UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
New England Regional Laboratory
Laboratory Services and Applied Science Division
11 Technology Drive, North Chelmsford, MA 01863

Report Memorandum

Drafted Date: 11/10/2021
Finalized Date: 11/19/2021

Subject: Pretest Observation Report – Trelleborg Coated Systems US, Inc.

From: William Osbahr, Stack Testing Coordinator, Field Services Branch (FSB) /WAO/
Alysha Murphy, Stack Testing Coordinator (Trainee), FSB /ADM/
Tyler Kotsifas, Stack Testing Coordinator (Trainee), FSB /TLK/

Through: Jerry Keefe, Team Leader, FSB /JCK/

To: Christine Sansevero, Chief, Air Compliance Section
Enforcement and Compliance Assurance Division

Facility Information:

A. Facility Name: Trelleborg Coated Systems US, Inc.
B. Facility Location: 30 Lenox St., New Haven, CT 06513
C. Facility Contact: Brian Franco, General Manager
D. ICIS-Air #: CT0000000900903003

Background Information:

A. Date of inspection: October 28, 2021
B. US EPA Representative(s): William Osbahr, Alysha Murphy, Tyler Kotsifas
C. Inspection Purpose: Follow-up Inspection - Pretest Meeting for proposed emission testing and Coating Line Enclosure Monitoring Inspection for ECAD

Disclaimer:

Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.

Observation Notes:

Inspection Participants:

Name	Title	Organization
William Osbahr	Stack Testing Coordinator	USEPA
Alysha Murphy	Environmental Scientist	USEPA
Tyler Kotsifas	Environmental Scientist	USEPA
Brian Franco	Plant Manager	Trelleborg
Eric Turner	EH&S Manager	Trelleborg
Dave Moore	Maintenance Manager	Trelleborg
Mike Kelley	Owner/Supervisor	CK Environmental
Brendan Kelley	Stack Tester	CK Environmental
Nick Garber	Stack Tester	CK Environmental
Evan Bernard	Stack Tester	CK Environmental

EPA representatives Mr. Osbahr, Ms. Murphy, and Mr. Kotsifas (EPA Team) attended a VOC Capture Efficiency (CE) and Destruction Efficiency (DE) test at Trelleborg Coated Systems US, Inc. - New Haven Facility (Trelleborg) on October 28, 2021.

The EPA Team arrived at Trelleborg at approximately 9 am and met with Mr. Turner.

The EPA Team held a brief opening conference to discuss the day's testing plan. The EPA Team stated that the purpose was to observe CE/DE testing activities which were expected to be performed throughout the day.

EPA observations and monitoring discovered throughout the day that the Trelleborg facility had several locations in their captured ducts that demonstrated fugitive emissions. Testing was aborted to allow Trelleborg to perform repairs of their capture system.

Observations:

On the morning of the test, the EPA Team toured the facility. While up on the flat roof section of Trelleborg's facility, the EPA Team noticed very strong VOC odors in the roof area.

The EPA Team informed Mr. Turner that the source of the VOC odors needed to be determined if they were associated with Trelleborg's capture system. Mr. Osbahr explained to Mr. Turner and Mr. Franco that the leaking capture ducts in the system were an indication that Trelleborg was not conveying 100% of its captured coating emissions to the Thermal Oxidizer. The DE testing was then put on hold until VOC odors could be better classified.

The EPA Team utilized a Forward Looking Infrared (FLIR) camera to determine possible sources of VOC odors.

A series of FLIR videos were recorded by the EPA Team that demonstrated several bypass ducts leaking VOCs from Trelleborg's capture system. Emissions were detected from the vents on the flat section of the roof as well as a series of bypass vents on the exterior back wall of facility.

The EPA Team recorded several videos and photos using an EPA issued iPhone to categorize the bypass stacks.

The EPA Team showed Mr. Franco and Mr. Turner the recorded FLIR videos indicating clearly where the VOC fugitive emissions from the bypass ducts were occuring. Mr. Osbahr explained how such videos demonstrated VOC fugitive emissions leaks associated with Trelleborg's capture system. Leaks were identified from:

1. Bypass Exhaust for Coater 4
2. Bypass Exhaust for Coater 3
3. Bypass Exhaust for Coater 3 / 4
4. Bypass Exhaust for Coater 10
5. Additional Bypass Exhaust for Coater 10. Leaks detected on camera, but no recordings taken due to the intermittent nature of that duct's emissions.
6. Rusted/Corroded Hole in Coater 10 duct. Leaks detected on camera, but no recordings taken due to the intermittent nature of the hole's emissions.

All of the above locations can be seen in Attachment A, Photo 1.

While on the roof, Mr. Osbahr stated to Mr. Moore and Mr. Turner that the bypass ducts appeared to be not in a fully closed position initially and that several of the pneumatic actuator pistons designed to open and close the ducts were in various states of disrepair. He also pointed out damaged, broken, or pinched pneumatic lines leading to these actuators.

Mr. Franco stated that Trelleborg used the bypass ducts in the past when they operated non solvent based coating on site. He also stated that his operators informed him that they only use the bypass duct systems when they are "curing" (i.e., not actively coating) existing fabrics rolls that have already been coated. Mr. Franco stated that Trelleborg no longer does either solvent or curing activities and that the bypass vents were obsolete. Mr. Franco stated that he would have all the bypass ducts cut out and the vents capped so they would no longer be able to emit fugitives.

Mr. Franco asked Mr. Osbahr to use the FLIR camera to survey the ducting that runs along the back outside wall (Photo 2) of the Trelleborg facility. He stated the Trelleborg would like to close all possible leaks in the system when they perform their repairs.

The EPA Team surveyed those lines and found significant sources of fugitive VOC emissions out of 2 bypass ducts on the side of the building. The FLIR videos revealed significant VOC emissions coming out of the bypass exhaust stacks for Coater 1 and 2.

The EPA Team couldn't properly assess bypass stacks 5 and 8 with the FLIR camera. The extreme height and close quarters within the back alleyway of Trelleborg would not afford proper camera viewing.

Photos and freeze frame photos from the videos have been included in Attachment A. FLIR videos which clearly demonstrated emissions from the stacks will be retained by EPA and available on request.

Closing Conference:

The EPA Team replayed all FLIR videos for Eric Turner in the facility conference room.

Mr. Osbahr explained that some of the ducts on the flat roof demonstrated intermittent emissions and as such videos may not have been recorded to demonstrate fugitives.

Mr. Osbahr again expressed that the recorded video surveys demonstrate fugitive VOC emissions from Trelleborg's capture system.

Mr. Franco stated that Trelleborg would cut out and fully cap all the bypass ducts at the facility over the weekend and into the following week. He stated that Trelleborg would reach out to the EPA Team once the bypass ducts have been removed from the system.

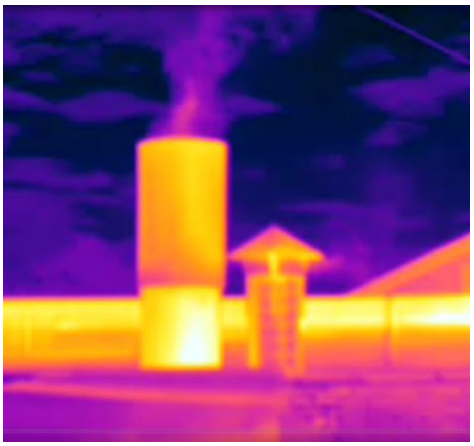
Attachment A

Photo 1. Trelleborg bypass ducts up on flat roof.

Photo 2. Trelleborg back wall bypass ducts.

Photo Series A. Trelleborg fugitive VOC emissions from Bypass Exhaust Coaters 3 and 4 as compared with FLIR frozen frame photos. Note: HSM stands for Hight Sensitivity Mode.

Bypass Exhaust Coaters 3 and 4 (Visible Light)

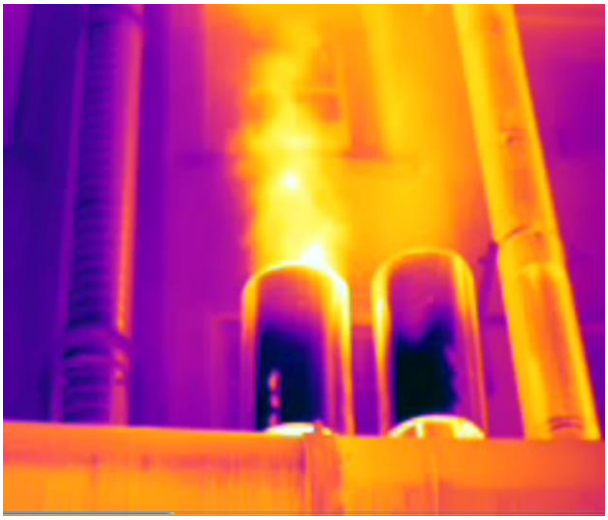


Bypass Exhaust Coaters 3 and 4 (FLIR Auto Mode)

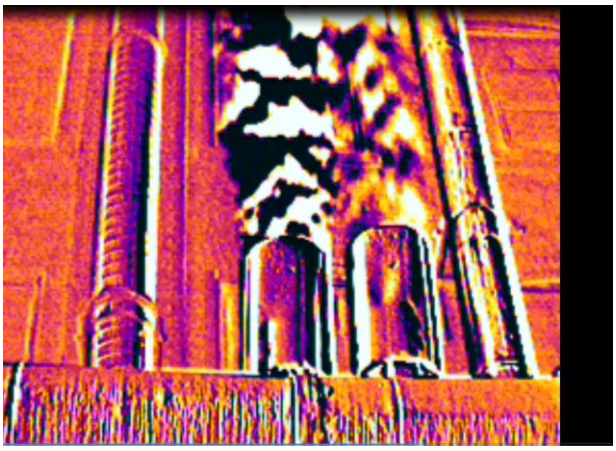
Bypass exhaust Coaters 3 and 4 (FLIR HSM)

Photo Series B. Trelleborg fugitive VOC emissions from Bypass Exhaust Coaters 1 and 2 as compared with FLIR frozen frame photos

Bypass Exhaust Coater 1 and 2 (Visible Light)



Bypass Exhaust Coater 1 and 2 (FLIR Auto mode)



Bypass Exhaust Coater 1 and 2 (FLIR HSM)