

September 1, 2021

Mr. Jeffrey Meyer, Manager
Division of Air Enforcement
Bureau of Air Compliance & Enforcement - Northern
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

Subject: Essex County Resource Recovery Facility
Program Interest (Title V) Number 07736
NEA200001-07736 – Administrative Consent Order
Progress Report #6

Dear Mr. Meyer:

On behalf of Covanta Essex Company and in accordance with the Item #17 under the above referenced Administrative Consent Order (ACO) NEA200001-07736, attached is Progress Report #6 explaining the status of Covanta Essex Company's compliance with the Compliance Schedule required by the ACO.

If you have any questions or need additional information please contact Patricia Earls of my staff at 973-817-7322 or pearls@covanta.com.

Sincerely,




David Blackmore
Facility Manager

Attachments

Mr. Jeffrey Meyer
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"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this letter and all attached documents and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate, or incomplete information."



David Blackmore
Facility Manager

9/1/21

Date

Covanta Essex Company, PI #07736
Progress Report #6
NEA200001-07736 – Administrative Consent Order, Item #17

A. Identification of Site and Reference to ACO

Covanta Essex Company, PI #07736
Administrative Consent Order (ACO) NEA200001-07736

B. Status of Permitting and Planning Approvals, and any work at the site and progress to date


Status of Permitting and Planning Approvals:

Other than the Title V Operating Permit Renewal (BOP170001) and the Solid Waste Operating Permit Renewal (RRF200001), there are currently no other permitting or planning approvals pending or in progress related to the requirements of the ACO.

Work at the site and progress since submittal of Progress Report #5 on June 30, 2021:

- On January 6, 2021, Covanta Essex Company submitted the air quality modeling protocol prepared by AECOM, an independent third-party environmental consultant, to the Bureau of Evaluation and Planning for approval. Comments on the protocol were received on February 26, 2021 from Mr. Greg John of the Bureau of Evaluation and Planning. A response to these comments was submitted to Mr. John on April 21, 2021 which was within 60 days of February 26, 2021 as required. Approval of the protocol was received on June 8, 2021 from Mr. Greg John of the Bureau of Evaluation and Planning. The final air quality modeling report was submitted to Mr. John on July 20, 2021 which was within 45 days of protocol approval pursuant to the requirement under Phase II a)3 of the ACO. Copies of the report were also sent by email to Mr. Jeffrey Meyer, Ms. Richelle Wormley, and Mr. Scott Michenfelder of NJDEP. As stated in the report, the modeling analysis demonstrates the maximum modeled concentrations over the entire receptor grid, including all sensitive receptors, are below the health benchmarks for all compounds.
- On December 9, 2020, comments were received from Luis Lim of the Bureau of Air Monitoring on the iodine monitoring evaluation report that was submitted to NJDEP on November 6, 2020. A response to Mr. Lim's comments on the report were submitted by Covanta Essex Company to Jeffrey Meyer on April 6, 2021. On May 18, 2021, Mr. Jeffrey Meyer forwarded additional comments from Mr. Lim on the April 6, 2021 response document. To clarify our position that an iodine monitor is not suitable or effective for the purpose of detecting iodine in MSW delivered to the facility, a conference call meeting with NJDEP was requested by Covanta Essex Company and the meeting was held on June 29, 2021. As a result of the meeting, Mr. Frank Steitz requested that Covanta Essex Company submit a report detailing pollution prevention procedures that will be implemented at the facility to prevent waste containing iodine or any other halogens from entering the facility and being processed in the boilers. The report, referred to as the Halogenated Waste

Pollution Prevention Plan, was submitted to Mr. Jeffrey Meyer on July 29, 2021. Copies of the report were also submitted by email to Mr. Frank Steitz, Ms. Richelle Wormley, and Mr. Scott Michenfelder of NJDEP.

- On June 18, 2021, comments on the Communications and Community Engagement Plan (Plan) submitted by Covanta Essex Company on January 7, 2021 were received from Mr. Jeffrey Meyer of NJDEP Air Enforcement. The Plan was revised to address the comments and was submitted along with specific responses to each comment on July 19, 2021 to Mr. Jeffrey Meyer. Copies of the revised Plan and responses to comments were also submitted by email to Ms. Richelle Wormley and Mr. Scott Michenfelder of NJDEP.
- On July 7, 2021, Covanta Essex Company began posting Continuous Emission Monitoring (CEM) data from the Essex facility on its facility webpage at www.covanta.com/essex. The data is available on the website 24 hours per day, seven days per week. CO values are the maximum 4-hour block average for that day, SO₂ and NO_x values are the daily (24-hour) block averages for that day, and opacity values are the maximum 6-minute average for that day. Data is posted 24 hours after completion of each day to allow for quality assurance/quality control (QA/QC) review.
- On August 5, 2021, the multi-language versions of the Essex facility webpage and the FAQ page were posted on-line. Below are the direct links to those language versions, but users of the webpage can also toggle the globe icon  in the webpage header to switch languages.

Essex facility page (Spanish) - <https://www.covanta.com/es-mx/where-we-are/our-facilities/essex>

Essex FAQ page (Spanish) - <https://www.covanta.com/es-mx/where-we-are/our-facilities/essex/faqs>

Essex facility page (Portuguese) - <https://www.covanta.com/pt-br/where-we-are/our-facilities/essex>

Essex FAQ page (Portuguese) - <https://www.covanta.com/pt-br/where-we-are/our-facilities/essex/faqs>

- On August 17, 2021, Covanta Essex Company also posted a Hotline number on the facility webpage referenced above. The Hotline is available 24 hours per day, seven days per week and allows the public to call Covanta to obtain the latest information on facility incidents or announcements. Callers can leave a message with the hotline operator which will be immediately emailed to plant management along with the caller's contact information so that a timely response can be provided. The Hotline has the capability to speak to residents in English, Spanish, and Portuguese.
- On August 19, 2021, postcards were mailed out to local residents in the Ironbound area of Newark informing them about the posting of on-line CEMs data on the facility webpage and

the availability of the Hotline along with the phone number to call. The postcards were written in English, Spanish, and Portuguese.

C. Difficulties or problems encountered during the reporting period, and actions taken to rectify any difficulties or problems

There have been no difficulties encountered during this reporting period.

D. Activities planned for the next reporting period

Activities planned for the next reporting period are as follows:

- Covanta will respond to any further comments or requests for additional information from the NJDEP on the final air quality modeling report, the Halogenated Waste Pollution Prevention Plan, and the Communications and Community Engagement Plan as needed.

E. The required and actual completion dates for each item required by this ACO

See the updated table, included as Attachment 1 to this report, that lists action items required by the ACO along with required due dates and actual completion dates where applicable.

F. An explanation of any non-compliance with the compliance schedule

There are no instances of non-compliance with the schedule.

G. Evaluation of all corrective measures implemented to date

Covanta Essex Company continues to implement our Community Outreach efforts and enhanced tipping floor inspection procedures in order to prevent iodinated waste from being combusted in the boilers. The successful identification of the source of the iodinated waste believed to have caused the purple plume events in 2019 and 2020, and subsequent permanent re-direction of that waste to another non-Covanta disposal facility, has resulted in no further purple plume opacity events at Covanta Essex Company since April 7, 2020.

The annual Open Meeting that was held virtually on December 16, 2020 from 5:00 to 6:00 pm via a Zoom webinar by Covanta for the Essex facility was a successful event based on the levels of attendance and participation by members of the public. There was a question and answer segment which allowed the facility to address comments specifically from members of the public in an open and interactive forum.

Going forward, Covanta Essex Company will host two Open Meetings per year. Each December, the Open Meeting will be held virtually to avoid weather issues and allow for a greater level of attendance as observed during the December 2020 meeting. Each June, the Open Meeting will be

an in-person event held either at the facility or at the Blue Print Café on Raymond Boulevard in Newark which is within a mile of the facility.

As part of a greater transparency with the local community, Covanta Essex Company has implemented an additional notification procedure whereby the Ironbound Community Corporation (ICC) is contacted by phone and email of any emission exceedance events at the facility. Ms. Maria Lopez-Nunez, who is the Deputy Director, Organizing and Advocacy for the ICC, is notified of each event.

In 2018, Covanta Essex installed 10 HD digital cameras on the tipping floor. These originally included 2 cameras with additional pan, tilt and zoom (PTZ) capability. In 2019, after the increase in purple plume events, two of 10 HD digital cameras in the overhead location in front of Bays 2 and 13 were replaced with the PTZ cameras for a total PTZ capability for 4 of 10 cameras. This PTZ capability allows for greater visual observation of loads. All recorded video footage by the cameras is stored and available for review for up to 40 days.

Attachment 1

Covanta Essex Company ACO Requirements

Requirement	Description	Deadline	Required Due Date	Actual Completion Date
Phase I a)	COVANTA ESSEX COMPANY (“COVANTA”) shall hire an independent public relations consultant or other similarly qualified consultant to develop a formal public outreach program and/or review and supplement as necessary, COVANTA’s existing program if one either formally or informally exists. A plan, detailing the program, shall be developed and shall include, but not be limited to, procedures to provide timely updates on any operational upsets that result in permit excursions, periodic notifications to local community groups, including electronic and other agreed to forms of communication and the establishment of a website link. COVANTA shall reach out to local community groups to determine notification schedules and deliverables for purposes of planning and program development.	Within 30 calendar days of effective date of ACO	11/9/2020	11/6/2020
Phase I b)	The plan and program shall also provide that COVANTA conduct a community outreach event to communicate with local community groups on a bi-annual basis.	Bi-annual	Ongoing	6/16/2021
Phase I c)	COVANTA shall complete and submit the plan to the Department for comment.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I c)	Within fourteen (14) calendar days after addressing any modifications to the plan, COVANTA shall initiate the planned program.	Within 14 calendar days of addressing NJDEP comments on Community Outreach plan	TBD	Response to initial comments submitted 7/19/21
Phase I d)	COVANTA shall hire an independent waste operations consultant to review and develop new protocols or supplement as necessary, COVANTA’s existing waste receipt, inspection and handling protocols. Protocols shall include but are not limited to items listed below under Phase I d)i through v.	Within 30 calendar days of effective date of ACO	11/9/2020	11/6/2020
Phase I d)i	Procedures to increase education and outreach to all customers and haulers via direct communications with responsible entities and printed messaging on all invoice bills regarding acceptable/prohibited waste types.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I d)ii	Specific procedures to address iodinated wastes including methodologies to identify potential generators/sources of these wastes, development of proactive steps to ensure these wastes are not included in the waste streams coming to the facility and inspection/interception protocols to ensure these waste types are not processed through the facility.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I d)ii	As a potential measure for enhancing COVANTA’s iodine waste inspection/interception protocols, iodine monitors shall be evaluated for their potential effectiveness to monitor vapor phase iodine. The evaluation shall be submitted to the Bureau of Air Monitoring within thirty (30) calendar days of the effective date of this ACO.	Within 30 calendar days of effective date of ACO	11/9/2020	11/6/2020

Requirement	Description	Deadline	Required Due Date	Actual Completion Date
	Response to NJDEP comments on iodine monitor evaluation received on 12/11/20	No required deadline for response	NA	4/6/2021
	Response to NJDEP comments on iodine monitor evaluation received on 5/18/21	No required deadline for response	NA	Call held on 6/29/21 to discuss comments
	Submittal of Halogenated Waste Pollution Prevention Plan report to NJDEP by July 30, 2021 pursuant to agreement made on call on 6/29/21	7/30/2021	7/30/2021	7/29/2021
Phase I d)ii	If the Department deems that the monitors are effective in monitoring vapor phase iodine, the monitors shall be installed, in accordance with Department review and approval, within 60 calendar days of such approval.	Within 60 calendar days of effective date of ACO	TBD	Awaiting NJDEP final feedback
Phase I d)iii	Installation of Digital Cameras at appropriate locations throughout the facility to monitor waste streams being tipped in the transfer house and being conveyed into the boilers. The Digital Cameras should have recording capability and data retention that can record for 30 days.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I d)iv	Additional dedicated training to employees responsible for 1) monitoring truck deliveries and unloading and 2) operating the grapples used to mix waste in the pit and transfer waste from the pit to the feed hopper for each boiler, to train the employees to identify inappropriate waste material.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I d)v	Enhanced employee training program to ensure compliance with COVANTA's Solid Waste and Air Permits, applicable Best Management Practices, and procedures for identifying and preventing iodine from entering the Facility.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I e)	Within ninety (90) calendar days of the effective date of this ACO, excepting the Iodine monitor evaluation noted in d)ii. above, COVANTA shall provide the protocols and procedures outlined above for Department comment.	Within 90 calendar days of effective date of ACO	1/7/2021	1/7/2021
Phase I e)	Within fourteen (14) calendar days after addressing any modifications to the protocols and procedures, COVANTA shall implement same. COVANTA is encouraged to proactively implement any enhanced protocols and procedures outlined above prior to the required 90-day due date	Within 14 calendar days of addressing NJDEP comments on Waste Receipt, Inspection and Handling protocols	TBD	Awaiting NJDEP comments
Phase II a)	Identification and estimation of air pollutant emissions and the air dispersion modeling of the impacts of the identified purple plumes shall be performed by an independent third party, and reports containing the air dispersion modeling results shall be submitted to the Department detailing the estimated potential health impacts associated with the purple plume events. Modeling shall include the impact of iodine associated acid gases with an estimation of emissions. Modeling reports shall be provided to the DEP by a qualified thirdparty modeling expert acceptable to the Bureau of Evaluation and Planning.	Within 45 days of protocol approval	7/23/2021	7/20/2021

Requirement	Description	Deadline	Required Due Date	Actual Completion Date
Phase II a)1.	Prior to conducting and modeling or health risk assessment COVANTA ESSEX COMPANY shall provide detailed estimates of all emissions associated with the purple plumes including, but not limited to, iodine and other associated acid gases and, the methodologies used to estimate the amount and duration of the emissions within 45 calendar days of the Effective Date of this ACO.	Within 45 calendar days of effective date of ACO	11/23/2020	11/19/2020
Phase II a)2.	Within 90 calendar days of the Effective Date of this ACO but prior to conducting and modeling or health risk assessment COVANTA ESSEX COMPANY shall submit a written protocol that is prepared by an independent third party for DEP approval to the Bureau of Evaluation and Planning that is consistent with a) Technical Manual 1002 Guidance on Preparing an Air Quality Modeling Protocol b) Technical Manual 1003 Guidance on Preparing Risk Assessment for Air Contaminant Emissions.	Within 90 days of effective date of ACO	1/7/2021	1/7/2021
	Response to NJDEP comments on air quality modeling protocol received on 2/26/21	Within 60 days of receipt of comments	4/26/2021	4/21/2021
Phase II a)3.	Once reviewed and approved by the Department, an independent third party shall conduct the modeling and risk assessment consistent with the protocol approval and submit results within 45 calendar days of Department approval.	Within 45 calendar days of protocol approval	7/23/2021	7/20/2021
Phase II a)4.	If upon completion of DEP's review of the modeling and risk assessment identified in Phase 2, Paragraph a.3 of this ACO, there are verified findings that the emission of the purple plumes caused a non-negligible health impact (See NJDEP Division of Air Quality Technical Manual 1003) to the public, Covanta shall disclose the findings to the public. In doing so, Covanta is encouraged to include posting the findings on its website. Covanta will disclose the non-negligible health impact within 5 days of receiving the verified findings.	Within 5 days of receiving non-negligible health impact results	NA	No non-negligible health impacts identified
Phase II b)	A mitigation plan shall be submitted to the Department for inclusion into COVANTA ESSEX COMPANY's Solid Waste and Title V permits. The mitigation plan shall consider findings from the evaluation of waste generators and how tipping floor procedures can be adjusted to improve a visual assessment of waste deliveries. Upon approval, the mitigation plan shall be referenced in the pending Title V Operating Permit renewal (BOP170001) under review by the Department and shall be incorporated into the renewal of the current Solid Waste Facility Permit (RRF190001) which expires February 23, 2021.	Plan shall be submitted upon approval by the Department of the protocols and procedures required to be submitted under Phase I e) within 90 days of effective date of ACO	TBD	Awaiting final NJDEP approval of protocols and procedures
Phase II c)	COVANTA ESSEX COMPANY shall provide a written report detailing efforts made at the facility located in Lancaster PA and operated by Covanta Lancaster, Inc. The report shall include information that explains the formation of purple plumes including the estimated iodine feed rate where the creation of a plume event has been made.	Within 60 calendar days of effective date of ACO	12/8/2020	12/7/2020

Requirement	Description	Deadline	Required Due Date	Actual Completion Date
Item 14	All reports submitted to the Department shall be made available on COVANTA ESSEX COMPANY's website within one week of being submitted to the Department. This requirement shall exclude the report required and identified in Phase II, paragraph c.	Within 1 week of submittal of any required report to NJDEP.	Ongoing	Completed as applicable.
Item 17	<p>COVANTA ESSEX COMPANY shall submit progress reports to the Department by the first calendar day of every other month beginning 30 calendar days from the Effective Date of this ACO. Each report shall explain the status of COVANTA ESSEX COMPANY's compliance with the Compliance Schedule required by this ACO and shall include, but not be limited to, the following:</p> <p>A. identification of the site and reference to this ACO;</p> <p>B. the status of permitting and planning approvals, and any work at the site and progress to date;</p> <p>C. difficulties or problems encountered during the reporting period, and actions taken to rectify any difficulties or problems;</p> <p>D. activities planned for the next reporting period;</p> <p>E. the required and actual completion dates for each item required by this ACO;</p> <p>F. an explanation of any non-compliance with the compliance schedule; and</p> <p>G. evaluation of all corrective measures implemented to date.</p>	First calendar day of every other month beginning 30 calendar days from the effective date of ACO.	9/1/2021	9/1/2021 (Next report due by 11/1/21)
Item 18	In settlement of the violations cited in the above findings, COVANTA ESSEX COMPANY shall pay a penalty of \$24,400 (Twenty Four Thousand, Four Hundred Dollars) by check made payable to the "Treasurer, State of New Jersey" and remitted to the Division of Revenue at the address stated on the enclosed invoice(s) within thirty (30) calendar days of the Effective Date of this ACO.	Within 30 calendar days of effective date of ACO	11/9/2020	11/5/2020