

FINAL MINUTES
Waste-to-Energy Facility Monitoring Group
MEETING

November 6, 2024
Reworld Alexandria/Arlington Waste-to-Energy Facility – Eisenhower Avenue
9:30 a.m. – 11:00 a.m.
Virtual

The Facility Monitoring Group, City and County Staff, and HDR representatives present for the meeting included William Skrabak, Erik Grabowsky, Alaeedin Mohamed, Vijetha Huffman, Morgan Routt, Emily Hughes, Adriana Castañeda, Tarrence Moorner, Flavio Goncalves, Dan Domato, Kyle Perrin, and Abby Fleming. Don Cammarata and Peter Mayer attended the meeting from Reworld. This FMG Meeting was held as a virtual meeting.

I. Comments on Agenda

No comments were added to the agenda.

II. Approval of Draft Minutes from the August 21st, 2024, Facility Monitoring Group Meeting.

One spelling error in the draft minutes. With the edits, Grabowsky motioned to approve the draft minutes. Hughes seconded. All in favor of approval.

III. Requisitions for Payment

The requisitions for payment that were submitted for approval totaled \$23,523.96. The sole invoice was the invoice for HDR Engineering, Inc. for the period July 28, 2024, to November 2, 2024, in the amount of \$23,523.96. The invoice will be sent to Arlington for approval. Routt motioned to authorize approval via email with the FMG voting members. Grabowsky seconded. All in favor of approval.

IV. Operations and Facility Status

A. Summary of Plant Operations (by Reworld)

Mayer explained that every month Reworld hold safety topics presentations. In the month of July, August, and September, they were ergonomics, confined space and portable fire extinguishers. There were two lost time accidents during the quarter, which is not typical. The first incident involved an operator who fractured the tip of his thumb and needed stitches, he got his hand caught in an unguarded actuator. The actuator has been unguarded for more than 30 years, and there has never been an accident at this location as it is a confined area, but the operator tripped which led to the accident in September. The second accident occurred a week later, where the scale operator was assisting a resident in lifting a large piece of drop off material into the drop off metal box. Part of the material struck him in the back of his head and out of precaution, an EMT was called, and the employee was sent to the hospital to be checked out. Staff have previously helped, but due to safety concerns, signage has been posted that employees will not assist with resident drop off. There is a lot of residential traffic in the area that the facility continues to try and improve the flow and clarity of the rules. Skrabek asked what are the characteristics the resident drop off box and if it is possible to install a platform for residents to step up on, so they don't have to throw things over a 4-foot wall? Mayer responded that the facility is looking into alternative options including a 3-sided wall area.

Mayer discussed monthly operations. In August there was a recordable exempt carbon excursion regarding lean carbon injection. When a boiler experiences an upset condition, the carbon injection continues to operate 15 minutes after the event to ensure the gases are all treated. This is a logic control program, during the event one of the units did not go into that program mode. The facility realized the software was not updated, leading to the excursion. No fine was received, it was listed as an equipment malfunction. In July there were equipment failures related to a transformer, resulting in a black plant. Some equipment is nearing its end-of-life status. The transformer that feeds the energy to the system fans failed, the redundant systems are required because if the transformer is not operating the plant cannot operate. In June, the facility installed the spare transformer. When it was energized, it tripped the plant and essentially broke some of the electric switchgears. The downtime did not affect the ability to process waste. In August, there were no scheduled and unscheduled outage. The facility installed a new lime slaker, which is one of the pollution control equipment. In September, there was a scheduled minor outage for Unit 2 and a scheduled cleaning outage for Unit 3.

Mayer discussed staffing for the facility; there is an opening for an environmental specialist. Kevin McGunnigle has been promoted to manager and his old position is still vacant.

The regional operations COO has left, and the new employee's name for this position is Olsen. Alex Piscatelli who is the Regional Operations manager for the facility has moved to another facility, leaving that position vacant for the time being. Mayer stated there will be a hauler appreciation day on November 14th where they will speak with the haulers and provide breakfast sandwiches and a brochure highlighting the facility's safety rules. Grabowsky asked how the event will look like involving a line of haulers. Mayer stated that the thought will be that staff will walk down the incoming line and speak to haulers through their truck window.

B. Discussion of Quarterly Report and Facility Performance to Date (by HDR)

Fleming discussed the Quarterly Report and Performance Trends. Fleming reviewed the downtime over the quarter previously mentioned by Mayer. There was a total of seven outages for a total of 319 hours, 82% of it was scheduled with the minor outage on Boiler No. 2 and cleaning outages on Boiler Nos. 1 and 3. There was 56 hours of unscheduled downtime due to the switchgear failure and no standby time. The turbines had five outages, two outages were for standby time due to lack of steam from the boilers totaling 101 hours. The three unscheduled outages totaled 220 hours due to the switchgear failure and insulator repair. Domato stated that there was a drop in the net electric recovery and increase in turbine steaming rate due to the weeklong outage in July. The facility was still processing waste, by bypassing steam which will affect the electrical performance for the quarter. Overall availability for the quarter was very high, the boilers were at 95% and the turbines were at 95%.

In Q1FY25, waste deliveries were at 91,185 which is nearly identical compared to the previous two fiscal years. See in Chart 1, the monthly MSW processing rate was slightly lower compared to the corresponding quarter in fiscal year 2024, but in line with previous fiscal years, mainly due to the 41 more hours of downtime. In Q1FY25, the ash generation rate and ferrous recovery rate were both comparable to the previous fiscal year's first quarter. Tonnage for metal recovery was down, but as a rate per processed ton, it is only a 0.1 percentage point difference. Huffman asked about the period when the turbine generator was down but waste was still being processed, where does the steam go? Domato stated that when they have to bypass around the turbines, the steam goes to a bypass condenser which reduces the pressure of the steam but does not recover the electricity.

In Q1FY25, there was a slight increase in steam production (Chart 4 Page 12) about 1.7% relating to the 2.0% increase in the waste HHV despite the more hours of downtime. Net electric recovery was slightly higher (0.8% higher) at 399 kWh per ton. Domato stated to add labels on the next several graphs where data is outside the graph window. On Chart 14, the turbine performance

tracked 2.2% higher than the corresponding quarter of fiscal year 2024. The average main steam temperature was lower compared to the corresponding quarter. The lower main steam temperature decreases power generation. Domato stated that according to trends, HDR is not seeing much improvement from the turbine overhaul two years ago and to keep a note of during the next minor/major turbine outage to see if there are any maintenance items to help increase the turbine performance. Grabowsky asked Mayer about Chart 5, if their goal for the steam throughput is based on a monthly basis not on a rolling annual average, due to not meeting the steam limit the past three months? Mayer stated that they have not reduced production and have met their goal for waste processed during those months, even with downtime, there was just a reduction in electricity output. Mayer stated that they had a minor turbine outage where they didn't discover any unexpected work, and nothing seemed abnormal.

Fleming discussed the utilities and reagent consumption shown in Table 4 Page 22. Fuel oil usage is 16% higher than Q1FY24, but on a per ton basis, the usage rate was very similar, 0.12 compared to 0.14. All other reagents were comparable to Q1FY24. Mayer stated that the weather and moisture content affects the fuel oil usage as well as the unscheduled outages.

Fleming discussed their site visit earlier in October, mentioning the tipping floor exit door that was discussed during the last quarterly meeting. During her site visit, she spoke with the control room operator who stated that during the day the door remains open, she asked Reworld if there is anything regulatory around having the door open versus closed during the day. Domato stated that the original intent after installation was to be automatic during normal operating hours to reduce potential discharges of odor from the door and to help the negative pressure that's in the building. Domato asked Reworld if they can look within the next month how operations go with the door fully in automatic operations to reduce those odors. Mayer stated that he did inquire about the door operations, and the issue is having the motion sensor angled appropriately and it is an administrative control responsibility to place back into position if shifted. Mayer stated that the sensor has been adjusted to be opening and closing properly. Domato stated that he would like to set up quarterly meetings that are offset with the FMG meeting to talk about the deficiency list and steps on how items could be addressed. Mayer agreed, and the majority of the deficiency list is maintenance items.

V. Reworld Items

A. Supplemental Waste

There have been no major changes, and operations have continued as expected.

B. Fairfax Facility Tour

Cammarata stated that VA Delegate Tran organized a media tour at the Fairfax Facility between local state legislators and key stakeholders in the environmental community and the waste to energy business. The purpose was to familiarize those who have never been to a waste to energy facility and discuss the proposed changes to the Virginia Clean Economy Act to preclude/exclude waste to energy facilities from the revisions in the Act that would have otherwise required a reduction in CO2 emissions beginning in 2031. The current status is that the senate majority leader is planning on moving forward with the proposed changes, Reworld will be asking all their stakeholders for their support on those modifications by working with local officials. It appears that the local environmental groups are still concerned about waste to energy. Reworld tried to reassure the concerned groups that the changes would not significantly modify the intent behind the Act. Skrabek asked Cammarata to keep them informed so they can understand and know where that Act is headed. Cammarata stated the Alexandria Policy staff are very involved and should reach out to make sure there is a connection in the jurisdiction.

VI. Old Business

A. Proposed MACT Rules

Cammarata stated rules are expected to be finalized later in November.

VII. New Business

A. Resident Drop Off Box Incident

Mayer previously discussed during the operations and facility status.

B. Public Initiatives

Cammarata sent the list of initiatives for this past quarter. Mayer stated the EPA visited during the quarter, it was not included as a public/community perspective. Cammarata stated there was the Virginia American water rate change, they proposed a significant rate change that impacted the city but was lower than what was proposed.

Reworld's Public Outreach Initiatives:

Tours

7/10/2024	Northern Virginia Community College- Career Advisors and Employee Engagement Specialist
7/31/2024	Water Environment Federation

Community Service and Sponsorships

7/2/2024	Alive Alexandria
8/6/2024	National Night Out
8/8/2024	Stuff the Bus with United Way
8/12/2024	ACPS back to school drive
8/27/2024	Alive! Grocery Distribution
9/11/2024	9/11 Day
9/18/2024	Alive Alexandria
10/10/2024	Alive Alexandria
10/26/2024	Hispanic Heritage Festival

C. Open Discussion

Skrabek brought up that the Alex Renew Facility is looking at potentially installing a dryer system to dry out the sludge from the wastewater. They are looking at exploring options for dry pelletized disposal. They are looking into setting up a meeting within the next month for Alex Renew to present the material they have to Alexandria. It has a high BTU value, higher than average trash which would be of good value. Being local, there would be low transportation costs. It would be approximately 25 tons per day but would not start until 2029. It may require a few permit amendments if it were to move forward. At this point they want to see if it is a viable option and if it is worth pursuing. Cammarata stated that they would appreciate gathering the correct people to review this potential future option, and if not, if there is another possible option. Grabowsky asked if they are looking to keep it a class B biosolid. Skrabek stated his understanding is that it would be a class A. Grabowsky stated they kill more pathogens in class A for land use applications.

Grabowsky stated that the SWANA applied research foundation has been researching beneficial use of ash for DOT projects. Florida had previously approved waste to energy ash for roadway projects, Hawaii is actively pursuing projects as well. Grabowsky asked if they need all of their bottom ash to make sure the facility is within TCLP parameters, or if there is potentially excess bottom ash from this facility that the DOT could use for WTE roadway projects. Reworld is uncertain at this time. Grabowsky will share the study with Reworld. Perrin stated from a Florida perspective, the state has been talking about ash reuse for roadways for a long time, the stigma

around the companies that are responsible for the materials as a road base, they shy away from ash reuse from a liability perspective which is the largest hurdle. They have an application at the Pascoe Facility where they have groundwater monitoring wells where it has passed the test, the challenge is commercial application.

Domato mentioned the next meeting is scheduled for February 5th which is earlier than normal. The group motioned to move the meeting to the typical second Wednesday of the month. The next meeting will now be February 12, 2025.

On a motion by Grabowsky, seconded by Mayer the meeting adjourned at 10:10 a.m.

The next Facility Monitoring Group Meeting is scheduled for Wednesday, February 12, 2024, and will be held as a virtual meeting.