



Anaergia Services, LLC
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September 29, 2023

State of Rhode Island
Department of Environmental Management
235 Promenade St.
Providence, RI 02908
Attn: Christina Hoefsmit

Re: Immediate Compliance Order Update and Revised Plan

Dear Ms. Hoefsmit,

On September 22, 2023, Rhode Island Bioenergy Facility, LLC ("RIBF") received an Immediate Compliance Order OCI-AIR-23-80 ("ICO") issued by the Rhode Island Department of Environmental Management ("RIDEM") for its facility located at 289 Scituate Ave., in Johnston, Rhode Island ("Facility"). RIBF provided a response letter and a RIBF plan ("Initial Plan") on the same day and acted immediately comply with the ICO. The Plan is to address the "objectionable odor" as stated in the Rhode Island's Air Pollution Control ("APC") Rules, Part 17.5. Attached is a revision to Plan ("Revised Plan") which incorporates feedback from RIDEM and other issues documented during the Facility visit on September 27, 2023.

RIBF believes that the Revised Plan will address the concern of the odor escaping beyond the property line while allowing RIBF to continue minimal operations. RIBF respectfully requests that RIDEM approve the attached Revised Plan and lift the ICO effective immediately in accordance with the Revised Plan. RIBF is aggressively moving forward with a project to upgrade the receiving building ventilation system to allow full compliance with a negative pressure test detailed in the Revised Plan. The upgraded system is expected to be operational within the next 30 days.

Any questions or concerns regarding the Revised Plan may be directed to John Hutson either by phone at 224-500-7712 or by e-mail at John.Hutson@anaergia.com. Since compliance with this ICO is detrimental to our business RIBF prefers to be contacted by phone with any questions.

Sincere Regards,

A handwritten signature in black ink, appearing to read "John Hutson", written over a horizontal line.

John Hutson
Director of Plant Operations, North America
Rhode Island Bioenergy Facility, LLC



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Rhode Island Bioenergy Facility, LLC Revised Plan to Remediate Offsite Odor

Date: September 28, 2023

Past task Completed Under the September 22, 2023, Plan and Site Visit Summary

Over the past several days, the RIBF staff have taken great amounts of action to remediate the issue of odor traveling beyond the RIBF property line in accordance with the Initial Plan. The following is a description of the actions RIBF staff have completed since the ICO was issued. Last week and over the weekend per the Initial Plan including several of RIDEM recommendation from the Monday call.

- The RIBF biofilter was fully inspected. The site team removed tunneling issues that were occurring within the media, part of this effort included the removal of weeds and plant growth in the filter media that may create tunneling issues in the future. The team also sealed multiple cracks identified in the filter media housing.
- RIBF is now adding odorant to the humidification unit prior to the biofilter to assist in the elimination of odors in the biogas before it gets to the biofilter. Historically, deodorant has been utilized during major biofilter services.
- Site team has implemented the practice of multiple operator daily rounds of the biofilter to confirm no odors are present.
- RIBF has installed a draft line from the grit trap building to the biofilter to eliminate any odors leaving the grit trap building. Additionally, the site team sealed the grit trap building and sealed all the holes around the pumping changes and duct lines.
- Inspected the biopulper tanks for points of failure or openings. Smoke tested the biopulper tanks to confirm negative pressure during idle operations and while filling to biopulper tanks. Also, the team cleaned and spread lime on the ground around the biopulper tanks.
- Installed magnehelics for the pressure drop across the doors in the front of receiving and sealed up areas in the receiving building.
- Sealed the door in front of the slurry pit door.
- Inspected all tanks that have a potential for leaking around the site.



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Future Actions and Plans

By following this plan of action, RIBF believes that a conditional lifting ICO while maintaining the necessary operational requirements for the facility is possible. This facility is a biological process that relies on a continuous input of feedstock. RIBF is trying to avoid risks to the anaerobic digestion process if RIBF is not allowed to open exterior door briefly as proposed below.

1. Document:

- Ensure all documentation regarding the door ICO request and negative pressure testing is organized and accessible.
- Maintain records of compliance with the conditions for ICO lifting.
- Provide regular updates and reports as required by RIDEM.

2. Review the Test Results:

- Analyze the results of the test performed yesterday.
- Note the findings that indicate flow into the building at ground level and air escape at the upper portion of the doors.

3. Upgrade negative pressure system for odor control

- Additional blower has been ordered.
- Complete the installation within 30 days.
- Upgrade specifications to require that negative pressure is maintained in receiving building.
- Conduct testing and pass the test results onto RIDEM.

4. Add more Media for the Biofilter system:

- RIBF to bring in additional media for the Biofilter.
- Continue to rework the media to confirm that the channeling has been addressed.

5. Monitor Progress:

- Continuously monitor the situation with the odor and once negative pressure has been achieved continue to test periodically to confirm that the receiving building still have negative pressure.

Lifting the ICO Requirements

With the above future action and plan as laid out above, RIBF is requesting that RIDEM lift the ICO under the following conditions below:

- Limit the Facility to no more than 6 solids truck deliveries per day until negative pressure is demonstrated with expected upgrades.



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- Ensure each delivery has a door open time of less than 10 minutes.
- Assign a 3rd party observer to be present downwind on the property line during deliveries to monitor for objectionable odor.
- If an objectionable odor is detected, reduce the door open time accordingly.
- RIBF requests that during non-business hours to not impact neighboring businesses, the door for the rejects bin is allowed to be opened and the bin replaced with an empty bin. These deliveries and bin exchanges will be expediated by the site team to the full extent possible.



September 22, 2023

State of Rhode Island
Department of Environmental Management
235 Promenade St.
Providence, RI 02908
Attn: Christina Hoefsmit

Re: Immediate Compliance Order Response and Submission of Odor Plan

Dear Ms. Hoefsmit,

Rhode Island Bioenergy Facility, LLC ("RIBF") is in receipt of the Immediate Compliance Order OCI-AIR-23-80 ("ICO") issued by the Rhode Island Department of Environmental Management ("RIDEM") for its facility located at 289 Scituate Ave., in Johnston, Rhode Island ("Facility") and has taken action to comply with the ICO. In accordance with the ICO, the doors to the Facility will remain closed until RIDEM has had an opportunity to review and approve a Plan to address the "objectionable odor" as stated in the Rhode Island's Air Pollution Control ("APC") Rules, Part 17.5 or choose to modify or withdraw the ICO.

Attached to this letter RIDEM will find the RIBF's plan ("Plan") to remediate the odor from traveling beyond RIBF property line. RIBF has investigated and identified the root causes of the problem and is currently working to resolve the source of the odor by Monday. RIDEM will see in the Plan that the cause of the odor was not the fact that the Facility doors were open but rather that there was a damaged biofilter that allowed for the "objectionable odor" to escape beyond RIBF's property line.

RIBF respectfully requests that the RIDEM allow for the ICO restriction to be withdrawn, modified or the Plan approved as soon as possible. As the Plan will show, the source of the odor was not the Facility doors and under R.I. Gen. Laws §§ 42-17.1-2 the RIDEM director has the authority at his or her discretion to modify or withdraw such notice of violation even prior to approval of the Plan. RIBF respectfully requests that the RIDEM director review the attached Plans immediately and either modify or withdraw such notice to allow RIBF to open the Facility doors to continue RIBF's operations or approve the Plan.

Any questions or concerns regarding the Plan may be directed to John Hutson either by phone at 224-500-7712 or by e-mail at John.Hutson@anaergia.com. Since compliance with this ICO is detrimental to our business RIBF prefers to be contacted by phone with any questions.

Sincere Regards,


John Hutson (Sep 22, 2023 16:13 PDT)

John Hutson
Director of Plant Operations, North America
Rhode Island Bioenergy Facility, LLC







2023_09_22_ICO Cover Letter RIBF

Final Audit Report

2023-09-22

Created:	2023-09-22
By:	Laura Vanevic (laura.vanevic@anaergia.com)
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-  Document created by Laura Vanevic (laura.vanevic@anaergia.com)
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-  Document emailed to john.hutson@anaergia.com for signature
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-  Signer john.hutson@anaergia.com entered name at signing as John Hutson
2023-09-22 - 11:13:50 PM GMT- IP address: 172.248.205.228
-  Document e-signed by John Hutson (john.hutson@anaergia.com)
Signature Date: 2023-09-22 - 11:13:52 PM GMT - Time Source: server- IP address: 172.248.205.228
-  Agreement completed.
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Rhode Island Bioenergy Facility, LLC Plan to Remediate Offsite Odor

Introduction

Rhode Island Bioenergy Facility, LLC ("RIBF"), the operations of the facility located at 289 Scituate Avenue, in Johnston, Rhode Island ("Facility"), would like to present the following plan to Remediate Offsite Odor ("Plan"). RIBF has complied with the Immediate Compliance Order OCI-AIR-23-80 ("ICO") to close all exterior doors to the Facility. Below RIBF describes the 'Root Cause' of the offsite objectionable odor and our Plan to remediate this offsite odor. We also illustrate why Facility Doors being open or closed is entirely unrelated to the offsite odor complaints and hereby request this restriction be withdrawn as soon as possible.

Root cause

Root Cause of offsite objectionable odor

RIBF, through its investigation, has identified the source of the offsite objectionable odor to be *channeling* within the biofilter. RIBF inspected the biofilter media and found a ~2sf section of channeling which is being repaired currently. The moist area shown in *Figure 1* below illustrates how moisture-laden air is preferentially channeling through this small section of the biofilter. Where the media is thinner or less compacted, pressure drop in this section decreases and a larger quantity of air is allowed to flow through.

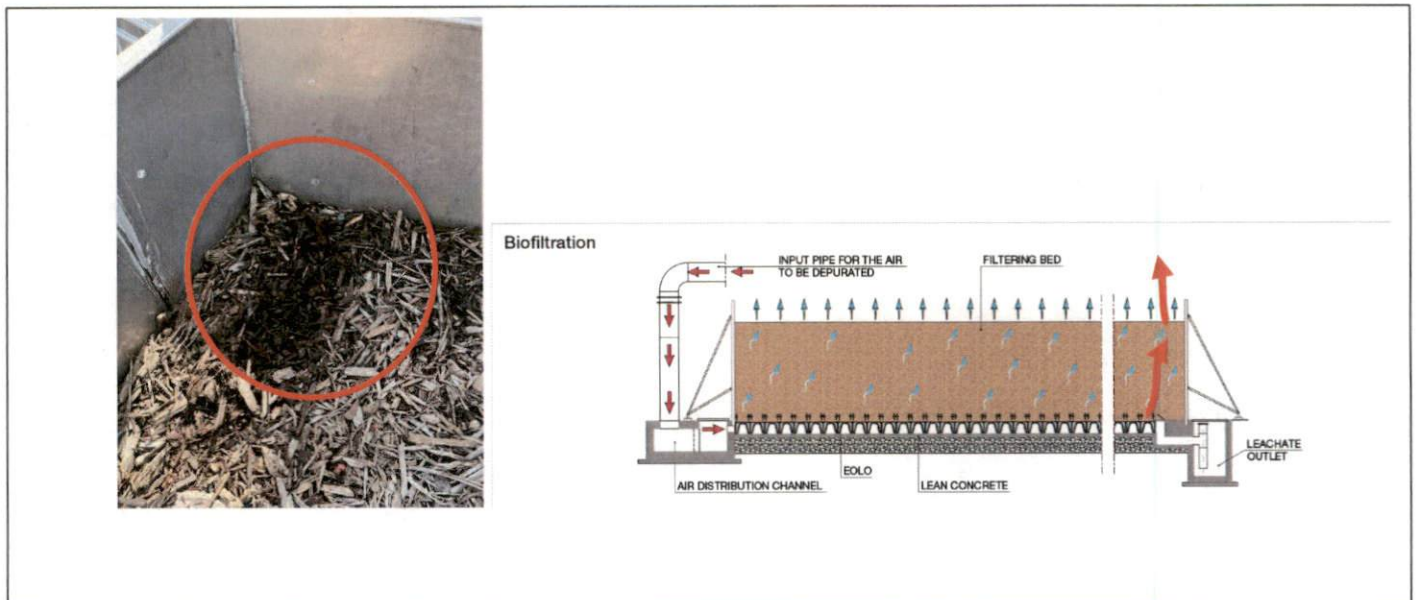


FIGURE 1: Area of channel noted by excess moisture, sketch of channeling mechanism.

Proper treatment of air in a biofilter relies upon sufficient residence time in the media. If the air is moving too quickly in one small section, a result is insufficient treatment on a relatively larger fraction of the airflow per overall biofilter area. Fortunately, the remedy is very simple; these areas should be dug out and re-filled with media to match the overall thickness and bulk density of the surrounding media. The entire media bed need not be replaced, as it is performing very well – only those sections where

channeling has been observed must be *and are being* repaired. Excess airflow and odor were observed in this section as shown in Figure 1 prior to receipt of the Immediate Compliance Order and the repairs will be completed before Monday 9/25/2023.

We believe the occurrence of the channeling in this area could be related to heavy rains that occurred August 19, 2023 just three days prior to the first string of complaints.

Previous off-site odor event (September 2021)

The last time the Facility experienced complaints regarding odor from neighbors was also related to the poor performance of the biofilter. At the time, the new ownership (Anaergia) determined that the biofilter had been installed with sub-par odor treatment media by the previous ownership, that said media was no longer effective and the entire media bed was replaced at great expense. Until recently the biofilter operated extremely well with no complaints. Once the channeling is remedied, the performance of the biofilter will be restored in full.

Plan to Remediate Offsite Odor

- The Facility has closed all doors in the receiving building to comply with the ICO.
- The Facility has cancelled all solids organics loads to the Facility for 9/22/2023 and 9/23/2023 which required reception through the doors of the receiving building. If the ICO cannot be waived before 9/25/2023, RIBF will be forced to cancel all loads on 9/25. Should the ICO remain in effect beyond this date, this will have widespread negative impacts on our stakeholders;
- The biofilter media will be inspected and repaired to eliminate the channeling within the biofilter
- Pressure drop across the biofilter will be observed and recorded daily. Should a decrease in pressure be observed from one day to the next, it is indicative of a channeling, bypass or leak event and immediate remedy will be taken.
- In addition to the necessary repairs the Facility will institute a weekly biofilter inspection to repair any channeling or other deficiencies prior to resulting in odor complaints and potential Compliance Orders.

Facility Doors

Receiving building doors open/closed neither the cause NOR cure of offsite objectionable odor.

The receiving building at RIBF is equipped with roll-up doors that allow tipping of organic waste feedstocks into the treatment processes. The opening of these doors is necessary for receipt of input material to the process and the Facility cannot operate without periodic opening of these doors. It is a Solid Waste Permit condition that when not in use, the doors must remain closed, and this is the standard practice at RIBF for the doors to remain closed normally. Side roll-up doors are also occasionally open for removing trash bins, for service access, for maintenance and material supply to the receiving area. The Facility cannot operate without periodic opening of these doors. Requiring these doors to remain shut effectively closes the Facility and prevents the continued diversion of organic waste from landfills in Rhode Island.

The receiving building is equipped with a very large suction ventilation system that collects odorous air from the building and the biopulper tank and directs this air to an onsite biofilter for odor treatment. This

system is highly effective, and airflow at the building when a door is open to receive input feedstock flows generally from the outside into the building. RIBF has operated in this current manner (doors open for receiving waste, doors closed otherwise) since its inception without odor complaints off-site while receiving very similar amounts/quality of inbound waste material as today. To the untrained eye of the complainant, it is understandable but incorrect to associate the offsite odor with the visual cue of an open receiving door.

Further, we are aware that an offsite complainant phoned in a complaint just this afternoon (9/22/2023) while driving by the Facility several hours AFTER we received and implemented the door shutdown order. Open receiving doors are not the root cause of offsite odor just as closing all doors is not a solution to offsite odor.