

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	100535	Company Name:	MUNTERS CORPORATION	APD Reviewer:	Guillermo Reyes, P.E.
Project No.:	251712	Unit Name:	Munters Facility - Revision: Adding Plasma Cutter	PBR No(s):	106.102, 106.122, 106.183, 106.227, 106.261, 106.262, 106.265, 106.394, 106.511

GENERAL INFORMATION			
Regulated Entity No.:	RN105632095	Project Type:	Permit by Rule Application
Customer Reference No.:	CN603413089	Date Received by TCEQ:	May 2, 2016
Account No.:	GL-A004-D	Date Received by Reviewer:	May 31, 2016
City/County:	Selma, Guadalupe County	Physical Location:	16900 Jordan

CONTACT INFORMATION					
Responsible Official/ Primary Contact Name and Title:	Mr. Timothy W Belyea Environmental Health And Safety Manager	Phone No.:	(210) 249-3849	Email:	TIMOTHY.BELYEA@MUNTERS.COM
Technical Contact/ Consultant Name and Title:		Phone No.:		Email:	
		Fax No.:	(210) 651-9085		

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Has the PBR fee been paid?	X		
Is this registration certified?	X		
Is this an APWL site?		X	
Are there any upstream or downstream affects associated with this registration?		X	
Is planned MSS included in the registration?		X	
Are there affected NSR or Title V authorizations for the project?	X		
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?		X	
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	
Does NOx Cap and Trade apply to this registration?		X	
Is the facility in compliance with all other applicable rules and regulations?	X		

DESCRIBE OVERALL PROCESS AT THE SITE
MUNTERS CORPORATION Selma facility manufactures rooftop heating and air conditioning units for retail or other large establishments. The facility is authorized to operate under 106.122, 106.183, 106.227, 106.262, 106.265, 106.317, 106.394, and 106.511.

DESCRIBE PROJECT AND INVOLVED PROCESS
Munters submitted a PI-7 CERT to authorize an Amada FLC3015 plasma cutting machine equipped with AJ4K laser cutting device to cut metals to design specifications. The plasma cutter and its emissions are being authorized under 106.261 and 106.262.

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES
<p>PBR 106.261/262 Compliance Demonstration</p> <ul style="list-style-type: none"> The emission point(s) associated with the facilities or changes to facilities are located at least 100 ft from the nearest off-site receptor. The total new or increase emissions will comply with the applicable hourly and annual emission limits as represented in the table below. There are no changes to or addition of any pollution abatement equipment. Visible emissions to the atmosphere, from any point or fugitive source, do not exceed 5.0 opacity in any six-minute period. This registration is not for authorization for construction or to change a facility authorized under another section of this chapter or under standard permit.

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PBR 106.261(2)							
Air Contaminant				Emission Limit		Actual Emissions	
				Lb/hr	Tpy	lb/hr	tpy
Nitrogen oxide				6.00	10.00	1.19	5.21
PBR 106.262							
Air Contaminant	L	D	K	Emission Limit		Actual Emissions	
	mg/m ³	ft		lb/hr	Tpy	lb/hr	tpy
Iron	5	200	200	2.5E-2	0.1095	1.8E-03	7.88E-03
Manganese	0.02	200	200	1.0E-04	0.000438	5.3E-05	2.32E-04
Copper	0.20	200	2.00	1.0E-03	0.00438	3.4E-06	1.49E-05
Molybdenum	3	200	200	1.5E-02	0.0657	3.4E-06	1.49E-05
Magnesium	10	200	200	5.0E-02	0.219	4.5R-06	1.97E-05
Titanium	10			5.0E-02	0.219	6.9E-07	3.02E-06
Cobalt	0.02			1.0E-04	0.000438	6.9E-07	3.02E-06
Chromium	0.1			5.0E-04	0.00219	4.1E-05	1.80E-04
Nickel	1.5			7.5E-03	0.03285	3.0E-05	1.31E-04
Silicon	10			5.0E-02	0.219	6.9E-06	3.02E-05
Zinc	2			1.0E-02	0.0438	9.7E-06	4.25E-05
Aluminum	1			5.0E-03	0.0219	6.0E-03	2.63E-02
TOTAL EMISSIONS:						0.00795	0.0348

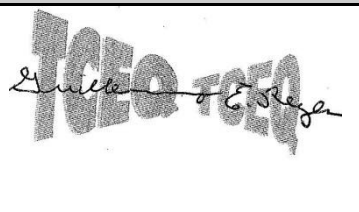
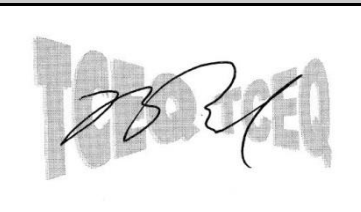
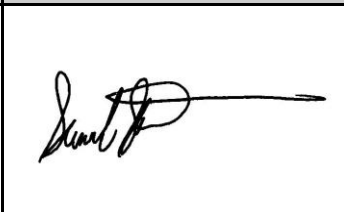
COMMUNICATION LOG			
Date	Time	Name/Company	Subject of Communication
6/13/2016	4:00	Mr. Timothy W Belyea/Munters	Telephone call to Mr. Belyea: What does this PBR want to authorize? The application includes emissions calculations for emissions sources that already included in authorization. Mr. Belyea indicated that the only new emission source being authorized is a plasma cutter. Nothing else at the site is changing. Reviewer explained that the emissions calculations for the plasma cutter are incorrect. Mr. Belyea indicated he would ask his consultant to call reviewer to discuss emissions calculations.
6/15/2016	11:15	Mr. Scott Perkins/Marsh & McLennan Agency LLC	Telephone call from Mr. Perkins: Discussed project. Reviewer indicated that PM emissions for plasma cutters are based on emission factors.
6/22/2016	11:10	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail from Mr. Perkins: Having problems finding emission factors for plasma cutters. Will reach to manufacturer to see if they have some.
6/22/2016	11:10	Mr. Scott Perkins/Marsh & McLennan Agency LLC	Telephone call to Mr. Perkins: AP-42, Chapter 12 has PM and NOx emission factors for plasma cutters. Need to find the composition of the different metals that are used and ratio the PM emissions accordingly. Assume all metal fume emissions are PM.
7/8/2016	9:24	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail to Mr. Perkins: I need to complete this project. If you are unable to submit calculations soon I will ask Munters to withdraw application.
7/8/2016	10:56	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail from Mr. Perkins: It will be done soon unless they are forced into actual sample collection. The emission factor approach you outlined are providing some unusual results, we're reviewing and will get back to you.
7/19/2016	10:33	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail from Mr. Perkins: E-mail with PM calculations
7/22/2016	8:33	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail to Mr. Perkins: The NOx emissions calculations were not included in last communication.
7/22/2016	12:03	Mr. Scott Perkins/Marsh & McLennan Agency LLC	E-mail from Mr. Perkins with NOx emissions calculations.

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ESTIMATED EMISSIONS												
EPN / Emission Source	VOC		NOx		CO		PM ₁₀ /PM _{2.5}		SO ₂		HAPS	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
Previously Authorized Emissions												
Heaters (PBR 106.183)	0.05	0.11	0.88	1.84	0.38	0.78	0.07	0.15	0.01	0.01		
Sealant Operation (106.262)	0.12	0.22										
² 165-hp Portable Generators 1 thru 4 (PBR 106.511)	1.64	0.23	20.48	4.16	4.40	0.88	1.44	0.28	1.36	0.28		
² 150-hp Back-up Diesel Compressor (PBR 106.511)	0.37	0.08	4.65	0.95	1.00	0.20	0.33	0.07	0.31	0.06		
Emissions Authorized by Project No. 251712												
Plasma Cutter/ Plasma Cutter			1.19	5.21			0.001	0.035			0.00004	0.0002
TOTAL EMISSIONS (TPY):		0.64		12.16		1.86		0.54		0.35		0.0002
MAXIMUM OPERATING SCHEDULE:	Hours/Day	24	Days/Week	7	Weeks/Year	52	Hours/Year	8,760				

¹PM_{2.5} is represented as PM₁₀.
²Based on 408 hours per year.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			
PRINTED NAME:	Mr. Guillermo Reyes, P.E.	Mr. Mark McDonald, Work Leader	Mr. Sam Short, Manager
DATE:	July 26, 2016	July 27, 2016	July 29, 2016