APPLICATION FOR NSR PERMIT REVISION

GOODRICH CORPORATION 225 STRINGTOWN ROAD UNION, WEST VIRGINIA

PERMIT NO. R13-1244E PLANT ID NO. 063-00001

EnSafe Project Number 0888819541

Prepared for:



Goodrich Corporation 225 Stringtown Road Union, West Virginia 24983

Prepared by:



EnSafe Inc. 1233 Silas Deane Highway Wethersfield, Connecticut 06109 (800) 588-7962 www.ensafe.com

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WEST VIRGINIA DEPARTMENT OF **ENVIRONMENTAL PROTECTION**

APPLICATION FOR NSR PERMIT

601 57 th Street, SE Charleston, WV 25304 (304) 926-0475 www.dep.wv.gov/dag	TI	AND TITLE V PERMIT REVISION (OPTIONAL)				
PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOW CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE ASTER THE FAC	☐ ADMINISTRAT	PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY): ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION				
☐ CLASS II ADMINISTRATIVE UPDATE ☐ AFTER-THE-FACT ☐ IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.						
Section	on I. General					
Name of applicant (as registered with the WV Secretary of the secreta	of State's Office):	2. Federal Employer ID No. (FEIN):				
3. Name of facility (if different from above):		4. The applicant is the: OWNER OPERATOR BOTH				
5A. Applicant's mailing address:	5B. Facility's prese	ent physical address:				
6. West Virginia Business Registration. Is the applicant a □ If YES, provide a copy of the Certificate of Incorporation change amendments or other Business Registration Cel □ If NO, provide a copy of the Certificate of Authority/Au amendments or other Business Certificate as Attachme	on/Organization/Limi rtificate as Attachmen uthority of L.L.C./Reg	ted Partnership (one page) including any name t A.				
7. If applicant is a subsidiary corporation, please provide the	name of parent corpo	ration:				
8. Does the applicant own, lease, have an option to buy or o	otherwise have control	of the proposed site?				
□ If NO , you are not eligible for a permit for this source.						
 Type of plant or facility (stationary source) to be constru administratively updated or temporarily permitted (e crusher, etc.): 						
11A. DAQ Plant ID No. (for existing facilities only): -		SR13 and 45CSR30 (Title V) permit numbers process (for existing facilities only):				
All of the required forms and additional information can be found	nd under the Permitting	Section of DAQ's website, or requested by phone				

12A.		
⇒ For Modifications, Administrative Updates or Te		please provide directions to the
present location of the facility from the nearest state ⇒ For Construction or Relocation permits, please p		site location from the nearest state
road. Include a MAP as Attachment B.		
12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
12.E. UTM Northing (KM):	12F. UTM Easting (KM):	12G. UTM Zone:
13. Briefly describe the proposed change(s) at the facilit	l vy	
To. Bridly addonibe the proposed change(o) at the lading	·)·	
14A. Provide the date of anticipated installation or chan-	ue. / /	
□ If this is an After-The-Fact permit application, prover	-	14B. Date of anticipated Start-Up if a permit is granted:
change did happen: / /		1 1
14C. Provide a Schedule of the planned Installation of application as Attachment C (if more than one uni		units proposed in this permit
15. Provide maximum projected Operating Schedule o	f activity/activities outlined in this applica	ation:
Hours Per Day Days Per Week	Weeks Per Year	
16. Is demolition or physical renovation at an existing fa	cility involved? YES NO	
17. Risk Management Plans. If this facility is subject to		
changes (for applicability help see www.epa.gov/cepp		. ,
18. Regulatory Discussion. List all Federal and State a		
proposed process (if known). A list of possible application	•	• •
(Title V Permit Revision Information). Discuss applica	bility and proposed demonstration(s) of	compliance (if known). Provide this
information as Attachment D.		
Section II. Additional att	achments and supporting d	ocuments.
19. Include a check payable to WVDEP – Division of Air	Quality with the appropriate application	n fee (per 45CSR22 and
45CSR13).		
20. Include a Table of Contents as the first page of you		ativisia subtability and attack and a
21. Provide a Plot Plan , e.g. scaled map(s) and/or sket source(s) is or is to be located as Attachment E (Re		erty on which the stationary
□ Indicate the location of the nearest occupied structure		·
 Provide a Detailed Process Flow Diagram(s) show device as Attachment F. 	ving each proposed or modified emissio	ns unit, emission point and control
23. Provide a Process Description as Attachment G.		
Also describe and quantify to the extent possible	all changes made to the facility since the	e last permit review (if applicable).
All of the required forms and additional information can be	found under the Permitting Section of DA	AQ's website, or requested by phone.

		•	sed, used or produced as Attachment H.				
	For chemical processes, provide a MSI		to the air.				
	25. Fill out the Emission Units Table and provide it as Attachment I.						
	Fill out the Emission Points Data Sur						
27.	Fill out the Fugitive Emissions Data	Summary Sheet and provide it	as Attachment K.				
28.	Check all applicable Emissions Unit I	Data Sheets listed below:					
	Bulk Liquid Transfer Operations	☐ Haul Road Emissions	☐ Quarry				
	Chemical Processes	☐ Hot Mix Asphalt Plant	Solid Materials Sizing, Handling and Storage				
	Concrete Batch Plant	☐ Incinerator	Facilities				
	Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	☐ Storage Tanks				
	General Emission Unit, specify						
Fill	out and provide the Emissions Unit Da	nta Sheet(s) as Attachment L.					
29.	Check all applicable Air Pollution Con	ntrol Device Sheets listed belo	W:				
	Absorption Systems	☐ Baghouse	☐ Flare				
	Adsorption Systems	☐ Condenser	☐ Mechanical Collector				
	Afterburner	☐ Electrostatic Precipita	tor				
	Other Collectors, specify						
Fill	out and provide the Air Pollution Cont	rol Device Sheet(s) as Attach	ment M.				
30.	Provide all Supporting Emissions Ca Items 28 through 31.	liculations as Attachment N, o	or attach the calculations directly to the forms listed in				
31.		compliance with the proposed e	proposed monitoring, recordkeeping, reporting and missions limits and operating parameters in this permit				
>		not be able to accept all measu	her or not the applicant chooses to propose such ures proposed by the applicant. If none of these plans de them in the permit.				
32.	Public Notice. At the time that the ap	oplication is submitted, place a	Class I Legal Advertisement in a newspaper of general				
	circulation in the area where the source	e is or will be located (See 45C	SR§13-8.3 through 45CSR§13-8.5 and <i>Example Legal</i>				
	Advertisement for details). Please su	bmit the Affidavit of Publication	on as Attachment P immediately upon receipt.				
33.	Business Confidentiality Claims. Do	oes this application include conf	idential information (per 45CSR31)?				
	☐ YES	□ NO					
>		g the criteria under 45CSR§31-	mitted as confidential and provide justification for each 4.1, and in accordance with the DAQ's "Precautionary Instructions as Attachment Q.				
	Sec	ction III. Certification of	of Information				
34.	Authority/Delegation of Authority. Check applicable Authority Form belo	• •	her than the responsible official signs the application.				
	Authority of Corporation or Other Busine	ess Entity	Authority of Partnership				
	Authority of Governmental Agency		Authority of Limited Partnership				
	omit completed and signed Authority F						
			Permitting Section of DAQ's website, or requested by phone.				

35A. Certification of Information. To certify 2.28) or Authorized Representative shall check		cial (per 45CSR§13-2.22 and 45CSR§30-				
Certification of Truth, Accuracy, and Comp	Certification of Truth, Accuracy, and Completeness					
I, the undersigned \square Responsible Official / \square Authorized Representative, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.						
Compliance Certification Except for requirements identified in the Title \(\) that, based on information and belief formed a compliance with all applicable requirements.						
SIGNATURE		DATE:				
	use blue ink)	(Please use blue ink)				
35B. Printed name of signee: David Rollyse	on	35C. Title: General Manager				
35D. E-mail:	36E. Phone:	36F. FAX:				
36A. Printed name of contact person (if differe	nt from above):	36B. Title:				
36C. E-mail:	36D. Phone:	36E. FAX:				
PLEASE CHECK ALL APPLICABLE ATTACHMEN	ITS INCLUDED WITH THIS PERMIT APPLICAT	ION:				
Attachment A: Business Certificate						
EOD ACENCY LISE ONLY LETTING IS A TITLE IN	(SOURCE:					
 □ NSR permit writer should notify Title □ For Title V Significant Modifications processed □ NSR permit writer should notify a Title □ Public notice should reference both 4 □ EPA has 45 day review period of a drag 	e V Permitting Group and: V permit writer of draft permit, ropriate notification to EPA and affected state V permit writer of draft permit. ed in parallel with NSR Permit revision: e V permit writer of draft permit, ISCSR13 and Title V permits, aft permit.					
All of the required forms and additional informs	tion can be found under the Permitting Coetic	m of DAO's wabaita as someostad by phone				

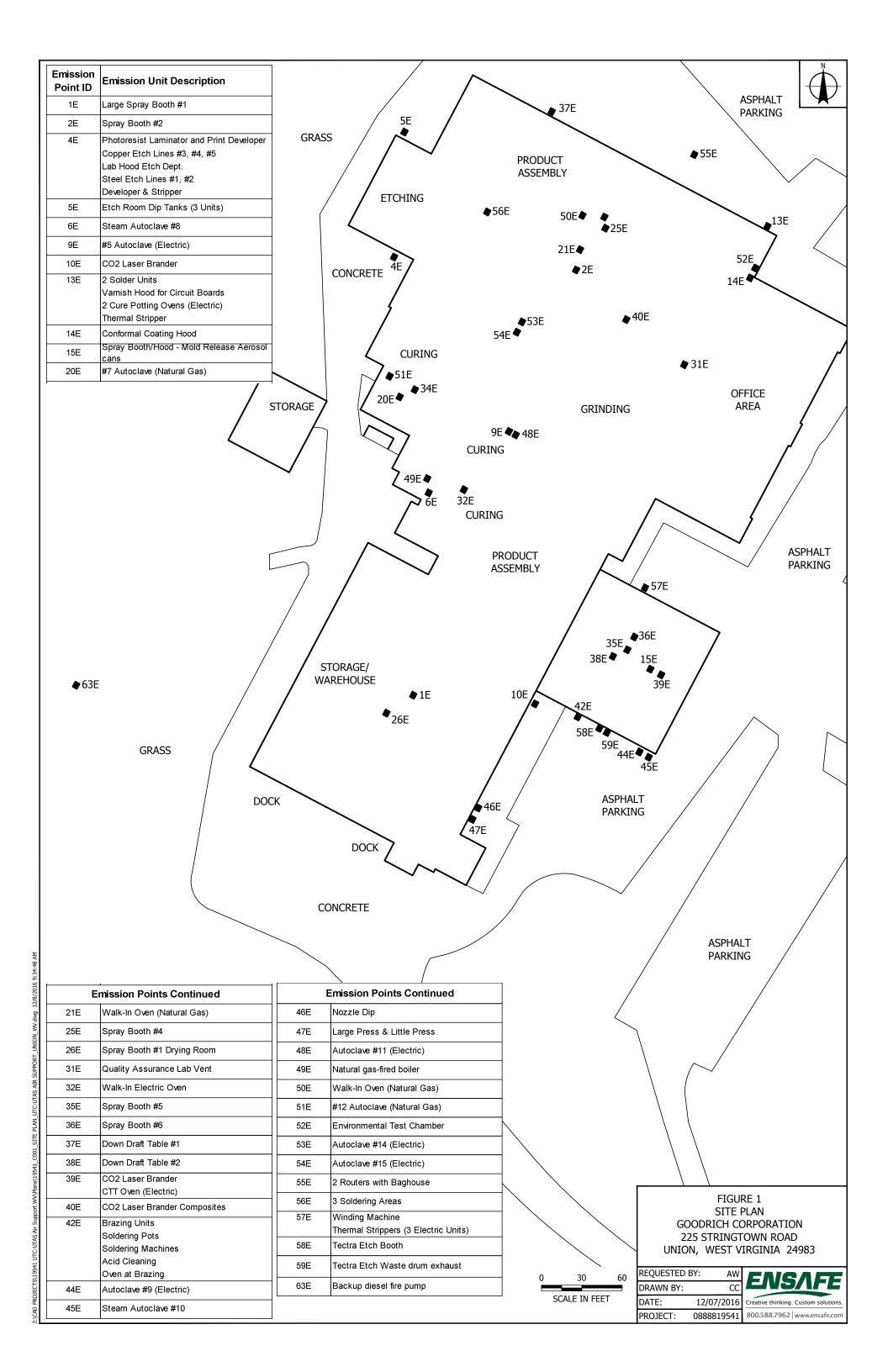
Attachment D Regulatory Discussion

Goodrich Corporation Union Facility ID 063-00001 Permit R13-1244E

Attachment D

- This permit modification includes the addition of an emergency, diesel-fired, 220 horsepower, fire
 pump engine, built prior to April 1, 2006 (1971) and installed circa 1992. The fire pump engine is
 subject to 40 CFR 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants,
 Reciprocating Internal Combustion Engines (RICE).
 - 40 CFR 63.6655(f) requires that an emergency RICE operate for no more than 100 hours per calendar year in a non-emergency setting, with no more than 50 hours dedicated to regular testing or maintenance. This fire pump complies with the requirements as specified under this Rule, including maintenance and recordkeeping.
- This permit modification includes the removal of No. 2 fuel oil as a standby fuel source from the existing 9.757 MMBtu/hr boiler (75S, 49E). The current permit lists the boiler capacity as 400 hp, 16.4 mmBTU/hr, and utilizing natural gas as the primary fuel with #2 fuel oil as a standby fuel. The smaller boiler capacity removes the applicability of 40 CFR 60, Subpart Dc.

Attachment E Plot Plan



Attachment I Emission Units Table

Attachment I Emission Units Table (includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

		Emission Unit Description	Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
		PERMITTED EQUIPM	ENT WITH MODIF	ICATIONS:		
20S	12E 4E	Print Developer and Photoresist Laminator	2007 and 2015	10 laminates/hr	MOD	Wet Scrubber
26S	14E	Conformal Coating Hood			MOD - Name Change	
39S	4E	Copper Etch Lines #3, #4, #5	2005/2013/2014		MOD	Wet Scrubber
63S	Fugitive	SHP Brazing & Soldering	2015		MOD	
75 S	49E	Natural gas-fired boiler	2007	9.757 MMRtu/br	MOD / 2014	
107S	15E	Spray Booth/Hood - Mold Release Aerosol cans		1,01,01,11,11,11	MOD	
			PMENT NOT ON PE	RMIT*		!
78S	46E	Nozzle Dip			new*	
895	Fugitive	Hand Soldering, Dept. 57			new	
90S	55E	2 Routers with Baghouse			new	Baghouse
93S	5E	Etch Room Dip Tanks (3 Units)			new	
94S	4E	Steel Etch Lines #1, #2	2003/2014		new	Wet Scrubber
95S	4E	Developer	2014		new	Wet Scrubber
96S	4E	Stripper	2005		new	Wet Scrubber
97S	42E	Soldering Pots			new	
98S	42E	Soldering Machines (table)			new	
99S	42E	Soldering Machines (Build tables)			new	
100S	42E	Acid Cleaning			new	
101S	42E	Oven at Brazing			new	
103S	57E	Winding Machine			new	
105S	58E	Tectra Etch Booth			new	
106S	59E	Tectra Etch Waste drum exhaust			new	
113S	63E	Backup diesel fire pump	early 1990s	200 hp, est	new / NA	
NSIGNIFICA	NT/DE MINI	MIS				
79 S	47E	Large Press			new	
80S	47E	Little Press			new	
84S	52E	Environmental Test Chamber			new	
85S	Vents Inside	Sanding (CNC Room)	2013		new	
91S	56E	3 Soldering Areas			new	
92S	Vents Inside	Sanding and Grinding Process (Trim Room)	2014		new	
111S	NA	Soldering Station, Timers			new	

For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation. For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

New, modification, removal

⁴For <u>C</u>ontrol Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

^{*}new: Emission source is existing process, not previously permitted

Attachment I Emission Units Table (includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device
	•	PERMITTED EQ	UIPMENT - NO CHAN	IGES:		
1S	1E	Large Spray Booth #1			no change	Filter
2S	2E	Spray Booth #2			no change	
23S	13E	Solder Unit			no change	
24S	13E	Solder Unit			no change	
25S	13E	Varnish Hood for Circuit Boards			no change	
38S	25E	Spray Booth #4			no change	Filter
40S	35E	Spray Booth #5			no change	Filter
41S	36E	Spray Booth #6			no change	Filter
42S	37E	Down Draft Table #1			no change	
43S	38E	Down Draft Table #2			no change	
50S	20E	#7 Autoclave (Natural Gas)	1997		no change	
52S	21E	Walk-In Oven (Natural Gas)			no change	
56S	26E	Spray Booth #1 Drying Room			no change	
60S	30E 4E	Lab Hood Etch Dept.			no change	
68S	42E	Brazing Units (4 units)			no change	
76S	50E	Walk-In Oven (Natural Gas)			no change	
77S	51E	#12 Autoclave (Natural Gas)			no change	
NSIGNIFICA	ANT/DE MIN	IMIS				
10S	6E	Steam Autoclave #8			no change	
14S	10E	CO2 Laser Brander			no change	
44S	39E	CO2 Laser Brander			no change	
45S	40E	CO2 Laser Brander Composites			no change	
61S	31E	Quality Assurance Lab Vent			no change	
67S	41E	Room Air Exhaust Ventilating Units			no change	
71S	45E	Steam Autoclave #10			no change	

For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.

For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

New, modification, removal

For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I Emission Units Table (includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ₂	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type3 and Date of Change	Control Device 4
	•	ELECTRIC SOURCES	S (insignificant/de r	minimis):		
13S	9E	#5 Autoclave (Electric)	1967		no change	
19S	32E	Walk-In Electric Oven			no change	
70S	44E	Autoclave #9 (Electric)	1981		no change	
81S	13E	Cure Potting Oven (Electric)	2012-2013		new*	
82S	13E	Cure Potting Oven (Electric)	2012-2013		new	
83S	13E	Thermal Stripper - Dept 53 (Electric)			new	
86S	48E	Autoclave #11 (Electric)	2006		new	
87S	53E	Autoclave #14 (Electric)	2010		new	
88S	54E	Autoclave #15 (Electric)	2011		new	
102S	NA	#4 Oven (Electric)			new	
104S	57E	Thermal Strippers (Electric)			new	
108S	39E	CTT Oven (Electric)			new	
110S	NA	CTT Heater Oven (Electric)	2015		new	
112S	NA	Test Oven (Electric)			new	
		REMO	VED SOURCES:			
12S	8E	Autoclave #4 (Electric)			REMOVED	
27S	(15E)	SHP Oven #1			REMOVED	
46S	17E	Naphtha Tank			REMOVED	
47S	18E	Naphtha / Isopropyl Acetate Tank			REMOVED	

For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.

For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

New, modification, removal

⁴For <u>C</u>ontrol Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

^{*}new: Emission source is existing process, not previously permitted

Attachment I Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
			Boiler Room			
75S	49E	Natural gas-fired boiler	2007	9.757 MMBtu/hr	MOD / 2014	
			Plantwide			
67S	41E	Room Air Exhaust Ventilating Units			no change	
113S	63E	Backup diesel fire pump	early 1990s	200 hp, est	new*/ NA	
		Depa	artment 61 - Props			
40S	35E	Spray Booth #5			no change	Filter
41S	36E	Spray Booth #6			no change	Filter
43S	38E	Down Draft Table #2			no change	
68S	42E	Brazing Units (4 units)			no change	
97S	42E	Soldering Pots			new	
98S	42E	Soldering Machines (table)			new	
998	42E	Soldering Machines (Build tables)			new	
100S	42E	Acid Cleaning			new	
101S	42E	Oven at Brazing			new	
103S	57E	Winding Machine			new	
104S	57E	Thermal Strippers (3 Electric Units)			new	
		Departme	ent 61 - Silicone Roo	m		
44S	39E	CO2 Laser Brander			no change	
70S	44E	Autoclave #9 (Electric)	1981		no change	
71S	45E	Steam Autoclave #10			no change	
105S	58E	Tectra Etch Booth			new	
106S	59E	Tectra Etch Waste drum exhaust			new	
107S	15E	Spray Booth/Hood - Mold Release Aerosol cans			MOD	
108S	39E	CTT Oven (Electric)			new	<u> </u>

For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

*new: Emission source is existing process, not previously permitted

New, modification, removal

For <u>C</u>ontrol Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment I Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission	Emission	Emission Unit Description	Year Installed/	Design	Type ³ and Date of	Control
Unit ID1	Point ID ²		Modified	Capacity	Change	Device ⁴

Attachment I Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

		that will be part of this permit ap	opiication review, rega	ruless of permitt	ing status)	
Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
		Departm	ent 52 - Pneumatic Deid	ers		
1S	1E	Large Spray Booth #1			no change	
10S	6E	Steam Autoclave #8			no change	
14S	10E	CO2 Laser Brander			no change	
56S	26E	Spray Booth #1 Drying Room			no change	
		Depar	tment 52 - Extruder Area	а		
78S	46E	Nozzle Dip			new*/ NA	
79S	47E	Large Press			new	
80S	47E	Little Press			new	
	•	De	epartment 57 - Curing		•	
13S	9E	#5 Autoclave (Electric)	1967		no change	
19S	32E	Walk-In Electric Oven			no change	
50S	20E	#7 Autoclave (Natural Gas)			no change	
63S	Fugitive	SHP Brazing & Soldering			MOD	
77S	51E	#12 Autoclave (Natural Gas)	12/1/2006		no change	
86S	48E	Autoclave #11 (Electric)	2006		new	
87S	53E	Autoclave #14 (Electric)	2010		new	
88S	54E	Autoclave #15 (Electric)	2011		new	
		Depa	artment 57 - Trim Room			
92S	Vents Inside	Sanding and Grinding Process			new	
		Depa	artment 57 - CNC Room			
85S	Vents Inside	Sanding (CNC Room)			new	
		Depa	rtment 57 - Clean Room			
20S	4E	Photoresist Laminator and Print Developer			MOD	
	•	•	artment 57 - Etch Room			
39S	4E	Copper Etch Lines #3, #4, #5			MOD	Wet Scrubber
60S	4E	Lab Hood Etch Dept.			no change	
93S	5E	Etch Room Dip Tanks (3 Units)			new	
94\$	4E	Steel Etch Lines #1, #2			MOD	Wet Scrubber
95S	4E	Developer			new	Wet Scrubber
96S	4E	Stripper			new	Wet Scrubber
1 For Emission	Linita (ar Cauras	os) uso the following numbering avetem:15, 25, 2	C or other appropriate decign	action		

¹For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
² For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
³ New, modification, removal

⁴For <u>C</u>ontrol Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

^{*}new: Emission source is existing process, not previously permitted

Attachment I Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
OHILID	FUILL ID		Modified	Capacity	Change	Device

Attachment I Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

		that will be part of this permit	application review, rega	rdless of permit	ing status)	
Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
		Depart	tment 57 - Spray Booth Ar	rea		
2S	2E	Spray Booth #2			no change	
38S	25E	Spray Booth #4			no change	
52S	21E	Walk-In Oven (Natural Gas)			no change	
		Dep	oartment 57 - Panel Layup			
42S	37E	Down Draft Table #1			no change	
76S	50E	Walk-In Oven (Natural Gas)			no change	
		Dep	artment 57 - Supermarket	t		
91S	56E	3 Soldering Areas			new*/ NA	
			Department 57 - Quality			
45S	40E	CO2 Laser Brander Composites			no change	
		Depa	rtment 57 - Old Final Finis	sh		
89S	Fugitive	Hand Soldering, Dept. 57			new	
		Depart	tment 57 - Final Panel Fini	ish		
90S	55E	2 Routers with Baghouse			new	Baghouse
102S	NA	#4 Oven (Electric)			new	
		Г	Department 53 - Timers			
23S	13E	Solder Unit			no change	
24S	13E	Solder Unit			no change	
25S	13E	Varnish Hood for Circuit Boards			no change	
26S	14E	Conformal Coating Hood			MOD - NAME CHANGE	
81S	13E	Cure Potting Oven (Electric)	2012-2013		new	
82S	13E	Cure Potting Oven (Electric)	2012-2013		new	
83S	13E	Thermal Stripper			new	
84S	52E	Environmental Test Chamber			new	
110S	NA	CTT Heater Oven (Electric)			new	
1118	NA	Soldering Station			new	
			Materials Lab			
61S	31E	Quality Assurance Lab Vent			no change	
112S	NA	Test Oven (Electric)			new	
			Deleted Sources			
12S	8E	Autoclave #4 (Electric)			REMOVED	
27S	(15E)	SHP Oven #1			REMOVED	
46S	17E	Naphtha Tank			REMOVED	
47S	18E	Naphtha / Isopropyl Acetate Tank			REMOVED	
						_

¹ For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.

² For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.

³ New, modification, removal

For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment L Emissions Unit Data Sheet

Attachment L Emission Unit Data Sheet

(INDIRECT HEAT EXCHANGER)

Control Device ID No. (must match List Form): NA

Equipment Information

1. Manufacturer: Cleaver Brooks	Model No. CBLE 200X-239-200ST Serial No. OL105870
3. Number of units: 1	Use Provide process steam
5. Rated Boiler Horsepower: 400 hp	6. Boiler Serial No.: OL105870
7. Date constructed: 2007	 Date of last modification and explain: 2014 - Discontinued use of #2 fuel oil. Natural gas is the only fuel source.
9. Maximum design heat input per unit:	10. Peak heat input per unit:
9.757 ×10 ⁶ BTU/hr	9.757 ×10 ⁶ BTU/hr
11. Steam produced at maximum design output: LB/hr psig	12. Projected Operating Schedule: 24 Hours/Day 7 Days/Week 52 Weeks/Year
13. Type of firing equipment to be used: ☐ Pulverized coal ☐ Spreader stoker ☐ Oil burners ☐ Natural Gas Burner ☐ Others, specify	14. Proposed type of burners and orientation: Vertical Front Wall Opposed Tangential Others, specify
15. Type of draft: ☐ Forced ☐ Induced	16. Percent of ash retained in furnace: %
17. Will flyash be reinjected? ☐ Yes ☐ No	18. Percent of carbon in flyash: %
Stack or	Vent Data
19. Inside diameter or dimensions: 2 ft.	20. Gas exit temperature: 455 °F
21. Height: 30 ft.	22. Stack serves: This equipment only
23. Gas flow rate: 5895 ft ³ /min	Other equipment also (submit type and rating of all other equipment exhausted through this
24. Estimated percent of moisture: %	stack or vent)

Fuel Requirements

25.	Туре	Fuel Oil No.	Natural Gas	Gas (other, specify)	Coal, Type:	Other:
	Quantity (at Design Output)	gph@60°F	ft³/hr	ft³/hr	TPH	
	Annually	×10³ gal	×10 ⁶ ft ³ /hr	×10 ⁶ ft ³ /hr	tons	
	Sulfur	Maximum: wt. % Average:	gr/100 ft ³	gr/100 ft ³	Maximum: wt. %	
	Ash (%)	wt. %			Maximum	
	BTU Content	BTU/Gal. Lbs/Gal.@60°F	1020 BTU/ft³	BTU/ft³	BTU/lb	
	Source	Lbs/Gai.@00 i				
	Supplier					
	Halogens (Yes/No)					
	List and Identify Metals		NA			
26.	Gas burner mode o		omatic hi-low	27. Gas burner mar	nufacture:	
	Automatic full n	<u>—</u>		28. Oil burner manu	ıfacture: NA	
29.	29. If fuel oil is used, how is it atomized? Oil Pressure Rotary Cup Other, specify					
30.	Fuel oil preheated:	Yes [□No	31. If yes, indicate t	emperature:	°F
	above actual cubic	feet (ACF) per uni	t of fuel:	or combustion of th		of fuels described
33	@ Emission rate at ra	°F,	PSIA lb/hr	% m	oisture	
		actually required for		the fuel described:	%	
5 т.	r creent excess an	actually required to	Coal Chara		70	
35.	Seams:					
36. Proximate analysis (dry basis): % of Fixed Carbon: % of Sulfur: % of Moisture: % of Volatile Matter: % of Ash:						

Emissions Stream

Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
СО				
Hydrocarbons				
NOx				
Pb				
PM ₁₀				
SO ₂				
VOCs				
Other (specify)				
Pollutant	Pounds per Hour lb/hr	grain/ACF	@ °F	PSIA
СО				
Hydrocarbons				
NOx				
Pb				
PM ₁₀				
PM ₁₀				
PM ₁₀ SO ₂				
PM ₁₀ SO ₂ VOCs				
PM ₁₀ SO ₂ VOCs				
PM ₁₀ SO ₂ VOCs				
PM ₁₀ SO ₂ VOCs Other (specify)	al from the process and con	trol equipment be dis	sposed of?	
PM ₁₀ SO ₂ VOCs Other (specify)	al from the process and con	trol equipment be dis	sposed of?	
PM ₁₀ SO ₂ VOCs Other (specify) How will waste material	al from the process and con			s Emission Unit

42.	Proposed Monitoring, Recordkeeping, Reporting, and Testing Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.
	MONITORING PLAN: Please list (1) describe the process parameters and how they were chosen (2) the ranges and how they were established for monitoring to demonstrate compliance with the operation of this process equipment operation or air pollution control device.
	TESTING PLAN: Please describe any proposed emissions testing for this process equipment or air pollution control device.
	RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.
	REPORTING: Please describe the proposed frequency of reporting of the recordkeeping.
43.	Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.
	· ·

Attachment M
Air Pollution Control Device Sheet

Attachment M Air Pollution Control Device Sheet

(BAGHOUSE)

Control Device ID No. (must match Emission Units Table):

Equipment Information and Filter Characteristics

1. Manufacturer: Nederman	2. Total number of compartments: 1					
Model No. FMC 200-4A	Number of compartment online for normal operation: 1					
	 Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency. 					
5. Baghouse Configuration: Open Pressure	☐ Closed Pressure X Closed Suction					
	(check one)					
Other, Specify	7. Doe Dimension					
6. Filter Fabric Bag Material: ☐ Nomex nylon ☐ Wool	7. Bag Dimension:					
Polyester Dolypropylene	Diameter 6.0 in.					
☐ Acrylics ☐ Ceramics ☐ Fiber Glass	Length 48 ft.					
☐ Cotton Weight oz./sq.yd	8. Total cloth area: 2,482 ft²					
☐ Teflon Thickness in	9. Number of bags: 16					
☐ Others, specify	10. Operating air to cloth ratio: 2 to 1 ft/min					
11. Baghouse Operation: Continuous	Automatic X Intermittent					
12. Method used to clean bags: Mechanical Shaker Sonic Cleaning Reverse Air Jet Pneumatic Shaker Reverse Air Flow Other: Bag Collapse Pulse Jet Manual Cleaning Reverse Jet						
13. Cleaning initiated by: ☐ Timer ☐ Expected pressure drop range 3 to 5 in. of water	☐ Frequency if timer actuated ☐ Other					
14. Operation Hours: Max. per day: 24 Max. per yr: 8,760	15. Collection efficiency: Rating: 99% at 3microns % Guaranteed minimum: 99% at 3u %					
Gas Stream C	haracteristics					
16. Gas flow rate into the collector: 6.2 ACFM	at ambient °F and 90 PSIA					
ACFM: Design: PSIA Maximum:	PSIA Average Expected: PSIA					
17. Water Vapor Content of Effluent Stream:	lb. Water/lb. Dry Air					
18. Gas Stream Temperature: ambient °F	19. Fan Requirements: 15 hp					
	OR ft³/min					
20. Stabilized static pressure loss across baghouse. Pre	essure Drop: High 5 in. H ₂ O					
	Low 3 in. H ₂ O					
21. Particulate Loading: Inlet:	grain/scf Outlet: grain/scf					

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22. Type of Pollutant(s) to be collecte	d (if particul	ate give specific	type):				
Particulate, TSP							
23. Is there any SO ₃ in the emission s	stream?	⊠ No □ Y	es SC)₃ conte	nt:	ppmv	
24. Emission rate of pollutant (specify	v) into and o	İ		design (
Pollutant		lb/hr	N grains/	acf	lb/hr	OUT grains/acf	
		-				3	
25. Complete the table:	Particle S	Size Distribution to Collector		Frac	tion Efficiend	cy of Collector	
Particulate Size Range (microns)	Weigl	ht % for Size R		W	/eight % for	Size Range	
0 – 2							
2 – 4							
4 – 6							
6 – 8							
8 – 10							
10 – 12							
12 – 16							
16 – 20							
20 – 30							
30 – 40							
40 – 50							
50 – 60							
60 – 70							
70 – 80							
80 – 90							
90 – 100							
>100							

26.	How is filter monitored for indications of deterioration (e.g., broken bags)? Continuous Opacity X Pressure Drop
	☐ Alarms-Audible to Process Operator ☐ Visual opacity readings, Frequency:
	Other, specify:
27.	Describe any recording device and frequency of log entries:
	FMC comes with DFC-08 Controller that monitors pressure drop.
28.	Describe any filter seeding being performed:
	None
29.	Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas
	reheating, gas humidification):
	None
30.	Describe the collection material disposal system:
	Particulate matter drops into a 55-gallon drum.
31	Have you included <i>Baghouse Control Device</i> in the Emissions Points Data Summary Sheet? yes
	you

Please propose m	g parameters. Please propose	and Testing eporting in order to demonstrate compliance with the testing in order to demonstrate compliance with the RECORDKEEPING:
REPORTING:		TESTING:
MONITORING:		ocess parameters and ranges that are proposed to be strate compliance with the operation of this process
RECORDKEEPING: REPORTING: TESTING:	equipment or air control device. Please describe the proposed re Please describe any proposed pollution control device.	cordkeeping that will accompany the monitoring. emissions testing for this process equipment on air emissions testing for this process equipment on air
33. Manufacturer's Gua	aranteed Capture Efficiency for ea	ch air pollutant.
NA		
34. Manufacturer's Gua	aranteed Control Efficiency for each	h air pollutant.
NA		
35. Describe all operati	ng ranges and maintenance proce	edures required by Manufacturer to maintain warranty.
NA		

Attachment N Supporting Emissions Calculations

GOODRICH CORPORATION UNION 225 STRINGTOWN ROAD UNION, WEST VIRGINIA WVDEP PERMIT NO: R13-1244E DAQ PLANT ID: 063-00001

CHANGES IN BOILER (75S, 49E) EMISSIONS

Pollutant	previous 16.4 mmBTU/hr, #2 fuel oil	existing 9.757 mmBTU/hr, nat gas	Increase (tons/yr)
NOx	10.34	4.19	-6.15
СО	2.58	3.52	0.94
SO2	22.01	0.03	-21.99
VOC	0.10	0.23	0.13
PM/PM10	1.03	0.32	-0.72
Lead	6.46E-04	2.09E-05	-6.26E-04
Benzene	0.00E+00	8.80E-05	8.80E-05
Dichlorobenzene	0.00E+00	5.03E-05	5.03E-05
Formaldehyde	3.15E-02	3.14E-03	-2.84E-02
Hexane	0.00E+00	7.54E-02	7.54E-02
Naphthlene	0.00E+00	2.56E-05	2.56E-05
Toluene	0.00E+00	1.42E-04	1.42E-04
Arsenic	2.87E-04	8.38E-06	-2.79E-04
Beryllium	2.15E-04	5.03E-07	-2.15E-04
Cadmium	2.15E-04	4.61E-05	-1.69E-04
Chromium	2.15E-04	5.87E-05	-1.57E-04
Cobalt	0.00E+00	3.52E-06	3.52E-06
Manganese	4.31E-04	1.59E-05	-4.15E-04
Mercury	2.15E-04	1.09E-05	-2.05E-04
Nickel	2.15E-04	8.80E-05	-1.28E-04
Selenium	1.08E-03	1.01E-06	-1.08E-03
Polycyclic Organic Matter (POM)	1.71E-03	3.49E-06	-1.70E-03
Total HAP	3.67E-02	7.91E-02	4.24E-02

Notes:

- (1) Emission factors are from Section 1.4, Natural Gas Combustion of AP-42.
- (2) POM is defined as a HAP by Section 112(b) of the Clean Air Act. The emission factor for POM was obtained by adding together the emission factors for the individual compounds that were identified as POMs in Section

POTENTIAL NATURAL GAS EMISSIONS - BOILER

Assumptions:

Potential Hours of operation (hours/yr) = 8,760Fuel Heating Value (BTU/cubic feet) = 1,020

Source ID	Max Firing Rate (MMBTU/hr)	Max Firing Rate (MMCF/hr)	
Boiler (75S, 49E)	9.757	0.0096	

Potential Emissions

	EF	Boiler (7	'5S, 49E)
Pollutant	lb/MMscf	lb/hr	tons/yr
NOX	1.00E+02	0.96	4.19
со	8.40E+01	0.80	3.52
SO2	6.00E-01	5.74E-03	2.51E-02
voc	5.50E+00	5.26E-02	2.30E-01
PM/PM10	7.60E+00	7.27E-02	3.18E-01
Lead	5.00E-04	4.78E-06	2.09E-05
Benzene	2.10E-03	2.01E-05	8.80E-05
Dichlorobenzene	1.20E-03	1.15E-05	5.03E-05
Formaldehyde	7.50E-02	7.17E-04	3.14E-03
Hexane	1.80E+00	1.72E-02	7.54E-02
Naphthlene	6.10E-04	5.84E-06	2.56E-05
Toluene	3.40E-03	3.25E-05	1.42E-04
Arsenic	2.00E-04	1.91E-06	8.38E-06
Beryllium	1.20E-05	1.15E-07	5.03E-07
Cadmium	1.10E-03	1.05E-05	4.61E-05
Chromium	1.40E-03	1.34E-05	5.87E-05
Cobalt	8.40E-05	8.04E-07	3.52E-06
Manganese	3.80E-04	3.63E-06	1.59E-05
Mercury	2.60E-04	2.49E-06	1.09E-05
Nickel	2.10E-03	2.01E-05	8.80E-05
Selenium	2.40E-05	2.30E-07	1.01E-06
Polycyclic Organic Matter (POM)	8.32E-05	7.96E-07	3.49E-06
Total HAP		1.81E-02	7.91E-02

Notes:

⁽¹⁾ Emission factors are from Section 1.4, Natural Gas Combustion of AP-42.

⁽²⁾ POM is defined as a HAP by Section 112(b) of the Clean Air Act. The emission factor for POM was obtained by adding together the emission factors for the individual compounds that were identified as POMs in Section 1.4 of AP-

POTENTIAL #2 FUEL OIL EMISSIONS - BOILER

Assumptions				
Potential Hours of operation (hours/yr) =	8,760			
Sulfur Content (%) =	0.30			
Heat Value (BTU/gal) =	139,000			
Rated Input (hp/hr) =	400			
Max Rated Input (BTU/hr) =	16,400,000			
Maximum Usage (gal/yr) =	1,033,554			
Maximum Usage (gal/hr) =	117.99			

Potential Emissions

Criteria Pollutants ⁽¹⁾	lbs/1000 gal	lbs/hr	tons/yr
NO_X	20	2.360	10.34
со	5	0.590	2.58
SO2	43	5.026	22.01
voc	0.2	0.024	0.10
PM/PM ₁₀	2	0.236	1.03
Hazardous Air Pollutants (HAPs) ⁽¹⁾	lbs/1000 gal	lbs/hr	tons/yr
Formaldehyde	6.10E-02	0.007	3.15E-02
Polycyclic Organic Matter (POM)	3.30E-03	3.89E-04	1.71E-03
	lbs/10^12 Btu		
Arsenic	4.0	6.56E-05	2.87E-04
Beryllium	3.0	4.92E-05	2.15E-04
Cadmium	3.0	4.92E-05	2.15E-04
Chromium	3.0	4.92E-05	2.15E-04
Lead	9.0	1.48E-04	6.46E-04
Mangenese	6.0	9.84E-05	4.31E-04
Mercury	3.0	4.92E-05	2.15E-04
Nickel	3.0	4.92E-05	2.15E-04
Selenium	15.0	2.46E-04	1.08E-03
Total HAPs		8.39E-03	3.67E-02

Notes:

(1) Emission factors are from AP-42, Volume 1, Fifth Edition, September 1998, Section 1.3.

Appendix A Insignificant Activities

Insignificant Activities (Check all that apply)		
\boxtimes	1.	Air compressors and pneumatically operated equipment, including hand tools.
	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
	4.	Bathroom/toilet vent emissions.
	5.	Batteries and battery charging stations, except at battery manufacturing plants.
	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
	7.	Blacksmith forges.
	8.	Boiler water treatment operations, not including cooling towers.
	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
\boxtimes	10.	CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
\boxtimes	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
	14.	Demineralized water tanks and demineralizer vents.
	15.	Drop hammers or hydraulic presses for forging or metalworking.
	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
	17.	Emergency (backup) electrical generators at residential locations.
	18.	Emergency road flares.
	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

Insi	Insignificant Activities (Check all that apply)		
	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.	
		Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:	
		Waste Water Treatment Tanks, total HAPS: 0.0112 pounds/hour, 98 pounds/year	
			
	0.1		
片	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.	
	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.	
	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.	
	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.	
	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.	
	26.	Fire suppression systems.	
	27.	Firefighting equipment and the equipment used to train firefighters.	
	28.	Flares used solely to indicate danger to the public.	
	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.	
	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.	
	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.	
	32.	Humidity chambers.	
	33.	Hydraulic and hydrostatic testing equipment.	
	34.	Indoor or outdoor kerosene heaters.	
	35.	Internal combustion engines used for landscaping purposes.	
	36.	Laser trimmers using dust collection to prevent fugitive emissions.	
	37.	Laundry activities, except for dry-cleaning and steam boilers.	
	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.	
	39.	Oxygen scavenging (de-aeration) of water.	

Insi	Insignificant Activities (Check all that apply)			
	40.	Ozone generators.		
	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)		
	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.		
	43.	Process water filtration systems and demineralizers.		
	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.		
	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.		
	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.		
	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.		
	48.	Shock chambers.		
	49.	Solar simulators.		
	50.	Space heaters operating by direct heat transfer.		
	51.	Steam cleaning operations.		
	52.	Steam leaks.		
	53.	Steam sterilizers.		
	54.	Steam vents and safety relief valves.		
	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.		
	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.		
	57.	Such other sources or activities as the Director may determine.		
	58.	Tobacco smoking rooms and areas.		
	59.	Vents from continuous emissions monitors and other analyzers.		