

To: File
From: John Legg
Date: December 3, 2015

John Legg
12/3/15

Subj: PD15-099 - No Permit Needed
M&G Polymers USA, LLC (M&G)
Apple Grove Facility
Company ID No.: 053-00054

Permit determination PD15-099 was received at the DAQ on 11/25/15 and assigned to the writer for review on 11/30/15. A review of the central file room files determined that the proper paperwork had been submitted by M&G to designate Scott Whitwer as being a responsible official/authority representative for the company.

The permit determination consisted of the following:

- a brief cover letter;
- a 2 page complete/signed permit determination form;
- a site location map (Attachment A);
- a process flow diagram (Attachment B);
- a process description (Attachment C);
- a 10 page material safety data sheet (MSDS) for Dowtherm™ RP Heat Transfer Fluid (Attachment D);
- 2 pages of supporting calculations (Attachment F); and
- a 2/2/10 letter from Dow Chemical Company's L.W. Budd Lee to M&G Polymers USA, LLC's Gil Rogers. The letter estimated the thermal degradation of Dowtherm RP heat transfer fluid in operation at a 640°F heater exit temperature.

Process Description and Emission Estimation

M&G Polymers plans to replace the heat transfer fluid, Therminol 66® with Dowtherm RP® in the CP-3 unit.

The current equipment is designed to accommodate this change.

The heat transfer material is used in a closed loop system, and there will be no equipment changes (piping or tanks) associated with this change.

During normal operations emissions are vented to the Hot Oil Heater (C3T-B-1600) during stripping.

Emissions are calculated to be less than 0.01 lb/hr of total HAPs (benzene, toluene, ethylbenzene and naphthalene) and less than 0.01 TPY of Total HAPs that could be emitted from emission point 3P-1600.

Engineer Review

Application: The writer review the entire submission and found it to be clear, logical and complete.

The supporting calculations in Attachment E were logically laid out/easy to follow and mathematically correct.

The calculated emissions were in agreement with the emission given in the above process description.

R13-1650R: The writer reviewed M&G's current Rule 13 permit and determined that no permit limitation would be exceeded/violated by changing the Hot Oil Heater's thermal fluid. Additional questions were asked via email to M&G's Scott Whitwer. These questions and M&G's responses are attached to this evaluation.

No Permit Needed Determination

Based on the information submitted in permit determination PD15-099 and additional information submitted via email, the writer has determination that no permit is needed for M&G to change the heat transfer fluid in the CP3 unit from Therminol 66® to Dowtherm RP®.

From: Legg, John C
Sent: Wednesday, December 02, 2015 3:42 PM
To: Scott.B.Whitwer@gruppomgus.com
Cc: McKeone, Beverly D
Subject: Question about Permit Determination PD15-099 M&G Polymers USA, LLC (053-00054), Apple Grove, Mason County, WV

Dear Mr. Whitwer,

I am the engineer assigned to review the above permit determination to change the heat transfer fluid in the CP3 unit from Terminol 66 to Dowtherm RP.

In the CP3 unit, the equipment affected by PD15-099 would be Hot Oil Heater C3T-B-1600 which emits through emission point 3P-1600.

Background Information:

Your most recent Reg 13 permit is R13-1650R, approved December 9, 2013.

In Section 4.1.3 of R13-1650R, the Hot Oil Heater C3T-B-1600 has limitations on:

- the maximum hourly designed heat input;
- the maximum natural gas feed rate, both hourly and annual; and
- minimum VOC destruction efficiency (99.8%).

In "R13-1650R, Appendix Table A - CP3 Maximum Permitted Emissions" for emission point 3P-1600 (Control Device C3T-B-1600 Hot Oil Heater), the following pollutants are listed with the following hourly and annual emission limits:

Ethylene Glycol	0.01 lb/hr and 0.02 ton/yr
Acetaldehyde	1.04 lb/hr and 1.50 ton/yr
1,4-Dioxane	0.01 lb/hr and 0.01 ton/yr
Total VOC	1.32 lb/hr and 2.77 ton/yr
PM	0.11 lb/hr and 0.47 ton/yr
CO	1.86 lb/hr and 8.14 ton/yr
NOx	3.19 lb/hr and 14.00 ton/yr
Sox	0.05 lb/hr and 0.23 ton/yr

In your November 24, 2015 cover letter to the permit determination, your state:

We will add the minor increase in Total HAPs to the Title V permit during the technical review of the renewal submitted on October 26, and it will be included in a Reg 13 update that will be submitted shortly.

Question: For the planned Reg 13 update to be submitted shortly, is permit update directly related to/caused by permit determination (PD15-099) currently under review?

I.e., are the changes to be proposed under the planned Reg 13 update, are they unrelated to permit determination PD15-099?

1650R? If the permit update is related to or cause by PD15-099, what would need to be changed in R13-

Sincerely,

John Legg
Permit Engineer
WVDEP
Division of Air Quality (DAQ)
601 57th Street, SE
Charleston, WV 25304
(304) 926-0499 ext. 1257
John.c.legg@wv.gov

Legg, John C

From: Scott.B.Whitwer@gruppomgus.com
Sent: Thursday, December 03, 2015 10:16 AM
To: Legg, John C
Subject: FW: Question about Permit Determination PD15-099 M&G Polymers USA, LLC (053-00054), Apple Grove, Mason County, WV

Hey John – thanks for the followup.

If you look at table 4.1.11.b in our current permit, under CP4, it gives the following:

4P-1600	C4T-B-1600 Hot Oil Heater	C4T-F-2670*	Total VOC	0.01	0.01
			Total HAPs**	0.01	0.01
			Benzene	0.01	0.01

* Emissions become effective at start-up of the system on DOWTHERM RP heat transfer fluid

** Total HAPs include: Benzene, Toluene, Ethyl Benzene, and Naphthalene

C4T-F-2670 (which is really C4T-F-8670 and is one of several items that we have corrected that in the Title V renewal we submitted at the end of October) is the Dow RP lites tank that was added with the change to RP on CP4 in like 2010.

Thus what needs to be added to CP3 is that same categories of emissions to the CP3 T66 lites tank which is C3T-F-2670. Unfortunately, that is one of the tanks that is missing from the permit for some reason, so ultimately it needs to be added

So to answer your questions, I think the answers are:

1). We will need to correct an omission in the previous permit versions by adding C3T-F-2670 – CP3 Lights tank – 6,000 gallons – installed 1994 - control device C3T-B-1600- emission point 3P-1600, and add the HAPS as was done for CP4 (though per our calculations the emissions are really <0.01 on the permit determination form vs. what Debbie had in there for CP4), and

2). The Reg 13 update currently in the works was not originally related to / caused by the change from T66 to RP detailed in the PD-, but was being initiated rather to update a few other items (rates on CSS12/13, adding a missing dust collector on the west silo, removing CSS7). However, since this update is in the works, this change in heat transfer fluid will also be included.

Let me know if you need anything else!

Scott Whitwer

QA / Environmental Manager, M&G Polymers USA, LLC

State Rt. 2, Apple Grove WV 25502

Phone: 304-576-4589 Fax: 304-576-4625 Cel: 304-633-4077

~~**From:** Legg, John C [mailto:John.C.Legg@wv.gov]
Sent: Wednesday, December 02, 2015 3:42 PM
To: Whitwer, Scott SB-APG
Cc: McKeone, Beverly D
Subject: Question about Permit Determination PD15-099-M&G Polymers USA, LLC (053-00054), Apple Grove, Mason County, WV~~

Dear Mr. Whitwer,

West Virginia Department of Environmental Protection

*Earl Ray Tomblin
Governor*

Division of Air Quality

*Randy C. Huffman
Cabinet Secretary*

Class II Administrative Update



R13-1650R

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

M & G Polymers USA, LLC
Apple Grove, WV
053-00054

*John A. Benedict
Director*

Issued: December 09, 2013 • Effective: December 09, 2013

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
3P-1600	C3T-B-1600 Hot Oil Heater	C3L-F-2220	CP3 Colorant Make-Up Tank	400 Gallons	1994
		C3L-F-2201	CP3 Colorant Charge Tank	400 Gallons	1994
		C3L-F-3160	CP3 Stabilizer Charge Tank	275 Gallons	1994
		C3L-F-4211	CP3 Stabilizer Make-Up Tank	400 Gallons	1994
		C3L-F-4100	CP3 Stabilizer Surge Tank	516 Gallons	1994
		C3L-F-4210	CP3 Stabilizer Make-Up Tank	400 Gallons	1994
		C3L-F-5040	CP3 Stabilizer Make-Up Tank	486 Gallons	1994
		C3H-F-3010	CP3 Slurry Mix Tank	607 ft ³	2001
		C3H-F-4010	CP3 Slurry Feed Tank	1,319 ft ³	2001
		C31-E-1020	CP3 R/1 System	2,970 Gallons	1994
		C32-E-1050	CP3 R/2 System	2,970 Gallons	1994
		C33-F-2250	CP3 R/3 System	2,517 Gallons	1994
		C33-F-5010	CP3 R/3 bis System	2,970 Gallons	2001
		C31-F-1220	CP3 R/1 & R/2 Condensate Tank	7,383 pph	1994
		C33-F-2260	CP3 R/3 Condensate Tank	679 gpm	1994
		C34-F-2290	CP3 R/4A Condensate Tank	459 gpm	1994
		C34-F-3280	CP3 R/4A System	1,700 pph	1994
		C34-F-8290	CP3 R/4B Condensate Tank	744 gpm	2007
		C34-F-9280	CP3 R/4B System	7,502 pph	2007
		C3T-F-0600	Knock Out Pot	N/A	1994
C3H-F-4020	Seal Pot	N/A	1994		
3P-1700	None	C3T-F-1700	Hot Oil Heater	23.0 MMBTU/hr	1994
3P-5010	C3S-M-5010	C3S-F-5010	Master Recycle Silo	4,000 ft ³	1974/2010

CP4

4P-1020	C4S-M-1040 Baghouse	C4S-F-1020	CP4 TPA Surge Silo	178 ft ³	1996
4P-2100	C4S-M-2100 Baghouse	C4S-F-2050	CP4 IPA Surge Silo	8' x 18' t/s	1996
4P-3130	C4S-M-3140 Baghouse	C4S-F-3080	CP4 Recycle Surge Bin	1,170 ft ³	1999
4P-3190	None	C4L-F-3190	CP4 DEG Charge Tank	275 Gallons	1996
4P-1070	None	C4L-A-1070	CP4 Recupic EG Tank	12,700 Gallons	1996
4P-1071	None	C4L-A-1071	CP4 Recupic EG Tank	12,700 Gallons	1996
4P-1072	None	C4L-A-1072	CP4 Recupic EG Tank	12,700 Gallons	1996
4P-1800	None	C4L-F-1800	CP4 EG Storage Tank	675,000 Gallons	1996
4P-0430	None	C4L-F-0430	CP4 EG Feed Tank	275 Gallons	1996
4P-1032	None	C4L-F-3140	CP4 R/1 EG Charge Tank	1,742 Gallons	1996
		C4L-F-3180	CP4 R/1 Recupic EG Charge Tank	1,742 Gallons	1996
4P-1900	None	C4R-F-1900	CP4 Refrigerant Surge Tank	955 Gallons	1996
4P-4620	None	C4T-F-4620	CP4 Condensed Dowtherm Receiver	125 Gallons	1996
4P-1210	None	C48-E-1210	CP4 Pellet Dryers	13,000 pph	1996
4P-3210	None	C48-E-3210	CP4 Pellet Dryers	13,000 pph	1996

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
9P-1030	None	L15-U-1030	CSS-9 Fines Elutriator	150 ft ²	1991

CSS-10

10P-1340	C3A-M-1340 Baghouse	C3A-F-1410	CSS-10 Crystallizer Blending Silo	3,500 ft ³	1994
10P-2390	C3A-M-2390 Baghouse	C3A-F-2460	CSS-10 Crystallizer Surge Bin	1,570 ft ³	1994
10P-3350	C3A-M-3350 Baghouse	C3A-E-3240	CSS-10 Crystallizer and Heater	93.5 ft ² / 3.04 MMBtu/hr	1994
10P-2420	C3B-M-2420 Baghouse	C3B-E-2250	CSS-10 Preheater and Heater	27.7 ft ² / 0.977 MMBtu/hr	1994
10P-0520	C3D-M-0520 Baghouse	C3D-E-1280	CSS-10 Product Cooler	9,000 pph	1994
		C3D-E-5280	CSS-11 Product Cooler	27.7 ft ²	1994
10P-1590	C3E-M-1590 Baghouse	C3E-F-1440	CSS-10 Verification Bin	1,450 ft ³	1994
10P-1050	L3A-M-1050 Baghouse	L3A-F-1030	CSS-10/CSS-11 Box & Bagging Blender	1,200 ft ³	1994
10P-1100	None	L3A-M-1070	CSS-10 Fines Elutriator	150 ft ²	1994
10P-1130	L1A-M-1130 Baghouse	L1A-F-1090	CSS-10 Product Silo	4,000 ft ³	1994
		L1A-F-1100	CSS-10 Product Silo	4,000 ft ³	1994
10P-1140	None	L1A-M-1140	CSS-10 Fines Elutriator	150 ft ²	1994
3P-1600	C3B-M-1430 Baghouse	C3B-F-1420	CSS-10 Preheater Surge Bin	785 ft ³	1994
	C3T-B-1600 Hot Oil Heater				
	C3T-B-1600 Hot Oil Heater	C3C-R-1060	CSS-10 R/6 Reactors & Heater	2,404 ft ³	1994

CSS-11

11P-6340	C3A-M-6340 Baghouse	C3A-F-5410	CSS-11 Crystallizer Blending Silo	3,500 ft ³	1994
11P-6390	C3A-M-6390 Baghouse	C3A-F-5460	CSS-11 Crystallizer Surge Bin	1,244 ft ³	1994
11P-7350	C3A-M-7350 Baghouse	C3A-E-7240	CSS-11 Crystallizer and Heater	93.5 ft ² / 3 MMBtu/hr	1994
11P-6420	C3B-M-6420 Baghouse	C3B-E-6250	CSS-11 Preheater and Heater	27.7 ft ² / 0.977 MMBtu/hr	1994
11P-5590	C3E-M-5590 Baghouse	C3E-F-5440	CSS-11 Verification Bin	1,450 ft ³	1994
11P-1090	L3B-M-2060 Baghouse	L3B-F-2040	CSS-11 Box and Bagging Blender	1,200 ft ³	1994

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
11P-1080	None	L3B-M-2080	CSS-11 Fines Elutriator	150 ft ²	1994
11P-1160	L1B-M-1160 Baghouse	L1B-F-2115	CSS-11 Product Silo	4,000 ft ³	1994
		L1B-F-2160	CSS-11 Product Silo	4,000 ft ³	1994
11P-2170	None	L1B-M-2170	CSS-11 Fines Elutriator	150 ft ²	1994
3P-1600	C3B-M-5430 Baghouse	C38-F-5420	CSS-11 Preheater Surge Bin	785 ft ³	1994
	C3T-B-1600 Hot Oil Heater				
	C3T-B-1600 Hot Oil Heater	C3C-R-5060	CSS-11 R/6 Reactors & Heater	2,404 ft ³	1994
CSS-12					
12P-2390	C4A-M-2390 Baghouse	C4A-F-2460	CSS-12 Crystallizer Surge Bin	1,570 ft ³	1996
12P-3350	C4A-M-3350 Baghouse	C4A-E-3240	CSS-12 Crystallizer & Heater	93.5 ft ² / 3.04 MMBtu/hr	1996
12P-2420	C4B-M-2420 Baghouse	C4B-E-2250	CSS-12 Preheater and Heater	43 ft ² / 0.97 MMBtu/hr	1996
12P-0520	C4D-M-0520 Baghouse	C4D-E-1280	CSS-12 Product Cooler	42.6 ft ²	1996
		C4D-E-5280	CSS-13 Product Cooler	42.6 ft ²	1996
12P-1590	C4E-M-1590 Baghouse	C4E-F-1440	CSS-12 Verification Bin	1,450 ft ³	1996
12P-1130	L1C-M-1130 Baghouse	L1C-F-1090	CSS-12 Product Silo	4,000 ft ³	1996
		L1C-F-1110	CSS-12 Product Silo	4,000 ft ³	1996
12P-1140	None	L1C-M-1140	CSS-12 Fines Elutriator	150 ft ²	1996
12P-0390	L4C-M-0390 Baghouse	L4C-F-0210	CSS-12/CSS-13 Salvage Silo	1,500 ft ²	1996
12P-2060	L3B-M-2060 Baghouse	L3B-F-2040	CSS-12/CSS-13 Boxing & Bagging Blender	1,200 ft ²	1996
12P-2080	None	L3B-M-2080	CSS-12 Fines Elutriator	150 ft ²	1996
4P-1600	C4B-M-1430 Baghouse	C4B-F-1420	CSS-12 Preheater Surge Bin	785 ft ²	1996
	C4T-B-1600 Hot Oil Heater	C4C-R-3070	CSS-12 Reactor	2,110 ft ³	1996

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
	C4T-B-1600 Hot Oil Heater	C4C-R-1060 C4C-E-2320	CSS-12 Reactor & Reheater	1,958 ft ³	1996
CSS-13					
13P-6390	C4A-M-6390 Baghouse	C4A-F-6460	CSS-13 Crystallizer Surge Bin	1,570 ft ³	1996
13P-7350	C4A-M-7350 Baghouse	C4A-E-7240	CSS-13 Crystallizer & Heater	93.5 ft ² / 3 MMBtu/hr	1996
12P-6420	C4B-M-6420 Baghouse	C4B-E-6250	CSS-13 Preheater & Heater	43 ft ² / 0.97 MMBtu/hr	1996
13P-5590	C4E-M-5590 Baghouse	C4E-F-5440	CSS-13 Verification Bin	1,450 ft ³	1996
13P-2080	None	C4E-M-2080	CSS-13 Fines Elutriator	150 ft ²	1996
13P-1130	L1C-M-1130 Baghouse	L1D-F-1110	CSS-13 Product Storage	4,000 ft ³	1996
		L1D-F-1120	CSS-13 Product Storage	4,000 ft ³	1996
13P-1170	None	L1D-M-1130	CSS-13 Fines Elutriator	150 ft ²	1996
4P-1600	C4B-M-5430 Baghouse	C4B-F-5420	CSS-13 Preheater Surge Bin	1,390 ft ³	1996
	C4T-B-1600 Hot Oil Heater	E-7070	CSS-13 Reactor	2,110 ft ³	1996
	C4T-B-1600 Hot Oil Heater	C4C-R-5060 C4C-E-6320	CSS-13 Reactor & Reheater	1,958 ft ³	1996
Hot Oil Heaters					
3P-1600	None	C3T-B-1600	Hot Oil Heater	53.1 MMBtu/hr	1994
4P-1600	None	C4T-B-1600	Hot Oil Heater	53.1 MMBtu/hr	1996
2P-9001	None	C2T-B-9001	Hot Oil Heater	24 MMBtu/hr	1988
3P-1700	None	C3T-F-1700	Hot Oil Heater	23.0 MMBtu/hr	2007
Boilers and Heaters					
U-B-2010	None	UGS-B-2010	WWTP Portable Boiler	14.2 MMBtu/hr	2010
U-B-3010	None	UGS-B-3010	Front Office Hot Water Boiler	0.9 MMBtu/hr	2009
U-B-3011	None	UGS-B-3011	Front Office Hot Water Boiler	0.9 MMBtu/hr	2009
U-B-4010	None	UGS-B-4010	CP-2 Ops Center Hot Water Boiler	1.6 MMBtu/hr	2009
U-B-4011	None	UGS-B-4011	CP-2 Ops Center Hot Water Boiler	1.6 MMBtu/hr	2009
U-B-1050	None	UGS-B-1050	D-155 Space Heater	0.26 MMBtu/hr	2009
U-B-1060	None	UGS-B-1060	D-155 Space Heater	0.26 MMBtu/hr	2009
U-B-1004	None	UGS-B-1004	Utility Space Heater	0.26 MMBtu/hr	2009
U-B-1005	None	UGS-B-1005	Utility Space Heater	0.26 MMBtu/hr	2009
U-B-1006	None	UGS-B-1006	Utility Space Heater	0.26 MMBtu/hr	2009
U-B-1007	None	UGS-B-1007	Utility Space Heater	0.26 MMBtu/hr	2009
U-B-4001	None	UGS-B-4001	CP-2 A/C Room Space Heater	0.26 MMBtu/hr	2009
U-B-4002	None	UGS-B-4002	CP-2 A/C Room Space Heater	0.26 MMBtu/hr	2009
U-B-4003	None	UGS-B-4003	Utility Space Heater	0.26 MMBtu/hr	2009
U-B-4004	None	UGS-B-4004	Utility Space Heater	0.26 MMBtu/hr	2009

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. The facility shall be limited to the maximum production rates for each of the associated operating units as shown in the following table:

Table 4.1.1.

Unit	Production Rate	
	Hourly ¹ (pounds/hour)	Annual (tons/year)
CP-3	70,000	306,600
CP-4	40,000	157,680
CSS-7	13,000	56,940
CSS-8	18,000	78,840
CSS-9	42,000	183,960
CSS-10	18,000	78,840
CSS-11	18,000	78,840
CSS-12	18,000	78,840
CSS-13	18,000	78,840

1 - Hourly production limits are based on a maximum daily averaged rate.

- 4.1.2. The Hot Oil Heater [C2T-B-9001] shall be operated in accordance to the following limits and requirements:
- a. The heater shall be limited to a maximum designed heat input rate of 24.0×10^6 Btu/hour.
 - b. Fuel consumption shall be limited to natural gas at a maximum rate of $55,312 \text{ ft}^3/\text{hour}$ and $278 \times 10^6 \text{ ft}^3/\text{year}$.
 - c. The heater shall be designed and operated so to provide a minimum destruction efficiency of 99.8% for VOC's from sources vented to emission point 2P-9001, as established in Section 1.0 - Emission Units, of this permit.
 - d. Visible emissions from Emission Point 2P-9001 shall not exceed a maximum of 10% opacity on a 6-minute averaging period except as authorized per 45CSR2, Section 3.1.
- 4.1.3. The Hot Oil Heater [C3T-B-1600] shall be operated in accordance to the following limits and requirements:
- a. The heater shall be limited to a maximum designed heat input rate of 53.1×10^6 Btu/hour.
 - b. Fuel consumption shall be limited to natural gas at a maximum rate of $55,312 \text{ ft}^3/\text{hour}$ and $411 \times 10^6 \text{ ft}^3/\text{year}$.

- c. The heater shall be designed and operated so to provide a minimum destruction efficiency of 99.8% for VOC's from sources vented to emission point 3P-1600, as established in Section 1.0 - Emission Units, of this permit.
 - d. Visible emissions from Emission Point 3P-1600 shall not exceed a maximum of 10% opacity on a 6-minute averaging period except as authorized per 45CSR2, Section 3.1.
- 4.1.4. The Hot Oil Heater [C4T-B-1600] shall be operated in accordance to the following limits and requirements:
- a. The heater shall be limited to a maximum designed heat input rate of 53.1×10^6 Btu/hour.
 - b. Fuel consumption shall be limited to natural gas at a maximum rate of 55,312 ft³/hour and 411×10^6 ft³/year.
 - c. The heater shall be designed and operated so to provide a minimum destruction efficiency of 99.8% for VOC's from sources vented to emission point 4P-1600, as established in Section 1.0 - Emission Units, of this permit.
 - d. Visible emissions from Emission Point 4P-1600 shall not exceed a maximum of 10% opacity on a 6-minute averaging period except as authorized per 45CSR2, Section 3.1.
- 4.1.5. The Hot Oil Heater [C3T-F-1700] shall be operated in accordance to the following limits and requirements:
- a. The heater shall be limited to a maximum designed heat input rate of 23.0×10^6 Btu/hour.
 - b. Fuel consumption shall be limited to natural gas at a maximum rate of 24,000 ft³/hour and 210×10^6 ft³/year.
 - c. Visible emissions from Emission Point 3P-1700 shall not exceed a maximum of 10% opacity on a 6-minute averaging period except as authorized per 45CSR2, Section 3.1.
- 4.1.6. Carbon Monoxide (CO) emissions from the Hot Oil Heater [C3T-F-1700] shall be limited to no more than 400 ppm by volume on a dry basis corrected to 3 percent oxygen based on an average calculated from three (3) separate test runs, each test run lasting at least 1 hour.
- 4.1.7. The permittee shall develop a written startup, shutdown, and malfunction plan (SSMP) for the Hot Oil Heater [C3T-F-1700] according to the provisions in 40 C.F.R. §63.6(e)(3).
- 4.1.8. The permittee shall develop a site-specific testing plan according to the requirements in 40 C.F.R. §63.7(c).
- 4.1.9. The Small Boilers [UGS-B-2010, UGS-B-4010, UGS-B-4011, UGS-B-3010, and UGS-B-3011] and Space Heaters [UGS-B-1050, UGS-B-1060, UGS-B-1004, UGS-B-1005, UGS-B-1006, UGS-B-1007, UGS-B-1050, UGS-B-1060, UGS-B-4001, UGS-B-4002, UGS-B-4003, UGS-B-4004] shall be operated in accordance to the following limits and requirements:
- a. The boilers and heaters shall be limited to the maximum designed heat input rates defined in the Emission Units Table in Section 1.1 of this permit.
 - b. Fuel consumption shall be limited to natural gas. [45CSR13-15.1.c and 45CSR34-3.2 for UGS-B-2010]

Emission Point ID	Control Device	Emission Unit ID	Emissions		
			Pollutants	Hourly (pounds/hour)	Annual (tons/year)
3P-1600	C3T-B-1600 Hot Oil Heater	C3T-B-1600	Ethylene Glycol	0.01	0.02
		C3H-F-3010			
		C3H-F-4010	Acetaldehyde	1.04	1.50
		C31-E-1020			
		C32-E-1050	1,4 - Dioxane	0.01	0.01
		C33-E-2250			
		C33-E-5010	Total VOC	1.32	2.77
		C34-F-3280			
		C34-F-8290	Particulate Matter	0.11	0.47
		C34-F-9280			
		C31-F-1220	Carbon Monoxide	1.86	8.14
		C33-F-2260			
		C34-F-2290	NOx	3.19	14.00
		C3H-F-3010			
		C3H-F-4010	SOx	0.05	0.23
		C3H-F-4020			
		C3B-F-1420			
C3B-F5420					
C3H-F-4020					
3P-1700	None	C3T-F-1700	Total VOC	0.12	0.50
			Particulate Matter	0.17	0.76
			Carbon Monoxide	1.89	8.26
			NOx	2.25	9.87
			SOx	0.01	0.06
3P-5010	C3S-M-5010	C3S-F-5010	Particulate Matter	0.04	0.18