# FINAL MINUTES Waste-to-Energy Facility Monitoring Group MEETING

# May 14, 2025 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 Flavio Goncalves, Morgan Routt, Khalid Payenda, Howard Lee, Shani Kruljac, Emily Hughes, Alaeedin Mohamed, Vijetha Huffman, 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 February 12<sup>th</sup>, 202, Facility Monitoring Group Meeting.

Huffman stated on Page 3, waste deliveries appeared to reflect the year-to-date total and not the quarterly amount. Huffman wanted to confirm if it was supposed to be "turbine governor" versus "turbine generator". Mayer stated it should be turbine governor. With the above changes, Kruljac motioned to approve the draft minutes. Hughes seconded. All in favor of approval.

# III. Requisitions for Payment

Mohamed stated the requisition for payment is not completed and he will send it to the FMG by email for approval.

## IV. Operations and Facility Status

#### A. Summary of Plant Operations (by Reworld)

Mayer provided an update on the Facility Quarterly performance and safety. There was one first aid accident in January: a scale house attendant slipped on a plate deck and hurt their knee. Reworld reinitiated an employee-based safety committee through employee engagement. There is an active list that they regularly look at and identify potential items to resolve prior to being a safety concern. They have taken on several OSHA courses (OSHA-30 and OSHA-10). Safety theme focuses have included confined space rescues, blood borne pathogens, machine guarding, and access to medical records. There was a fire drill in March to simulate a pit fire, which is one of the highest risk areas due to lithium batteries. The Facility was approved again through Virginia Star.

Mayer discussed the environmental updates. There were no NOVs for the quarter. The Facility completed stack testing in February, the report stated the Facility is in good standing, even

with a reduction in carbon usage which will help Reworld financially. The Facility won the award again for the 8<sup>th</sup> year through VWEA (Virginia Water Environment Association) for good wastewater standing. There are several updates to Reworld staffing. Mayer stated Ardean Balali is replacing Alex Piscatelli as the operations area manager.

Mayer discussed the Facility quarterly operations. Boiler 3 had its scheduled major outage in January which completed a grate overhaul. In February, Boiler 2 had its schedule major outage, there were no large projects. In March, Boiler 1 completed its minor outage. Unscheduled outages included a bearing failure in January and fouling in February that required explosive blasting on Boiler 3. There was a failure in the stack liner due to water build up. There was likely a propane tank that passed through which caused a large blast in Boiler 2 causing some internal damage in Boiler 2. There are still two spare transformers on site; purchases for new transformers are underway, Reworld plans to have them delivered in August/September and December. The Facility successfully completed island operations testing, which allows the Facility to go into a "self-powered" mode incase Dominion has electrical issues. When there were previous events at the Facility, it was typically caused by Dominion, so the success of this test will improve the reliability and diminish downtime events. The Facility can continuously operate in island mode, but it is not desirable.

#### B. <u>Discussion of Quarterly Report and Facility Performance to Date (by HDR)</u>

Fleming discussed the Quarterly Report and Performance Trends. Fleming reviewed the downtime over the quarter previously mentioned by Mayer. For the quarter, boiler availability was 90% and turbine availability was 100%, which is very good for a quarter with scheduled major outages. There was a total of nine outages for a total of 647 hours, 82% of it was scheduled with the major outages on Boilers 2 and 3 and the minor outage on Boiler 1. There was 118 hours of unscheduled downtime for approximately 18% of the downtime for six outages due to the ID fan bearing failure, waterwall tube leak, steam flow transmitter malfunction, superheater fouling, grate bar failure (Boiler No. 2), and loss of power to the stoker. Mayer stated that the steam flow transmitter malfunction after the outage occurred due to an electronic failure, no correlation to work completed in the outage. There was no standby time for the boilers. The turbine had two instances of standby time which did not affect the availability, due to no steam during the major outage, and one hour for island ops testing. Fleming stated she talked to Greg Gromer during her site visit and there should be a minor turbine outage this fall in October, the major turbine overhaul for TG No. 1 will be pushed from 2026 to fall 2027. Goncalves asked a general question – when does downtime affect the ability to accept waste streams? Mayer stated it is based on the storage capacity, typically there is no more than two boilers down at the same time, so there is 66% of their capacity. Monday and Tuesday are typically a high waste acceptance day but decreases during the week so it would

depend on the day of a failure. With the refuse pit storage and two operating boilers, typically they do not have an issue with overcapacity in waste due to boiler downtime.

In Q3FY25, total waste deliveries year-to-date were at 259,009 tons, which is nearly identical compared to the previous two fiscal years. See in Chart 1, the monthly MSW processing rate was nearly identical compared to the corresponding quarter in fiscal year 2024, despite 16 more hours of downtime and last year was a Leap Year which had an extra day of processing. In Q3FY25, the ash generation rate and ferrous recovery rate were both comparable to the previous fiscal year's third quarter. Ash generation increased by 0.6 percentage points compared to Q3FY24. Chart 3 shows metal recovery, overall, tonnage for metal recovery continues to trend down, but as a rate per processed ton, it is the lowest rate compared to the past three fiscal years. Mayer stated that the magnet has been field tested to confirm the magnetic field is functional. Reworld has confirmed the ash conveyor carrying the metal through the magnet is in proper working conditions. Mayer concludes that this decrease is based on the waste composition. Domato asked Reworld if there had been any change in the process once the ferrous leaves the Facility. Mayer stated the ferrous metals are taken to the Fairfax location for secondary processing, and the nonmetallic metals get landfilled, he is unaware of any processing changes. Kruljac asked if this is a trend at other waste to energy facilities. Fleming answers that the Montgomery Facility has stayed average. Domato stated that there is a small percentage difference on the scale, and he has not seen this at Montgomery either. Domato asked Cammarata if he had seen local trends at the Fairfax Facility. Cammarata did not know off hand. HDR can look into the different regions for the next meeting. Domato stated the concern from the FMG is not about the revenue stream but removes the concern that it is a process issue causing the downturn in ferrous recovery. Kruljac stated the City uses the calculation of metal recovery towards their recycling rate.

In Q3FY25, there was an increase in steam production (Chart 4 Page 11) of about 3.4% compared to Q3FY24 correlated with the 3.5% higher HHV for the quarter. Net electric recovery (Chart 13 Page 19) was higher (5.3% higher) at 424 kWh per ton; there was 184 hours less downtime on the turbine generator. Chart 14 shows turbine performance has slightly improved with a lower conversion rate. There were higher steam temperatures this quarter compared to Q3FY24 which is contributable. Domato stated that HDR has been tracking this metric hoping for more of an improvement after the past overhauls. The last major was on TG No. 2 in 2022 which is considered the "main" turbine. The last major on TG No. 1 was 2019. Domato stated industry standard is typically between 7-9 years between overhauls.

On Table 4, the utilities and reagent consumption show fuel oil usage is 15% lower than Q3FY24, despite two less instances of start-up/shutdowns. Huffman asked about ammonia usage

being 12.2% higher compared to Q3FY24. Mayer stated that the increased usage is surprising as it should be a set rate. Domato suggested to look at the continuous trend of consumption from the beginning of certification until now to see what the continuous trend looks like.

Fleming discussed their site visit earlier in April, she stated the tipping floor exit door was operating during her walkdown, the deficiency item #21 is now considered closed. The hole by Boiler No. 1 stairs was repaired, deficiency item #14 was closed. The photolog shows new ID Fan rotors, Fleming asked what unit are these for and when do they plan to be installed? Mayer stated they will be installed between 6 months to a year; Unit 1 will be first. Three items were added to the deficiency list. Two sootblowers had their seal air line disconnected, on Unit 2 (Deficiency Items #25 and #26). Mayer stated it was likely maintenance, and they typically don't have lines disconnected, they should be connected again by now. In the photolog (Photo #16) Boiler No. 3 has several new holes in the feed chute, which was recently installed in 2024. Mayer is uncertain about the cause of the new holes. Domato asked if there are issues with the water-cooling jacket. Mayer stated Boiler No. tends to give the Facility issues and will be monitored. Photo #22 shows carbon on the external side wall, the scheduled power washing in June will target this specific wall. Photo #11 is the temporary pump; it has been on the deficiency list since 2022 which is a long time for a temporary pump – Fleming asked if there are any plans for permanent upgrades. Mayer stated the trench system needs work which would include hard piping for the system.

#### V. Reworld Items

#### A. Supplemental Waste

There have been no major changes, and operations have continued as expected. There is an optimization that occurs between Fairfax and Alexandria, and overall, their sales are significantly up, and it is expected to continue.

#### VI. Old Business

#### A. <u>Virginia Clean Economy</u>

Cammarata stated there was a decision made to defer any changes or proposals in the legislature to the next session versus this session. No other updates.

#### B. AlexRenew Biomass Material

Goncalves stated AlexRenew was still working on the next steps and asked Cammarata if he needed any assistance from the FMG to continue to collaborate and understand what AlexRenew needs. Cammarata stated in the past two weeks, Reworld visited AlexRenew to review the process on their end and the AlexRenew team has visited the Alexandria Facility to

better understand space constraints and the ability to deliver into the building. Cammarata has been working with Allison currently on setting up time to touch base and look at the next steps as well. One thing Reworld is trying to do is look at the overall sustainability impact of bringing in biomass into the facility, so they can tell a full environmental benefit story, Cammarata believes AlexRenew has completed in respect to their operations versus taking it to land application. Cammarata believes there are no barriers to accepting the waste into the facility and it's a question of now understanding how it can be delivered and making sure they can move the trucks in and out as necessary. AlexRenew is looking into the first delivery in 2030. Cammarata stated there was a City representative in the meetings, Erin Carver.

#### VII. New Business

#### A. FMG Organization Update

Flavio Goncalves introduced himself as the new division chief for resource recovery solid waste division for the City of Alexandria. He previously connected with Bill Skrabek on the position requirements within the FMG. Khalid Payenda is the transportation/Environmental Services Analyst.

Shani Kruljac introduced herself as the acting Bureau Chief for the Solid Waste Bureau in Arlington. Prior to this position, she was the operations manager for Arlington for eight years.

# B. Orange Notification Sheet Update

Domato will send the previous orange sheet to the FMG that was updated in 2023 to confirm the order of command, phone numbers, and emails are accurate. Once edits are received, Domato will send the final version out to be filed.

#### C. <u>Public Initiatives</u>

Cammarata stated they continue to work with Alexandria Alive. Reworld helped fund the scholarship fund of Alexandria. The Facility provided wreathes disposal, and a little over 100 tons of wreaths were delivered from Arlington National Cemetery. Some staff have volunteered at the Alexandria City Schools' science fairs as judges. Mayer stated the Facility is undergoing upgrades on the 3<sup>rd</sup> floor with new paintings and they are adding a mural. Kruljac asked how does tour outreach work? Cammarata stated groups reach out to Reworld to set up tours, they focus on schools and the communities closest to the Facility which is why there are more activities with Alexandria more so than Arlington. Goncalves asked about past shredding events as an inquiry from residents. Cammarata stated there have been three events in the last two years on Earth Day and in the fall and all events were poorly attended. Cammarata received an email from Arlington to set up a tour for their staff.

#### Reworld's Public Outreach Initiatives:

#### **Tours**

1/29/2025	Eco-Action Arlington- Energy Masters Group
3/15/2025	Leave our mark at Landmark- Sentinel Virtual Tour

#### **Community Service and Sponsorships**

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	1/8/2025	Alive- Alexandria	
	1/9/2025	The Scholarship Fund of Alexandria	
	1/11/2025	Wreaths across America - wreath disposal	
	1/23/2025	ACPS 2025 Science Fair	
	2/5/2025	Alive-Alexandria	
	2/22/2025	25th Annual Black History Month Gala	
	3/5/2025	Alive- Alexandria	
	3/14/2025	2025 Alexandria Chamber Women's Leadership Forum	

## D. Open Discussion

Domato stated the next meeting is August 13<sup>th</sup> and potentially hosting this as the annual inperson meeting. Mayer stated that it is typically a quiet month and there should be no issues scheduling. Domato to send out a poll about a month before to determine in-person or virtual meeting. Cammarata asked if the FMG has determined who the FMG chair is; Goncalves will be the chair moving forward.

On a motion by Kruljac, seconded by Routt the meeting adjourned at 10:05 a.m. The next Facility Monitoring Group Meeting is scheduled for Wednesday, August 13, 2025.