



RECYCLING CERTIFICATION INSTITUTE



LAKE SHORE



Recycling Systems

Heartland Material Recycling Facility (HMRF)

CORR PROTOCOL EVALUATION REPORT

November 4, 2019
Evaluation Body: RC Consultants (RCC)



Executive Summary

This report corresponds to the evaluation of the application for CORR Certification submitted to the Recycling Certification Institute (RCI or Institute) Heartland, Material Recovery Facility (HMRF), located at 6201 Canal Bank Road, Forest View, Illinois 60402. The facility is a permitted waste transfer center permitted by Cook County and the Illinois Environmental Protection Agency; to receive, store, process and transfer construction and demolition debris, residential and single stream recycling, non-hazardous special liquid waste and municipal solid waste. The facility accepts and processes mixed loads of recyclable and non-recyclable material. The facility occupies approximately five acres of land and services the Chicago area. Heartland Material Recovery Facility is owned and operated by Lakeshore Recycling Systems.

This evaluation represents an independent review of data, work processes and other information. Due diligence was followed to ensure Duty of Care and Duty of Loyalty to the Institute and to manage any Conflict of Interest. RCI Evaluator Manual 2.0 (EM) and RCI CORR Protocol 1.91 were used to guide the evaluation process as is standard practice for all evaluations.

This evaluation found neither material or immaterial misstatements nor deviations from the described process train of the Heartland Material Recovery Facility. The Institute uses a 95% confidence Level as its Minimum Quality standard when calculating recovery or recycling rates using the weights of materials recovered. The twelve months of recovery and recycling data submitted by HMRF was within the quantitative materiality threshold of 95% (less than 5% error) per EM Section 2.5

Overview of HMRF Operations

The Summer of 2014 Lakeshore Recycling Systems purchased Heartland located at 6201 W Canal Bank Road, Forest View IL, 60402. Although the ownership changed, the employees stayed on and joined the Lakeshore Recycling Team. In March of 2016, Heartland added the Single Stream recycling to the long list of services offered at the facility. The facility offers C&D Recycling, Single Stream Recycling, Wood Grinding, Dirt Screening, Shingle Recycling, Waste to Energy, MSW Transfer, Yard waste disposal and Non-Hazardous Liquid Special Waste Solidification. Recovered materials are shipped to General Iron, Lindahl, Southwind and Orchard Hills Landfill among other entities.

The hours of Heartland Recycling Facility are Monday-Friday 5:00am-11:00pm and Saturday 5:00am-5:00pm and closed on major holidays. The facility accepts C&D material from its own hauling operations and third-party haulers. The MRF takes in and processes an average of 210,000 tons a year of material or 17,500 tons per month.

Recycling Processing Train

All inbound trucks enter the facility from the entrance off Canal Bank Drive. When the truck arrives on the scale, the information is recorded in Trux, the company's data management software. At this time the customer advises the scale operator what materials they intend to dispose of; and the scale operator inspects the load contents via camera observation. Once the loaded weight has been recorded, the truck is directed eastbound off the scale along the north side of the building.

The truck is then inspected by the traffic spotter and directed to the correct designated area to dump. All commercial and residential recycling and municipal solid waste is dumped inside of the building. Inside the building materials are separated by a wall of concrete blocks. All construction demolition debris is dumped outside on the east side of the building to be sorted for disposal. Loads that contain a majority of a single commodity, such as shingles, wood or aggregate are dumped outside at the north end and the northeast side of the facility. Mixed C&D loads are dumped in a designated area to await processing.

Once the load is dumped, the truck exits the unloading area and returns to the scale to capture the empty weight and complete the transaction. The traffic spotter inspects the load after it is dumped and communicates via radio with the scale house the material type and grades the material if necessary. After the material is classified and/or graded, a paper scale ticket is generated for use in house or an external customer, to complete the transaction.

Outside on the east side of the building the mixed C&D material is loaded via backhoe onto the Action Screener. The screener separates debris that is smaller than three inches and the remaining materials are hand-sorted on the line by commodity. Laborers hand pick cardboard, metal, concrete and brick and drop those items through the hopper where the materials fall to bunker areas below for final processing.

The "A" wood gets dropped down the chute directly into EC256 RotoChopper and it is discharged into transfer trailer where it is weighed on truck scale before it leaves the facility. The "B" wood is dropped down a different chute where it is collected on the ground and moved out back by the B66 RotoChopper. The wood is then weighed by the operator using the scale on the wheel loader as it is moved from the bin under the sorting line to the storage area next to the B66 RotoChopper. The operators have been cross trained to capture the weights of the materials being sorted using this method. Each of the operators keep a daily log of the materials and weights moved from the sorting line. The operators turn in their logs daily to the yard supervisor who compiles the information into a single daily report for office tracking. Management then inputs the information into a spreadsheet for daily, weekly, and monthly reporting purposes. After the weight of the "B" wood is captured and moved to the RotoChopper, it is ground by using a 5/8" screen and that product is used to solidify the liquid Non-Hazardous Special Waste on site. The solidified materials are then loaded into semi-dump trucks and weighed on the truck scale to capture gross, tare, and net tonnage before being sent to the landfill.

Each loader scale is checked annually to ensure accurate measurement using our truck scale. Material is weighed in the loader bucket then put into a roll-off box we have scaled empty prior to loading. The box is then weighed with the truck scale and the net weight of the material is captured. The loader bucket weight is checked against the truck scale to determine accuracy. If necessary, the loaders are calibrated until accurate. The residual materials drop off the end of the line to a transfer trailer, which is weighed before being hauled away for disposal.

Aggregates: Clean aggregates are dumped directly into the outdoor bunkers. This material is combined with the aggregates that are sorted through the Action dense out screen and are shipped as road base or to concrete recyclers for recycling.

OCC: Cardboard that is removed from the mixed C&D is dropped into a bunker into a roll-off container, weighed and brought inside the building for processing with the commercial/residential recycling.

Shingles: Shingles are delivered in single commodity loads and dumped directly into an outdoor storage bunker. The shingles are cleaned and loaded onto trailers and shipped to shingle recycling facilities.

Ferrous and non-ferrous metals: Ferrous metals removed by the magnet are combined with the ferrous metals that are manually sorted and stored in a bunker before being transported for recycling. Non-ferrous metals are manually sorted and stored in containers and roll off boxes until full and then transported for recycling.

Screened fines: The screened fines are collected in a bunker and disposed of as Alternative Daily Cover.

Wood: A and B wood is manually sorted and stored in various bunkers on the sorting line. Clean untreated A wood is manually sorted and dropped directly into a Rotochopper placed underneath the sorting deck and used for mulch. All other wood is dropped into a designated bunker and later fed into a second Rotochopper via backhoe. An additional cut of B wood is processed into sawdust and is being used in the solidification material.

Residuals: The residuals are the non-recoverable materials from the sorting system or are rejected at the front end of the process and sent to landfills.

The following equipment is in support of the MRF:

- 2 Rotochopper Grinders
- 5 Caterpillar Skid Steers
- 4 Caterpillar Wheel Loaders
- 2 Komatsu backhoes
- 1 Sany Backhoe
- Pelican Street Sweeper
- Action Screener - Shaker
- 1 Mack Yard Truck
- MachineX C&D Line – Manual Sorting System

Daily Operation Flow

The hours of Heartland Recycling Facility are Monday-Friday 5:00am-11:00pm and Saturday 5:00am-5:00pm and closed on major holidays. The facility accepts C&D material from its own hauling operations and third-party haulers. The MRF takes in and processes an average of 210,000 tons a year of material or 17,500 tons per month.

Several times each day, contracted semi-truck & trailers enter the facility and back into loading pits or designated areas where wheel loaders load the segregated materials for transport to a final destination. The empty truck weight and full weight are captured using the same process in Trux.

Development of Evaluation Plan

The Evaluation Plan has been developed by RCC and the Certification process was initiated by HMRF. The RCI's Registration webpage can be found at: <https://recyclingcertification.org/registration/>. The Registration process requires facilities to submit contact information that provides RCI with a general overview of HMRF operations, and what additional information may be needed in preparation for an evaluation. A sample of information provided through the Registration process included:

- Name of the facility
- Street address of the facility (P.O Box not acceptable)
- Name of the city/state where the facility is located
- Facility type
- Scale(s) certified (required)
- Permits – state/local Registration Number or state/local permit number
- Hours of facility operation
- Current tons of Inbound and Outbound materials
- Name of company contact person, their position/title, and contact information
- Website address

RCI conducted an interview with John Sliwicki (Vice President of Risk Management), regarding submittal of documents that would be used in preparation for the Evaluation. Key elements of this information can be found in the CORR Protocols Edition 1.91, Appendices A and B, viewable on the RCI Website Resources page. RCI also provided an overview of the Evaluation process to aid in the streamlining and completion of activities on the day of the site visit. On-site review included:

- Tour of the facility
- Verify process train of materials as stated in Application for Certification
- Verify proper sorting and storage of the materials
- Verify use and calibration frequency of certified scales
- Observe and verify weighing of materials and electronic storage of information
- Observe and verify load/material sorting and accuracy

- Observe and verify QC measures are in place to ensure accuracy in recovery and uploading of facility data
- Review of recyclables sales records
- Confirmation of permits
- Interviews with key personnel
- Review of employee training/safety manuals
- Calculation of variance in recovery and recycling rates
- Other materials/documentation that may aid in preparation of a Facility Evaluation Report and Evaluation Opinion

Heartland Material Recovery Facility submitted twelve prior months' data for RCI's review to determine accuracy of the mass-balance calculations. The facility provided Excel spreadsheets derived from exported data from system software. The spreadsheets allowed for calculation and data review as well as random sampling of weight tickets to test for accuracy.

Site Visit

RCC performed a scheduled on-site evaluation of HMRF C&D site on Wednesday, October 30, 2019. Jon Schroeder, General Site Manager, was present for the tour. RCC observed the operational process of the facility including where the customer enters and exits the facility as well as where and how the material is weighed and processed. RCC did a complete tour of the site and took notes and pictures of where the material entered the site, weighed, processed and exited the site. Jon Schroeder, General Site Manager, provided the permits needed to show compliance with regulatory entities.

HMRF allowed RCC access to safety documentation and training provided to each employee, along with instructions on chain of command in the case that any unsafe or hazardous materials are discovered in an inbound load. All equipment has functioning back up alarms and appropriate signage is throughout the facility.

Regulatory Compliance Test

RCC concludes that HMRF possesses the necessary permit to operate.

HMRF is permitted through the Illinois Environmental Protection Agency located at 1021 North Grand Avenue East Springfield, Illinois 62794-9272. Permit Number 1990-104-DE/OP Supplemental Permit 2019-128-SR. Log Number 2019-128 Permit for Storage, Treatment, and Transfer 807. 0310930005—Cook County. Hartland also holds a permit through Cook County Class V Recycling Facility Permit. Permit Number 024166. All permits are in good standing.

Use of Scales

RCC concludes that HMRF satisfies the CORR Protocol requirements for use of scales.

All inbound trucks enter the facility from the entrance off Canal Bank Drive. When the truck arrives on the scale, the information is recorded in Trux, the company's data

management software. The customer advises the scale operator what materials they intend to dispose of; and the scale operator inspects the load contents via camera observation. Once the loaded weight has been recorded, the truck is directed eastbound off the scale along the north side of the building. The truck returns on the outbound scale for the tare weight.

Paul Stuer was the operator of the scale during the site visit. Five people are trained to operate the scale. The scale is operated on two shifts, 5am – 2pm and 2pm – 11pm. RCC verified the weighing of materials, electronic storage of information and calibration of the certified scales.

Supporting Data for Rate Estimates

RCC concludes HMRF maintains required supporting data as required by the EM for recycling and recovery rate estimates

HMRF handles IT support in house if issues arise with data recovery. RCC reviewed twelve prior months data to determine accuracy of the mass-balance calculations. The accuracy of the data was within the 95% accuracy threshold.

Data Transcription and Management

RCC concludes sufficient QC exists for creation of reuse and recycling rate tables from EMS data.

Jenn Boza demonstrated the storage, access, and management of HMRF data and how information is organized for monthly reports, supporting the mass balance spreadsheets that was submitted previously.

Individuals Properly Trained

RCC concludes that HMRF employees receive adequate in-house initial and recurring training, including training from outside sources.

Heartland Recycling has a thorough safety training system as well as safety practices for daily operations. All employees are trained on a wide variety of tip floor safety, fall prevention and other OSHA required procedures both as new employees and on an annual basis. Employees working or transiting the yard area are required to wear safety hard hats, reflective safety work vests and safety glasses. All equipment has functioning back up alarms and appropriate signage is throughout the facility. HAZCOM training is also provided to each employee, along with instructions on chain of command in the case that any unsafe or hazardous materials are discovered in an inbound load.

The contingency plan of the facility in the event of a catastrophic event would be to re-route the daily traffic to other C & D facilities in the Chicago area, then to transfer out the materials on site to the usual parties.

Training logs are compiled and maintained by a designated safety officer within the company and available for review. Voluntary safety audits and review of safety records are performed periodically by Safety and Risk Management departments.

Performance Standard Test

Reported reuse and recycling rates are within 5% allowed threshold.

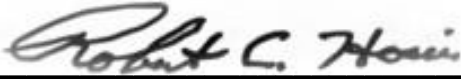
RCI was provided electronic copies of spreadsheets representing twelve months of data. In addition to other communications, a conference call took place between RCI, RCC and HMRF to clear up any remaining questions. Formulas were checked, the data was reviewed, and recovery numbers were within the five-percent tolerance threshold.

Evaluation Statement Overview

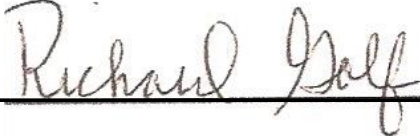
Based on the extensive evaluation of Hartland Material Recovery Facility, RCC concludes that Certification per the CORR Protocol 5.2 be granted. The findings according to RCI protocols via the evaluation process, and the on-site visit and interviews with key staff, RCC finds that the HMRF meets RCI's eligibility requirements, is in compliance with all measurement and record-keeping requirements, and has no existing material or significant immaterial non-conformances of misstatements in their reported data.

The undersigned hereby certify that the information provided herein is true, complete and accurate; they have read and understand the protocols developed by RCI and are familiar with the requirements of RCI. Furthermore, they also certify that any signatories are duly elected, qualified, and acting officers of their respective organizations and that their organizations agree to be bound to the protocols of RCI.

For RC Consultants (RCC):

 _____	<u>Managing Partner</u> _____
By	Title
<u>Robert C. Hosier</u> _____	<u>December 26, 2019</u> _____
Print Name	Date

For Hartland Material Recovery Facility:

 _____	<u>Managing Partner</u> _____
By	Title
<u>Richard Golf</u> _____	<u>December 26, 2019</u> _____
Print Name	Date