



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

March 14, 2023

Mr. Kevin Kenall
HSSE Manager
CITGO Corpus Christi Refinery
1802 Nueces Bay Blvd.
Corpus Christi, Texas 78407

Sent via email: KKenall@citgo.com

Re: Alternative Monitoring Plan (AMP) – New Source Performance Standards (NSPS) Subpart Ja – Heater NO_x emissions monitoring at CITGO Corpus Christi East Refinery, Corpus Christi, Texas.

Dear Mr. Kenall:

This letter is in response to your Alternative Monitoring Plan (AMP) request dated July 21, 2022 for the Crude Unit Heater NO_x emissions monitoring under NSPS Subpart Ja. Based upon the information provided, the U.S. Environmental Protection Agency (EPA) denies your request, as explained below.

Under NSPS Subpart Ja, the Crude Unit Heater (11-H-1) at the Corpus Christi East (CCE) Refinery is subject to the NO_x emissions limit requirements of 40 C.F.R. § 60.102a(g)(2)(ii)(A) and monitoring requirements of 40 C.F.R. § 60.107a(c), process heaters complying with the NO_x concentration-based limit.

CITGO states that, during normal operations (about 96% of unit operating time), CITGO CCE Refinery operates the Crude Unit Heater in a balanced draft mode and complies with the NSPS Ja requirements by monitoring NO_x emissions with a shared CEMS unit. However, for about 4% of the operating time, CITGO CCE Refinery operates the Crude Unit Heater with reduced heater throughput rates in either normal or forced draft mode and vents to the heater's dedicated emission point, which does not have a NO_x CEMS unit installed.

CITGO proposed to continuously monitor oxygen (O₂) concentration utilizing process O₂ analyzers located in the heater's firebox when operating with reduced heater throughput rates in either forced or natural draft mode in accordance with 40 C.F.R. § 60.107a(c)(6). CITGO has established a maximum excess O₂ operating limit according to the requirements in 40 C.F.R. § 60.104a(i)(6).

The Crude Unit Heater has a rated heating capacity greater than 100 MMbtu, and therefore it does not meet the requirement to comply with the alternative monitoring of 40 C.F.R. § 60.107a(c)(6)ⁱ.

Based on the process and analyzer information, and monitoring data submitted, EPA does not approve your request to use process analyzer to monitor O₂ in lieu of a NO_x CEMS. CITGO should operate the Crude Unit Heater (11-H-1) and comply at all times with NO_x emission limit and monitoring requirements of 40 C.F.R. §§ 60.102a(g) and 60.107a(c).

This response has been coordinated with EPA's Office of Enforcement and Compliance Assurance (OECA) and EPA's Office of Air Quality Planning and Standards (OAQPS). If you have any questions or concerns about this determination, please contact Prince Nfodzo of my staff at (214) 665-7491 or nfodzo.prince@epa.gov.

Sincerely,

STEVEN
THOMPSON

Digitally signed by
STEVEN THOMPSON
Date: 2023.03.14
14:35:49 -05'00'

Steve Thompson
Manager
Air Enforcement Branch

cc: Michael De La Cruz (TCEQ), michael.delacruz@tceq.texas.gov

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ⁱ (c) Process heaters complying with the NO_x concentration-based limit. The owner or operator of a process heater subject to the NO_x emissions limit in § 60.102a(g)(2) and electing to comply with the applicable emissions limit in § 60.102a(g)(2)(i)(A), (g)(2)(ii)(A), (g)(2)(iii)(A) or (g)(2)(iv)(A) shall install, operate, calibrate and maintain an instrument for continuously monitoring and recording the concentration (dry basis, 0-percent excess air) of NO_x emissions into the atmosphere according to the requirements in paragraphs (c)(1) through (5) of this section, except as provided in paragraph (c)(6) of this section. The monitor must include an O₂ monitor for correcting the data for excess air.

(6) The owner or operator of a process heater that has a rated heating capacity of less than 100 MMBtu and is equipped with combustion modification-based technology to reduce NO_x emissions (i.e., low-NO_x burners, ultra-low-NO_x burners) may elect to comply with the monitoring requirements in paragraphs (c)(1) through (5) of this section or, alternatively, the owner or operator of such a process heater shall conduct biennial performance tests according to the requirements in § 60.104a(i), establish a maximum excess O₂ operating limit or operating curve according to the requirements in § 60.104a(i)(6) and comply with the O₂ monitoring requirements in paragraphs (c)(3) through (5) of this section to demonstrate compliance. If an O₂ operating curve is used (i.e., if different O₂ operating limits are established for different operating ranges), the owner or operator of the process heater must also monitor fuel gas flow rate, fuel oil flow rate (as applicable) and heating value content according to the methods provided in paragraphs (d)(5), (d)(6), and (d)(4) or (d)(7) of this section, respectively.