



DRAFT Sample Implementation Plan

Expanded Education and Promotion – Contamination Reduction Plan

Manual Residential Cart Inspection

Oregon Department of Environmental Quality
811 SW Sixth Ave
Portland OR 97204

Description: Visual inspection, estimation of contamination, and tagging of recycling carts. Results will provide an estimate of the percentage of contaminated recycling carts and identify the most common contaminants. This approach allows direct feedback to generators through cart tagging as an action to reduce contamination. It also provides information about specific contamination issues that can be used to launch targeted educational campaigns.

Frequency: Visually inspect recycling carts of 25% of residential recycling customers once a year.

Points of Assessment: Visual inspection at generator's recycling cart.

Methodology

1. Selection Method

- a. Select 25% of the total recycling routes using one of the following methods:
 - i. Haulers to identify routes with highest contamination based on observations of hauler during the normal course of collection.
 - ii. Processor or transfer station operator to visually assess incoming loads from recycling routes to identify routes with highest contamination rate.
 - iii. Select recycling routes randomly. Select different routes each year with a goal of inspecting all routes over a multi-year period.
- b. Select all recycling customers on each route (assume 500 household per route = 100% of route inspected).
 - i. Reference hauler customer lists for each route, listed in the order that the customers are collected.
 - ii. Coordinate inspections prior to arrival of the collection trucks.

2. Measurement Method

- a. Open the lid and look inside carts that are set out. Observe material at the top of the cart.
- b. Note carts with no contamination on the data collection form.

- c. Note carts with contamination and the types of contaminants on the data collection form.
 - d. Tag the cart with the appropriate tag as described in section titled, “Action to Reduce Contamination.”
 - e. Proceed to the next recycling customer.
3. Materials Focus: Modify as appropriate for community – the list of contaminants could include:
- a. plastic bags
 - b. film and wrap
 - c. food scraps and food-soiled paper
 - d. glass
 - e. a general category for non-program materials.
4. Method of Collecting Data: Data collection forms will include the following information:
- a. Carts set out and inspected.
 - b. Number of carts with no contaminants and tagged “Good” or “Thank You”.
 - c. Number of carts with contaminants and tagged “Oops”.
 - d. Type of each contaminant in the carts
5. Expected Results: Analyze the data collected to calculate the following results:
- a. Percent of set outs with contaminants
 - b. Percent of carts with each type of contaminant

Action to Reduce Contamination

1. Educational contact at the point of generation.
 - a. Tags are attached to the carts that are inspected to provide direct feedback to customers.
 - b. Two different tags are required:
 - i. “Good” recycling tags are attached to carts that are free of contaminants.
 - ii. “Oops” recycling tag are attached to carts that contain contaminants. Contaminants found in the carts are noted on the tag to provide the customer with specific information to help improve recycling behavior.

2. Communitywide educational messaging.
 - a. Estimated contamination rate, and common contaminants will be identified based on the results of the evaluation.
 - b. This will provide specific information about contamination issues that can be used to create messaging and education campaigns that are targeted to reduce contamination. Messaging can be included in existing outreach and education materials such as newsletter articles, social media, and websites.



DRAFT Sample Implementation Plan

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Truck Camera Residential Cart Inspection

Oregon Department of Environmental Quality
811 SW Sixth Ave
Portland OR 97204

Description: Visual inspection, estimation of contamination, and tagging of recycling carts. Results will provide an estimate of the percentage of contaminated recycling carts and identify the most common contaminants. This approach allows direct feedback to generators through cart tagging as an action to reduce contamination. It also provides information about specific contamination issues that can be used to launch targeted educational campaigns.

Frequency: Visually inspect recycling carts of residential recycling customers each pickup using a “hopper cam.”

Point of Assessment: Visual inspection at generator’s recycling cart.

Methodology

1. Selection Method
 - a. Select all recycling routes.
 - b. Select all recycling customers on each route.
2. Measurement Method
 - a. Install “hopper” cameras.
 - b. Observe contents of each recycling cart as it is dumped into the truck.
 - c. Record carts with contamination and the types of contamination on a route sheet or an on board computer.
 - d. Tag carts with contaminants as described in section titled, “Action to Reduce Contamination.”
3. Materials Focus: Modify as appropriate for community – the list of contaminants could include:
 - a. plastic bags
 - b. film and wrap
 - c. food scraps and food-soiled paper

- d. glass
 - e. non-program materials.
4. Method of Analyzing Data: The data recorded on the route sheet or on board computer includes the following information for each customer:
- a. Carts with contaminants.
 - b. Type of each contaminant in the carts.
5. Expected Results: Analyze the data collected to calculate the following:
- a. Percent of set outs with contaminants.
 - b. Percent of carts with each type of contaminant.

Action to Reduce Contamination

- 1. Educational contact at the point of generation.
 - a. Tags are attached to the carts with contamination to provide direct feedback to customers. Contaminants found in the carts are noted on the tag to provide the customer with specific information to help improve recycling behavior.
 - b. Letter can also be mailed to customers with contamination.
- 2. Communitywide educational messaging.
 - a. Estimated contamination rate and common contaminants will be identified based on the results of the evaluation.
 - b. This will provide specific information about contamination issues that can be used to create messaging and education campaigns that are targeted to reduce contamination. Messaging can be included in existing outreach and education materials such as newsletter articles, social media, and websites.