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ZANKER MATERIAL PROCESSING FACILITY (ZMPF)
DM REDUCTION SYSTEM

CORR PROTOCOL EVALUATION REPORT

October 5, 2018
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 Materials Processing Facility (ZMPF) DM Reduction System (DMRS) located at 675 Los Esteros Road, San Jose, California, submitted to the Recycling Certification Institute (RCI or Institute).

This 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 Evaluators Manual 2.0 (EM) and RCI CORR Protocol 1.91 were used to guide the evaluation process as is standard practice for all Evaluations.

The evaluation found neither material or immaterial misstatements nor deviations from the described process train for the DM Reduction System operation at the ZMPF 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 ZMPF was within the quantitative materiality threshold of 95% (less than 5% error) per EM Section 2.5.

Overview of ZMPF Operations

Facility Narrative Zanker Road Resource Management, Ltd. currently owns and operates the Zanker Material Processing Facility (ZMPF or Facility), located at 675 Los Esteros Road, San Jose, California. The Facility has operated as a resource recovery facility and disposal site since 1997 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 (CIWMB, 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 currently permitted under the SWFP, the ZMPF may accept up to 1,800 tons per day (tpd) of materials and to landfill on-site a maximum of 350 tpd. Although permitted as a Class III landfill, the Facility is not currently allowed to accept putrescible garbage and solid waste (i.e., wet household garbage), green/yard waste, liquid waste sludge, designated wastes, and hazardous wastes. The primary wastes received at the ZMPF, therefore, include construction and demolition debris, wood waste, mixed debris and soil generated from throughout the San Francisco Bay area. Residuals from the recycling operations are either transported to the Marina Landfill in Monterey California or landfilled onsite.

The Facility 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 Saturdays. The site is closed on Sundays. It is also closed on major holidays. The Facility has received materials from most jurisdictions within the Bay Area since 1997. Resource recovery operations at the ZMPF are divided into two mixed C&D plants, with one plant focusing primarily on large loads from demolition projects and the other plant primarily handling mixed C&D loads from contractors. All materials entering the Facility are weighed and recorded, including material type, date, time, weight, yardage, fees, hauler, and jurisdictions of origin. With the proper tracking of incoming materials and all outbound and disposed tons, a monthly recycling percentage is established for each "plant."

In January of 2017, an older Demolition Recycling Operation, known as the Rocket was dismantled. In its place, a new processing operation was built to handle residuals from other operations, loads with marginal recyclables and bulky items. In May 2017, the DM Reduction System became operational.

While there are several C&D plants operating on the ZMPF site, this Evaluation report pertains to the DM Reduction System applying for Certification. Particular attention was given to determining the activities and accuracy of maintaining appropriate segregation of operations and requisite accuracy in reporting.

DM Reduction System Process Flow

Products/Methods

Bulky items (couches, chairs, tables, Ikea' furniture and other furniture, mattresses and white goods) that are collected from local garbage collection companies and brought to ZMPF for processing and disposal are processed though the new DM Reduction System. Items such as refrigerators, air conditioners and freezers are manually removed and sent to a certified appliance recycler that removes Freon and mercury switches.

Additionally, sorted residuals from Zanker's and ZMPF's other operations are directed to the DM Reduction System for reprocessing. These materials are loaded into an all-electric SSI Shredder and ground to less than 14" in size. This shredder processes 90 tons of material per hour. The shredded materials are conveyed under a magnet to remove ferrous metals with the remaining shredded materials dropping into a Doppstadt SST 1025 trommel screen.

The first section of the trommel screen removes the 1" minus fines which are then conveyed past another magnet to remove more metals. The remaining 1" minus materials on the conveyor is stockpiled and marketed as ADC. The second section of the trommel screen removes the 4" minus fines. These fines are processed through a General Kinematics air knife separator which removes any remaining fines less than 1" minus before the materials enter the body of the classifier where heavy items such as

glass, metals, wood, and stones (heavies) are removed from lighter items such as paper, plastic and insulation (lights).

The heavies are conveyed past another magnet where they are deposited into a stockpile before being marketed as ADC. The lights are conveyed to a bunker where they are shipped to a landfill for disposal. The remaining larger then 4-inch materials cascade onto a conveyor that transports the materials to a 60" x 85' sort line where sorters remove items such as wood, concrete, brick, and metals, including tin, aluminum and copper, and beverage containers.

These recovered materials are weighed and sent to other recyclers for processing. Residuals from the sort line are directed to the on-site landfill or transported to the Marina Landfill in Monterey County. All materials processed from the Operation are weighed and recorded in compliance with the CORR Protocol.

Scales are located at the entrance to the facility. Each hauling incoming vehicle drives across the scales where it is weighed (charges are regularly determined by converting weight to volume using factors provided/required by the City of San José) and the driver proceeds to the appropriate location in the facility to empty the vehicle. Photos of the incoming load, driver and vehicle are taken. 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. If the materials do not match the materials identified on the driver's tag, the load checker notifies the driver and radios the scale house 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 the 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. The ZMPF 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 Saturday and closed on Sunday. It is closed on major holidays.

Daily Operation Flow – The DM Reduction System operates 6 days per week and processes an average of 10,400 tons per month, or 125,458 tons in the last 12 months.

ADC represents the largest percent of the materials recovered. ADC is sent to the Newby Island Landfill, ZMPF Landfill, or the Vasco Road Landfill for reuse. Concrete and wood waste removed from the operation are loaded into a trailer, weighed, and diverted to the specific recycling operations at Zanker. Some of the wood waste is clean enough to use for mulch production. Trash that is hauled from the operation is weighed and transferred to the Marina Landfill in Monterey. Metals are shipped to local recyclers for processing. Beverage containers are loaded into debris boxes and shipped off site for reprocessing.

Development of Evaluation Plan

ZMPF initiated the Certification process by first Registering the DM Reduction System on RCI's Registration webpage: https://www.recyclingcertification.org/registration/. The Registration process requires facilities to submit facility and contact information which provides RCI with a general understanding of the on-site operation(s) and what additional information may be needed in preparation for an Evaluation. A sample of information provided through the Registration 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 or not
- 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

Upon ZMPF's completion of the Registration process and in preparation for the Evaluation, RCI requested further documentation as expressed in the CORR guidance documents. Key elements of this information can be found in the CORR Protocols Edition 1.9, Appendices A and B, viewable on the RCI website on the 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 would include:

- Review of recyclables sales records
- Sales contacts to verify facility sales and other off-site movement of materials
- Confirmation of permits
- Verification of use and accuracy of scales including calibration frequency
- Observation and verification of load/material sorting and accuracy
- 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.

RCI reviewed twelve prior months' data for the DM Reduction System to determine accuracy of the mass-balance calculations for each plant. ZMPF provided files that allowed random sampling and review of all aspects of data including customers, weight tags, days, dates, materials, tons, etc. RCI noted areas of potential risk to follow up on during the site visit.

SITE VISIT

RCI performed an on-site evaluation of ZMPF's DM Reduction System on August 23, 2018. Sustainability Director Michael Gross conducted the tour of the facility and served as ZMPF'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. Environmental Compliance Officer, William Lineberry, provided permit and other facility documentation.

The review included the follow-up questions from the initial review of data. Interviews were conducted with staff associated with the key areas of the operations who have access authority and responsibility for maintaining, reviewing, and overall integrity of ZMPF's data, were conducted. RCI also reviewed the training manuals 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.

Regulatory Compliance Test

ZMPF possesses the necessary permits to operate.

The ZMPF has operated as a resource recovery facility and disposal site since 1997 under various Planned Development Permits issued by the City of San José Planning Department, Solid Waste Facilities Permit (SWFP) issued by the City of San José Local Enforcement Agency (LEA) and the California Integrated Waste Management Board (CIWMB, 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 District (BAAQMD). A review of the State of California Solid Waste Information System indicated the most recent updated facility permit was issued in January 2015 amending ZMPF's Large Volume Transfer/Processing Facility Permit. No Areas of Concern or Violations have been reported in the last twelve months. No irregularities were found involving management or employees who have a significant role in internal controls, or that could have a material effect on the reporting of ZMPF's recycling rates.

Use of Scales

RCI concludes that ZMPF satisfies the requirements for use of scales.

ZMPF has forty certified Deputy Weighmasters authorized to oversee operation of the three scales. The scales were recently serviced and calibrated, meeting the CORR Protocol requirement of at least once in the past twelve months.

ZMPF utilizes a detailed Ticketing System Process with Open and Complete Tickets to match operators, vehicles, loads and load types to ensure proper tracking and

assignment of rates and weights prior to operators leaving the facility. This is accomplished with load checking and communication with the operators as well as radio contact with the scalehouse. There are specific procedures for vehicles with tare weights stored in the system and vehicles without stored tare weights. The scale data is automatically entered into ZMPF's electronic data management system (SMS Turbo) connected to the main office also onsite. The scales are calibrated at least once per year by including each instance of maintenance or other work associated with the scales. County of Santa Clara Weights and Measures seals were affixed to the appropriate measurement equipment.

Supporting Data for Rate Estimates

RCI concludes ZMPF maintains required supporting data as required by the CORR Protocol for recycling and recovery rate estimates.

ZMPF uses an EMS system and retains hardcopy receipts for incoming and outgoing materials/ markets. ZMPF provided twelve months of electronic reports with tables (mass balance) for the DM Reduction System. The data included information on customers, weight tags, days, dates, materials, tons, etc. RCI analyzed the data and reviewed minor discrepancies and samples with Mr. Gross. The data accuracy fell within the required 95% accuracy threshold. A review of purchasers confirmed the disposition of materials recorded as having left ZMPF.

Data Transcription and Management

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

Mr. Gross demonstrated the storage, access, and management of ZMPF's data and how that information is organized for ZMPF's monthly reports, supporting the mass balance spreadsheets submitted previously.

Material data is automatically entered into the 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.

The spreadsheets are reviewed by the Sustainability Director for a final crosscheck before submittal (uploading) to RCI. Based on the critical need for accurate monthly spreadsheets for internal and customer accounting, observed competencies, as well as ongoing training of the individuals involved in the data entry, and final crosscheck by senior management, RCI concludes that sufficient QC exists for data transcription and management per the CORR Protocol.

Individuals Properly Trained for Functions They Perform

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

Zanker Recycling hired a full-time safety manager in 2010 to specifically deal with employee and customer safety at its facilities. As per OSHA and CalRecycle regulations, training logs and safety records are located in the office and are reviewable upon request. RCI reviewed the training schedules and modules/materials and observed the employees during the site visit.

Initial training and refresher courses occur as required by 27 CCR 20610. Training includes hazardous materials recognition and screening and heavy equipment operations, with emphasis on safety, health, environmental controls, and emergency procedures. Training modules include:

- First aid, health, and cardiopulmonary resuscitation (CPR)
- Hazard recognition and communication
- Hazardous, infectious and prohibited waste identification and handling procedures
- Occupational safety
- Regulatory compliance
- Job-specific cross-training
- Right-to-know training
- Environmental controls
- Spill prevention control and countermeasures plan
- Stormwater and groundwater monitoring
- Internal notification and external emergency response organizations notification

Specific training is also required for the ZMPF load-checking program. ZMPF designates and trains inspectors and backup personnel to conduct random load-checking inspections. Employees involved in load-checking activities are trained in the program procedures, and the health and physical hazards associated with hazardous and infectious waste. Load-checking personnel are trained in the identification of and procedures for handling hazardous and prohibited wastes. In general, all site personnel are trained to identify and report any suspicious loads.

At the discretion of the site manager, outside expertise is utilized to provide additional training. Sufficient numbers of personnel are trained in each job category to provide necessary backup and standby capability. Training records identify all key information on employee's training including documentation by the trainer of successful completion.

RCI observed these employees in the scale house and designated tipping areas of the DM Reduction System and surrounding areas. Materials were properly categorized and directed and the load checker maintained contact with vehicle drivers and the scale house as appropriate. Employees were observed utilizing proper safety equipment and appropriate signage was posted in the four plants as required by Cal-OSHA.

Based on the observations of staff, the work areas, and the initial and ongoing training of ZMPF employees, RCI concludes that ZMPF provides employees with the requisite training per the CORR Protocol.

Performance Standard Test

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

ZMPF provided electronic copies of spreadsheets representing twelve months of data for the DM Reduction System. RCI analyzed the data and noted areas requiring clarification. Several phone meetings with ZMPF's Sustainability Director were conducted to review RCI's questions related to the twelve-month mass-balance and monthly entries. Formulas were reviewed, their validity tested, and select transactions were indentified for further review during the site visit. The recycling and recovery rates information submitted by ZMPF for the DM Reduction System fell within the five-percent tolerance threshold defined per the CORR Protocol. RCI concludes that ZMPF's reported reuse and recycling rates satisfy the Performance Standard Test required per the CORR Protocol.

Evaluation Statement Overview

Based on extensive review of data from the ZMPF DM Reduction System, the findings according to RCI protocols via the evaluation process, and the on-site visit and interviews with key staff, RCI finds that the ZMPF DM Reduction System 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 or misstatements in their reported data. RCI hereby certifies the Reuse and Recycling rates submitted by ZMPF for its DM Reduction System as Real Rates as outlined in the 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 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:

By	Executive Director
	Title
Stephen M Bantillo	October 9, 2018
Print Name	Date

For Zanker Materials Processing Facility:

By	Sustainability Director
	Title
Michael J. Gross	October 9, 2018
Print Name	Date