REGION 4
ATLANTA, GA 30303

SENT VIA ELECTRONIC MAIL

John McKinnon
PCS Nitrogen Fertilizer, L.P.
Environmental Manager
1460 Columbia Nitrogen Drive
Augusta, Georgia 30901
john.mckinnon@nutrien.com

Dear John McKinnon:

Enclosed is a copy of the final report generated by the U.S. Environmental Protection Agency's Region 4, South Air Enforcement Section, for the inspection conducted at the PCS Nitrogen Fertilizer, L.P., facility (PCS), located in Augusta, Georgia, on May 30, 2024.

If you have any questions, please contact me at (404) 562-9134, or by email at taylor.kevin@epa.gov

Sincerely,

KEVIN TAYLOR

Digitally signed by KEVIN TAYLOR
Date: 2024.07.24 14:28:52 -04'00'

Kevin Taylor
Environmental Engineer
South Air Enforcement Section

Enclosure

ENCLOSURE A
INSPECTION REPORT

United States Environmental Protection Agency (EPA) Region 4
Air Enforcement Branch
Inspection Report

I. GENERAL INFORMATION

Facility Name: PCS Nitrogen Fertilizer, L.P. (PCS)

Location (Address): 1460 Columbia Nitrogen Drive
Augusta, Georgia 30901

Inspection Date: May 30, 2024

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

ICIS-Air Number: GA0000001324500002

EPA Investigator(s)/Inspector(s):

1. Kevin Taylor, Environmental Engineer, EPA Region 4
2. Daniel Slade, Environmental Engineer, EPA Region 4
3. Baichen "Brian" Zhong, Environmental Engineer, EPA Region 4

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

1. Whitney DeMoor, Environmental Engineer, Georgia EPD (Atlanta)
2. Bethany Dillard, Environmental Engineer, Georgia EPD (Augusta)
3. Adrienne Tabor, Program Manager, Georgia EPD (Augusta)

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

1. John McKinnon, Environmental Manager
2. Andrew Neidlinger, Environmental Specialist
3. Jamie Powell, Environmental Specialist

Report Prepared by: Kevin Taylor

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.).	Chemical facility that produces anhydrous ammonia, nitric acid, ammonium nitrate, urea, urea and ammonium nitrate solutions, and carbon dioxide.
2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).	Major Source Part 70 Operating Permit No. 2873-245-0002-V-04-0
3. Air permit issuance date.	September 21, 2018
4. Air permit expiration date.	September 20, 2023
5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).	Major
6. Major source pollutants (if applicable).	PM, PM_{10},VOC, NO_x, CO, HAPs
7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.).	40 CFR Part 63 Subparts FFFF & DDDDD 40 CFR Part 65 Subparts F 40 CFR Part 60 Subparts G & GG
8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).	Tanks, engines, process vents, boilers, LDAR components,
9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).	Urea Plant – Baghouse & scrubber Nitric Acid Plant – Acid Vent Scrubber, Selective Catalytic Reduction (SCR) & Nonselective Catalytic Reduction (NSCR) Ammonium Nitrate Plant – Scrubbers, & Cyclones

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

PCS currently produces anhydrous ammonia, nitric acid, ammonium nitrate (AN), urea, urea and AN solutions, and carbon dioxide. It is noted that the facility is permitted for a Urea Pastille Plant, but the plant was permanently shut down in 2021. The following is a brief process description for each product.

Anhydrous ammonia – Natural gas is reformed and mixed with atmospheric air to form ammonium gas in a series of reaction steps.

Nitric Acid – Ammonia is combusted to form NOx gas. The NOx gas is absorbed in an absorption column to form nitric acid. There are two nitric acid plants at the facility: C-001 Nitric Acid Plant and C-002 Nitric Acid Plant. The C-001 Nitric Acid Plant has an SCR to control NOx emissions to the atmosphere. The C-002 Nitric Acid Plant has an NSCR to control NOx emissions to the atmosphere.

Ammonium nitrate – Ammonia and nitric acid are reacted in the first stage and second stage neutralizers to form AN liquid. Part of the AN liquid is used to make fertilizer solutions, part is direct sales, and part is used in the Prill Tower to make AN prills, a solid product. The AN prills are further processed in the pre-dryer and the cooler. There are two AN plants: C-001 AN Plant and C-002 AN Plant. Each plant has a scrubber to control particulate matter on the first stage neutralizer, the pre-dryer, the dryer, and the cooler.

Urea – Carbon dioxide, a by-product from the ammonia process, is combined with ammonia to form urea. The liquid urea is used to make fertilizer solutions, urea solutions, urea prills, and urea pastilles.

Urea and ammonium nitrate solutions – Ammonium nitrate, urea, and water are blended to form fertilizer solutions or made into pure solutions of various percentages for direct sales. Carbon Dioxide – CO2 from the ammonia plant's solution regenerator exhaust is purified and compressed to form liquified CO2.

III. INSPECTION ACTIVITIES

Activity	Yes No NA	Comment
Opening Meeting		
1. Date and time entered the facility.	Yes	The EPA inspectors entered the facility on May 30, 2024, at 8:47 am (EST).
2. Credentials presented to facility personnel (include name and title).	Yes	Upon arrival, the EPA inspectors presented their EPA credentials to the facility personnel.

3. Conducted an opening meeting to explain the purpose and objectives of the inspection.	Yes	The EPA inspectors held an opening conference with John McKinnon, Andrew Neidlinger, and Jamie Powell representing PCS, and Whitney DeMoor, Bethany Dillard, and Adrienne Tabor with the Georgia Environmental Protection Division (Georgia EPD). The purpose and objectives of the inspection were explained during the opening conference. The EPA inspectors pointed out that they were conducting a partial compliance evaluation as part of a national initiative to assess the impacts of facilities on overburdened communities. For EPA Region 4, Augusta, Georgia was selected as the targeted community for this initiative. The inspection would be focusing on leak detection and repair (LDAR) requirements and looking at storage tanks and closed vent systems. The regulatory focus would be on 40 CFR Part 63, Subpart FFFF and 40 CFR Part 65, Subpart F for LDAR applicability. Participants of the opening conference filled out an attendance sheet with contact information.
4. Discussed safety issues.	Yes	The EPA inspectors discussed with the facility the personal safety equipment needed to conduct the inspection and any emergency procedures for the facility.
5. Discussed which records to be reviewed.	Yes	The EPA inspectors identified records to be reviewed for the evaluation and created and provided a list of the records that were received from the facility for later review.
6. Discussed the facility walk-through and the areas to be observed in the facility.	Yes	The EPA inspectors explained that they would concentrate the onsite walk-through observations on the Urea Plant and the Ammonium Nitrate Plant (AN Plant), looking at the areas that are subject to the LDAR requirements and any process lines, stacks

		and tanks that contain VOC and HAP chemicals.
7. Discussed facility policy regarding photographs or video (if applicable).	Yes	
8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.	Yes	The EPA Region 4 inspectors discussed the use of the infrared camera, 4 gas personal safety monitors, and the Toxic Vapor Analyzer (TVA). It was noted that all of the equipment was intrinsically safe, including the newer infrared camera.
9. Discussed CBI.	Yes	The EPA inspectors requested that anything that the facility considers to be CBI be identified. The facility would also have an opportunity to review the EPA inspection report for CBI content prior to finalizing it. Any information identified as CBI would be treated in accordance with regulations.
Records Reviewed at the Facility		
10. The types of records reviewed and the time period reviewed.	Yes	The records for review were received and documented on a "Documents Received" list that was also shared with the facility.
Facility Walk-Through Observations		
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).	Yes	Following the introductions, the opening conference and a detailed discussion of the facility process, the walk-through inspection started at approximately 1:30 pm (EST), following a break for lunch and time to calibrate and bump check the TVA. The inspection covered the Urea Plant and the AN Plant. The EPA inspectors performed

Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.		monitoring of LDAR area components, process vents and tanks using the TVA and the infrared camera.
12. The type of process parametric monitoring observed and the associated value observed (e.g., 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). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	N/A	
13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
14. The type of air pollution control equipment, the process equipment it is controlling, and the associated	Yes	Urea Plant – the Urea Pastille Plant Rotoformers are listed in the permit but are no longer operating. This unit was the only

parametric monitoring value observed (e.g., baghouse pressure drop, temperature, scrubber flow rate, etc.). (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). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.		unit in the Urea Plant that had air pollution control equipment (scrubber and baghouse). However, the Urea Pastille Plant was permanently shut down in 2021. AN Plant – the units in the AN Plant are controlled by scrubbers and cyclones.
15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable).	N/A	

An attachment may be used for a large amount of information.		
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.).	Yes	The ductwork was observed visually and with the infrared camera.
19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if yes, describe in the comments field).	No	
20. Were any visible emissions observed? (if yes, identify the location and equipment).	No	EPA Region 4 inspectors did not observe any VOC or HAP emissions visible to the naked eye. There were some emissions that were

		characterized as particulate emissions coming from the Prill Tower.
21. Was a Method 9 reading performed? (if yes, identify the location and equipment).	No	A Method 9 reading was not performed.
22. Was the cause of the visible emissions investigated and the information documented?	Yes	Emissions from the Prill Tower were characterized as particulate emissions. However, there were some emissions that were only visible while utilizing the infrared camera. These emissions were identified to the facility personnel.
23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).	No	
24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.	Yes	The visible emissions observed from the Prill Tower were described by the facility personnel as particulate emissions.
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.	Yes	The video log is attached as Attachment A.
26. Was the TVA used? If so, identify the equipment monitored and the results. Provide the date and time the information was recorded by the inspector. Include actual instrument	Yes	The TVA was used to monitor LDAR components in the Urea Plant and the AN Plant. However, there were no readings that exceeded the 500 ppm leak threshold.

readings for each piece of equipment monitored above the leak definition and/or where the infrared camera identified a release. 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. Provide the date and time the information was recorded by the inspector. An attachment may be used for a large amount of information.	No	
Closing Meeting		
28. Conducted a closing meeting.	Yes	The EPA inspectors conducted a closing meeting on May 30, 2024, at approximately 4:30 pm (EST) with John McKinnon representing PCS, and Whitney DeMoor with the Georgia Environmental Protection Division (Georgia EPD).
29. Summarize any additional information needed, if applicable?	N/A	
30. Accept a declaration of CBI, if applicable?	No	Although the CBI procedures were explained in the opening meeting and at the start of the inspection. A CBI declaration was not made at the time of the inspection. The facility was advised that an inspection report would be sent to them for a CBI review following the inspection.

31. Discussed observations.	Yes	The EPA inspectors discussed the observations made during the inspection. The EPA inspectors noted in the close out the following areas of concern: Infrared camera emissions observed from the Prill Tower from the parking lot was discussed, along with the Prill stack emissions observed from the Medium Pressure Vent and the Central Vent while inspecting on top of the Prill Tower. There were also some emissions observed with the infrared camera from the CO_2 Vent. The facility will receive a copy of the videos, along with the draft inspection report, within 60 days of the inspection.
32. Discussed next steps, if applicable?	Yes	The EPA inspectors stated that an inspection report would be the next step in the process which would cover observations made during the day of the inspection.
33. Date and time inspection concluded.	Yes	The inspection concluded on May 30, 2024, at approximately 4:05 pm (CST)
Miscellaneous		
34. Include any additional observations, if applicable.	N/A	

EPA Investigator/Inspector Signature: KEVIN TAYLOR Digitally signed by KEVIN TAYLOR Date: 2024.07.24 14:30:32 -04'00'

EPA Supervisor Signature & Title TODD GROENDYKE Digitally signed by TODD GROENDYKE Date: 2024.07.25 16:09:50 -04'00'

Date Report Finalized:_____

ENCLOSURE A

INFRARED CAMERA VIDEO/PICTURE LOG

Video Image Log

Image Number	File Name	Date and Time (incl. time zone and DST)	Description of Image
1	FLIR0031.mp4	5/30/2024 11:00	Prill Tower from Parking Lot
2	FLIR0032.mp4	5/30/2024 14:15	Medium Pressure Vent Stack from 8th Floor of Prill Tower
3	FLIR0033.mp4	5/30/2024 14:17	Central Vent from 8th Floor of Prill Tower
4	FLIR0034.mp4	5/30/2024 14:29	Central Vent from Roof
5	FLIR0041.mp4	5/30/2024 14:50	CO2 Vent

Picture Image Log

Image Number	File Name	Date and Time (incl. time zone and DST)	Description of Image
1	FLIR0035.jpg	5/30/2024 14:48	Time Lapse Error
2	FLIR0036.jpg	5/30/2024 14:48	Time Lapse Error
3	FLIR0037.jpg	5/30/2024 14:48	Time Lapse Error
4	FLIR0038.jpg	5/30/2024 14:48	Time Lapse Error
5	FLIR0039.jpg	5/30/2024 14:48	Time Lapse Error