



AIR EMISSION TEST REPORT

Title RESULTS OF VISIBLE EMISSION COMPLIANCE
TESTING FOR FOUNDRY OPERATIONS

Report Date October 14, 2019

Test Date(s) October 14, 2019

Facility Information	
Name:	Brembo North America, Inc.
Street Address:	M60 and Van Wert Rd
City, County:	Albion Township, Calhoun
SRN:	N6226

Permit / Emission Unit Information	
Permit To Install No.:	PTI 199-14A, 145-12B

Testing Contractor	
Company:	Impact Compliance & Testing, Inc.
Mailing Address:	4180 Keller Road Holt, MI 48842
Phone:	(517) 268-0043
Project No.	1900139

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Attachment 1

RESULTS OF
VISIBLE EMISSION COMPLIANCE TESTING
FOR FOUNDRY OPERATIONS

BREMBO NORTH AMERICA, INC.
HOMER, MI

1.0 INTRODUCTION

Brembo North America, Inc. (Brembo) manufactures high-performance automobile brake system components at its facility located in Homer / Albion Township, Calhoun County (Facility State Registration No., SRN N6226). A Renewable Operating Permit (MI-ROP-N6226-2015) has been issued to the stationary source for existing brake finishing and assembly operations.

The facility is classified as a new foundry that is part of a major stationary source of hazardous air pollutant (HAP) emissions and is subject to the provisions of the National Emission Standards for Hazardous Air Pollutants from Iron and Steel Foundries (40 CFR Part 63 Subpart EEEEE, Iron and Steel Foundry MACT).

The conditions of Permit to Install 199-14A and the Iron and Steel Foundry MACT require that visible emission (VE) observations be performed to determine the opacity of any fugitive emissions from the building that houses the foundry operations.

Jory VanEss performed the VE testing for the Brembo foundry operations on October 14, 2019. Ms. Vivian Rowles, of Brembo, coordinated the project. The observations presented in this report were performed within six months of the previous observations, which were performed April 16, 2019.

A notification for the VE testing was submitted to the EGLE-AQD on September 13, 2019 prior to the performance test.

Impact Compliance & Testing, Inc.

Questions concerning this emission report should be directed to:

Testing Procedures	Jory VanEss Environmental Consultant Impact Compliance & Testing, Inc 4180 Keller Road Holt, MI 48842 jory.vaness@impactcandt.com (517) 268-0043
Compliance Manager	Vivian Rowles Health, Safety & Environmental Manager Brembo North America 6259 30-Mile Rd Homer MI vrowles@us.brembo.com (734) 928-8664

Report Certification

This test report was prepared by Impact Compliance & Testing, Inc. based on field observations collected by Impact Compliance & Testing, Inc. This test report has been reviewed by Brembo representatives and approved for submittal to the EGLE.

I certify that the testing was conducted in accordance with the specified test methods and submitted test plan unless otherwise specified in this report. I believe the information provided in this report and its attachments are true, accurate, and complete.

Report Prepared By:



Jory VanEss
Environmental Consultant
Impact Compliance & Testing, Inc.

2.0 SUMMARY OF TEST RESULTS AND SAMPLING LOCATION

2.1 Fugitive Emissions

USEPA Method 9 procedures were used to evaluate the opacity of fugitive emissions being released from the Brembo building that houses iron and steel foundry emissions sources. All visible emissions determinations were performed by a qualified observer in accordance with USEPA Method 9, Section 3. The qualified observer was located at a distance sufficient to provide a clear view of the emission source(s) with the sun oriented in the 140° sector to his back. As much as possible, the line of vision was approximately perpendicular to the plume direction (though no plumes were observed).

Observations were recorded at 15-second intervals. The fugitive VE opacity observations were performed for three (3) continuous hours (30, 6-minute averages) on October 14, 2019.

No visible emissions were observed (all recorded values are 0%). The facility maintains compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing iron and steel foundry emission sources.

2.2 Sampling Location

USEPA Method 9 procedures were used to evaluate the opacity of fugitive emissions being released from the Brembo building housing iron and steel foundry emissions sources. The observer chose a location in the east parking lot with clear views of the north dock doors, sand handling truck door, and east facility doors (no openings were identified for the west side of the facility).

Attachment 1 provides field data sheets, appropriate VE observation point diagram, 6-minute averages, and a copy of the observer's certification.

2.3 Deviations from Test Plan

The test notification submitted to EGLE-AQD on September 13, 2019 prior to the performance test specified a test date of October 15, 2019. Testing was completed on October 14, 2019 to accommodate the availability of a VE certified reader. All methods and procedures specified within the test notification remained identical during testing period.

Attachment 1

**Field Data Sheets
6-minute averages
Observation Point Diagram
VE Certification**

Impact Compliance & Testing, Inc.

Visible Emission Observation Form

Method Used			
Method 9	203a	203b	other:
Company Name Brembo			
Facility Name Homer Facility			
Street Address 2999 E. M160			
City Homer	State MI	Zip 49425	
Process Unit All	Unit	Op. Mode	
Control Equipment none		Op. Mode	
Describe Emission Point Fugitive emissions			
height of em. pt.		height relative to obsv.	
start 0-15'	end 0-15'	start 0-15'	end 0-15'
distance to em. pt.		direction to em. pt. (deg)	
start 500'	end 500'	start W	end W
vertical angle to obsv. pt.		direction to obsv.	
start 0-2°	end 0-2°	start W	end W
distance and direction to em pt to obsv pt			
start 500' W	end 500' W		
Describe emissions			
start none	end none		
emission color		water droplet plume (circle)	
start none	end none	attached	detached (none)
Describe plume background			
start building		end building	
background color		sky conditions	
start whitened	end some	start partly	end some
wind speed		wind directions	
start 9mph	end 10mph	start from west	end some
ambient temp		wet bulb	relative humidity
start 40°F	end 44°F	—	45%
Source layout sketch			
longitude		indicate	
latitude		wind directions	
		plume direction	
		sun location	
		north	
additional information parked near guard shack			

Impact Compliance & Testing, Inc.

Visible Emission Observation Form

Method Used			
Method 9	203a	203b	other:
Company Name			
Facility Name			
Street Address			
City	State	Zip	
Process Unit	Unit	Op. Mode	
Control Equipment		Op. Mode	
Describe Emission Point			
height of em. pt.		height relative to obsv.	
start	end	start	end
distance to em. pt.		direction to em. pt. (deg)	
start	end	start	end
vertical angle to obsv. pt.		direction to obsv.	
start	end	start	end
distance and direction to em pt to obsv pt			
start	end		
Describe emissions			
start	end		
emission color		water droplet plume (circle)	
start	end	attached	detached none
Describe plume background			
start		end	
background color		sky conditions	
start	end	start	end
wind speed		wind directions	
start	end	start	end
ambient temp		wet bulb	relative humidity
start	end		
Source layout sketch			
longitude		indicate	
latitude		wind directions	
		plume direction	
		sun location	
		north	
additional information			

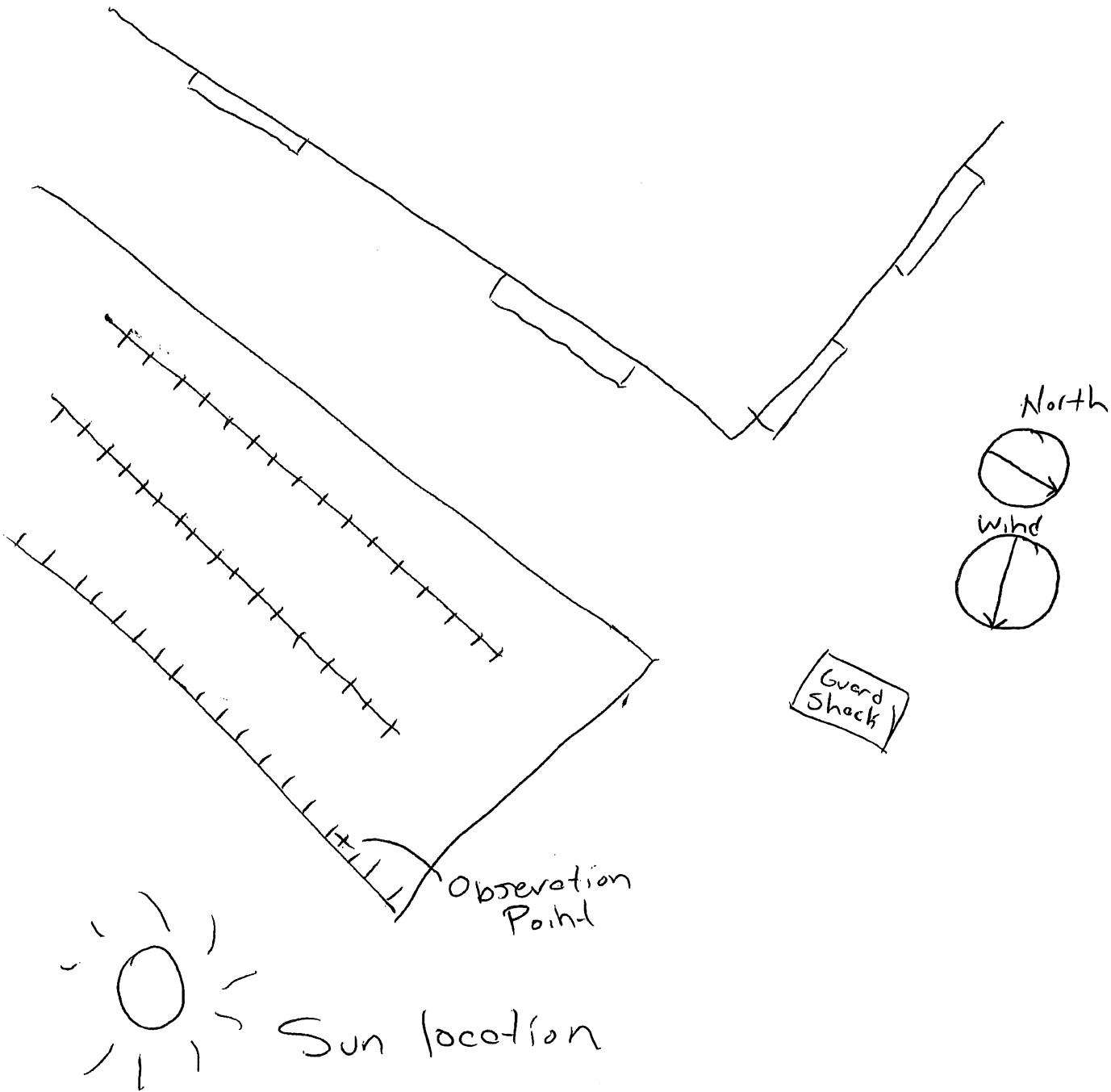
Impact Compliance & Testing, Inc.

Visible Emission Observation Form

Method Used			
Method 9	203a	203b	other:
Company Name			
Facility Name			
Street Address			
City	State	Zip	
Process Unit	Unit	Op. Mode	
Control Equipment		Op. Mode	
Describe Emission Point			
height of em. pt.		height relative to obsv.	
start	end	start	end
distance to em. pt.		direction to em. pt. (deg)	
start	end	start	end
vertical angle to obsv. pt.		direction to obsv.	
start	end	start	end
distance and direction to em pt to obsv pt			
start	end		
Describe emissions			
start	end		
emission color		water droplet plume (circle)	
start	end	attached	detached none
Describe plume background			
start		end	
background color		sky conditions	
start	end	start	end
wind speed		wind directions	
start	end	start	end
ambient temp		wet bulb	relative humidity
start	end		
Source layout sketch			
longitude		indicate	
latitude		wind directions	
		plume direction	
		sun location	
		north	
additional information			

Impact Compliance & Testing, Inc.

Client: Brembo-Homer	Project No.	Date: 10/14/19
Project/Description: Fugitive emissions at Brembo Homer Facility	Page:	Initials: JV



Six-Minute USEPA Method 9 Opacity Averages
 at
 Brembo North America, Inc
 Homer, Michigan
 Test Date: October 14, 2019

Hour: 1						Hour: 2						Hour: 3								
Start Time:	10:40	End Time:	11:40	Page 1 of 1		Start Time:	11:40	End Time:	12:40	Page 1 of 1		Start Time:	12:40	End Time:	13:40	Page 1 of 1				
Minute	Second				6-min	Minute	Second				6-min	Minute	Second				6-min			
	0	15	30	45	Average		0	15	30	45	Average		0	15	30	45	Average			
1	0	0	0	0	—	1	0	0	0	0	—	1	0	0	0	0	—			
2	0	0	0	0	—	2	0	0	0	0	—	2	0	0	0	0	—			
3	0	0	0	0	—	3	0	0	0	0	—	3	0	0	0	0	—			
4	0	0	0	0	—	4	0	0	0	0	—	4	0	0	0	0	—			
5	0	0	0	0	—	5	0	0	0	0	—	5	0	0	0	0	—			
6	0	0	0	0	0.0	6	0	0	0	0	0.0	6	0	0	0	0	0.0			
7	0	0	0	0	0.0	7	0	0	0	0	0.0	7	0	0	0	0	0.0			
8	0	0	0	0	0.0	8	0	0	0	0	0.0	8	0	0	0	0	0.0			
9	0	0	0	0	0.0	9	0	0	0	0	0.0	9	0	0	0	0	0.0			
10	0	0	0	0	0.0	10	0	0	0	0	0.0	10	0	0	0	0	0.0			
11	0	0	0	0	0.0	11	0	0	0	0	0.0	11	0	0	0	0	0.0			
12	0	0	0	0	0.0	12	0	0	0	0	0.0	12	0	0	0	0	0.0			
13	0	0	0	0	0.0	13	0	0	0	0	0.0	13	0	0	0	0	0.0			
14	0	0	0	0	0.0	14	0	0	0	0	0.0	14	0	0	0	0	0.0			
15	0	0	0	0	0.0	15	0	0	0	0	0.0	15	0	0	0	0	0.0			
16	0	0	0	0	0.0	16	0	0	0	0	0.0	16	0	0	0	0	0.0			
17	0	0	0	0	0.0	17	0	0	0	0	0.0	17	0	0	0	0	0.0			
18	0	0	0	0	0.0	18	0	0	0	0	0.0	18	0	0	0	0	0.0			
19	0	0	0	0	0.0	19	0	0	0	0	0.0	19	0	0	0	0	0.0			
20	0	0	0	0	0.0	20	0	0	0	0	0.0	20	0	0	0	0	0.0			
21	0	0	0	0	0.0	21	0	0	0	0	0.0	21	0	0	0	0	0.0			
22	0	0	0	0	0.0	22	0	0	0	0	0.0	22	0	0	0	0	0.0			
23	0	0	0	0	0.0	23	0	0	0	0	0.0	23	0	0	0	0	0.0			
24	0	0	0	0	0.0	24	0	0	0	0	0.0	24	0	0	0	0	0.0			
25	0	0	0	0	0.0	25	0	0	0	0	0.0	25	0	0	0	0	0.0			
26	0	0	0	0	0.0	26	0	0	0	0	0.0	26	0	0	0	0	0.0			
27	0	0	0	0	0.0	27	0	0	0	0	0.0	27	0	0	0	0	0.0			
28	0	0	0	0	0.0	28	0	0	0	0	0.0	28	0	0	0	0	0.0			
29	0	0	0	0	0.0	29	0	0	0	0	0.0	29	0	0	0	0	0.0			
30	0	0	0	0	0.0	30	0	0	0	0	0.0	30	0	0	0	0	0.0			
31	0	0	0	0	0.0	31	0	0	0	0	0.0	31	0	0	0	0	0.0			
32	0	0	0	0	0.0	32	0	0	0	0	0.0	32	0	0	0	0	0.0			
33	0	0	0	0	0.0	33	0	0	0	0	0.0	33	0	0	0	0	0.0			
34	0	0	0	0	0.0	34	0	0	0	0	0.0	34	0	0	0	0	0.0			
35	0	0	0	0	0.0	35	0	0	0	0	0.0	35	0	0	0	0	0.0			
36	0	0	0	0	0.0	36	0	0	0	0	0.0	36	0	0	0	0	0.0			
37	0	0	0	0	0.0	37	0	0	0	0	0.0	37	0	0	0	0	0.0			
38	0	0	0	0	0.0	38	0	0	0	0	0.0	38	0	0	0	0	0.0			
39	0	0	0	0	0.0	39	0	0	0	0	0.0	39	0	0	0	0	0.0			
40	0	0	0	0	0.0	40	0	0	0	0	0.0	40	0	0	0	0	0.0			
41	0	0	0	0	0.0	41	0	0	0	0	0.0	41	0	0	0	0	0.0			
42	0	0	0	0	0.0	42	0	0	0	0	0.0	42	0	0	0	0	0.0			
43	0	0	0	0	0.0	43	0	0	0	0	0.0	43	0	0	0	0	0.0			
44	0	0	0	0	0.0	44	0	0	0	0	0.0	44	0	0	0	0	0.0			
45	0	0	0	0	0.0	45	0	0	0	0	0.0	45	0	0	0	0	0.0			
46	0	0	0	0	0.0	46	0	0	0	0	0.0	46	0	0	0	0	0.0			
47	0	0	0	0	0.0	47	0	0	0	0	0.0	47	0	0	0	0	0.0			
48	0	0	0	0	0.0	48	0	0	0	0	0.0	48	0	0	0	0	0.0			
49	0	0	0	0	0.0	49	0	0	0	0	0.0	49	0	0	0	0	0.0			
50	0	0	0	0	0.0	50	0	0	0	0	0.0	50	0	0	0	0	0.0			
51	0	0	0	0	0.0	51	0	0	0	0	0.0	51	0	0	0	0	0.0			
52	0	0	0	0	0.0	52	0	0	0	0	0.0	52	0	0	0	0	0.0			
53	0	0	0	0	0.0	53	0	0	0	0	0.0	53	0	0	0	0	0.0			
54	0	0	0	0	0.0	54	0	0	0	0	0.0	54	0	0	0	0	0.0			
55	0	0	0	0	0.0	55	0	0	0	0	0.0	55	0	0	0	0	0.0			
56	0	0	0	0	0.0	56	0	0	0	0	0.0	56	0	0	0	0	0.0			
57	0	0	0	0	0.0	57	0	0	0	0	0.0	57	0	0	0	0	0.0			
58	0	0	0	0	0.0	58	0	0	0	0	0.0	58	0	0	0	0	0.0			
59	0	0	0	0	0.0	59	0	0	0	0	0.0	59	0	0	0	0	0.0			
60	0	0	0	0	0.0	60	0	0	0	0	0.0	60	0	0	0	0	0.0			
					6-minute average maximum	0.0						6-minute average maximum	0.0						6-minute average maximum	0.0