

# Recycling Scrap Metal and Empty Paint & Aerosol Cans



# Pilot Project

- Pilot project took place from May 2007-August 2007.
  - Funding provided by NRCan and RRFB Nova Scotia.
  - Hired a student from Dalhousie University.
  - Project served approximately 16,000 households and approximately 33,000 residents.
  - Education consisted of newspaper, radio, and mail outs to all households.
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# Project Continued

- Aerosol cans, paint cans, and scrap metal were segregated, collected, and stock piled prior to analysis. (magnetic separator was not used).
  - Based on historical data, they projected that CJSMA would receive an additional 101tonne/year scrap metal.
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# Project Objective

- Evaluate the risk associated with the addition of scrap metal and empty paint & aerosol cans in the Materials Recovery Facility.
  - Risks associated with the aerosol cans was concentrated on.
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# Aerosol Cans

- Educated residents to recycle cans only when EMPTY.
- For the purposes of the study the magnet was not used; employees hand picked materials.
- One method of determining the degree of emptiness was by shaking the aerosol cans.
- Results showed that 1.94% of the cans received were full and 11.52% had a little product left in them, 67% were completely empty.
  - 83% were ferrous
  - 17% non ferrous
- Based on historical data it was estimated that we would receive 1.5 tonnes/year. Project projected we would receive 1.9 tonne/year.

# Paint Cans

- ▶ Already receiving paint cans from the Springhill Paint Recycling Facility.
  - ▶ Education promoted that only empty and dry cans are recyclable.
  - ▶ Must remove lids before recycling.
  - ▶ 87% of the paint cans received were dry and only 5% contained wet paint.
  - ▶ Study stated that paint vapors will not present a health hazard since the volumes received are so low.
  - ▶ It was estimated that we would receive 4 tonne/year. Actual tonnage based on our study projected 3.2 tonnes/year
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# Scrap Metal

- ▶ Accepted materials such as: utensils, pots & pans, tools, hangers, other small items.
  - ▶ Not acceptable: electronics, car parts, nuts & bolts, anything with a cord
  - ▶ Any reject scrap was taken to our scrap metal pile.
  - ▶ Projected 97 tonnes/year. Using data collected during this project they projected only 4 tonnes/year. This was much lower than anticipated.
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# Pilot Project Recommendations

- ▶ Additional investigations should be done by a qualified health and safety inspector to determine ventilation rates, safety distances, and employee tolerances by performing a detailed risk assessment.

# Summary

- ▶ Program has been operational for almost 9 years.
  - ▶ Existing infrastructure used for the collection and processing of these materials.
  - ▶ We have not had any health and safety issues related to the collection & processing of these materials.
  - ▶ Education on proper disposal of these materials is key.
  - ▶ A number of municipalities have been accepting this material for years.
  - ▶ Most of our facilities receive some of these materials in their recycling stream.
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