RECYCLING CERTIFICATION INSTITUTE

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NEW DEMOLITION PROCESSING PLANT
ZANKER ROAD RESOURCE RECOVERY OPERATION AND LANDFILL
(ZRRROL)

CORR PROTOCOL EVALUATION REPORT

November 8, 2016
Evaluation Body: RCI

Executive Summary

This report corresponds to the evaluation of the Application for CORR Certification by Zanker Road Resource Management, Ltd. (ZRRML), owner and operator of the Zanker Road Resource Recovery Operation and Landfill (ZRRROL) located at 705 Los Esteros Road, San Jose, California, submitted to the Recycling Certification Institute (RCI or Institute). The evaluation represents an independent review of data and information provided to the Institute. Due diligence was followed to ensure Duty of Care and Duty of Loyalty to the Institute and to manage any Conflict of Interest.

RCI General CORR Protocol 1.9 (GCP) and RCI Evaluators Manual 2.0 (EM) were used to guide the evaluation process.

The evaluation found neither material or immaterial misstatements nor deviations from the described process train for the operations of the New Demolition Processing Plant at the ZRRROL site. The Institute uses a 95% confidence level as its Minimum Quality standard when calculating recovery or recycling rates using the weights of materials recovered and recycled. The twelve months of recovery and recycling data submitted by ZRRROL was within the quantitative materiality threshold of 95% (less than 5% error) per EM Section 2.2.3.

Overview of Zanker New Demolition Processing Plant Operations

ZRRROL has operated as a resource recovery facility and disposal site since 1985 under various Planned Development Permits issued by the City of San Jose Planning Department, a Solid Waste Facilities Permit (SWFP) issued by the City of San Jose Local Enforcement Agency (LEA) and the California Integrated Waste Management Board (now CalRecycle), Waste Discharge Requirements (WDRs) issued by the San Francisco Regional Water Quality Control Board (RWQCB), and various Permits to Operate (PTO) issued by the Bay Area Air Quality Management Board (BAAQMD).

As permitted under the current SWFP, ZRRROL may accept up to 2,600 tons per day (tpd). Although permitted as a Class III landfill, ZRRROL may not accept putrescible garbage and solid waste (i.e., wet household garbage), liquid waste sludge, designated wastes, and hazardous wastes. The primary wastes received at ZRRROL, therefore, include demolition debris, wood waste, yard waste, asphalt shingles, concrete and soil generated from throughout the San Francisco Bay Area. This site is currently undergoing landfill closure and thus will not be landfilling any additional materials. All residuals from the recycling operations are transported to the Marina Landfill in Monterey California.

Current resource recovery operations at the ZRRROL are divided into "plants." Each plant serves a specific function in the overall operation. There are seven resource recovery plants permitted for operation at the ZRRROL and of the seven, three are already RCI-Certified. These Certified plants include; (1) Concrete Processing, (2) Brush/Wood Waste Processing, and (3) Asphalt Shingle Processing. The other

recycling plants include (4) Yard Waste Transfer, (5) Soil Processing, (6) Zanker Landscape Materials and (7) the New Demolition Processing Plant for which this evaluation was conducted.

Scales are located at the entrance to the facility. Each hauling incoming vehicle drives across the scales where it is weighed and the driver proceeds to the appropriate location in the facility to empty the vehicle. Photos are taken of the incoming load, driver, and vehicle. These photos are used to verify load types and proper accounting measures.

A load checker confirms the materials as they are deposited in the tipping area. In the event the materials do not match the materials identified on the driver's tag, the load checker notifies the driver and contacts the scale house via radio to make the correction. A site loader moves the load to the appropriate tipping area. The driver returns to the scales and re-weighs before exiting. The data is automatically entered into ZRRROL's SMS Turbo electronic data management system (EMS) connected to the main office, which is located onsite. The scales are calibrated at least twice per year by Santa Clara County Weights and Measures including each instance of maintenance or other work associated with the scales. ZRRROL is open to the public from 6:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 4:00 p.m. on weekends. It is closed on major holidays.

Description of Process Flow

The New Demolition Processing Plant (Demo Plant) mainly accepts demolition debris, but since this site is open seven days a week it may also receive minor amounts of other materials such as construction wastes. These materials are off-loaded in a specific stockpile area located on top of ZRRROL. The primary material categories from this line are: ***Aggregates***, ***Wood***, ***Metals***, ***Alternate Daily Cover (ADC)***, and **Landfill**. ***Fiber (cardboard and paper)***, ***Soil***, and ***Screen Fines*** make up an incidental amount of material outbound from this operation.

From the unloading area, materials are pushed to one of two excavators near the feed conveyor. Large pieces of metal, concrete, and non-recyclable products, such as carpeting and fabric, are removed with an excavator prior to loading the in-feed conveyer. The second excavator loads the in-feed conveyer, which transports the materials to the Demo Plant.

The excavator operator then loads the in-feed conveyer that transports the materials into a large finger screen that removes the 12" inch minus fraction materials.

The larger materials pass over the screen and head up to sorting stations, where ***concrete***, ***metals***, and ***residuals*** are removed. The remaining material on the sort line is ***lumber***, which is directed to ***Zanker's wood recycling operations***.

The smaller fraction from the large finger screen (the 12" inch minus materials), travel up a conveyer past a magnet removing ***ferrous metals*** and into a debris roll screen,

which removes the two-inch minus fraction. This material is then transported to a stock pile, where it is shipped to another landfill to use as ***ADC***.

The larger fraction of materials from the debris roll screen, mainly ***wood waste*** and ***concrete***, are then conveyed into two Nihot air systems that separate the material by density.

The lighter material from the separation, usually ***wood waste*** and residual materials, falls on another conveyer and in front of sorting stations, where employees remove contamination (such as plastics). This leaves mainly ***wood waste*** on the conveyers.

The heavier materials, mainly ***concrete***, fall onto a sorting conveyer. This conveyer passes in front of a sorter who removes the unwanted items, thus the ***concrete*** is clean enough to be used in **base rock production**.

Materials leaving the Demo Processing Plant are weighed, excluding the ***wood waste***, which is weighed in the processing area and then tipped at the ***wood waste recycling operation***.

In December of 2016, residuals from the Demo Processing Plant will be loaded in a transfer vehicle and transferred to the Zanker Materials Processing Facility to be processed in a new Residuals Shredding and Sorting operation (RSS). The RSS operation will shred residuals from all the operations, screen the fines from the materials to be used as ADC and allow the larger pieces to be sorted prior to being shipped to the Marina Landfill for disposal. RCI will conduct a follow-up site visit to observe and confirm this operational modification.

Development of Evaluation Plan

ZRRROL initiated the Certification process by first Registering its New Demolition Processing Plant on RCI's Registration webpage: https://www.recyclingcertification.org/registration/ and subsequently submitted an Application for Certification. The application included monthly and annually detailed and summarized tonnage reports, lists of markets (material recipients and their contact info), and a variety of other background documents. Other information provided through the intake process includes:

- 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 Mr. Michael Gross, ZRRROL's Director of Sustainability, 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 1.9, Appendices A and B, viewable on the RCI website Resources page. RCI also provided Mr. Gross with 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 would include:

- 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
- Observation and verification of 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.

Mr. Gross submitted twelve prior months' data for RCI's review to determine accuracy of the mass-balance calculations. The data was inclusive of Demo Plant materials flowing Inbound and Outbound of ZMPF.

SITE VISIT

RCI performed an on-site evaluation of the Demo Plant operation on October 21, 2016. Mr. Gross conducted the tour of the facility and served as ZRRROL's lead contact throughout the evaluation process. Mr. Gross was responsible for submitting the initial applications and responding to subsequent inquiries as well. RCI did a full walk-through of the facility, examining where materials enter, are measured, deposited, processed/sorted, and eventually leave the facility.

The review included the follow-up questions from the initial review of data. Interviews were conducted of staff associated with the key areas of the operations, in particular, those staff who have access authority and responsibility for maintaining, reviewing, and overall integrity of ZRRROL's data. RCI also reviewed the training documentation to determine if adequate QC existed for those staff with the potential to directly affect the recycling and recovery rates reported by the facility and determined adequate and ongoing training exists in these key positions to maintain QC of processes and data. As

there are multiple lines on the ZRRROL property, RCI closely observed the material handling to ensure there were controls in place to avoid cross-contamination between lines.

Regulatory Compliance Test

ZRRROL Demo Plant possesses the necessary permits to operate.

ZRRROL has operated as a resource recovery facility and disposal site since 1985 under various Planned Development Permits issued by the City of San Jose Planning Department, a Solid Waste Facilities Permit (SWFP) issued by the City of San Jose Local Enforcement Agency (LEA) and the California Integrated Waste Management Board (now CalRecycle), Waste Discharge Requirements (WDRs) issued by the San Francisco Regional Water Quality Control Board (RWQCB), and various Permits to Operate (PTO) issued by the Bay Area Air Quality Management Board (BAAQMD). RCI reviewed the permits with ZRRROL's Site Engineer.

RCI's observations and review of communications from oversight agencies did not reveal any irregularities involving management or employees who have a significant role in internal controls, or that could have a material effect on the reporting of the Demo Plant's Recovery and Recycling rates.

Use of Scales

RCI concludes that the ZRRROL Demo Plant satisfies the requirements for use of scales.

Materials In

During the site visit, RCI confirmed that ZRRROL uses scales to establish gross and tare weights for all loads entering and exiting the facility, as well as within the facility.

Scales are located at the entrance to the facility. Each hauling vehicle with a load of materials drives across the scales where it is weighed and the driver proceeds to the appropriate location in the facility to empty the vehicle. ZRRROL's load checking program confirms the materials as they are deposited in the tipping area and notifies the driver and scale house if corrections must be made due to a mismatch between the driver's tag and the materials. The driver returns to the scales and re-weighs before exiting. ZRRROL's scales are calibrated at least twice per year by County of *Santa Clara Weights and Measures*, including each instance of maintenance or other work associated with the scales. RCI verified that each scale and measuring device had been inspected for calibration within the last six months.

Materials Out

Many of the vehicles arriving to pick up materials have been weighed previously and their empty tare weights are stored in the EMS. Trucks without stored tare weights drive across the scales for an initial weight. The vehicles are weighed again after loading out and the customer/scale information goes into the EMS as described above.

RCI was able to review the weight tags in the scale house and in the main office to verify accuracy of the EMS as well as the process for any subsequent manual adjustments.

Supporting Data for Rate Estimates

RCI concludes ZRRROL Demo Plant maintains required supporting data as required by the EM for recycling and recovery rate estimates.

RCI reviewed the monthly mass balance data to substantiate the recovery and recycling rates as reported by ZRRROL Demo Plant. ZRRROL utilizes Scale Management Software Turbo (SMS Turbo) for all incoming and outgoing materials/loads and maintains hardcopy receipts for each of these transactions.

ZRRROL provided twelve months of electronic reports (mass balance) for the Demo Plant and ZMPF. The data included customer, weight tag, day, date, materials, and tonnage information for each load. RCI selected random samples to cross-check and substantiate entries in the electronic reports with hard copies to ensure accuracy. Records for Incoming and Outbound materials were matched with the electronic reports.

Data Transcription and Management

Sufficient QC exists for creation of reuse and recycling rate tables from EMS data.

RCI interviewed Mr. Gross regarding the generation of all reports and supporting mass balance spreadsheets. Material data is automatically entered into ZRRROL's EMS system for accounting purposes. These reports are reviewed to verify accuracy as well as hand enter and/or correct any manual adjustments as determined through the normal course of business. Pictures taken at the scales are used to verify and correct discrepancies with receipt/report claims.

The Sustainability Director is responsible for updating ZRRROL's monthly reports and performs the necessary cross-checks before uploading to RCI. Based on RCI's observation of ZRRROL's procedures and competencies of the individuals involved in the data entry, RCI concludes that sufficient QC exists for data transcription and management.

Individuals Properly Trained for Functions They Perform

ZRRROL Demo Plant employees receive adequate in-house initial and recurring training, including training from outside sources.

ZRRROL requires a full complement of training and testing for all employees working at the facility. Training and testing occur on a regular basis and inspections occur on a weekly to daily basis. Samples of training/testing modules include:

Confined Space;
Storm Water Pollution Prevention Plan (the facility borders San Francisco Bay);

Machine Safety Basic Maintenance;
Lock Out/Tag Out;
Fall Protection; and,
Various other personal safety, fire, hazard identification and communication training.

Log sheets are created for each training and most are maintained for at least three years or longer if the staff remains employed at ZRRROL.

During the site visit, RCI reviewed the log sheets, observed employees in the scale house and tipping and sorting areas, and interviewed the Safety Manager. Signage was observed for safety, hazards, and material identification, and personnel were observed to be utilizing appropriate personal protective equipment as required by Cal-OSHA. Based on the observations of staff, the work areas, and the initial and ongoing training of ZRRROL employees, RCI concludes that ZRRROL provides employees with the requisite training per the EM.

Performance Standard Test

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

RCI reviewed the data for each of the months submitted during the test year and compared the monthly data submitted against the data summary. The data was analyzed to establish quantities and rates of recovery, recycling, and disposal activities.

RCI performed review and calculations on each of ZRRROL's incoming and outgoing materials and confirmed the outcomes of each. Based on a review of the monthly and annual mass balance data provided by ZRRROL, RCI concludes that ZRRROL's reported Reuse and Recycling rates with and without Alternate Daily Cover conform to the requirements and protocols of in the EM (2.0) and CORR Protocol (1.9).

Evaluation Statement Overview

Based on extensive review of data from ZRRROL's Demo Plant, the findings according to RCI protocols via the evaluation process, and the on-site visit and interviews with key staff, RCI finds that ZRRROL's Demo Plant meets RCI's eligibility requirements, complies with all measurement and record-keeping requirements, and has no existing material or significant immaterial non-conformances or misstatements in its reported data. RCI hereby certifies the Reuse and Recycling rates submitted by ZRRROL as Real Rates as outlined in the EM (2.0) per RCI CORR protocol.

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 Recycling Certification Institute:

	Executive Director
By	Title
Stephen M Bantillo	November 8, 2016
Print Name	Date

For ZRRROL:

	Sustainability Director
By	Title
Michael Gross	November 8, 2016
Print Name	Date