



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW  
ATLANTA, GEORGIA 30303-8960

**SENT VIA ELECTRONIC MAIL**

Mark Redditt  
Terminal Manager  
CITGO Petroleum Corporation  
720 South Second Street  
Nashville, Tennessee 37213  
Mreddit@citgo.com

Dear Mr. Redditt:

Enclosed is a copy of the final report generated by the U.S. Environmental Protection Agency's Region 4, North Air Enforcement Section, for the inspection conducted at the CITGO Petroleum Corporation facility, located in Nashville, Tennessee, on July 11, 2022.

If you have any questions, please contact me at 404-562-8134, or by email at [Zhong.Baichen@epa.gov](mailto:Zhong.Baichen@epa.gov).

Sincerely,

BAICHEN ZHONG

Digitally signed by BAICHEN  
ZHONG  
Date: 2022.09.01 16:44:53 -04'00'

Baichen Zhong  
Environmental Engineer  
North Air Enforcement Section

Enclosure

CC: John Finke, Nashville Metro Public Health Department

**ENCLOSURE A**  
**FINAL INSPECTION REPORT**

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**United States Environmental Protection Agency (EPA) Region 4**

**Air Enforcement Branch**

**Inspection Report**

**I. GENERAL INFORMATION**

**Facility Name:** CITGO Petroleum Corporation

**Location (Address):** 720 South Second Street, Nashville, TN

**Inspection Date:** 7/11/2022

**Type of Inspection (Full or Partial Compliance Evaluation):** Partial Compliance Evaluation

**ICIS-Air Number:** TNNDC0004703700061-2022

**EPA Investigator(s)/Inspector(s):**

1. Baichen Zhong, Environmental Engineer
2. Nicole Radford, Environmental Scientist

**State/Local Investigator(s)/Inspector(s):**

1. Blake McClain, MPHD
2. Brittany Maloy, MPHD

**Person(s) Contacted at Facility (Name and Title):**

Mark Redditt, Terminal Manager

**Report Prepared by:** Baichen Zhong

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## II. FACILITY INFORMATION

### A. Facility and Permit Information

| Facility and Permit Information                                                                          | Comments                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Type of facility (e.g., chemical plant, refinery, cement manufacturer, etc.).                         | Bulk petroleum distribution terminal.                                                                                                                                                                                                                                                    |
| 2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).                  | The CITGO Petroleum Corporation terminal facility is operating under Synthetic Minor Operating Permit Nos. 61-1, 61-4, 61-6, 61-8, 61-9 61-10 and 61-11. These permits are issued by the Metro Public Health Department of the Metropolitan Government of Nashville and Davidson County. |
| 3. Air permit issuance date.                                                                             | Date of Issuance:<br>July 1, 2022                                                                                                                                                                                                                                                        |
| 4. Air permit expiration date.                                                                           | Expiration Date:<br>June 30, 2023                                                                                                                                                                                                                                                        |
| 5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).                            | CITGO Petroleum Corporation is classified as a Synthetic Minor source.                                                                                                                                                                                                                   |
| 6. Major source pollutants (if applicable).                                                              | VOCs                                                                                                                                                                                                                                                                                     |
| 7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.). | 40 C.F.R. Part 63 Subpart BBBBBB                                                                                                                                                                                                                                                         |
| 8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).                             | The facility has a fixed roof tank for distillate and floating roof tanks for gasoline, ethanol, gasoline and ethanol blends, and distillate. A loading rack with a Vapor Combustor Unit (VCU) is also present.                                                                          |
| 9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).               | A VCU is used to control emissions at the loading rack.                                                                                                                                                                                                                                  |

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**B. Process Description (provide narrative or attach description provided by the company or excerpts from the permit)**

CITGO Petroleum Corporation is a bulk gasoline facility that handles gasoline, diesel fuel, ethanol, additives, and other volatile organic products. These products are delivered to the facility by pipeline, or trucks in the case of ethanol, and stored in internal floating roof and fixed roof storage tanks. The products are loaded into trailer trucks using loading racks at the facility. Hours of operation for truck fueling are 24 hours per day, 7 days per week. The terminal is manned Monday – Friday during the day.

**III. INSPECTION ACTIVITIES**

| Activity                                                                                 | Yes<br>No<br>NA | Comment                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Opening Meeting</b>                                                                   |                 |                                                                                                                                                                                                                                                                                                                                                           |
| 1. Date and time entered the facility.                                                   | Y               | The EPA Region 4 (R4) inspectors conducted the inspection on July 11, 2022 and entered the facility at 1:00 pm.                                                                                                                                                                                                                                           |
| 2. Credentials presented to facility personnel (include name and title).                 | Y               | Upon arrival on site, R4 inspectors presented credentials to Mark Redditt, the Terminal Manager during the opening meeting.                                                                                                                                                                                                                               |
| 3. Conducted an opening meeting to explain the purpose and objectives of the inspection. | Y               | An opening meeting was conducted, which was led by Nicole Radford (R4). The purpose of the inspection was explained. The facility was also informed that the focus of the inspection would be on compliance with the NESHAP 6B, observing gasoline storage tanks, the loading racks, the vapor control units and the process contact water (PCW) systems. |
| 4. Discussed safety issues.                                                              | Y               | Safety issues were discussed with the Terminal Manager and it was determined that no specific personal protection equipment was required, though eye protection was worn for the duration of the inspection.                                                                                                                                              |
| 5. Discussed which records to be reviewed.                                               | Y               | Records that were needed for review were discussed during the opening meeting and during the closing meeting, where the facility committed to sending the records                                                                                                                                                                                         |

|                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                      |   | that were not produced during the time of the inspection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6. Discussed the facility walk-through and the areas to be observed in the facility. | Y | During the opening conference R4 inspectors informed the facility that the main areas of review would be the gasoline storage tanks, the loading racks, the vapor control units and the PCW systems.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7. Discussed facility policy regarding photographs or video (if applicable).         | Y | Region 4 inspectors indicated a digital camera would be used during the inspection. The team discussed facility policy regarding photography and videography. Inspectors indicated that copies of any videos or photographs taken at the facility would be sent to the company. A log of photographs taken at the facility is included in this report. <b>See Appendix A.</b>                                                                                                                                                                                                                                                       |
| 8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.      | Y | R4 inspectors indicated that the infrared camera was going to be used during the walk-through of the facility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9. Discussed CBI.                                                                    | Y | EPA inspectors indicated that any documents claimed to be Confidential Business Information (CBI) would be treated in accordance with regulations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                      |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Records Reviewed at the Facility</b>                                              |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. The types of records reviewed and the time period reviewed.                      | Y | <p>1.) At the time of the inspection, the R4 inspectors received the following records:</p> <ul style="list-style-type: none"> <li>a) the site plans for each of the main areas of the facility;</li> <li>b) a tank inventory;</li> <li>c) Semi-annual monthly leak detection and repair report (September 2021-June 2022);</li> <li>d) Monthly inspection reports for internal floating roof and external floating roof tanks (January – June 2022);</li> <li>e) monthly tank throughputs; and</li> <li>f) VCU preventative maintenance checklist.</li> </ul> <p>2.) The records that were sent following the inspection were:</p> |

|                                                                                                                                                                                                                                                                                                                                                                                                           |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                           |     | a) the last American Petroleum Institute (API) test for Tank 1 (Tank 1 was out of service January 2022 due to gasoline found in roof drain. Tank 1 back in service by May 2022).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                           |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Facility Walk-Through Observations</b>                                                                                                                                                                                                                                                                                                                                                                 |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>11. The process equipment observed and the associated operational rate observed (e.g., Furnace 1 production rate was 5 lbs/hr on 1/1/15, at 2:00 pm – permit requires max rate at 6 lbs/hr).</p> <p>Provide the date and time the information was recorded by the inspector.</p> <p>Identify the permit limit (if applicable).</p> <p>An attachment may be used for a large amount of information.</p> | Y   | <p>On July 11, 2022, at 2:00 pm, the R4 inspectors began the facility walkthrough. The inspectors observed the two-bay loading rack, the VCU, Tanks 1, 2 and 3, and PCW tanks Nos. 11 and 6.</p> <p>For the tank observations, there were emissions observed with the infrared camera from the southeast side of the Tank 1 seal and the north side of the Tank 2 seal along the bottom. Emissions were also seen through the hatch of Tank 3 via the infrared camera. The emissions were recorded in videos. In addition, a video was recorded for the VCU while a truck was loading at the loading rack.</p> <p>Table 2 of NESHAP 6B references the requirements of NSPS Subpart XX [Standards of Performance for Bulk Gasoline Terminals]. NSPS Subpart XX Section 60.502(i) states that no pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals. This converts to a pressure of 18.1 in. H<sub>2</sub>O. No emissions were noted for the pressure relief valve (PRV) with the infrared camera.</p> <p>PCW Tanks/Storage 11 and 6 were observed. No detectable emissions were seen through the infrared camera.</p> |
| 12. The type of process parametric monitoring observed and the associated value observed (e.g.,                                                                                                                                                                                                                                                                                                           | N/A |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |                                                                                                                                                          |
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| <p>Furnace 1 flux injection rate was 200 lbs/batch at 1/1/15, at 2:00 pm – permit requires max rate at 225 lbs/batch).</p> <p>Provide the date and time the information was recorded by the inspector.</p> <p>Identify the permit limit (if applicable).</p> <p>An attachment may be used for a large amount of information.</p>                                                                                                                                                                        |     |                                                                                                                                                          |
| <p>13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.</p>                                                                                                                                                                                                                                                                                                                                       | N/A |                                                                                                                                                          |
| <p>14. The type of air pollution control equipment, the process equipment it is controlling, and the associated parametric monitoring value observed (e.g., baghouse pressure drop, temperature, scrubber flow rate, etc.).</p> <p>(For example - RTO 1 controlling furnace 1, 1,500 degrees F on 1/1/15, at 2:00 pm – permit requires 1,400 degree F or higher).</p> <p>Provide the date and time the information was recorded by the inspector.</p> <p>Identify the permit limit (if applicable).</p> | Y   | <p>The loading rack PRV had a setpoint of 18 inches of water.</p> <p>A VCU (installed 2005) is used to control VOC emissions from the loading racks.</p> |

|                                                                                                                                                                                                                                                                                                         |     |  |
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| An attachment may be used for a large amount of information.                                                                                                                                                                                                                                            |     |  |
| <p>15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.).</p> <p>Provide the date and time the information was recorded by the inspector.</p> <p>Identify the permit limit (if applicable).</p> <p>An attachment may be used for a large amount of information.</p> | N/A |  |
| 16. If air pollution control equipment was not operating, state the reason by facility personnel why the equipment was not operating.                                                                                                                                                                   | N/A |  |
| 17. Capture and collection system (enclosures and hoods) observations, if applicable (e.g., the magnitude and duration of emission escaping capture from the hood).                                                                                                                                     | N/A |  |
| 18. Ductwork transferring the emissions to the air pollution control device observations, if applicable (e.g., the magnitude and duration of emission escaping from the ductwork, holes or deterioration in ductwork, no deterioration observed, etc.).                                                 | N/A |  |
| 19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if                                                                                                                                                                   | N/A |  |

|                                                                                                                                                                                                                                                        |     |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------|
| yes, describe in the comments field).                                                                                                                                                                                                                  |     |                                     |
| 20. Were any visible emissions observed? (if yes, identify the location and equipment).                                                                                                                                                                | N/A |                                     |
| 21. Was a Method 9 reading performed? (if yes, identify the location and equipment).                                                                                                                                                                   | N/A |                                     |
| 22. Was the cause of the visible emissions investigated and the information documented?                                                                                                                                                                | N/A |                                     |
| 23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).                                                                                                                                                    | N/A |                                     |
| 24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.                                                                                                                                                     | N/A |                                     |
| 25. Was the infrared camera used? If so, attach the video log (which includes the equipment ID, and the date and time the video was recorded) and videos to this report.                                                                               | Y   | See Attachment A for the video log. |
| 26. Was the TVA used? If so, identify the equipment monitored and the results.<br><br>Provide the date and time the information was recorded by the inspector. Include actual instrument readings for each piece of equipment monitored above the leak | N   |                                     |

|                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                            |
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| definition and/or where the infrared camera identified a release.<br><br>An attachment may be used for a large amount of information.                                                                                           |   |                                                                                                                                                                                                                            |
| 27. Was the PID used? If so, identify how the PID was used and the results.<br><br>Provide the date and time the information was recorded by the inspector.<br><br>An attachment may be used for a large amount of information. | N |                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                            |
| <b>Closing Meeting</b>                                                                                                                                                                                                          |   |                                                                                                                                                                                                                            |
| 28. Conducted a closing meeting.                                                                                                                                                                                                | Y | A close out meeting was conducted at approximately 4:00 pm CST. The inspection team discussed findings with terminal staff.                                                                                                |
| 29. Summarize any additional information needed, if applicable?                                                                                                                                                                 | Y | Additional records including the API 653 inspection report for Tank 1 and the Tank 1 post repair memo were sent to R4 inspectors via email.                                                                                |
| 30. Accept a declaration of CBI, if applicable?                                                                                                                                                                                 | N | Facility personnel did not declare or claim any documents as CBI.                                                                                                                                                          |
| 31. Discussed observations.                                                                                                                                                                                                     | Y | The R4 inspectors discussed what was seen and observed during the inspection at the closing meeting. It was noted that a copy of the infrared camera videos would be sent to the facility for their review.                |
| 32. Discussed next steps, if applicable?                                                                                                                                                                                        | Y | The R4 inspectors stated that both the infrared camera videos and inspection report will be sent to the company for facility's review for CBI. Following this step, R4 would proceed to finalize and issue a final report. |
| 33. Date and time inspection concluded.                                                                                                                                                                                         |   | The inspection concluded on July 11, 2022, at 4:15 pm.                                                                                                                                                                     |
|                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                            |
| <b>Miscellaneous</b>                                                                                                                                                                                                            |   |                                                                                                                                                                                                                            |

|                                                            |  |  |
|------------------------------------------------------------|--|--|
| 34. Include any additional observations,<br>if applicable. |  |  |
|                                                            |  |  |

EPA Investigator/Inspector Signature:

**BAICHEN ZHONG** Digitally signed by BAICHEN ZHONG  
Date: 2022.09.01 16:45:27 -04'00'

EPA Supervisor Signature & Title

**JASON DRESSLER** Digitally signed by JASON  
DRESSLER  
Date: 2022.09.02 08:08:34 -04'00'

Jason Dressler, Chief, North Air Enforcement Section

Date Report Finalized:

September 2, 2022

### **Attachment A – List of Videos**

During the July 11, 2022, inspection, EPA Region 4 staff used an infrared camera to record equipment at the CITGO facility located in Nashville, Tennessee. Below is a list and description of the footage.

**Table 1: Videos taken during the July 11, 2022, inspection**

| Image Number | File Name    | Date and Time      | Description of Image                                  |
|--------------|--------------|--------------------|-------------------------------------------------------|
| 1            | MOV_0432.mp4 | 7/11/2022 02:09 PM | Tank 1 Southeast side of the seal                     |
| 2            | MOV_0433.mp4 | 7/11/2022 02:12 PM | Additional video of Tank 1 Southeast side of the seal |
| 3            | MOV_0434.mp4 | 7/11/2022 02:21 PM | North side of Tank 2 seal                             |
| 4            | MOV_0435.mp4 | 7/11/2022 02:27 PM | VCU while a truck was loading at the loading racks    |
| 5            | MOV_0436.mp4 | 7/11/2022 02:31 PM | Tank 3 open hatch                                     |