included closing regulatory exemptions for certain types of wood waste processing facilities, solid waste reload facilities, e-waste processing facilities, SSR MRFs, and conversion technology facilities, as well as clarifying the types of waste that qualify for Metro’s reduced fee and tax rate, and exemptions.

Industry expressed considerable concern regarding some of the proposed code changes. Additionally, many stakeholders expressed concerns about the transparency of Metro’s code adoption process and not having adequate opportunity to provide meaningful input.

Staff shared the feedback it received with the Metro Council at a work session on Oct. 22, 2015. Metro Council endorsed the staff proposal to establish an improved and more rigorous process for considering changes to the solid waste code. Metro Council further endorsed the staff proposal to recommend that SWAAC establish two subcommittees to separately consider: (1) Metro regulation of material recovery and conversion technology facilities; and (2) existing solid waste fee and tax exemptions.

December 9, 2015, SWAAC voted to form a MRF/CT Subcommittee and provided staff with recommendations on the composition of that subcommittee. This paper documents the findings and recommendations of the MRF/CT Subcommittee.

Metro Council Direction

Metro Council has established that the region’s solid waste management system should deliver and consider the following public benefits:

1. Protect people’s health
2. Protect the environment
3. Maintain our commitment to the solid waste hierarchy as set forth in state law
4. Get good value for the public’s money
5. Maintain a system that is flexible and adaptable to changing needs and circumstances

6. Ensure adequate and reliable services are available to all customers

These public benefits guide the work of the Solid Waste Roadmap projects, Regional Solid Waste Management Plan (RSWMP) development, SWAAC, proposed Metro code changes, and the MRF/CT Subcommittee.

Facilities that receive and process source-separated commingled recyclable materials have the potential to negatively impact the environment, public health and safety, and adjoining businesses and neighborhoods. These types of facilities are periodically a source of litter, odor, dust, and vectors. In addition, certain operational practices at these facilities may cause the degradation and destruction of recyclable materials making them less marketable or unmarketable.

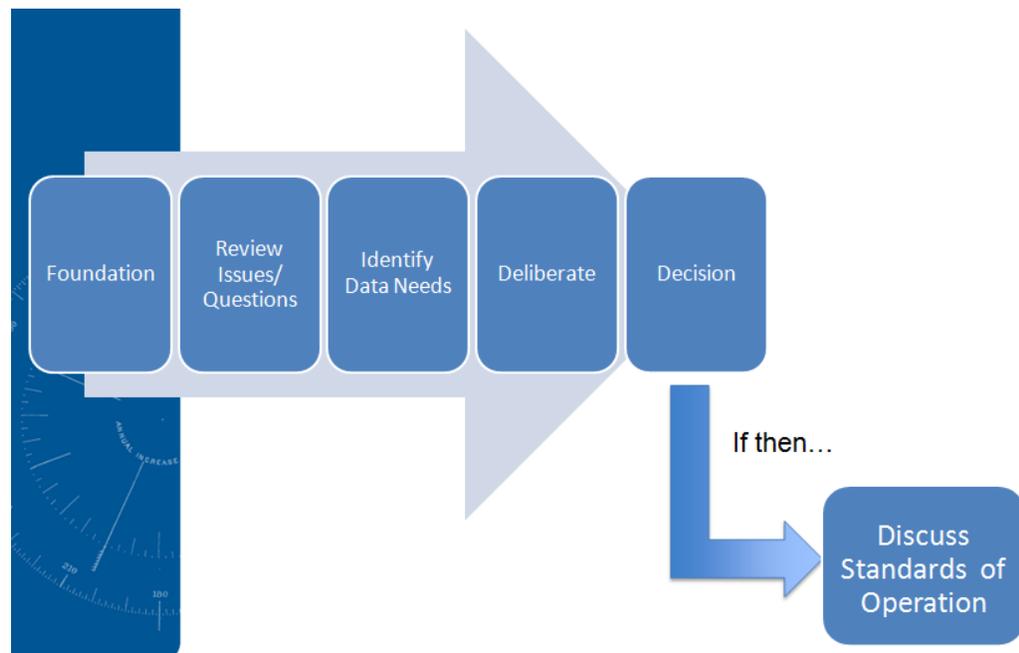
These are issues of concern for Metro, local governments, advocacy groups, and some industry stakeholders. Therefore, Metro staff initiated a process to consider regulatory oversight of SSR MRFs.

Subcommittee Purpose

The charge of the MRF/CT Subcommittee was as follows:

Material recovery facility (MRF) and conversion technology (CT) regulation. Consider whether MRFs that process source-separated recyclable materials and facilities that convert waste to energy or fuel should be subject to licensing and inspection requirements similar to other solid waste facilities. If so, which requirements are appropriate for such facilities? This document addresses recommendations for SSR MRFs only. CT facility regulation will be addressed in a subsequent memo.

The work of the Subcommittee has generally followed the process flow shown in the diagram below for discussing first SSR MRFs and single stream recyclers, and second for discussing conversion technology facilities:



Source-Separated Recycling System Changes

The primary purpose of the Subcommittee was to consider the changes that have happened in the region's recycling infrastructure (especially the source-separated curbside system) and how those changes have altered how SSR MRFs operate as well as potential negative impacts resulting from those operations. The intent of the Subcommittee was to evaluate whether Metro should have a greater oversight role at these facilities that function very differently than they did when first exempted from Metro's licensing and inspection requirements.

In the 1990's Metro exempted facilities that process source separated recyclable materials from licensing. Since that time several changes have occurred which have contributed to Metro's potential need to regulate SSR MRFs.

Set-out practices and collection systems have evolved significantly from the early days of curbside collection when materials were placed at the curb separately from one another (bundled, bagged, or otherwise sorted into multiple bins). The last 15 years have seen a movement to "commingle" program materials together at the curb (though glass still remains "on the side"). This shift was initiated by local governments and haulers who desired to make recycling more convenient for the generator (less time sorting and easier to haul materials to the curb) which in turn would lead to increased overall recovery, and increased collection efficiencies which would keep rates low. The greatest change occurred with the widespread transition from bins to carts which led to more materials being set out but also more contamination.

While some of the benefits of comingling have been realized, the transition has challenged processing facilities that must sort, process, bale and market materials. This has led to a higher level of contamination of materials as more non-program materials are collected with curbside recycling.

Contamination rates that were once in the three percent range are now at 9 percent for commingled loads particularly from the residential sector.

Concurrent with the changes in set-out and collection practices, there were other systemic changes that were beyond the MRFs' control including the composition of materials arriving at their gates, and increasing volatility in recyclable material markets.

In the early 1990s, newsprint made up nearly 70 percent of the material arriving at SSR MRFs in the region. Today, as print publications continue their rapid decline in the marketplace, that material constitutes less than a third of the mix delivered to MRFs. The reality is that MRFs now receive more low value and harder to process materials than they have in the past.

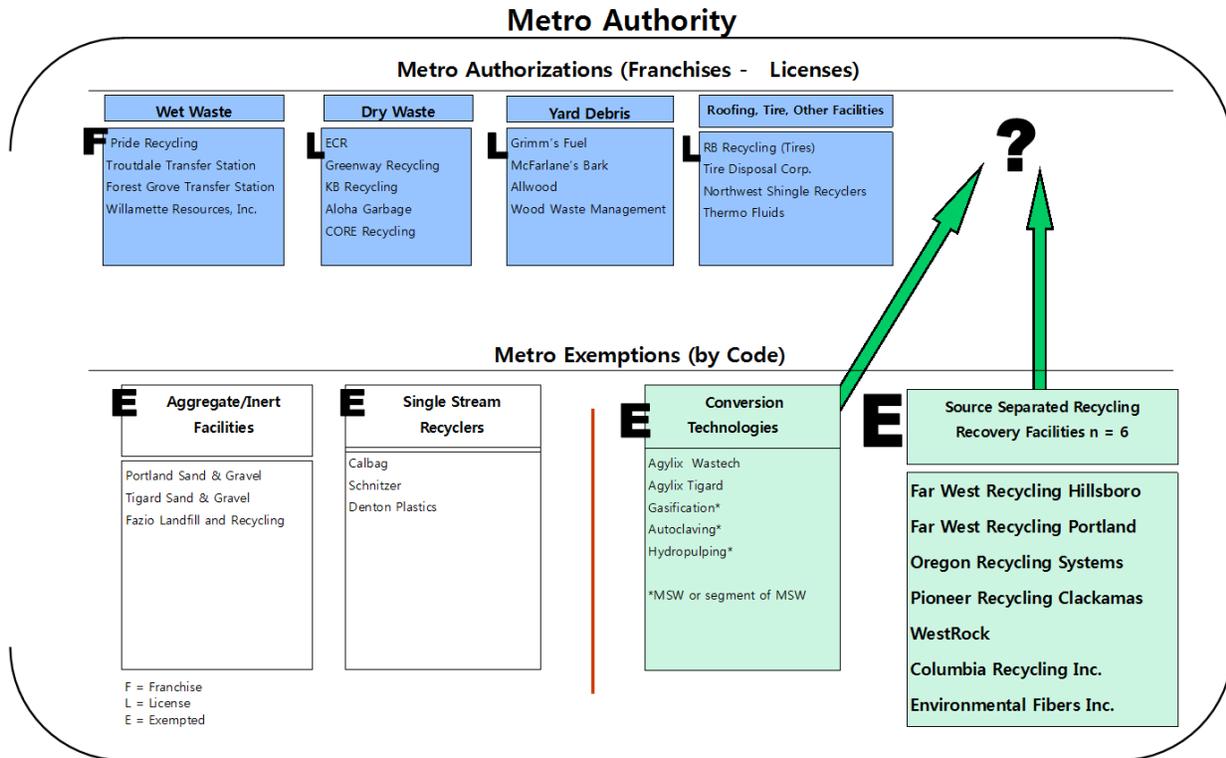
To compound these challenges, an increasingly complex and volatile local, national, and global market for recyclable materials has resulted in local MRFs - which historically were able to purchase curbside recyclables from haulers - being forced to charge processing fees in order to remain in business. Market volatility has also led to longer term storage of baled and loose materials which has increased the potential for material degradation beyond the point of recovery.

It is important to note that MRFs had very little input or control over these changes and have been forced to adapt to an ever changing environment. Investments in equipment and process upgrades have been, and continue to be, risky due to uncertainty on both the supply and demand sides of the industry.

As a result of these system changes, facilities that receive and process commingled source-separated recyclable materials now potentially face many of the same operational and management challenges as that of other solid waste processing operations. Through the MRF/CT Subcommittee process, Metro sought additional input and advice on whether these types of operations should be held to a similar level of oversight as other solid waste facilities and, if so, what level of oversight would be appropriate. Metro seeks to balance the need to increase and maintain recycling while assuring the public that facilities are managing materials in a safe and appropriate manner.

Approach to Metro Authorizations

The diagram below shows different classes of facilities currently under Metro authority. Metro regulates most classes already via a franchise or license. Other classes of facilities are currently exempted in Metro Code but subject to inspections.



Metro has broad regulatory authority over solid waste activities within the region (including facilities that accept and process source-separated recyclables) but has not chosen fully exercise that authority for all facility classes. The Metro Code specifies the types of solid waste facilities that require authorization and those that are exempt. Those that require authorization include transfer stations, dry waste MRFs, yard debris reload and composting facilities, food waste composting and anaerobic digestion facilities, and other special authorizations such as tire and roofing material processing facilities. Other classes of facilities are currently exempt from obtaining a Metro authorization including aggregate and inert (sand, gravel, rock etc.) facilities and single-stream recycling facilities (metal, plastic or other single stream material facilities).

Metro’s solid waste code (Title V) and related administrative procedures ensure that Metro has robust capacity to authorize, inspect, collect information from, and to take necessary enforcement action against the vast majority of solid waste facilities in the region. Metro’s role as regional solid waste planning agency is intended to assure the public that all solid waste is managed in an appropriate and safe manner with minimal impacts to local communities.

DRAFT MRF/CT Recommendations

Recommendation 1: Authorization Required for SSR MRFs. Material recovery facilities that receive and process commingled residential and commercial source-separated recyclable materials should be subject to a Metro authorization and inspections similar to other material recovery facilities currently under a Metro authorization.

Because of the known or potential impacts of facilities that receive and process source-separated commingled recyclables, the changing collection system, the changing composition of the commingled recycling material stream, and the highly volatile nature of recycling markets, the membership of the MRF/CT Subcommittee generally supports removing the exemption and requiring these facilities to have a Metro authorization to operate and be subject to random inspections similar to other resource recovery facilities.

It should be noted that industry representatives on the Subcommittee were divided on what sort of authorization should be applied to SSR MRFs. One industry representative who is generally opposed to regulation suggested a third party certification process while other industry representatives were comfortable with recommending that SSR MRFs be subject to the same licensing, reporting, and inspection process that other similarly-situated material recovery facilities are currently subject to.

Characteristics of SSR MRFs Recommended for Additional Regulation

SSR MRFs that receive and process commingled recyclable materials have certain characteristics that distinguish them from other classes of exempted facilities. When considering whether a facility should remain exempt or be subject to regulation, the Subcommittee generally was in consensus that if a facility exhibits any of the following characteristics, it should be subject to Metro authorization, inspections, and reporting:

- The facility receives and processes commingled residential (curbside) and commercial recycling streams
- The commingled material is typically collected within a local regulated solid waste system
- The facility has little or no control over incoming material
- Speculative accumulation can occur and may result in degradation of materials if not processed and moved in a timely fashion
- There are current or potential negative environmental or health and safety impacts
- There are current or potential negative impacts offsite e.g. adjoining properties and community (dust, noise, smell, vectors, litter, fire safety etc.)

Additional characteristics that Subcommittee identified, and which may also be considered regarding potential regulation of a SSR MRF include:

- There are variable contamination rates depending on generator practices
- Facilities are subject to negative impacts of a highly volatile commodity market
- Facility operations can impact rates charged to generators

Recommendation 2: Establish Operating Standards for SSR MRFs. This class of facilities should be subject to general operating standards similar to other material recovery facilities as follows:

- (1) **Environment.** Facilities should be designed and operated to avoid undue threats to the environment (e.g., stormwater or groundwater contamination, air pollution, and improper acceptance and management of putrescible waste, hazardous waste, asbestos and other prohibited wastes).
- (2) **Health and Safety.** Facilities should be designed and operated to avoid conditions that may degrade public health and safety (e.g., fires, vectors, pathogens and airborne debris).
- (3) **Nuisances.** Facilities should be designed and operated to avoid nuisances (e.g., litter, dust, odors, and noise).
- (4) **Material Recovery.** Facilities should be designed and operated to assure material recovery in a timely manner to maintain material quality and avoid degradation.
- (5) **Record-keeping and Reporting.** Facilities should keep and maintain complete and accurate records of the amount of all solid waste and source-separated recyclable materials received, recycled, reloaded, and disposed and they should periodically report data as required by their regulatory instrument.

There was considerable discussion and concern among the Subcommittee members as to Metro's intentions related to requiring SSR MRFs, through a license or other form of authorization, to improve the quality of the outgoing recyclable materials going to market through process improvements such as belt speeds, contamination and quality specifications, new equipment, requiring additional sorters, or placing back end outcome-based performance standards on material quality as a means to "improve SSR MRF performance."

Metro staff went to great lengths to clarify for the Subcommittee membership that the focus of this process was on operational standards related to environmental protection, health and safety, avoiding nuisances, and ensuring that source-separated recyclables were not degraded through the operation of the facility. The focus was not on the aforementioned "performance" measures. Metro staff further clarified that Metro and other solid waste system stakeholders may address those so called back of the house or outgoing material performance issues through other forums in the future and that that work could be completed through the upcoming RSWMP development, or through a different process.

Metro staff further clarified that the general operating standards outlined are necessary to protect the public's interest at this time, and should be incorporated into a Metro authorization regardless of whether any other work is done in the future on material quality performance standards.

Recommendation 3: Maintain Exemptions for Single Stream Recyclers. Facilities that receive and process single stream materials with intrinsic value in established markets such as scrap metal, plastics, papers, or other similar commodities should remain exempt from licensing by Metro.

Characteristics of Single Stream Recyclers Exempt from Licensing

Single-stream recyclers that receive and process commingled recyclable materials have certain characteristics that distinguish them from other classes of exempted facilities. Single stream recyclers that have the following characteristics should remain exempt at this time:

- They purchase, exchange, or accept source-separated single stream or predominantly single stream fibers, metals, plastics or other recyclable materials from commercial generators in what can be described as business-to-business transactions
- Limited volatility in end markets resulting in facilities' consistently able to purchase or accept materials without a fee (no tip fees charged to generator/hauler of materials)
- They do not generally accept commingled residential or commercial source-separated recyclables generally
- Business to business transactions do not impact the rate making process or rates charged to residential or commercial generators in regulated collection markets
- Feedstock specifications are prescribed to minimize contamination
- Insignificant contamination of single-stream materials entering the facilities
- Little or unknown negative impacts to the environment, or to neighboring businesses and residential communities as a result of their operation (e.g., odors, dust, noise, vectors, litter, fire safety etc.)

NEXT STEPS:

We need a bit more narrative to explain/describe this.

May – August 2016

Finalize work of Subcommittee
Report recommendations to SWAAC
SWAAC to discuss recommendations to Council

August – September 2016

Develop draft Title V Changes
Develop draft Administrative Procedures
Convene stakeholder workshop

September – November 2016

Refine Code and Administrative Procedures
Post for public comments

December 2016 – January 2017

Council Meetings
Implementation Planning

January – July 2017

Authorization process

July 1, 2017

Issue New Authorizations?

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