

From: [Air.Pollution Control](#)
To: [APC Permitting](#)
Subject: FW: CMOP 472842 - US Nitrogen Notification of Temporary Boiler Use - Insignificant Emissions
Date: Friday, February 23, 2024 5:16:48 PM
Attachments: [image001.png](#)
[2.23.24 Notification of Temporary Boiler.pdf](#)

From: Gayle Winzenried <Gayle.Winzenried@austinpowder.com>
Sent: Friday, February 23, 2024 2:47 PM
To: Air.Pollution Control <Air.Pollution.Control@tn.gov>
Cc: Kim Ryans <Kim.Ryans@austinpowder.com>; Dylan Charles <Dylan.Charles@austinpowder.com>; Jordan Cheek <Jordan.Cheek@austinpowder.com>; James Johnston <James.Johnston@tn.gov>; Doug S. Wright <Doug.S.Wright@tn.gov>
Subject: [EXTERNAL] CMOP 472842 - US Nitrogen Notification of Temporary Boiler Use - Insignificant Emissions

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

Good day,

On behalf of US Nitrogen, I am submitting a notification of the emergency use of a temporary boiler which qualify as insignificant emission units. If you have further questions, please contact Kim Ryans.

Sincerely,



AUSTIN POWDER

Gayle Winzenried | Environmental, Health & Safety Administrative Coordinator

US Nitrogen, LLC | 471 Pottertown Road, Midway, TN 37809

Office: 423.422.3080 | **Fax:** 423.422.2050 | **Email:** Gayle.Winzenried@austinpowder.com



AUSTIN POWDER

February 23, 2024

Submitted Electronically to Air.Pollution.Control@tn.gov

Michelle W. Owenby, Director,
Division of Air Pollution Control
Tennessee Department of Environment and Conservation
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, Tennessee 37243

Re: Notification of the Emergency Use of a Temporary Boiler Which Qualifies as an Insignificant Emissions Unit

Dear Ms. Owenby,

US Nitrogen LLC (US Nitrogen) is making notification for the use of one temporary boiler for a while the existing permitted auxiliary boiler undergoes annual inspection. The permitted auxiliary boiler is a 113 MMBtu/hr boiler with low-NOx burners. The permit limits for the currently permitted boiler are as follows:

Pollutant	Permit Limits		Permit Condition
PM	1.00 lb/hr	3.76 tons per 12 consecutive months	S2-4
SO ₂	0.1 lb/hr	0.3 tons per 12 consecutive months	S2-5
NO _x	3.96 lb/hr	17.32 tons per 12 consecutive months	S2-6
CO	4.52 lb/hr	19.80 tons per 12 consecutive months	S2-7
VOC	0.61 lb/hr	2.72 tons per 12 consecutive months	S2-8

The temporary boiler will be used for 60 days or less. For the purposes of calculating the potential temporary boilers emissions, we have conservatively assumed it will be used for 60 days. The temporary boiler will have an estimated power rating of 48.6 MMBtu/hr or 40,000 lb steam/hr. The exact specifications for the temporary rental boiler are unknown at this point. Once the temporary boiler rental company commits US Nitrogen a particular temporary boiler, then we will have the actual power ratings of the boiler rather than estimated calculations.



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The estimated boiler that will be used meets the definition of "temporary boilers" in 40 CFR Subpart Dc due to being:

- Portable (i.e.) it can be moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms
- It will not be attached to a foundation
- It will be used less than 180 days
- It is being used on a temporary basis until the permanent boiler can be inspected.

The calculated total emissions for the time the estimated temporary boiler will be used is below 5 tons for regulated air pollutants and below 1000 lbs. for hazardous air pollutants (HAP) and are as follows:

Pollutant	Total Estimated Emissions from Temporary Boiler During Assumed Period of Usage
PM	0.26 tons
SO ₂	0.02 tons
NO _x	3.50 tons
CO	2.88 tons
VOC	0.19 tons
Total HAP	0.06 tons

The supporting emissions calculations for the estimated temporary boiler are enclosed.

US Nitrogen is expected to have the temporary boiler in operation around the middle of March 2024. US Nitrogen will submit the final calculations for the temporary boiler once all specifications can be obtained from the rental company.

If you have any questions regarding this request, please contact Kim Ryans at 423- 422-2052 or Kim.Ryans@austinpowder.com.com

Dylan Charles
Plant Manager

Enclosures



Calculations

Process Name - Temporary Boiler

Hours of Operation

1440 hr

High Heat Value of Natural Gas

1020 BTU/scf

Maximum Rated
Heat Input
(MMBtu/hr)

Rental Boiler

48.6

Potential to Emit for Each Boiler

Pollutant	PM	SO ₂	NO _x	CO	VOC	CO ₂ e	HAP
Emission Factor (lb/MMScf) ¹	7.6	0.6		84	5.5	120000	1.89
Emission Factor (lb/MMBtu) ²			0.10				
Emissions (lb/hr)	0.36	2.86E-02	4.86	4.00	0.26	5717.65	0.09
Emissions (TPY)	0.26	0.02	3.50	2.88	0.19	4116.71	0.06

1. from AP-42, Chapter 1.4 Natural Gas Combustion

2. based on 30 ppm at 3% O₂, from rental company boiler specifications