



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

May 1, 2020

VIA EMAIL

Scott M. Denton
Environmental Manager
Artesia Refinery
HollyFrontier Navajo Refining LLC
501 E. Main Street
Artesia, New Mexico 88210
Scott.Denton@HollyFrontier.com

RE: HollyFrontier Navajo Refining LLC – Artesia Refinery, Artesia, NM
Notice of Violation

Dear Mr. Denton:

The U.S. Environmental Protection Agency (“EPA”) has identified HollyFrontier Navajo Refining LLC (“Navajo”) as having violated the Clean Air Act (“CAA”) and the regulations promulgated thereunder. The attached Notice of Violation (“NOV”) is issued to Navajo for violations of the CAA, 42 U.S.C. § 7401 *et seq.*, at the Artesia Refinery in Artesia, New Mexico. EPA is issuing this NOV under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), based on information described in detail below that represents specific violations of applicable National Emission Standards for Hazardous Air Pollutants and New Source Performance Standards.

Section 113(a)(3) of the Act, 42 U.S.C. § 7413(a)(3), gives EPA several enforcement options to resolve these violations, including issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, or bringing a judicial criminal action.

Please note the opportunity for Navajo to request a conference with EPA to present information on the identified violations in the NOV, efforts it has taken to comply, and the steps it will take to prevent future violations. A conference should be requested within ten (10) business days following receipt of this NOV. In addition, the New Mexico Environment Department is working closely with EPA on this matter and will also be attending the NOV conference.

EPA acknowledges that the COVID-19 pandemic may be impacting Navajo’s business. If that is the case, EPA will consider Navajo’s specific circumstances in determining an appropriate time to schedule the conference requested by Navajo.

As detailed in the NOV document, please direct any request to confer to Arati Tripathi, Assistant Regional Counsel, at tripathi.arati@epa.gov or (214) 665-7404. Any technical questions may be directed to Debbie Ford, Environmental Scientist, at ford.debbie@epa.gov or (214) 665-7235.

Sincerely,

Cheryl T. Seager, Director
Enforcement and
Compliance Assurance Division

Enclosure

ec: Ray Bagherian (ray.bagherian@hollyfrontier.com)
Liz Kuehn (elizabeth.kuehn@state.nm.us)
Allan Morris (allan.morris@state.nm.us)
Provi Spina (spina.providence@epa.gov)
Pat Foley (foley.patrick@epa.gov)

1. The purpose of the CAA is to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. CAA Section 101(b)(1), 42 U.S.C. § 7401(b)(1).
- A. Clean Air Act Section 112 and National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries**
2. Section 112 of the Act requires EPA to identify categories and subcategories of major sources of hazardous air pollutants (“HAPs”), and to establish emission standards requiring the maximum degree of reduction in emissions of HAPs that EPA determines is achievable through the application of measures, processes, methods, systems or

techniques including, but not limited to, the enclosure of systems or processes to eliminate emissions, and design, equipment, work practice, or other operational standards. 42 U.S.C. §§ 7412(c)(1)-(2), (d)(1)-(2).

3. EPA promulgated the National Emission Standards for Hazardous Air Pollutants (“NESHAP”) Source Categories for Petroleum Refineries on August 18, 1995. *See* 60 Fed. Reg. 43,260, located at 40 C.F.R. Part 63, Subpart CC (“NESHAP Subpart CC”). Following a residual risk and technology review, EPA promulgated a revised rule on December 2, 2015. *See* 80 Fed. Reg. 75,177.
4. NESHAP Subpart CC applies to petroleum refining process units and to related emission points located at a plant site that is a major source as defined in Section 112(a) of the CAA and that emit or have equipment containing or contacting one or more of the HAPs listed in Table 1 of NESHAP Subpart CC. 40 C.F.R. § 63.640(a).

B. NESHAP Subpart CC Fenceline Monitoring Requirements

5. NESHAP Subpart CC requires the owner or operator of a covered source to, by January 30, 2018, conduct air sampling along the facility property boundary (“fenceline monitoring”) and analyze the samples for benzene. *See* 40 C.F.R. § 63.658(a)-(b); NESHAP Subpart CC Table 11. Passive air monitors must be located around the facility property boundary in accordance with 40 C.F.R. § 63.658(c), and a sample from each monitor must be collected every fourteen (14) days (“sampling period”). 40 C.F.R. § 63.658(e)(1). Owners or operators must begin reporting fenceline monitoring results after obtaining 12 months of data. 40 C.F.R. § 63.655(h)(8).
6. Within 45 days of the completion of each sampling period, the owner or operator must determine whether the sampling results are above or below the action level for benzene. 40 C.F.R. § 63.658(f). The first step in making this determination is to determine the facility impact on the benzene calculation (“ Δc ”) in accordance with 40 C.F.R. § 63.658(f)(1). Next, the owner or operator calculates the annual average Δc based on the average of the 26 most recent 14-day sampling periods. 40 C.F.R. § 63.658(f)(2). Finally, the owner or operator compares the annual average Δc to the action level for benzene. 40 C.F.R. § 63.658(f)(3).
7. The NESHAP Subpart CC action level for benzene is 9 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) on an annual average basis. 40 C.F.R. § 63.658(f)(3). If the annual average Δc for benzene is less than or equal to $9 \mu\text{g}/\text{m}^3$, the concentration is below the action level. If the annual average Δc for benzene is greater than $9 \mu\text{g}/\text{m}^3$, the concentration is above the action level, and the owner or operator must conduct a root cause analysis and corrective action in accordance with 40 C.F.R. § 63.658(g). 40 C.F.R. § 63.658(f)(3).
8. NESHAP Subpart CC requires that within 5 days of determining that the action level has been exceeded and no longer than 50 days after the completion of the 14-day sampling period, the owner or operator must initiate a root cause analysis to determine the cause of such exceedance and determine appropriate corrective action. The root cause analysis and

initial corrective action analysis must be completed, and initial corrective actions taken no later than 45 days after determining there is an exceedance. 40 C.F.R. § 63.658(g).

9. If, upon completion of the corrective action analysis and initial corrective actions, the Δc for the next 14-day sampling period for which the sampling start time begins after the completion of the corrective actions is greater than $9 \mu\text{g}/\text{m}^3$ or if all corrective action measures identified require more than 45 days to implement, the owner or operator must develop a corrective action plan that describes the corrective action(s) completed to date, additional measures that the owner or operator proposes to employ to reduce fenceline concentrations below the action level, and a schedule for completion of these measures. 40 C.F.R. § 63.658(h). The owner or operator shall submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the Δc value for the 14-day sampling period following the completion of the initial corrective action is greater than $9 \mu\text{g}/\text{m}^3$, or if no initial corrective actions were identified, no later than 60 days following completion of the initial corrective action analysis. *Id.*

C. NESHAP Subpart CC Storage Vessel Requirements

10. NESHAP Subpart CC establishes emission control requirements for storage vessels. 40 C.F.R. § 63.660.
11. NESHAP Subpart CC requires that the owner or operator of a Group 1 storage vessel storing liquid with a maximum true vapor pressure greater than or equal to 76.6 kilopascals (11.1 pounds per square inch) that is part of a new or existing source must comply with the requirements in 40 C.F.R. Part 63, Subpart SS (“NESHAP Subpart SS”). 40 C.F.R. § 63.660.
12. A “Group 1 storage vessel” includes a storage vessel at an existing source that has a design capacity greater than or equal to 151 cubic meters (40,000 gallons) and stored-liquid maximum true vapor pressure greater than or equal to 5.2 kilopascals (0.75 pounds per square inch) and annual average HAP liquid concentration greater than 4 percent by weight total organic HAP. 40 C.F.R. § 63.641.
13. “Maximum true vapor pressure” means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored at the ambient temperature as determined by one of the methods identified in 40 C.F.R. § 63.641. 40 C.F.R. § 63.641.
14. NESHAP Subpart SS establishes requirements for closed vent systems, control devices, and routing of air emissions to a fuel gas system or process. These provisions apply when another subpart, such as NESHAP Subpart CC, references the use of NESHAP Subpart SS for air emission control. See 40 C.F.R. § 63.980.

15. The owner or operator who is referred to NESHAP Subpart SS for controlling regulated material emissions from storage vessels must control the emissions through a closed vent system to a flare or to a nonflare control device, or by routing the emissions to a fuel gas system or process, and must comply with the requirements of 40 C.F.R. §§ 63.982(b), (c)(1), and (d). 40 C.F.R. §§ 63.982(a) and (a)(1).
16. “Closed vent system” means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device. 40 C.F.R. § 63.981.

D. Clean Air Act Section 111 and New Source Performance Standards

17. Section 111(b)(1)(A) of the Act, 42 U.S.C. § 7411(b)(1)(A), requires EPA to publish and periodically revise a list of categories of stationary sources, including those categories that, in EPA’s judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.
18. Once a category is included on the list, Section 111(b)(1)(B) of the Act, 42 U.S.C. § 7411(b)(1)(B), requires EPA to promulgate a federal standard of performance for new sources within the category, also known as a New Source Performance Standard (“NSPS”). Section 111(e) of the Act, 42 U.S.C. § 7411(e), prohibits an owner or operator of a new source from operating that source in violation of an NSPS after the effective date of the NSPS applicable to such source.
19. The NSPS rules are located in Part 60 of Title 40 of the Code of Federal Regulations.

E. NSPS Subpart A General Provisions

20. Pursuant to Section 111(b)(1)(B) of the Act, 42 U.S.C. § 7411(b)(1)(B), EPA has promulgated regulations that contain general provisions applicable to all NSPS sources. 40 C.F.R. Part 60, Subpart A, §§ 60.1–60.19 (“NSPS Subpart A”).
21. Under NSPS Subpart A, the provisions of 40 C.F.R. Part 60 “apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication [in Part 60] of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.” 40 C.F.R. § 60.1(a).
22. An “affected facility” means, with reference to a stationary source, any apparatus to which a standard is applicable. 40 C.F.R. § 60.2.
23. NSPS Subpart A requires that “[a]t all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.” 40 C.F.R. § 60.11(d).

F. NSPS Subpart Ja for Petroleum Refineries

24. In 2008, pursuant to its authority under Section 111(b)(1)(B) of the Act to review and, if appropriate, revise NSPS, EPA published the final rule, “Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007,” found at 40 C.F.R. Part 60, Subpart Ja (“NSPS Subpart Ja”).
25. NSPS Subpart Ja applies to flares that either commence construction, modification, or reconstruction after June 24, 2008. 40 C.F.R. § 60.100a(b). 40 C.F.R. § 60.110a(b)-(c) describes when a modification of a flare commences.
26. NSPS Subpart Ja establishes design, equipment, work practice and operational standards for flares in 40 C.F.R. § 60.103a. Modified flares that accepted the applicability of 40 C.F.R. Part 60, Subpart J, under a federal consent decree are required to comply with 40 C.F.R. § 60.103a(h) by November 11, 2015. 40 C.F.R. § 60.103a(f).
27. 40 C.F.R. § 60.103a(h) prohibits the owner or operator of any affected flare from burning in any affected flare any fuel gas that contains H₂S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of a relief valve leakage or other emergency malfunction is exempt from that limit. 40 C.F.R. § 60.103a(h).

G. NSPS Subpart QQQ for VOC Emissions from Petroleum Refinery Wastewater Systems

28. In 1988, pursuant to its authority under Section 111(b)(1)(B) of the Act, 42 U.S.C. § 7411(b)(1)(B), EPA promulgated “Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems” found at 40 C.F.R. Part 60, Subpart QQQ (“NSPS Subpart QQQ”). EPA made amendments to NSPS Subpart QQQ in 1995, at 60 Fed. Reg. 43,244 and editorial corrections in 2000, at 65 Fed. Reg. 61,744.
29. Affected facilities located in petroleum refineries that commenced construction, modification, or reconstruction after May 4, 1987 are subject to the standards under NSPS Subpart QQQ. 40 C.F.R. § 60.690(a)(1).
30. Affected facilities subject to NSPS Subpart QQQ include individual drain systems and oil-water separators. 40 C.F.R. §§ 60.690(a)(2)-(3).
31. Owners or operators subject to the provisions of NSPS Subpart QQQ must comply with the requirements of 40 C.F.R. §§ 60.692-1 to 60.692-5 and with 40 C.F.R. §§ 60.693-1 and 60.693-2, except during periods of startup, shutdown, or malfunction. 40 C.F.R. § 60.692-1(a).
32. An “individual drain system” is defined, *inter alia*, as all process drains connected to the first common downstream junction box along with the associated sewer lines and other junction boxes. 40 C.F.R. § 60.691.

33. “Water seal control” means a seal pot, p-leg traps, or other type of trap filled with water that has a design capability to create a water barrier between the sewer and atmosphere. 40 C.F.R. § 60.691.
34. The standards for individual drain systems require each process drain to be equipped with water seal controls. 40 C.F.R. § 60.692-2(a)(1).
35. “Active service” means that a drain is receiving refinery wastewater from a process unit that will continuously maintain a water seal. 40 C.F.R. § 60.691.
36. Each drain in active service is required to be checked by visual or physical inspection initially and monthly thereafter for indications of low water levels or other conditions that would reduce the effectiveness of the water seal controls. 40 C.F.R. § 60.692-2(a)(2).
37. “Oily wastewater” means wastewater generated during the refinery process which contains oil, emulsified oil, or other hydrocarbons. Oily wastewater originates from a variety of refinery processes including cooling water, condensed stripping steam, tank draw-off, and contact process water. 40 C.F.R. § 60.691.
38. A “wastewater system” means any component, piece of equipment, or installation that receives, treats, or processes oily wastewater from petroleum refinery process units. 40 C.F.R. § 60.691.
39. An “oil-water separator” is defined, *inter alia*, as wastewater treatment equipment that separates oil from water and consists of a separation tank, including the forebay and other separator basins, skimmers, weirs, grit chambers, and sludge hoppers. Slop oil facilities, including tanks, along with storage vessels and auxiliary equipment located between individual drain systems and the oil-water separator are included in this term. 40 C.F.R. § 60.691.
40. The standards for oil-water separators require equipment subject to this subpart, including each oil-water separator tank, slop oil tank, storage vessel or auxiliary equipment, to be equipped and operated with a fixed roof. 40 C.F.R. § 60.692-3(a).
41. The fixed roof must meet certain specifications, including a requirement that if the roof has access doors or openings, such doors or openings shall be gasketed, latched, and kept closed at all times during operation of the separator system, except during inspection and maintenance. 40 C.F.R. § 60.692-3(a)(3).
42. A “fixed roof” means a cover that is mounted to a tank or chamber in a stationary manner and which does not move with fluctuations in wastewater levels. 40 C.F.R. § 60.691.
43. Each oil-water separator tank or auxiliary equipment with a design capacity to treat more than 16 liters per second (250 gallons per minute) of refinery wastewater shall be equipped and operated with a closed vent system and control device, which meet the requirements of § 60.692-5. 40 C.F.R. § 60.692-3(b).

44. A “closed vent system” means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from an emission source to a control device. 40 C.F.R. § 60.691.
45. A “control device” means an enclosed combustion device, vapor recovery system or flare. 40 C.F.R. § 60.691.
46. A flow indicator must be installed on a vent stream to a control device to ensure that the vapors are being routed to the device. 40 C.F.R. § 60.692-5(e)(3).
47. Owners or operators of a facility subject to the provisions of NSPS Subpart QQQ must comply with the recordkeeping requirements of 40 C.F.R. § 60.697. 40 C.F.R. § 60.697(a).
48. During the life of the source, a copy of the design specifications for all equipment used to comply with the provisions NSPS Subpart QQQ must be kept in a readily accessible location. 40 C.F.R. § 60.697(f)(1).
49. Documentation pertaining to the operation and maintenance of closed vent systems must be kept in a readily available location for the life of the facility and must demonstrate that the control device will achieve the required control efficiency during maximum loading conditions. 40 C.F.R. § 60.697(f)(3)(i). This documentation should include a general description of the gas streams that enter the control device, including flow and volatile organic compound content under varying liquid level conditions and manufacturer's design specifications for the control device. *Id.*

Findings of Fact

50. Navajo owns and operates the Artesia Refinery located at 501 East Main Street in Artesia, New Mexico.
51. The Artesia Refinery is engaged in producing gasoline, distillate fuel oils, residual fuel oils, and other products through distillation of petroleum and cracking and reforming of unfinished petroleum derivatives.
52. The Artesia Refinery is subject to a federal consent decree, *United States et al. v. Navajo Refining Company, L.P.*, Case No. CIV-01-1422LH (D.N.M.) (entered Mar. 5, 2002) (hereinafter, “the 2002 Consent Decree”).

A. NESHAP Subpart CC Storage Vessel Requirements - Storage Vessel Tanks 57 and 107

53. The tank identified as Tank 57 at the Artesia Refinery is an external floating roof tank that stored an unfinished petroleum derivative.
54. Until September 2019, Tank 57 at the Artesia Refinery served as a holding tank that regulated feed flow from the upstream Naphtha Hydrotreating units prior to the feed

entering the “BenFree” Unit. Navajo identified Tank 57 as a Group 1 storage vessel in its initial notification of compliance status report for NESHAP Subpart CC, submitted to EPA and the New Mexico Environment Department (“NMED”) on January 15, 1999.

55. Based on temperature and vapor pressure data for Tank 57, the maximum true vapor pressure of the benzene-containing liquid stored in Tank 57 was greater than 11.1 pounds per square inch.
56. The tank identified as Tank 107 at the Artesia Refinery is an internal floating roof tank that stores gasoline.
57. Navajo identified Tank 107 as a Group 1 storage vessel in its initial notification of compliance status report for NESHAP Subpart CC, submitted to EPA and NMED on January 15, 1999.
58. Based on temperature and vapor pressure data for Tank 107, the maximum true vapor pressure of the gasoline stored in Tank 107 was greater than 11.1 pounds per square inch.

B. NESHAP Subpart CC Fenceline Monitoring and Corrective Action Plans

59. Navajo deployed passive air monitors around the refinery fenceline in late 2016.
60. Data collected from the passive air monitors in March 2017 indicated 14-day benzene concentration samples from several monitors were above $9 \mu\text{g}/\text{m}^3$. Navajo determined that Tank 57 correlated to several of the monitors that detected benzene concentrations above $9 \mu\text{g}/\text{m}^3$.
61. In September 2017, Navajo set out four additional temporary passive monitors for a 14-day period to undertake further evaluation of potential benzene sources. Taking into account the wind direction, Navajo determined that the detected benzene concentrations from the temporary sampling locations indicated that Tank 57 might be the primary source of benzene in the area.
62. In December 2017, following a root cause analysis, Navajo installed socks on the vacuum breakers and roof legs of Tank 57 and other tanks to reduce emissions from those tanks. Navajo concluded that while the installation of socks appeared to have been effective for other tanks, it was not effective for Tank 57.
63. In July 2018, Navajo installed a newly designed sock on the Tank 57 vacuum breaker. Subsequent 14-day sample periods showed reductions in benzene concentrations associated with Tank 57, but the Refinery’s Δc benzene concentrations remained above $9 \mu\text{g}/\text{m}^3$.
64. In August 2018, Navajo identified that a heat exchanger intended to cool the product entering Tank 57 was not sufficiently cooling the incoming feed. Navajo repaired the heat exchanger. Navajo reported that following the repair, 14-day benzene concentrations at a

monitoring location possibly correlated to Tank 57 emissions reduced significantly but were still above $9 \mu\text{g}/\text{m}^3$.

65. In November 2018, Navajo set out additional temporary sampling locations in the vicinity of Tank 57 to evaluate the area for other potential benzene sources. Navajo reported that detections from those monitors indicated that Tank 57 might be the primary benzene source in the area.
66. On November 20, 2018, Navajo temporarily removed Tank 57 from service (leaving approximately 15 feet of product in the tank, short of landing the roof) to evaluate whether detected benzene levels would fall below $9 \mu\text{g}/\text{m}^3$.
 - a. The calculated Δc benzene concentration for the 14-day sampling period prior to the removal of Tank 57 from service (November 6, 2018 through November 20, 2018) was $40.4 \mu\text{g}/\text{m}^3$.
 - b. The calculated Δc benzene concentration for the 14-day sampling period during which Navajo removed Tank 57 from service (November 20, 2018 through December 4, 2018) was $6.20 \mu\text{g}/\text{m}^3$. According to sample results submitted by Navajo, this was the first 14-day sampling period in 2018 that Navajo calculated a Δc below $9 \mu\text{g}/\text{m}^3$. See Appendix A.
67. On January 29, 2019, Navajo collected fenceline monitoring data from its 26th 14-day sampling period. On February 5, 2019, Navajo received results from that sampling period and determined that its annual average Δc benzene concentration was above the action level of $9 \mu\text{g}/\text{m}^3$.
68. On April 4, 2019, Navajo put Tank 57 back into service.
 - a. Navajo correlated monitors 13 through 16 to benzene emissions from Tank 57.
 - b. Navajo's calculated Δc for the 14-day sampling period from March 26, 2019 to April 9, 2019 was $54.2 \mu\text{g}/\text{m}^3$. Monitoring locations 13, 14, and 15 were above $9 \mu\text{g}/\text{m}^3$.
 - c. Navajo's calculated Δc for the 14-day sampling period from April 9, 2019 to April 23, 2019 was $66.2 \mu\text{g}/\text{m}^3$. Monitoring locations 7, 10, 14, 15, and 16 were above $9 \mu\text{g}/\text{m}^3$.
 - d. Navajo's calculated Δc for the 14-day sampling period from April 23, 2019 to May 7, 2019 was $203.5 \mu\text{g}/\text{m}^3$. Monitoring locations 6, 13, 14, 15, 16, and 17 were above $9 \mu\text{g}/\text{m}^3$.
 - e. Navajo's calculated Δc for the 14-day sampling period from May 7, 2019 to May 21, 2019 was $99.0 \mu\text{g}/\text{m}^3$. Monitoring locations 14, 15, and 17 were above $9 \mu\text{g}/\text{m}^3$.

- f. Navajo's calculated Δc for the 14-day sampling period from May 21, 2019 to June 4, 2019 was $28.5 \mu\text{g}/\text{m}^3$. Monitoring locations 14 and 15 were above $9 \mu\text{g}/\text{m}^3$.
69. Navajo determined that the Δc exceedances described above pertained to the temporary return of Tank 57 to service, a damaged seal on Tank 737, and a release of hydrocarbons from Tank 106. On May 24, 2019, Navajo reduced the amount of material in Tank 57 and isolated it from service.
70. On May 15, 2019, Navajo submitted a Corrective Action Plan to NMED describing its long-term plan ("the ISOM Project") to remove Tank 57 from service. Navajo explained that the project would be completed in the second or third quarter of 2020. Navajo further explained: "Navajo plans to limit the use of Tank 57 until the ISOM Project is implemented, at which time Tank 57 may be removed from its current service." Navajo submitted the Corrective Action Plan "as a long-term corrective action plan, because implementation of the ISOM project will require more than 45 days to implement."
71. On July 3, 2019, Navajo submitted to NMED an Amendment to the May 15, 2019 Corrective Action Plan. In that Amendment, Navajo confirmed its plans to permanently remove Tank 57 from service in the second or third quarter of 2020.
72. On August 27, 2019, EPA and NMED held a conference call with Navajo to raise concerns about the Artesia Refinery's Δc benzene concentrations and Navajo's long-term plan to remove Tank 57 from service.
73. On August 27, 2019, Navajo began removing material from Tank 57 in preparation for removing that tank from the service of storing benzene-containing material.
74. On September 3, 2019, Navajo submitted to NMED a Second Amendment to the May 15, 2019 Corrective Action Plan stating that Tank 57 would be taken out of benzene-containing liquid service 16 days after its conference call with EPA and NMED. That document stated:
- a. "We have identified Tank 57 as the primary source contributing to an annual average benzene concentration above the [NESHAP Subpart CC] action level of 9 micrograms per cubic meter. Based on further technical evaluation, Navajo intends to remove benzene-containing material from Tank 57 no later than September 26, 2019, with a target removal timeframe of September 12, 2019, such that the tank will not store benzene-containing liquid in the future. The Company anticipates that this action will cause benzene concentrations at the fenceline to remain below the MACT action level on a permanent basis. In addition, Navajo will implement engineering controls, and other measures, outlined below in the event the facility's BenFree Unit experiences any operational issues after Tank 57 is removed from current service."
- b. "Based on further assessment at the site, Navajo has determined that Tank 57 will no longer be needed to store benzene containing streams both prior to, and after, implementation of the ISOM Project."

75. According to sample results submitted by Navajo, from January 29, 2019 through the fourth quarter of 2019, the Artesia Refinery's annual average Δc for benzene has been greater than $9 \mu\text{g}/\text{m}^3$. See Appendix A.

C. Flares and NSPS Subpart Ja Requirements

76. The Artesia Refinery has five steam-assisted, elevated flares:
- a. North Flare (FL-400)
 - b. South Flare (FL-401)
 - c. FCC Flare (FL-402)
 - d. Alky Flare (FL-403)
 - e. GOH Flare (FL-404)
77. Navajo's Artesia Refinery is subject to a federal consent decree that required all five of the refinery's flares to be subject to 40 C.F.R. Part 60, Subpart J. See 2002 Consent Decree ¶ 19.A.
78. The North Flare, South Flare, FCC Flare and GOH Flare were required to comply with NSPS Subpart Ja, including the requirement at 40 C.F.R. § 60.103a(h) to not burn fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis, by November 11, 2015.
79. According to hourly vent gas data from November 11, 2015 to October 7, 2019, the North Flare, South Flare, FCC Flare and GOH Flare experienced exceedances of the 162 ppmv H_2S concentration for fuel gas burned in the flares.

D. Wastewater Treatment System and NSPS Subparts A and QQQ Requirements

80. On October 1-4, 2019, EPA Region 6 inspectors Debbie Ford and James Haynes were joined by staff from the NMED Air Quality Bureau and a representative of the Environmental Resources Group ("ERG"), an EPA contractor, for an inspection of the Facility (the "Inspection").
81. On December 16-18, 2019, EPA Region 6 inspectors Debbie Ford and James Haynes visited the Artesia Refinery for a follow-up site visit of the Facility (the "Follow-up Site Visit").
82. On December 17-18, 2019, the inspectors were joined by staff from the NMED Air Quality Bureau and representatives of the Baker Consulting Group, a subcontractor of EPA-contracted ERG.

83. During the Inspection and Follow-up Site Visit, inspectors took photographs using digital cameras and videos using a FLIR Systems GF320 infrared camera (“FLIR camera”) to document the condition of the equipment at the Facility and to detect hydrocarbon emissions from the Facility’s equipment.
84. Navajo is subject to a federal consent decree that requires individual drain systems, oil-water separators, and aggregate facilities, as those terms are defined at 40 C.F.R. § 60.691, at the Artesia Refinery to be affected facilities that are subject to and must comply with the requirements of NSPS Subpart QQQ as of December 31, 2003. *See* 2002 Consent Decree ¶ 29.B.

Individual Drain Systems

85. During the Follow-up Site Visit, inspectors observed emissions from the open drain using the FLIR camera.
86. Navajo personnel then monitored the open drain with a 4-gas meter and obtained a 16-20% lower explosive limit (“LEL”) reading, contemporaneously with the inspector’s observations using the FLIR camera.
87. Inspectors observed a clear liquid flowing across the concrete into the open drain.
88. Navajo personnel stated that the liquid flowing to the open drain was water from a steam hose.
89. Inspectors observed the end of the steam hose with the FLIR camera but did not observe any emissions.
90. Navajo personnel confirmed with their 4-gas meter that there were no emissions from the hose and no LEL readings were detected.
91. Navajo personnel identified the concrete area with the open drain as the Dissolved Air Flotation (“DAF”) roll-off box storage pad.
92. Since inspectors observed water flowing into the open drain, the water seal control should have effectively prevented emissions from the drain to the atmosphere.

Oil-Water Separators

93. During the Inspection, inspectors observed an aluminum covered area, which Facility personnel called the New Stormwater Lift Station. The lift station receives all process water and stormwater from the Artesia Refinery. The water enters the T-846 Stormwater Lift Station and passes through the T-845 Weir Box that diverts excess flow greater than the capacity of the API Separators to the T-830 Stormwater Surge Tank. When flow to the API Separators drops below capacity, the oily wastewater from the T-830 Stormwater

Surge Tank is routed to the API Separators for treatment. Facility personnel stated that the New Stormwater Lift Station also contained an oil skimmer.

94. Navajo submitted a Revised End-of-Line (“EOL”) Sampling Plan on December 30, 2019, which included a diagram of the Wastewater Collection and Treatment System. The diagram identifies the T-844 Stilling Well as an oil-water separator which routes the collected oil to the T-49 Slop Oil Tank.
95. During the Inspection, inspectors observed loose gasket material hanging from the cover of one of the access hatches on the fixed roof of the New Stormwater Lift Station.
96. During the Follow-up Site Visit, inspectors observed that an access hatch on the roof of the Lift Basin was not latched and was missing part of the gasket.
97. During the Inspection and Follow-up Site Visit, inspectors observed emissions from the access hatches on the roof of the Lift Basin and the New Stormwater Lift Station using the FLIR camera.

Closed Vent Systems and Control Devices

98. The Facility utilizes a vapor recovery system as the control device for VOC emissions from the API Separators. The API Separators are equipped with a hard-piped closed vent system that connects to the D-829/D-830 Dual Carbon Canister System.
99. The Facility’s current Title V Operating Permit, Permit No. P051-R2 (“Title V Permit”), issued on May 6, 2015, establishes the D-829/D-830 Dual Carbon Canister System as the control device for the API Separators. Table 103.G of the Title V Permit includes an applicability summary table for the Refinery’s wastewater system. The table identifies the D-829/D-830 Dual Carbon Canister System as applicable to the “Main API” under NSPS Subpart QQQ. Table 104.A of the Title V Permit describes the “Main API” as the Aboveground Oil-Water Separator.
100. During the Inspection, inspectors observed emissions using the FLIR camera at several locations on the API Separators.
101. During the Inspection, inspectors observed the daily monitoring of the D-829/D-830 Dual Carbon Canister System for breakthrough, which would indicate the carbon in the canister is spent and needs to be replaced. A technician from Dexter Services, the LDAR contractor for Navajo, used a TVA 1000 meter (“TVA”) that was calibrated for EPA Method 21 and obtained a VOC concentration at the inlet to the lead carbon canister of 286 ppm.
102. After the monitoring of the carbon canister system was completed, inspectors requested the date of the last carbon changeout in the D-829/D-830 Dual Carbon Canister System, and Facility personnel stated that the carbon had never been changed. They further stated that a search of purchase records for the Artesia Refinery as far back as fifteen (15) years

did not locate any carbon purchased for the system. Inspectors determined after the inspection that the carbon canister system was installed in 2003.

103. During the Inspection, contemporaneously with the monitoring of the D-829/D-830 Dual Carbon Canister System, inspectors requested the Dexter Services technician to monitor at one of the points on the API Separators where inspectors observed emissions using the FLIR camera. The technician obtained a VOC concentration of 1,300 ppm.
104. During the Follow-up Site Visit, inspectors again observed several leaks at the API Separators using the FLIR camera. A technician from Dexter Services monitored the leaks contemporaneously with the inspector's observations with the FLIR camera using a TVA that was calibrated for EPA Method 21. The highest reading for a leak obtained by the technician using the TVA was 72,000 ppm.
105. Navajo provided records of the daily monitoring of the D-829/D-830 Dual Carbon Canister System. Inspectors noted that the highest inlet concentration for each month from January 2019 through September 2019 was between 450 ppm and 856 ppm.
106. During the Inspection, inspectors requested the Piping & Instrumentation Diagram for the API Separators to determine if the Facility had designed and was operating the closed vent system with a flow indicator. The inspectors were unable to locate a flow indicator on the API Separators' vent stream to the D-829/D-830 Dual Carbon Canister System.
107. In a letter dated December 10, 2019, Navajo indicated that they could confirm that a flow indicator was installed on the API Separators' vent stream.
108. During the Follow-up Site Visit, inspectors observed a pressure gauge on the vent stream from the API Separators to the control device.

Recordkeeping Requirements

109. During the closeout conference at the Follow-up Site Visit, inspectors requested design records for the D-829/D-830 Dual Carbon Canister System.
110. In a letter from Navajo dated January 10, 2020, the company stated that it was unable to identify such design records for the D-829/D-830 Dual Carbon Canister System. The letter also provided July 2003 as the date of installation of the canister system.

Conclusions of Law

Based on the findings set forth above, EPA has reached the following Conclusions of Law:

111. Navajo's Artesia Refinery is a major source under CAA § 112, 42 U.S.C. § 7412, that has a petroleum refining process unit subject to NESHAP Subpart CC.

112. The flares at Navajo's Artesia Refinery are affected facilities under 40 C.F.R. Part 60, Subpart Ja, as they were subject to a federal consent decree that made them affected facilities under 40 C.F.R. Part 60, Subpart J.

A. Violations of NESHAP Subpart CC Storage Vessel Provisions

113. Navajo violated 40 C.F.R. § 63.660 because it stored benzene-containing liquid with a maximum true vapor pressure above 11.1 pounds per square inch in Tank 57, a Group 1 storage vessel, and did not comply with NESHAP Subpart SS, which requires control of storage vessel emissions through a closed vent system and control device, or by routing the emissions to a fuel gas system or process.
114. Navajo violated 40 C.F.R. § 63.660 because it stored gasoline with a maximum true vapor pressure above 11.1 pounds per square inch in Tank 107, a Group 1 storage vessel, and did not comply with NESHAP Subpart SS, which requires control of storage vessel emissions through a closed vent system and control device, or by routing the emissions to a fuel gas system or process.

B. Violations of NESHAP Subpart CC Fenceline Monitoring Provisions

115. Because Navajo determined on February 5, 2019 that its annual average Δc for benzene calculated for the sampling period ending on January 29, 2019 was greater than $9 \mu\text{g}/\text{m}^3$, Navajo was required to complete the root cause analysis and corrective action required by 40 C.F.R. § 63.658(g) within 45 days.
116. Navajo violated the root cause analysis required by 40 C.F.R. § 63.658(g) because it failed to determine that the benzene-containing liquid stored in Tank 57 had a maximum true vapor pressure greater than 11.1 pounds per square inch and therefore was required under NESHAP Subpart CC to store the liquid in a storage vessel equipped with a closed vent system or that routed emissions to a fuel gas system or process.
117. Navajo violated the 40 C.F.R. § 63.658(g) requirement to determine and implement, within 45 days, an appropriate corrective action to reduce fenceline benzene concentrations below $9 \mu\text{g}/\text{m}^3$ because:
- a. Navajo determined by December 2018 that Tank 57 was the primary source contributing to annual average benzene concentrations above the NESHAP Subpart CC action level of $9 \mu\text{g}/\text{m}^3$ and that taking Tank 57 out of service was the only way to reduce fenceline benzene concentrations below $9 \mu\text{g}/\text{m}^3$.
 - b. Even though Tank 57 could have been permanently taken out of service in less than 45 days from February 5, 2019 (as demonstrated by Navajo's rapid removal of Tank 57 from service in September 2019), Navajo's corrective action plans, submitted in May and July 2019, did not provide for permanently removing Tank 57 from service for over a year.

- c. Navajo's corrective action plan provided for the continued use of Tank 57, which Navajo knew would cause fenceline benzene concentrations to exceed $9 \mu\text{g}/\text{m}^3$.
- d. Navajo brought Tank 57 back into service in April 2019, more than 45 days after February 5, 2019, knowing that doing so would increase the fenceline benzene concentrations above $9 \mu\text{g}/\text{m}^3$.

C. Violation of NSPS Subpart Ja Provisions

- 118. By November 11, 2015, the flares at Navajo's Artesia refinery were required to comply with the 40 C.F.R. § 60.103a(h) standard for the H_2S content of fuel gas burned in the flares.
- 119. From November 11, 2015 through October 7, 2019 Navajo violated the 40 C.F.R. § 60.103a(h) prohibition of burning fuel gas that contains H_2S in excess of 162 ppmv (determined hourly on a 3-hour rolling basis) in the following affected flares: the North Flare, the South Flare, the FCC Flare, and the GOH Flare.

D. Violations of NSPS Subparts A and QQQ Provisions

Individual Drain Systems

- 120. Drain openings are included in the scope of emission points to be regulated as individual drain systems under NSPS Subpart QQQ. See 53 Fed. Reg. 47,616.
- 121. Individual drain systems are affected facilities at the Artesia Refinery subject to the control requirements of NSPS Subpart QQQ.
- 122. Navajo violated 40 C.F.R. § 60.692-2(a)(1) by failing to operate the open drain at the DAF roll-off box storage pad with a water seal control that creates a water barrier between the sewer and the atmosphere.

Oil-Water Separators

- 123. The T-844 Stilling Well oil-water separator, along with auxiliary equipment T-846 Stormwater Lift Station and T-845 Weir Box, is an "affected facility" within the meaning of 40 C.F.R. § 60.2 and 40 C.F.R. § 60.690(a)(3).
- 124. The T-894/T-895 API Separators are each an oil-water separator, and along with auxiliary equipment T-1 Lift Basin and S-1 Bar Screen, are each an "affected facility" within the meaning of 40 C.F.R. § 60.2 and 40 C.F.R. § 60.690(a)(3).
- 125. The Stilling Well and API Separators, and associated auxiliary equipment, are subject to the standards requiring a fixed roof under 40 C.F.R. § 60.692-3(a), including the requirement at 40 C.F.R. § 60.692-3(a)(3) that roofs with access doors or openings be

gasketed, latched, and kept closed at all times during operation of the separator system, except during inspection and maintenance.

126. Navajo violated 40 C.F.R. § 60.692-3(a)(3) by failing to ensure that access doors or openings on the roof of the T-846 Stormwater Lift Station and T-1 Lift Basin are gasketed, latched, and kept closed at all times during operation of the separator system, except during inspection and maintenance.

Closed Vent Systems and Control Devices

127. The API Separators are oil-water separators at the Facility and are subject to the requirements of 40 C.F.R. § 60.692-3. The API Separators are permitted with a total capacity to treat 1,200 gallons of wastewater per minute and are required under 40 C.F.R. § 60.692-3(b) to be equipped and operated with a closed vent system and control device that meets the requirements of 40 C.F.R. § 60.692-5.
128. Navajo violated 40 C.F.R. § 60.11(d) by failing to ensure that the API Separators and the D-829/D-830 Dual Carbon Canister System are maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
129. 40 C.F.R. § 60.692-5(e)(3) requires the installation of a flow indicator on the API Separators' vent stream to the D-829/D-830 Dual Carbon Canister System to ensure that the vapors from the API Separators are being routed to the control device.
130. The pressure gauge on the vent stream from the API Separators to the control device does not meet the requirements for installation of a flow indicator required by 40 C.F.R. § 60.692-5(e)(3).
131. Navajo violated 40 C.F.R. § 60.692-5(e)(3) by failing to install a flow indicator on the vent stream from the API Separators to the D-829/D-830 Dual Carbon Canister System to ensure that the vapors are being routed to the control device.

Recordkeeping Requirements

132. Navajo must comply with the recordkeeping requirements of 40 C.F.R. § 60.697 as the owner and operator of a facility subject to NSPS Subpart QQQ.
133. Navajo violated 40 C.F.R. § 60.697(f)(1) by failing to keep a copy of the design specifications of the D-829/D-830 Dual Carbon Canister System in a readily accessible location for the life of the canister system.
134. Navajo violated 40 C.F.R. § 60.697(f)(3)(i) by failing to keep documentation that includes a general description of the gas streams that enter the D-829/D-830 Dual Carbon Canister System and the manufacturer's recommendations for the canister system in a readily accessible location.

Enforcement

The EPA's investigation into this matter is continuing. The above information represents specific violations that EPA believes, at this point, are sufficiently supported by evidence to warrant the allegations in this NOV. The EPA may find additional violations as the investigation continues.

Section 113(a)(3) of the Act, 42 U.S.C § 7413(a)(3), provides the Administrator with several enforcement options to resolve these violations, including issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action.

Opportunity to Confer

Navajo may, upon request, confer with EPA. The conference will enable Navajo to present evidence bearing on the finding of violations, on the nature of the violations, and on any efforts it may have taken or proposes to take to achieve compliance. Navajo has a right to be represented by counsel. A request for a conference must be made within ten (10) days of receipt of this NOV. Please contact Arati Tripathi, Assistant Regional Counsel, at tripathi.arati@epa.gov or (214) 665-7404, to request a conference. Any technical questions may be directed to Debbie Ford, Environmental Scientist, at ford.debbie@epa.gov or (214) 665-7235.

Effective Date

This Notice shall become effective immediately upon issuance.

Cheryl T. Seager
Director, Enforcement and Compliance
Assurance Division

Appendix A - Artesia Refinery Benzene Fenceline Monitoring Program
Reported Averages by Sampling Period through 4th Quarter 2019

Period ID	Period Start Date	Period End Date	2-week ΔC (μg/m³)	Annual Average ΔC (μg/m³)
2018-0130	01/30/2018	02/13/2018	106	
2018-0213	02/13/2018	02/27/2018	60	
2018-0227	02/27/2018	03/13/2018	116	
2018-0313	03/13/2018	03/27/2018	217	
2018-0327	03/27/2018	04/10/2018	228	
2018-0410	04/10/2018	04/24/2018	277	
2018-0424	04/24/2018	05/08/2018	308	
2018-0508	05/08/2018	05/22/2018	396	
2018-0522	05/22/2018	06/05/2018	477	
2018-0605	06/05/2018	06/19/2018	998	
2018-0619	06/19/2018	07/03/2018	718	
2018-0703	07/03/2018	07/17/2018	968	
2018-0717	07/17/2018	07/31/2018	998	
2018-0731	07/31/2018	08/14/2018	638	
2018-0814	08/14/2018	08/28/2018	178	
2018-0828	08/28/2018	09/11/2018	178	
2018-0911	09/11/2018	09/25/2018	218	
2018-0925	09/25/2018	10/09/2018	168	
2018-1009	10/09/2018	10/23/2018	63	
2018-1023	10/23/2018	11/06/2018	62	
2018-1106	11/06/2018	11/20/2018	40	
2018-1120	11/20/2018	12/04/2018	6.2	
2018-1204	12/04/2018	12/18/2018	7.4	
2018-1218	12/18/2018	01/01/2019	6.4	
2019-0101	01/01/2019	01/15/2019	16	
2019-0115	01/15/2019	01/29/2019	6.0	290
2019-0129	01/29/2019	02/12/2019	4.9	280
2019-0212	02/12/2019	02/26/2019	5.0	280
2019-0226	02/26/2019	03/12/2019	11	280
2019-0312	03/12/2019	03/26/2019	12	270
2019-0326	03/26/2019	04/09/2019	54	260
2019-0409	04/09/2019	04/23/2019	66	250
2019-0423	04/23/2019	05/07/2019	203	250
2019-0507	05/07/2019	05/21/2019	99	240
2019-0521	05/21/2019	06/04/2019	28	220
2019-0604	06/04/2019	06/18/2019	8	180
2019-0618	06/18/2019	07/02/2019	12	160

HollyFrontier Navajo Refining LLC
Notice of Violation

Period ID	Period Start Date	Period End Date	2-week ΔC (μg/m³)	Annual Average ΔC (μg/m³)
2019-0702	07/02/2019	07/16/2019	12	120
2019-0716	07/16/2019	07/30/2019	14	81
2019-0730	07/30/2019	08/13/2019	12	57
2019-0813	08/13/2019	08/27/2019	6.6	51
2019-0827	08/27/2019	09/10/2019	14	44
2019-0910	09/10/2019	09/24/2019	3.6	36
2019-0924	09/24/2019	10/09/2019	4.3	30
2019-1009	10/09/2019	10/22/2019	5.3	28
2019-1022	10/22/2019	11/05/2019	17	26
2019-1105	11/05/2019	11/19/2019	4.0	25
2019-1119	11/19/2019	12/03/2019	8.1	25
2019-1203	12/03/2019	12/17/2019	10	25