



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	02/08-09/2024	
Media Program:	Air	
Regulatory Program(s)	Title V, NSPS	
Company Name:	Ineos Calabrian Corporation	
Facility Name:	Ineos Calabrian Facility	
Facility Physical Location:	5500 STATE HWY 366	
(city, state, zip code)	PORT NECHES, TX 77651	
Mailing address:	See above	
(city, state, zip code)		
County/Parish:	Jefferson County	
Facility Phone Number	(409) 727-1471	
Facility Contact:	Ryan Quinn	Operations Manager
	Ryan.quinn@ineos.com	
FRS Number:	110000746499	
Identification/Permit Number:	TCEQ RN 101645018	
Media Identifier Number:	48-245-00106	
NAICS:	325180	
SIC:	2819	
Personnel participating in inspection:		
Justin Chen	Region 6 ECDAT	Environmental Engineer
Benjamin Donaldson	Region 6 ECDAT	Environmental Engineer
Kenneth McPherson	Region 6 ECDAT	Life Scientist
Daniel Hoyt	OECA AED	Environmental Engineer
Nathan Hicks	OECA AED	Physical Scientist
Richard Helmich	NEIC	Chemist
Philip Myer	NEIC	Mechanical Engineer
Leslie Pitre	Ineos Calabrian	SHE Representative
Ryan Quinn	Ineos Calabrian	Operations Manager
Roberto Gutierrez	Ineos Calabrian	Quality Manager
Carlos Robles-Sanchez	Ineos Calabrian	Site Manager
EPA Lead Inspector Signature/Date		
	Justin Chen	Date
Supervisor Signature/Date		
	James Leathers	Date

Ineos Calabrian Facility Port Neches
Inspection Date 02/08/20214

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA inspectors Justin Chen (R6 ECDAT), Benjamin Donaldson (R6 ECDAT), Kenneth McPherson (R6 ECDAT), Daniel Hoyt (OECA AED), and Nathan Hicks (OECA AED), accompanied by Philip Myers and Richard Helmich (National Enforcement Investigations center, “NEIC”) arrived at the Ineos Calabrian Facility at 9:44AM on February 8, 2024 for an unannounced inspection. We met Ineos Calabrian representatives Ryan Quinn/Operations Manager, Leslie Pitre/Safety, Health, and Environment (“SHE”) Representative, and Roberto Gutierrez/Quality Manager. I present my credentials to Ryan Quinn and informed them that this was an EPA inspection to evaluate potential sources of excess emissions using EPA’s Geospatial Measurement of Air Pollution (“GMAP”) vehicle and to evaluate compliance with the facility’s Title V Air Permit and the Clean Air Act. The scope of the inspection was a partial evaluation (“PCE”). This inspection occurred as part of a multi-scale monitoring project in the Beaumont-Port Arthur area. Photographs and video taken during the inspection can be found in Appendix 1 and 2, respectively. The sign-in sheet for the closing conference is found in Appendix 3.

FACILITY DESCRIPTION

The Ineos Calabrian facility (Facility) is a sulfur dioxide chemical production facility located in Port Neches, Texas (Jefferson County) that operates under the Clean Air Act (“CAA”) as a minor source under New Source Review Permit Number 9214, renewed August 14, 2017. The facility employs 65 employees and operates 8,760 hours per year. The facility produces liquid sulfur dioxide (“SO²”), sodium bisulfite, sodium sulfite, sodium thiosulfate, and sodium meta bisulfite.

Section II – OBSERVATIONS

The NEIC GMAP was driven by Richard Helmich and the instruments were operated by Philip Myers. Facility representatives, Leslie Pitre, Ryan Quinn, and Roberto Gutierrez followed the GMAP on foot. Conditions were overcast and cloudy. Inspectors Justin Chen, Benjamin Donaldson, and Kenneth McPherson followed the GMAP on foot and Inspectors Daniel Hoyt and Nathan Hicks operated a Data Acquisition in Real Time (“DART”) unit on their vehicle, equipped with a photoionization detector (“PID”) that measures VOC in the air, and a wind monitor that monitors wind speed, wind direction and geolocation. The DART unit had a 10.6ev PID installed. The Dart equipped vehicle followed the GMAP.

The GMAP drove on all available Facility roads measuring air pollutant concentrations downwind of each of the process areas, if possible. We started at the northwestern corner of the Facility property at the Sodium Meta Bisulfite Unit at 10:28AM. At 10:39AM, the GMAP detected SO² at 500 parts per billion (“PPB”). On a second pass at, the GMAP detected 2 parts per million (“PPM”) of SO², and then 1.5 PPM

SO² at 10:45AM while continuing to monitor at the Sodium Meta Bisulfite Unit. It was noted by facility staff that a caustic truck was unloading around this time. We then drove to the Sodium Bisulfite Unit, then the Thiosulfate Unit, then the Sodium Sulfite Unit, then the Sulfur Dioxide Unit, then the Sulfur Dioxide Rail Loading Area, and then the Utilities Unit. At 10:55AM, we moved to the Sodium Thiosulfate Tanks and then to the Wastewater Pond, which was adjacent to the Sulfur Solids Disposal roll off dumpsters. The GMAP detected 40 PPB of SO² near the Sulfur Solids roll off dumpsters and we also observed sulfur solids on the ground (Appendix 1; Photos 7, 8). We then returned to the Sodium Meta Bisulfite Unit as the caustic truck was no longer loading. At 11:25AM the GMAP measured 250 PPB and 275 PPB SO².

The GMAP survey ended at 11:38AM and we returned to the Facility administrative office. A full report from the GMAP will be issued by NEIC at a later date.

Region 6/AED Follow-up Inspection

At 3:00PM on February 9, 2024 EPA inspectors Ben Donaldson/Region 6, Kenneth McPherson/Region6, Richard Helmich/NEIC, and Philip Myers/NEIC conducted a follow-up inspection of Ineos Calabrian Facility. The inspection team brought a Forward Looking Infrared ("FLIR") camera model GF77 with them to the follow-up inspection. The FLIR Camera GF77 has the capability to visualize specific SO² emissions.

At 3:00PM, the inspection team used the GF77 to observe emissions being released from the Meta Bisulfite Unit while outside the property of the facility. At the fence line near the Meta Bisulfite Unit, we observed that the grass was dead and was covered with a white powdery substance (Appendix 1, Photos 9-10). At 3:15PM, the inspection team made entry to the facility and met with Leslie Pitre for the opening conference for the follow up inspection.

At 3:35PM, the follow up inspection began at the Meta Bisulfite Unit. From the ground the inspection team observed a visual plume of steam escaping from the top of Tank TK-616. Inspector Helmich used the GF77 camera to observe the steam plume coming from the top of Tank TK-616 and recorded a potential SO² plume trailing in the wind off of the Facility boundary beyond the steam plume. (Appendix 2, Videos 5-8). The steam and potential SO² emissions were emanating from an open hole in the top of Tank TK-616. The Inspection team smelled a strong sulfurous odor while in the area.

Leslie Petre stated that the open hole was a remnant of "agitator" mechanical equipment that was once equipped on Tank TK-616. The hole was where a rotating shaft used to enter the tank.

At 4:22PM, we returned to the administrative office and conducted a closing conference with Leslie Pitre of Ineos Calabrian in attendance and informed him of the observed emissions at the Meta Bisulfite Unit and Tank TK-616.

The inspection team departed the facility at 4:54PM.

Section III – AREAS OF CONCERN

Justin Chen conducted a closing conference at Ineos Calabrian Facility at 11:45AM on February 8, 2024, for the initial inspection. Philip Myers and Justin Chen summarized the facility tour and presented their emissions observations, including the following Areas of Concern.

1. The GMAP detected SO² emissions at the Meta Bisulfite Unit.
2. The GMAP detected SO² emissions at the Solid Sulfur Disposal roll off dumpster area.

The facility made no claims of confidential business information regarding the photographs taken on February 8, 2024. The facility was informed that copies of the photos would be made available to the facility following the inspection. We departed the facility at 12:05PM.

On February 9, 2024, the Inspectors Ben Donaldson, Kenneth McPherson, Richard Helmich, and Philip Myers conducted a closing conference for the follow up inspection. They summarized the time spent at the Meta Bisulfite Unit and presented their emission observations, including the following areas of concern.

3. The inspection team observed potential SO² emissions at the Meta Bisulfite Unit with the FLIR GF77 camera, specifically at tank TK-616.

The Facility made no claims of confidential business information for photos within this report. The facility was informed that copies of the photos and videos would be made available to the facility following the inspection. We departed the facility at 4:54PM.

Section IV – FOLLOW UP

The following information was received by EPA on March 4-5, 2024, after exiting the Facility on February 9, 2024:

1. Risk Management Plan program level.
2. TCEQ Air Quality Permit.
3. TCEQ TPDES Permit.
4. TCEQ Stormwater Multi-Sector General Permit.

On March 19, 2024, Justin Chen provided electronic copies of the videos recorded during the inspection to Ryan Quinn.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 10 photos taken 2/08-09/2024

Appendix 2 – Video Log – 9 FLIR videos taken 2/09/2024

Appendix 3 – Closing conference sign-in sheets

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Photograph Log

Photo No. 6

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

Location: Ineos Calabrian Facility		
City: Port Neches	County/Parish: Jefferson County	State: Texas



Appendix 2

Video Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Video Log

Location: Ineos Calabrian Facility Port Neches		
City: Port Neches	Jefferson County	State: Texas



Video File Name: MOV_60255.mp4
 Date of Video: 02/09/2024
 Time of Video: 14:58
 Videographer: Philip Myers
 Description: Visible spectrum video, Metabisulfite unit.
 URL: <https://youtu.be/5C5R1UxSzzs>



Video File Name: MOV_60256.mp4
 Date of Video: 02/09/2024
 Time of Video: 14:58
 Videographer: Philip Myers
 Description: Possible trailing emissions from metabisulfite unit.
 URL: <https://youtu.be/RrMxotEJkSQ>



Video File Name: MOV_60257.mp4
 Date of Video: 02/09/2024
 Time of Video: 15:01
 Videographer: Philip Myers
 Description: Possible trailing emissions from metabisulfite unit.
 URL: <https://youtu.be/7bNK4nbOLkI>



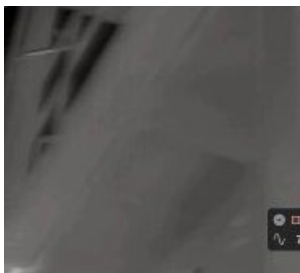
Video File Name: MOV_60258.mp4
 Date of Video: 02/09/2024
 Time of Video: 15:07
 Videographer: Philip Myers
 Description: Possible trailing emissions from metabisulfite unit.
 URL: <https://youtu.be/joJDqa9lh1c>



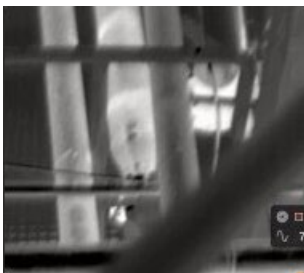
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Video Log

Location: Ineos Calabrian Facility Port Neches		
City: Port Neches	Jefferson County	State: Texas



Video File Name: MOV_60259.mp4
 Date of Video: 02/09/2024
 Time of Video: 15:52
 Videographer: Philip Myers
 Description: Venting steam and possible SO2 emissions from tank no. TK-616.
 URL: <https://youtu.be/GMekeX-flws>



Video File Name: MOV_60260.mp4
 Date of Video: 02/09/2024
 Time of Video: 15:59
 Videographer: Philip Myers
 Description: Venting steam and possible SO2 emissions form tank under agitation, adjacent to TK-616.
 URL: <https://youtu.be/LQnatOAJyBI>



Video File Name: MOV_60261.mp4
 Date of Video: 02/09/2024
 Time of Video: 16:02
 Videographer: Richard Helmich
 Description: Venting steam and possible SO2 emissions from tank no. TK-616 (different angle).
 URL: <https://youtu.be/ysVy-F3MYRI>



Video File Name: MOV_60262.mp4
 Date of Video: 02/09/2024
 Time of Video: 16:06
 Videographer: Philip Myers
 Description: Venting steam and possible SO2 emissions from tank no. TK-616 (different angle).
 URL: <https://youtu.be/BT05Xcib4SO>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Appendix 2

Video Log

Location: Ineos Calabrian Facility Port Neches		
City: Port Neches	Jefferson County	State: Texas



Video File Name: MOV_60263.mp4

Date of Video: 02/09/2024

Time of Video: 16:10

Videographer: Richard Helmich

Description: Ground level view of metabisulfite unit and possible SO2 emissions.

URL: <https://youtu.be/bAskCNa1XuA>

Appendix 3

Closing Conference Sign-In Sheet

BPAGMAP2024

Facility Name/FRS _____

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Inspection Notes:

11:40 CLOSING CONFERENCE

Kenneth R. McPherson, Life Scientist, EPA RL 214 665 6754

Philip Myers Mech. Engineer EPA (203) 462-9701

Richard Helmich Chemist EPA 303-462-9149

Nathan Hicks phy. Scientist EPA 865-898-0343

Ben Donaldson Env. Eng. EPA RG 214 665 7476

Justin Chen CIV Engineer EPA 214 665 2273

Daniel Hoyt Env Engineer EPA 202 564 7898

Leslie Pitre SHEREP INEOS 409 718 8182

Ryan Quinn Ops Manager INEOS (409) 749-0144

Roberto Gutierrez Eng/Tech/Quality Mgr INEOS 832-725-1353

Carlos Robles-Sanchez Site Manager INEOS 832-725-2975

11:59: end of conference

Initials / Date: KRM / 02/08/24