Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2017

Date: 12-18-2017

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0021	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561910	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 953323502		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.7496		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:23.0244		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527-5531

CONTACT: Kevin Wagner Laura Hartman
PHONE: 630-928-1771 630-928-1724 EXT:
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E-Mail: kwagner@sterigenics.com lhartman@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523-3909

CONTACT: Kevin Wagner Laura Hartman
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Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

K A Hubeman — 29-Apr-2018
AUTHORIZED SIGNATURE — DATE

Kathleen Hoffman - SVP EH&S and TechServices — 630.928.1758
TYPED OR PRINTED NAME AND TITLE — TELEPHONE NUMBER

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

IEPA-DIVISION OF RECORDS MANAGEMENT
AUG 23 2018
REVIEWER: JKS

RECEIVED
STATE OF ILLINOIS
MAY 1 2018
Environmental Protection Agency
BUREAU OF AIR

09/04/2018 3:41PM A002877 043110AAC 10G 2,983,699 170000075246 05/01/2018 A AER 2017
STERIGENICS US LLC B:35519 F:50497 I:00000011

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2017 (TONS/YEAR)	EMISSIONS REPORTED FOR 2016 (TONS/YEAR)	IEPA 2017 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.9	1.900000	0.990662
CO2	2749	2,711.000000	1,415.232000
ETO	2.3	2.100000	4.229232
METHANE	0.05	0.050000	0.027126
N2O	0.05	0.050000	0.025946
NH3	0.07	0.070000	0.037739
NOX	2.29	2.260000	1.179360
PART	0.17	0.170000	0.089631
PM10	0.17	0.170000	0.089631
PM2.5	0.17	0.170000	0.089631
PO	0	0.006000	
SO2	0.01	0.010000	0.007076
VOM	2.43	2.200000	3.769937

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	Back vent disconnect	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	New Process Boiler (replacing existing Boiler 1)	GRANTED	11-28-2012	
17070029	CONSTRUCTION	Lesni Degas Unit	GRANTED	08-04-2017	
84060002	OPERATING	Sterilizer	NOT REQUIRED	03-19-1996	
90080038	CONSTRUCTION	Incorporated into 84060002	GRANTED	02-15-1991	
95120085	TITLE V	Sterilization of medical supplies and treatment of	GRANTED	06-08-2015	06-08-2020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,760		HOURS/SEASON:	2,208	
			START TIME:		
			END TIME:		
RATE/HR:	0.0017	0.0021	RATE/HR:	0.0086	0.0009

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.126	.14	0.18
CO2	3	3		120000		180	200.7	250.3
METHANE	3	3		2.3		.00345	.004	0.005
N2O	3	3		2.2		.0033	.004	0.005
NH3	3	3		3.2		.0048	.01	0.007
NOX	3	3		100		.15	.17	0.21
PART	3	3		7.6		.0114	.01	0.02
PM10	3	3		7.6		.0114	.01	0.02
PM2.5	3	3		7.6		.0114	.01	0.02
SO2	3	3		.6		.0009	.001	0.001
VOM	3	3		5.5		.00825	.01	0.01

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.86	.86	0.09
VOM	3	3				.005	.005	0.005

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,760		HOURS/SEASON:	2,208	
			START TIME:		
			END TIME:		
RATE/HR:	0.0030	0.0031	RATE/HR:	0.0020	0.0016

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1008	.29	0.26
CO2	3	3		120000		144	418.3	377.4
METHANE	3	3		2.3		.00276	.01	0.007
N2O	3	3		2.2		.00264	.01	0.007
NH3	3	3		3.2		.00384	.01	0.01
NOX	3	3		100		.12	.35	0.31
PART	3	3		7.6		.00912	.03	0.02
PM10	3	3		7.6		.00912	.03	0.02
PM2.5	3	3		7.6		.00912	.03	0.02
SO2	3	3		.6		.00072	.002	0.002
VOM	3	3		5.5		.0066	.02	0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.201	.201	0.16
VOM	3	3				.011	.011	0.009

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0018 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8740	HOURS/SEASON:	2,208	
			START TIME:		
			END TIME:		
PWR (LB/HR):	29.3000	30.9	PWR (LB/HR):	26.8000	30.3
RATE/HR:	0.0140	0.015	RATE/HR:	0.0134	0.015

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.1	.0001 0.0001
VOM	2	2			.1	.0001 0.0001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0001	.0001 0.0001

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 0

CAPTURING STACKS: Control 0005 Capture Efficiency 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8740	HOURS/SEASON:	2,208	
			START TIME:		
PWR (LB/HR):	1.2000	1.3	END TIME:		
RATE/HR:	0.0006	0.0007	PWR (LB/HR):	1.1000	1.3
			RATE/HR:	0.0005	0.0006

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.004	.001	0.001
VOM	2	2			.004	.001	0.001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.001	.001	0.001

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 0 %

CAPTURING STACKS: Control NEW (WBI Acid Water Scrubber # 2) Capture Efficiency 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % 25 MAR - MAY: 28.00 % 25
JUN - AUG: 26.00 % 26 SEP - NOV: 18.00 % 24

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	51		WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8616	HOURS/SEASON:	2,088	2208
			START TIME:		
PWR (LB/HR):	14.0000	15.4	END TIME:		
RATE/HR:	0.0070	0.008	PWR (LB/HR):	14.4000	15.3
			RATE/HR:	0.0070	0.008

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.15	.008	0.010
VOM	2	2			.03	.008	0.010

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.009	.009	0.009

CAPTURING CONTROLS: Control 002 Capture Efficiency 100%

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 0%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8740	HOURS/SEASON:	2,208	
			START TIME:		
PWR (LB/HR):	0.3000	0.3	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.3000	0.3
			RATE/HR:	0.0002	0.0002

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.57	.3	0.33
VOM	2	2			.57	.31	0.33

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.282	.282	0.32

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % 25 MAR - MAY: 28.00 % 25
JUN - AUG: 26.00 % 26 SEP - NOV: 18.00 % 24

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52	51	WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8616	HOURS/SEASON:	2,208	2208
			START TIME:		
PWR (LB/HR):	0.1000	0.2	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0.2
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.144	.15	0.175
VOM	2	2			.144	.15	0.175

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.151	.151	0.161

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 0%

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % 25 MAR - MAY: 28.00 % 25

BEGAN OPERATION: / 1999 JUN - AUG: 26.00 % 26 SEP - NOV: 18.00 % 24

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52	51	WEEKS/SEASON:	13	
HOURS/YEAR:	8,637	8616	HOURS/SEASON:	2,208	2208
			START TIME:		
PWR (LB/HR):	0.6000	0.6	END TIME:		
RATE/HR:	0.0000	0.0003	PWR (LB/HR):	0.6000	0.6
			RATE/HR:	0.0000	0.0003

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.001	.0002 0.0003
VOM	2	2			.001	.0002 0.0003

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0002	.0002 0.0003

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.94	1					
PO	99.000	99.94	1					
VOM	99.000	99.94	1					

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 0%

STACK NEW (WBII Acid Water Scrubber Stack) CAPTURE EFFICIENCY 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION: WBI Acid Water Scrubber #1

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.9		1				
PO	99.000	99.9		1				
VOM	99.000	99.9		1				

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 0%

STACK 001 CAPTURE EFFICIENCY 100.0%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100
0018 - Boiler	1.33	7	1714	400

ID NUMBER: 043110AAC NAME: Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL ____ - WBI Acid-Water Scrubber #2 with Dry Bed Reactor

BEGAN OPERATION: 1999

CEASED OPERATION: ____

PERMIT: 95120085

CONTROL CODE: 141&

DESCRIPTION CORRECTION:

Acid water scrubber # 2 with dry bed reactor control code 141 and 48

REMOVAL EFFICIENCY:

POLLUTANT	Ethylene Oxide	EFFICIENCY:	99.9 %	METHOD:	1
POLLUTANT		EFFICIENCY:	%	METHOD:	
POLLUTANT		EFFICIENCY:	%	METHOD:	

CAPTURING CONTROLS:

CONTROL		CAPTURE EFFICIENCY:	%
CONTROL		CAPTURE EFFICIENCY:	%
CONTROL		CAPTURE EFFICIENCY:	%

CAPTURING STACKS:

STACK	006	CAPTURE EFFICIENCY:	100 %
STACK		CAPTURE EFFICIENCY:	%
STACK		CAPTURE EFFICIENCY:	%

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.302(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

DATE: April 27, 2108

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - _____

ID NUMBER: 043110AAC NAME: Sterigenics US LLC

- STACK DATA -

STACK ____ - WBII Acid Water Scrubber with Dry Bed Reactor
BEGAN OPERATION: 1988
CEASED OPERATION: _____

DESCRIPTION CORRECTION:

DIAMETER (FT): 24

HEIGHT (FT): 35

TEMPERATURE (F): 75

FLOW RATE (ACFM): 11,500

VELOCITY (FT/MIN): CALCULATED BY IEPA

LATITUDE (DD:MM:SS): _____

LONGITUDE (DD:MM:SS): _____

METHOD: _____

The Agency is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.302(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2016

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-00213	IEPA USE ONLY	SIC 1:	7389	NAICS 1:	561910	
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:		
FEIN:	953323502		SIC 3:		NAICS 3:		
D&B:	144911518		SIC 4:		NAICS 4:		
LATITUDE:	41:44:52.7496		SIC 5:		NAICS 5:		
LONGITUDE:	87:56:23.0244		SIC 6:		NAICS 6:		

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527-5531

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL: kwagner@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523-3909

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL:

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KAHoffman
AUTHORIZED SIGNATURE

27-Apr-2017
DATE

Kathleen Hoffman - SVP EHS
TYPED OR PRINTED NAME AND TITLE

630.928.1756
TELEPHONE NUMBER

RECEIVED
APR 28 2017
Illinois Environmental Protection Agency
Bureau of Air
STATE OF ILLINOIS

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24 et seq.

DIVISION OF RECORDS MANAGEMENT
RELEASABLE

AUG 16 2017

REVIEWER: EMI

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2016 (TONS/YEAR)	EMISSIONS REPORTED FOR 2015 (TONS/YEAR)	IEPA 2016 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.9	1.700000	0.990662
CO2	2711.0	2,490.000000	1,415.232000
ETO	2.1	2.300000	4.229232
METHANE	0.05	0.010000	0.027126
N2O	0.05	0.040000	0.025946
NH3	0.07	0.010000	0.037739
NOX	2.26	2.100000	1.179360
PART	0.17	0.200000	0.089631
PM10	0.17	0.200000	0.089631
PM2.5	0.17	0.200000	0.089631
PO	0.006	0.009000	
SO2	0.01	0.008000	0.007076
VOM	2.20	2.410000	3.769937

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	Back vent disconnect	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	New Process Boiler (replacing existing Boiler 1)	GRANTED	11-28-2012	
84060002	OPERATING	Sterilizer	NOT REQUIRED	03-19-1996	
85040074	OPERATING	Gas sterilization system 8			
86120004	OPERATING	Gas sterilization system			
90080038	CONSTRUCTION	Incorporated into 84060002	GRANTED	02-15-1991	
95120085	TITLE V	Sterilization of medical supplies and treatment of	GRANTED	06-08-2015	06-08-2020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

BEGAN OPERATION: / 1999

CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8760	HOURS/SEASON:	2,184	2208
			START TIME:		
			END TIME:		
RATE/HR:	0.0000		RATE/HR:	0.0000	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999
CEASED OPERATION: /
SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.126	.15	0.14
CO2	3	3		120000		180	213.9	200.7
METHANE	3	3		2.3		.00345	.002	0.004
N2O	3	3		2.2		.0033	.002	0.004
NH3	3	3		3.2		.0048	.01	0.01
NOX	3	3		100		.15	.18	0.17
PART	3	3		7.6		.0114	.01	0.01
PM10	3	3		7.6		.0114	.01	0.01
PM2.5	3	3		7.6		.0114	.01	0.01
SO2	3	3		.6		.0009	.008	0.001
VOM	3	3		5.5		.00825	.01	0.01

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.071	.071	0.86
VOM	3	3				.004	.004	0.005

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 5

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8760	HOURS/SEASON:	2,184	2208
			START TIME:		
			END TIME:		
RATE/HR:	0.0020	0.003	RATE/HR:	0.0020	0.002

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1008	.25	0.29
CO2	3	3		120000		144	345.5	418.3
METHANE	3	3		2.3		.00276	.01	0.01
N2O	3	3		2.2		.00264	.01	0.01
NH3	3	3		3.2		.00384	.01	0.35
NOX	3	3		100		.12	.3	0.03
PART	3	3		7.6		.00912	.02	0.03
PM10	3	3		7.6		.00912	.02	0.03
PM2.5	3	3		7.6		.00912	.02	0.03
SO2	3	3		.6		.00072	.001	0.002
VOM	3	3		5.5		.0066	.02	0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.143	.143	0.201
VOM	3	3				.008	.008	0.011

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0018 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Steriganics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,725	8,637	HOURS/SEASON:	2,208	
			START TIME:		
PWR (LB/HR):	32.0000	29.3	END TIME:		
RATE/HR:	0.0160	0.014	PWR (LB/HR):	36.0000	26.8
			RATE/HR:	0.0180	0.0134

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.1	.058	0.0001
VOM	2	2			.1	.059	0.0001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.068	.068	0.0001

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,725	8637	HOURS/SEASON:	2,208	
			START TIME:		
PWR (LB/HR):	1.3000	1.2	END TIME:		
RATE/HR:	0.0006	0.0006	PWR (LB/HR):	1.5000	1.1
			RATE/HR:	0.0007	0.0005

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.004	.001	0.001
VOM	2	2			.004	.001	0.001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.002	.002	0.001

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % MAR - MAY: 28.00 %
JUN - AUG: 26.00 % SEP - NOV: 18.00 %

BEGAN OPERATION: / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	46		WEEKS/SEASON:	13	
HOURS/YEAR:	7,802	8637	HOURS/SEASON:	2,184	2,088
			START TIME:		
PWR (LB/HR):	12.4000	14.0	END TIME:		
RATE/HR:	0.0060	0.007	PWR (LB/HR):	12.6000	14.4
			RATE/HR:	0.0060	0.007

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.15	.022	0.008
VOM	2	2			.03	.022	0.008

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.023	.023	0.009

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,725	8637	HOURS/SEASON:	2,208	
			START TIME:		
			END TIME:		
PWR (LB/HR):	0.3000	0.30	PWR (LB/HR):	0.3000	0.30
RATE/HR:	0.0002	0.0002	RATE/HR:	0.0002	0.0002

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.57	.3	0.30
VOM	2	2			.57	.33	0.31

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.38	.38	0.282

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % MAR - MAY: 28.00 %
JUN - AUG: 26.00 % SEP - NOV: 18.00 %

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,725	8637	HOURS/SEASON:	2,088	
			START TIME:		
PWR (LB/HR):	0.1000	0.1	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.20
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.144	.13	0.15
VOM	2	2			.144	.13	0.15

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.133	.133	0.151

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 28.00 % MAR - MAY: 28.00 %
JUN - AUG: 26.00 % SEP - NOV: 18.00 %

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	46		WEEKS/SEASON:	13	
HOURS/YEAR:	7,802	8637	HOURS/SEASON:	2,088	
			START TIME:		
PWR (LB/HR):	0.5000	0.6	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.5000	0.6
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.001	.0005	0.0002
VOM	2	2			.001	.0005	0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.0005	.0005	0.0002

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000		1	99.0				99.0
PO	99.000		1	99.0				99.0
VOM	99.000		1	99.0				99.0

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.0				99.0		
PO	99.000	99.0				99.0		
VOM	99.000	99.0				99.0		

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100
0018 - Boiler	1.33	7	1714	400

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-00213	IEPA USE ONLY	SIC 1:	7389	NAICS 1:	561499	561910
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:		
FEIN:	953323502		SIC 3:		NAICS 3:		
D&B:	144911518		SIC 4:		NAICS 4:		
LATITUDE:	41:44:52.7496		SIC 5:		NAICS 5:		
LONGITUDE:	87:56:23.0244		SIC 6:		NAICS 6:		

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL: kwagner@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL:

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Kevin Wagner
AUTHORIZED SIGNATURE

29-APR-2016
DATE

KEVIN WAGNER DIRECTOR EH&S
TYPED OR PRINTED NAME AND TITLE

630-928-1771
TELEPHONE NUMBER

RECEIVED
STATE OF ILLINOIS
MAY - 2 2016
Environmental Protection Agency
BUREAU OF AIR

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

EPA-DIVISION OF RECORDS MANAGEMENT
RELEASABLE
NOV 03 2016
REVIEWER JRM

01/25/2017 1:10PM A002243 043110AAC 10G 2,701,135 170000075246 05/02/2016 A STERIGENICS US LLC
B:23924 F:50497 I:00000059 AER2015

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2015 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2014 (TONS/YEAR)	IEPA 2015 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.70	2.297568	1.550000	0.990662
CO2	8490.	3,249.792000	2,999.500000	1,415.232000
ETO	2.3	10.631760	2.540000	4.229232
METHANE	0.01	0.062288	0.069000	0.027126
N2O	0.04	0.059579	0.047000	0.025946
NH3	0.01	0.086661	0.049000	0.037739
NOX	2.1	3.101280	2.540000	1.179360
PART	0.2	0.225913	0.200000	0.089631
PM10	0.2	0.205820	0.200000	0.089631
PM2.5	0.2	0.205820	0.200000	0.089631
PO	0.009		0.017000	
SO2	0.008	0.016249	0.008000	0.007076
VOM	2.41	26.669873	2.560000	3.769937

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	Back vent disconnect	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	New Process Boiler (replacing existing Boiler 1)	GRANTED	11-28-2012	
84060002	OPERATING	Sterilizer	NOT REQUIRED	03-19-1996	
85040074	OPERATING	Gas sterilization system 8			
86120004	OPERATING	Gas sterilization system			
90080038	CONSTRUCTION	Incorporated into 84060002	GRANTED	02-15-1991	
95120085	TITLE V	Sterilization of medical supplies and treatment of	GRANTED	06-08-2015	06-08-2020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
			END TIME:		
RATE/HR:	0.0000		RATE/HR:	0.0000	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - Willowbrook II: 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 10200603

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.126	.1	0.15
CO2	3	3		120000		180	154.94	213.9
METHANE	3	3		2.3		.00345	.002	0.002
N2O	3	3		2.2		.0033	.002	0.002
NH3	3	3		3.2		.0048	.004	0.01
NOX	3	3		100		.15	.13	0.18
PART	3	3		7.6		.0114	.01	0.01
PM10	3	3		7.6		.0114	.01	0.01
PM2.5	3	3		7.6		.0114	.01	0.01
SO2	3	3		.6		.0009	.0008	0.008
VOM	3	3		5.5		.00825	.008	0.01

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.13	.13	0.071
VOM	3	3				.008	.008	0.004

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
			END TIME:		
RATE/HR:	0.0020		RATE/HR:	0.0020	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Willowbrook 1: Boiler

PERMIT: 95120085

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1008	.09	0.25
CO2	3	3		120000		144	130.5	345.5
METHANE	3	3		2.3		.00276	.003	0.01
N2O	3	3		2.2		.00264	.002	0.01
NH3	3	3		3.2		.00384	.003	0.01
NOX	3	3		100		.12	.109	0.30
PART	3	3		7.6		.00912	.008	0.02
PM10	3	3		7.6		.00912	.008	0.02
PM2.5	3	3		7.6		.00912	.008	0.02
SO2	3	3		.6		.00072	.001	0.001
VOM	3	3		5.5		.0066	.006	0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3				.109	.109	0.143
VOM	3	3				.006	.006	0.008

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0018 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8,725	HOURS/SEASON:	2,184	2,208
			START TIME:		
PWR (LB/HR):	31.8000		END TIME:		
RATE/HR:	0.1600	0.016	PWR (LB/HR):	31.8000	
			RATE/HR:	0.0160	0.018

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Willowbrook I: Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.1	.016	0.058
VOM	2	2			.1	.016	0.059

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.016	.016	0.068

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8,725	HOURS/SEASON:	2,184	2,208
			START TIME:		
PWR (LB/HR):	0.0000	1.3	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	1.5
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - Willowbrook I: 3 Aeration rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.004	.00013	0.001
VOM	2	2			.004	.00013	0.001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.00013	.00013	0.002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 %28 MAR - MAY: 25.00 %28
JUN - AUG: 25.00 %26 SEP - NOV: 25.00 %18

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	7,802	HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	0.2000	12.4	END TIME:		
RATE/HR:	0.0001	0.006	PWR (LB/HR):	0.2000	12.6
			RATE/HR:	0.0001	0.006

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Willowbrook II: Sterilizer SC-4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.15	.15 0.022
VOM	2	2			.03	.15 0.022

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.15	.15 0.023

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8,725	HOURS/SEASON:	2,184	2,208
			START TIME:		
PWR (LB/HR):	0.3000	0.3	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.3000	0.3
			RATE/HR:	0.0002	0.0002

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Willowbrook I: Back vents

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.57	.32	0.30
VOM	2	2			.57	.32	0.33

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.32	.32	0.38

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 28 MAR - MAY: 25.00 % 28

JUN - AUG: 25.00 % 26 SEP - NOV: 25.00 % 18

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	8,725	HOURS/SEASON:	2,184	2,088
			START TIME:		
PWR (LB/HR):	0.1000	0.1	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.1
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Willowbrook II: Back vents

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.144	.144	0.130
PO		2				0	0
VOM	2	2			.144	.144	0.130

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.144	.144	0.133

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 28 MAR - MAY: 25.00 % 28

JUN - AUG: 25.00 % 26 SEP - NOV: 25.00 % 18

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736	7,802	HOURS/SEASON:	2,184	2,088
			START TIME:		
PWR (LB/HR):	0.0000	0.5	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.5
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - Willowbrook II: 2 Aeration rooms (WBII-AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.001	.007 0.001
PO		2			0	0
VOM	2	2			.001	.007 0.0005

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.007	.007 0.0005

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000		1	1		99%		1
PO	99.000		1	1		99%		1
VOM	99.000		1	1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000			1		99%		1
PO	99.000			1		99%		1
VOM	99.000			1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100
0018 - Boiler	1.33	7	1714	400

Sterigenics.

April 29, 2016

IEPA, DIVISION OF RECORDS MANAGEMENT
RELEASABLE
NOV 03 2016
REVIEWER JRW

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
1021 North Grand Avenue East
PO Box 19276
Springfield, IL 62794-9276

Attn: 2015 Annual Emission Report

Re: 2015 Annual Emission Report for Sterigenics U.S., LLC. Willowbrook, IL. Facilities ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2015.

Please contact me if you have any questions with regard to this submission. I can be reached at 630-928-1771.

Sincerely,

Kevin Wagner
Director, Environmental Health & Safety

RECEIVED
STATE OF ILLINOIS
MAY -- 9 2016
Environmental Protection Agency
BUREAU OF AIR

Enclosure: Annual Emission Report

cc: Mark Metzger – Willowbrook General Manager
Kathleen Hoffman – Sr. Vice-President EH&S
Juan Segovia -Vice-President Operations

Sterigenics US, LLC.
2015 Spring Road, Suite 650 • Oakbrook, IL 60523
Tel 630.928.1700 • Fax 630.928.1701 • www.sterigenics.com

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2014

Page: 1
Date: 11-19-2014

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-00213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561499	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 953323502		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.7496		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:23.0244		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL: kwagner@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
ALT PHONE:
E-MAIL:

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

RECEIVED
MAR 24 2015
Illinois Environmental Protection Agency
BUREAU OF AIR
STATE OF ILLINOIS

KA Hoffman
AUTHORIZED SIGNATURE

18-Mar-2015
DATE

SVP- Global EHS
TYPED OR PRINTED NAME AND TITLE

630.928.1756
TELEPHONE NUMBER

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

APR 24 2015
REVIEWER: MJK

ILLINOIS EPA DIVISION OF RECORDS MANAGEMENT RELEASABLE

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2014 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2013 (TONS/YEAR)	IEPA 2014 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.55	4.425658	1.700000	2.274951
CO2	2999.5	6,289.920000	3,293.000000	3,249.930000
ETO	2.54	9.596544	2.980000	4.224864
METHANE	0.069	0.120557	0.076000	0.062291
N2O	0.047	0.115315	0.052000	0.059583
NH3	0.049	0.167731	0.054000	0.086665
NOX	2.54	5.634720	2.780000	2.708275
PART	0.20	0.413737	0.220000	0.205829
PM10	0.20	0.398362	0.220000	0.205829
PM2.5	0.20	0.398362	0.220000	0.205829
PO	0.017	0.020092 0.2065*	0.024500	0.012364
SO2	0.008	0.042457	0.009000	0.016250
VOM	2.07	27.298865	3.246000	4.373819

*Willowbrook Air Permit, Revised 2006, page 27, 7.1.6 c. ii

REVIEWER: WTR
APR 24 2015
RECEIVED
SERVICE DIVISION OF RECORDS MANAGEMENT

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	Back vent disconnect	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	New Process Boiler (replacing existing Boiler 1)	GRANTED	11-28-2012	
84060002	OPERATING	Sterilizer	NOT REQUIRED	03-19-1996	
85040074	OPERATING	Gas sterilization system 8			
86120004	OPERATING	Gas sterilization system			
90080038	CONSTRUCTION	Incorporated into 84060002	GRANTED	02-15-1991	
95120085	TITLE V	Sterilization of medical supplies and treatment of	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0006	0.0000	RATE/HR:	0.0006	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84			.42	.05	0.05
CO2	3	3		120000			600	63.31	77.47
METHANE	3	3		2.3			.0115	.001	0.001
N2O	3	3		2.2			.011	.001	0.001
NH3	3	3		3.2			.016	.002	0.002
NOX	3	3		100			.5	.056	0.065
PART	3	3		7.6			.038	.004	0.005
PM10	3	3		7.6			.038	.004	0.005
PM2.5	3	3		7.6			.038	.004	0.005
SO2	3	3		.6			.003	.0003	0.0004
VOM	3	3		5.5			.0275	.003	0.004

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3				.056	.056	0.065
VOM	3	3	3				.03	.03	0.004

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: 01 / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 - NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	0.0	24	HOURS/DAY:	0.0	24.0
DAYS/WEEK:	0.0	7.0	DAYS/WEEK:	0.0	7.0
WEEKS/YEAR:	0	52	WEEKS/SEASON:	0	13
HOURS/YEAR:	0	8736	HOURS/SEASON:	0	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0000	0.0020	RATE/HR:	0.0000	0.0020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1 PERMIT: 95120085

BEGAN OPERATION: 01 / 1985 SCC: 10200603

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA		EMISSION RATE (LB/HR) REPORTED
CO	3	3		84			.1932	0	0.09
CO2	3	3		120000			276	0	130.50
METHANE	3	3		2.3			.00529	0	0.003
N2O	3	3		2.2			.00506	0	0.002
NH3	3	3		3.2			.00736	0	0.003
NOX	3	3		100			.23	0	0.109
PART	3	3		7.6			.01748	0	0.008
PM10	3	3		7.6			.01748	0	0.008
PM2.5	3	3		7.6			.01748	0	0.008
SO2	3	3		.6			.00138	0	0.001
VOM	3	3		5.5			.01265	0	0.006

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA		OZONE SEASON EMISSION RATE (LB/HR) REPORTED
NOX	3	3	3				0	0	0.109
VOM	3	3	3				0	0	0.006

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Boiler

PERMIT:

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 - NATURAL GAS

INPUT (MMBTU/HR): 5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0012	0.0020	RATE/HR:	0.0012	0.0020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Boiler

PERMIT:

BEGAN OPERATION: 01 / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84			.1008	.1	0.09
CO2	3	3		120000			144	144.23	130.50
METHANE	3	3		2.3			.00276	.003	0.003
N2O	3	3		2.2			.00264	.003	0.002
NH3	3	3		3.2			.00384	.004	0.003
NOX	3	3		100			.12	.12	0.109
PART	3	3		7.6			.00912	.009	0.008
PM10	3	3		7.6			.00912	.009	0.008
PM2.5	3	3		7.6			.00912	.009	0.008
SO2	3	3		.6			.00072	.001	0.001
VOM	3	3		5.5			.0066	.007	0.006

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3				.12	.12	0.109
VOM	3	3	3				.007	.007	0.006

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0018 CAPTURE EFFICIENCY: 100.00 % 100

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	38.9000	31.84	END TIME:		
RATE/HR:	0.0190	0.16	PWR (LB/HR):	38.9000	31.84
			RATE/HR:	0.0190	0.016

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984)
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.02 0.016
VOM	2	2	2		.1	.02 0.016

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.02	.02 0.016

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 100

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.00013	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.00013
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2.		.004	.00016	0.00013
VOM	2	2	2		.004	.00016	0.00013

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2		.00016	.00016	0.00013

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13.0
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.15	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0.17
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2		.03	.162	0.15
VOM	2	2	2		.03	.162	0.15

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2		.162	.162	0.15

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.4000	0.32	END TIME:		
RATE/HR:	0.0002	0.00016	PWR (LB/HR):	0.4000	0.32
			RATE/HR:	0.0020	0.00016

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.808	.39	0.32
VOM	2	2	2			.808	.39	0.32

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.39	.39	0.32

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.144	END TIME:		
RATE/HR:	0.0010	0.0001	PWR (LB/HR):	0.2000	0.144
			RATE/HR:	0.0010	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.025	.154	0.144
PO	2	2	2			.0023	0	0
VOM	2	2	2			.025	.154	0.144

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.154	.154	0.144

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 100

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.007	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	~~0.0007~~ 0.007 Sac.
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999
CEASED OPERATION: /

SCC: 31502001

MODE 01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2.		.001	.007 0.007
PO	2	2	N/A		.0023	0 0
VOM	2	2	2		.001	.007 0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.007	.007 0.007

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%	1					
PO	99.000	N/A	1					
VOM	99.000	99%	1					

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%		1		99%		1
PO	99.000	99%		1		99%		1
VOM	99.000	99%		1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100
0018 - Boiler	1.33	7	1714	400

Sterigenics.

March 18, 2015

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
Post Office Box 19276
Springfield, Illinois 62794-9276

Subject: 2014 Annual Emission Report

Dear Air Quality Planning Section:

Here is the annual emissions report for the Sterigenics, Willowbrook, Illinois locations. This report intends to satisfy the 2014 emissions report requirements for the facilities located at 7775 Quincy and 830 Midway Drive in Willowbrook, Illinois. Both locations are covered under Permit # 043110AAC.

Report Period:
January 1, 2014 to December 31, 2014

There is no significant change in emission trends since the last reporting period and the sites continue to operate within applicable limits.

Please see page 2 of the attached Annual Emissions Report for allowable emissions (tons/year) documented for Propylene Oxide (PO), which I believe is a typo. According to the Willowbrook Air Permit, revised in 2006, page 27, 7.1.6 c. ii, the allowable emissions in tons/year should be stated as 0.2065. Would you please review and make the appropriate change? Thank you.

Should you have any questions, please call me at: 630.928.1768.

Kind Regards,

Susan M. Reinhardt
Manager
Environment, Health and Safety

Copy:
Bob Novak – Willowbrook - Operations Manager
Kathleen Hoffman – Senior Vice President – Global EHS
Juan Segovia – Vice President of EO Operations

Enclosure: DAPC Annual Emissions Report

SMR:cmq

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2013

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-00213 IEPA USE ONLY	SIC 1:	7389	NAICS 1:	561499
FINDS:	ILD984803320 IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN:	953323502	SIC 3:		NAICS 3:	
D&B:	144911518	SIC 4:		NAICS 4:	
LATITUDE:	41:44:52.7496	SIC 5:		NAICS 5:	
LONGITUDE:	87:56:23.0244	SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL: kwagner@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE
OCT 06 2014
REVIEWER EAV

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/25/14
DATE

Kathleen A. Hoffman
TYPED OR PRINTED NAME AND TITLE

630.928.1758
TELEPHONE NUMBER

RECEIVED
APR 30 2014
Illinois Environmental Protection Agency
BUREAU OF AIR
ILLINOIS

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2013 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2012 (TONS/YEAR)	IEPA 2013 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.70	4.425658	1.580000	2.678655
CO2	3293	6,289.920000	3,051.000000	3,826.650000
ETO	2.98	9.596544	3.490000	4.224864
METHANE	0.076	0.120557	0.070000	0.073344
N2O	0.052	0.115315	0.050000	0.070155
NH3	0.054	0.167731	0.050000	0.102044
NOX	2.78	5.634720	2.580000	3.188875
PART	0.22	0.413737	0.200000	0.242355
PM10	0.22	0.398362	0.200000	0.242355
PM2.5	0.22	0.398362	0.200000	0.242355
PO	0.0245	0.020092 0.2065 +	0.068000	0.012364
SO2	0.009	0.042457	0.008000	0.019133
VOM	2.27	27.298865	2.100000	4.400252

(*) Willowbrook Air Permit, Revised 2006, page 37, 7.1.6 c. ii

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	Back vent disconnect	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	New Process Boiler (replacing existing Boiler 1)	GRANTED	11-28-2012	
84060002	OPERATING	Sterilizer	NOT REQUIRED	03-19-1996	
85040074	OPERATING	Gas sterilization system 8			
86120004	OPERATING	Gas sterilization system			
90080038	CONSTRUCTION	Incorporated into 84060002	GRANTED	02-15-1991	
95120085	TITLE V	Sterilization of medical supplies and treatment of	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WDII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

BEGAN OPERATION: / 1999

CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0000	0.0000	RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 10200603
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.42	.05	0.05
CO2	3	3		120000		600	67.31	63.31
METHANE	3	3		2.3		.0115	.001	0.001
N2O	3	3		2.2		.011	.001	0.001
NH3	3	3		3.2		.016	.002	0.002
NOX	3	3		100		.5	.056	0.056
PART	3	3		7.6		.038	.004	0.004
PM10	3	3		7.6		.038	.004	0.004
PM2.5	3	3		7.6		.038	.004	0.004
SO2	3	3		.6		.003	.0003	0.0003
VOM	3	3		5.5		.0275	.003	0.003

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.056	.056	.056
VOM	3	3	3			.003	.003	.003

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: 01 / 1985

CEASED OPERATION: / Not used in 2013

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

BEGAN OPERATION: /

CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % N/A MAR - MAY: 25.00 % N/A
JUN - AUG: 25.00 % N/A SEP - NOV: 25.00 % N/A

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
		END TIME:	
RATE/HR:	0.0020	RATE/HR:	0.0020

N/A

N/A

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 Boiler 1 PERMIT. 95120085

BEGAN OPERATION: 01 / 1985 Not used in 2013 SCC: 10200603
CEASED OPERATION: / —

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.1	N/A
CO2	3	3		120000		276	144.23	
METHANE	3	3		2.3		.00529	.003	
N2O	3	3		2.2		.00506	.003	
NH3	3	3		3.2		.00736	.004	
NOX	3	3		100		.23	.12	
PART	3	3		7.6		.01748	.009	
PM10	3	3		7.6		.01748	.009	
PM2.5	3	3		7.6		.01748	.009	
SO2	3	3		.6		.00138	.001	
VOM	3	3		5.5		.01265	.007	

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	—			.12	.12	N/A g
VOM	3	3	—			.007	.007	N/A g

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 - Boiler

PERMIT:

BEGAN OPERATION: / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

BEGAN OPERATION: / JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION	
HOURS/DAY:	0.0	24	HOURS/DAY:	24.0
DAYS/WEEK:	0.0	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	0	53	WEEKS/SEASON:	13
HOURS/YEAR:	0	8736	HOURS/SEASON:	2,184
			START TIME:	
			END TIME:	
RATE/HR:	0.0000		RATE/HR:	0.0020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0012 Boiler

PERMIT:

BEGAN OPERATION: / 2013

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
CO	3	3	84		.3948	0 0.10
CO2	3	3	120000		564	0 144.93
METHANE	3	3	2.3		.01081	0 0.003
N2O	3	3	2.2		.01034	0 0.003
NH3	3	3	3.2		.01504	0 0.004
NOX	3	3	100		.47	0 0.120
PART	3	3	7.6		.03572	0 0.009
PM10	3	3	7.6		.03572	0 0.009
PM2.5	3	3	7.6		.03572	0 0.009
SO2	3	3	.6		.00282	0 0.001
VOM	3	3	5.5		.02585	0 0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
NOX	3	3			0	0.120
VOM	3	3			0	0.007

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	47.5000	38.92	END TIME:		
RATE/HR:	0.0240	0.019	PWR (LB/HR):	47.5000	38.92
			RATE/HR:	0.0240	0.019

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 05120005

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.1	.02 .02
VOM	2	2	2			.1	.02 .02

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			.02	.02 .02

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC. 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.00016	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.00016
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.004	.0002 0.00016
VOM	2	2			.004	.0002 0.00016

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0002	.0002 0.00016

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Steriqenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.162	END TIME:		
RATE/HR:	0.0001	0.000081	PWR (LB/HR):	0.2000	0.162
			RATE/HR:	0.0001	0.000081

043110AAC - **Sterigenics US LLC**

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.03	.17 0.162
VOM	2	2	2			.03	.17 0.162

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			.17	.17 0.162

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.5000	0.39	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.5000	0.39
			RATE/HR:	0.0002	0.002

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.808	.47 0.39
VOM	2	2			.808	.47 0.39

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.47	.47 0.39

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100.1

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.2000	0.154	END TIME:		
RATE/HR:	0.0001	0.001	PWR (LB/HR):	0.2000	0.154
			RATE/HR:	0.0001	0.001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 Sterilizer SC 4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 _____ SCC: 31502001

CEASED OPERATION: / _____

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.025	.158	0.154
PO	2	2	N/A			.0023	0	N/A
VOM	2	2	2			.025	.158	0.154

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.158	.158	0.154

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.007	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.007
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

NODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.007 0.007
PO	2	2	N/A		.0023	0 N/A
VOM	2	2	2		.001	.007 0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.007	.007 0.007

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	EFFICIENCY REPORTED	METHOD IEPA	METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	EFFICIENCY REPORTED	METHOD IEPA	METHOD REPORTED
ETO	99.000	99.1.	1					99.1.
PO	99.000	N/A	1					N/A
VOM	99.000	99.1.	1					99.1.

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100.1.

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%		1		99%		1
PO	99.000	99%		1		99%		1
VOM	99.000	99%		1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100
0018 - Boiler	1.33	7	1714	400

Sterigenics.

April 25, 2014

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
Post Office Box 19276
Springfield, Illinois 62794-9276

Subject: 2013 Annual Emission Report

Dear Air Quality Planning Section:

Here is the annual emissions report for the Sterigenics, Willowbrook, Illinois locations. This report intends to satisfy the 2013 emissions report requirements for the facilities located at 7775 Quincy and 830 Midway Drive in Willowbrook, Illinois. Both locations are covered under Permit # 043110AAC.

Report Period:
January 1, 2013 to December 31, 2013

There is no significant change in emission trends since the last reporting period and the sites continue to operate within applicable limits.

Please see page 2 of the attached Annual Emissions Report for allowable emissions (tons/year) documented for Propylene Oxide (PO), which I believe is a typo. According to the Willowbrook Air Permit, revised in 2006, page 27, 7.1.6 c. ii, the allowable emissions in tons/year should be stated as 0.2065. Would you please review and make the appropriate change? Thank you.

Should you have any questions, please call me at: 630.928.1768.

Kind Regards,

Susan M. Reinhardt
Manager
Environment, Health and Safety

Copy:
Bob Novak – Willowbrook General Manager
Kathleen Hoffman – Senior Vice President – Global EHS
Juan Segovia – Vice President of EO Operations

Enclosure: DAPC Annual Emissions Report

SMR:cmq

10/15/2013 12:45PM A 17000075246 043110AAC STERIGENICS US LLC 10G 04/24/2013 AER2012 2,185,423
A001019 B:3008 F:50497 I:00000052 TOMREUTE 10/10/2013 TOMREUTE 10/10/2013

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2012

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213	IEPA USE ONLY	SIC 1: 7389	NAICS 1:	561499
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:	NAICS 2:	
FEIN:	953323502		SIC 3:	NAICS 3:	
D&B:	144911518		SIC 4:	NAICS 4:	
LATITUDE:	41:44:52.7496		SIC 5:	NAICS 5:	
LONGITUDE:	87:56:23.0244		SIC 6:	NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy St
Willowbrook, IL 60527

CONTACT: Kevin Wagner
PHONE: 630-928-1771
FAX: 630-928-1701
E-MAIL: kwagner@sterigenics.com

A DIVISION OF RECORDS MANAGEMENT
RELEASABLE

EXT:

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

OCT 02 2013
REVIEWER JKS

CONTACT: Kevin Wagner
PHONE: 630-928-1771
FAX: 630-928-1701
E-MAIL:

EXT:

4/24/13

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman — 4/22/13
AUTHORIZED SIGNATURE — DATE

Kathleen Hoffman - SVP, EH&S — 630.928.1758
TYPED OR PRINTED NAME AND TITLE — TELEPHONE NUMBER

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2012 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2011 (TONS/YEAR)	IEPA 2012 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.58	2.678458	1.770000	2.678458
CO2	3051	3,826.368000	3,408.000000	3,826.368000
CO2E	3074	3,849.645072		3,849.645072
ETO	3.490000	9.596544	3.490000	4.224864
METHANE	0.07	0.073339	0.080000	0.073339
N2O	0.05	0.070150	0.060000	0.070150
NH3	0.05	0.102036	0.060000	0.102036
NOX	2.58	3.450720	2.880000	3.188640
PART	0.20	0.257712	0.219000	0.242337
PM10	0.20	0.242337	0.219000	0.242337
PM2.5	0.20	0.242337	0.219000	0.242337
PO	0.068	0.020092	0.068000	0.012364
SO2	0.008	0.030139	0.009000	0.019132
VOM	2.1	27.185952	2.350000	4.400239

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
12090024	CONSTRUCTION	WBI Boiler-1 Replacement			
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WEII-BOILER-1 and WEII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0005	0.0000	RATE/HR:	0.0005	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 10200603

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.42	.04	0.05
CO2	3	3		120000		600	63.19	67.31
CO2E	3			120730		603.65		1445
METHANE	3	3		2.3		.0115	.001	0.001
N2O	3	3		2.2		.011	.001	0.001
NH3	3	3		3.2		.016	.002	0.002
NOX	3	3		100		.5	.053	0.056
PART	3	3		7.6		.038	.004	0.004
PM10	3	3		7.6		.038	.004	0.004
PM2.5	3	3		7.6		.038	.004	0.004
SO2	3	3		.6		.003	.0003	0.0003
VOM	3	3		5.5		.0275	.003	0.003

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.053	.053	0.056
VOM	3	3	3			.003	.003	0.003

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0020	0.002	RATE/HR:	0.0020	0.002

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1 PERMIT: 95120085

BEGAN OPERATION: / _____ SCC: 10200603

CEASED OPERATION: / _____

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.12	0.10
CO2	3	3		120000		276	173.1	144.23
CO2E	3			120730		277.679		162.9
METHANE	3	3		2.3		.00529	.003	0.003
N2O	3	3		2.2		.00506	.003	0.003
NH3	3	3		3.2		.00736	.005	0.004
NOX	3	3		100		.23	.144	0.120
PART	3	3		7.6		.01748	.011	0.009
PM10	3	3		7.6		.01748	.011	0.009
PM2.5	3	3		7.6		.01748	.011	0.009
SO2	3	3		.6		.00138	.001	0.001
VOM	3	3		5.5		.01265	.008	0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.144	.144	0.120
VOM	3	3	3			.008	.008	0.007

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics US LLC

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 WBI

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	50.0000	47.48	END TIME:		
RATE/HR:	0.0250	0.0240	PWR (LB/HR):	50.0000	47.48
			RATE/HR:	0.0250	0.0240

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.08 0.02
VOM	2	2	2		.1	.08 0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.08	.08 0.02

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.0002	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.0002
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.004	.0002	0.0002
VOM	2	2	2			.004	.0002	0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.0002	.0002	0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100.0

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13.0
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.17	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0.17
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.03	.17 0.17
VOM	2	2	2			.03	.17 0.17

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			.17	.17 0.17

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100.00%.

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.5000	0.47	END TIME:		
RATE/HR:	0.0002	0.00024	PWR (LB/HR):	0.5000	0.47
			RATE/HR:	0.0002	0.00024

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.808	.48	0.47
VOM	2	2	2			.808	.48	0.47

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.48	.48	0.47

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,134	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.158	END TIME:		
RATE/HR:	0.0000	0.0001	PWR (LB/HR):	0.0000	0.158
			RATE/HR:	0.0000	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.025	.028	0.158
PO	2	2	N/A			.0023	0	N/A
VOM	2	2	2			.025	.028	0.158

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.028	.028	0.158

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.007	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.007
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2				.001	.006	0.007
PO	2	2	N/A				.0023	0	N/A
VOM	2	2	2				.001	.006	0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2					.006	.006	0.007

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%	1					99%
PO	99.000	N/A	1					N/A
VOM	99.000	99%	1					99%

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%		1		99%		1
PO	99.000	99%		1		99%		1
VOM	99.000	99%		1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100

043110AAC - Sterigenics US LLC

Sterigenics.

April 22, 2013

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
Post Office Box 19276
Springfield, Illinois 62794-9276

Subject: 2012 Annual Emission Report

Dear Air Quality Planning Section:

Here is the annual emissions report for the Sterigenics, Willowbrook, Illinois locations. This report is intended to satisfy the 2012 emissions report requirements for the facilities located at 7775 Quincy and 830 Midway Drive in Willowbrook, Illinois. Both locations are covered under Permit # 043110AAC.

Report Period:
January 1, 2012 to December 31, 2012

There is no significant change in emission trends since the last reporting period and the sites continue to operate within applicable limits.

Should you have any questions, please call me at: 630.928.1768.

Kind Regards,

Susan M. Reinhardt
Manager
Environment, Health and Safety

RECEIVED
STATE OF ILLINOIS
APR 24 2013
Environmental Protection Agency
BUREAU OF AIR

Copy:
Bob Novak – Willowbrook General Manager
Kathleen Hoffman – Senior Vice President – Global EHS
Sandra Haissig – Vice President of Operations

Enclosure: DAPC Annual Emissions Report

SMR:cmq

Sterigenics International LLC
2015 Spring Road, Suite 650 • Oak Brook, IL 60523
Tel 630.928.1700 • Fax 630.928.1701 • www.sterigenics.com

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2011

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213	IEPA USE ONLY	SIC 1:	7389		NAICS 1:	561499	
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:			NAICS 2:		
FEIN:	953323502		SIC 3:			NAICS 3:		
D&B:	144911518		SIC 4:			NAICS 4:		
LATITUDE:	41:44:52.7496		SIC 5:			NAICS 5:		
LONGITUDE:	87:55:23.0244		SIC 6:			NAICS 6:		

SOURCE ADDRESS

Sterigenics US LLC
7775 Quincy and 830 Midway
Willowbrook, IL 60527

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL: kwagner@sterigenics.com

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE
JUN 21 2012
REVIEWER JRM

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

04/16/12
DATE

Kathleen Hoffman - Sr. VP Global EH&S
TYPED OR PRINTED NAME AND TITLE

630. 928. 1758
TELEPHONE NUMBER

RECEIVED
APR 19 2012
BUREAU OF AIR
ILLINOIS EPA

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

07/04/2012 11:42PM A 170000075246 043110AAC STERIGENICS US LLC 10G 04/19/2012 AER2011 1,922,109
A000628 B:92172 F:50497 I:00000273 TOMREUTE 07/02/2012 TOMREUTE 07/02/2012

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2011 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2010 (TONS/YEAR)	IEPA 2011 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.77	2.678458	1.790000	2.678458
CO2	3408	3,826.368000	3,423.000000	3,826.368000
ETO	3.49	9.596544	3.220000	4.224864
METHANE	0.08	0.073339	0.060000	0.073339
N2O	0.06	0.070150	0.059000	0.070150
NH3	0.06	0.102036	0.069000	0.102036
NOX	2.88	3.450720	2.920000	3.188640
PART	0.219	0.257712	0.218000	0.242337
PM10	0.219	0.242337	0.218000	0.242337
PM2.5	0.219	0.242337	0.218000	0.242337
PO	0.068	0.020092	0.112000	0.012364
SO2	0.009	0.030139	0.011000	0.019132
VOM	2.35	27.185952	2.350000	4.400239

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
11050010	CONSTRUCTION	Chamber Install	GRANTED	08-04-2011	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0000	0.0000	RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 _____ SCC: 10200603

CEASED OPERATION: / _____

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.42	.05	0.04
CO2	3	3		120000		600	69.8	63.19
METHANE	3	3		2.3		.0115	.001	0.001
N2O	3	3		2.2		.011	.001	0.001
NH3	3	3		3.2		.016	.002	0.002
NOX	3	3		100		.5	.058	0.053
PART	3	3		7.6		.038	.004	0.004
PM10	3	3		7.6		.038	.004	0.004
PM2.5	3	3		7.6		.038	.004	0.004
SO2	3	3		.6		.003	.0003	0.0003
VOM	3	3		5.5		.0275	.003	0.003

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX		3	3				.058	0.053
VOM		3	3				.003	0.003

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0020	0.0020	RATE/HR:	0.0020	0.0020

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.12	0.12
CO2	3	3		120000		276	170	173.1
METHANE	3	3		2.3		.00529	.003	0.003
N2O	3	3		2.2		.00506	.003	0.003
NH3	3	3		3.2		.00736	.005	0.005
NOX	3	3		100		.23	.142	0.144
PART	3	3		7.6		.01748	.011	0.011
PM10	3	3		7.6		.01748	.011	0.011
PM2.5	3	3		7.6		.01748	.011	0.011
SO2	3	3		.6		.00138	.001	0.001
VOM	3	3		5.5		.01265	.008	0.008

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX		3	3				.142	0.144
VOM		3	3				.008	0.008

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	50.0000	50	END TIME:		
RATE/HR:	0.0250	0.0250	PWR (LB/HR):	50.0000	50
			RATE/HR:	0.0250	0.0250

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.07 0.08
VOM	2	2	2		.1	.07 0.08

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.07 0.08

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.0002	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.0002
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.004	.0002 0.0002
VOM	2	2	2		.004	.0002 0.0002

POLLUTANT CODE	METHCD IEPA	METHCD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.0002 0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13.0
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.17	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0.17
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.03	.16 0.17
VOM	2	2	2		.03	.16 0.17

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.16 0.17

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THRCUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.4000	0.48	END TIME:		
RATE/HR:	0.0002	0.00024	PWR (LB/HR):	0.4000	0.48
			RATE/HR:	0.0002	0.00024

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.808	.42 0.48
VOM	2	2	2		.808	.42 0.48

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.42 0.48

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.028	END TIME:		
RATE/HR:	0.0000	0.00001	PWR (LB/HR):	0.0000	0.028
			RATE/HR:	0.0000	0.00001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4 PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.025	.02 0.028
PO	2	2	N/A		.0023	0 N/A
VOM	2	2	2		.025	.02 0.028

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.02 0.028

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25

JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.0000	0.006	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.006
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1999 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2		.001	.006	0.006
PO	2	2	N/A		.0023	0	N/A
VOM	2	2	2		.001	.006	0.006

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM		2	2			.006	0.006

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	METHOD REPORTED
ETO	99.000	99%	1					99%
PO	99.000	N/A	1					N/A
VOM	99.000	99%	1					99%

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK C001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%		1		99%		1
PO	99.000	99%		1		99%		1
VOM	99.000	99%		1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100

Sterigenics.

April 17, 2012

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
Post Office Box 19276
Springfield, Illinois 62794-9276

Subject: Annual Emission Report

Dear Air Quality Planning Section:

Here is the annual emissions report for the Sterigenics, Willowbrook, Illinois locations. This report is intended to satisfy the 2011emissions report requirements for the facilities located at 7775 Quincy and 830 Midway Drive in Willowbrook, Illinois. Both locations are covered under Permit # 043110AAC.

Report Period:
January 1, 2011 to December 31, 2011

There is no significant change in emission trends since the last reporting period and the sites continue to operate within applicable limits.

Should you have any questions, please call me at: 630.928.1768.

Kind Regards,

Susan M. Reinhardt
Manager
Environment, Health and Safety

Copy:
Kathleen Hastings – Willowbrook General Manager
Kathleen Hoffman – Senior Vice President – Global EHS
Sandra Haissig – Director of EO Operations

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ILLINOIS EPA

Enclosure: DAPC Annual Emissions Report

SMR:cmq

Sterigenics International LLC
2015 Spring Road, Suite 650 • Oak Brook, IL 60523
Tel 630.928.1700 • Fax 630.928.1701 • www.sterigenics.com

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2010

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213	IEPA USE ONLY	SIC 1:	7389		NAICS 1:	561499
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:			NAICS 2:	
FEIN:	363326376		SIC 3:			NAICS 3:	
D&B:	144911518		SIC 4:			NAICS 4:	
LATITUDE:	41:44:52.6380		SIC 5:			NAICS 5:	
LONGITUDE:	87:56:22.8120		SIC 6:			NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC
7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC
2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

K A Hoffman — AUTHORIZED SIGNATURE

4/28/11 — DATE

RECEIVED
MAY 06 2011
Illinois Environmental Protection Agency
BUREAU OF AIR
STATE OF ILLINOIS

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Code 201.302(a, b) and 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/24-45.

11/23/2011 4:56AM A 17000075246 043110AAC STERIGENICS US LLC 10G 05/06/2011 AER2010 1,821,958
A000567 B:88891 F:50497 I:00000188 JASONJOH 11/09/2011 JASONJOH 11/09/2011

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2010 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2009 (TONS/YEAR)	IEPA 2010 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.79	2.678458	1.810000	2.678458
CO2	3423	3,826.368000	3,502.800000	3,826.368000
ETO	3.22	26.963184	2.800000	4.224864
METHANE	0.06	0.073339	0.065000	0.073339
N2O	0.059	0.070150	0.063000	0.070150
NH3	0.069	0.102036	0.073000	0.102036
NOX	2.92	3.450720	2.990000	3.188640
PART	0.218	0.257712	0.223000	0.242337
PM10	0.218	0.242337	0.223000	0.242337
PM2.5	0.218	0.242337	0.223000	0.242337
PO	0.112	0.020092	0.070000	0.012364
SO2	0.011	0.030139	0.011000	0.019132
VOM	2.35	27.185952	2.360000	4.400239

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1999
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0005	0.0000	RATE/HR:	0.0005	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.42	.05	0.05
CO2	3	3		120000		600	68	69.8
METHANE	3	3		2.3		.0115	.001	0.001
N2O	3	3		2.2		.011	.001	0.001
NH3	3	3		3.2		.016	.002	0.002
NOX	3	3		100		.5	.05	0.058
PART	3	3		7.6		.038	.004	0.004
PM10	3	3		7.6		.038	.004	0.004
PM2.5	3	3		7.6		.038	.004	0.004
SO2	3	3		.6		.003	.0003	0.0003
VOM	3	3		5.5		.0275	.003	0.003

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.05	.05	0.058
VOM	3	3	3			.003	.003	0.003

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0020	0.002	RATE/HR:	0.0020	0.002

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.13	0.12
CO2	3	3		120000		276	189	170
METHANE	3	3		2.3		.00529	.004	0.003
N2O	3	3		2.2		.00506	.003	0.003
NH3	3	3		3.2		.00736	.005	0.005
NOX	3	3		100		.23	.158	0.142
PART	3	3		7.6		.01748	.012	0.011
PM10	3	3		7.6		.01748	.012	0.011
PM2.5	3	3		7.6		.01748	.012	0.011
SO2	3	3		.6		.00138	.001	0.001
VOM	3	3		5.5		.01265	.009	0.008

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.158	.158	0.142
VOM	3	3	3			.009	.009	0.008

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

SCC: 10200603

MODE 01 -

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	50.0000	50.0	END TIME:		
RATE/HR:	0.0250	0.0250	PWR (LB/HR):	50.0000	50.0
			RATE/HR:	0.0250	0.0250

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.09 0.07
VOM	2	2	2		.1	.09 0.07

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.09	.09 0.07

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.0002	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.0002
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.004	.0002 0.0002
VOM	2	2	2		.004	.0002 0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.0002	.0002 0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

BEGAN OPERATION: / 1984

CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.1000	0.16	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.16
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.03	.11 0.16
VOM	2	2	2		.03	.11 0.16

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.11	.11 0.16

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.4000	0.42	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.42
			RATE/HR:	0.0002	0.0002

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2		.808	.42	0.42
VOM	2	2	2		.808	.42	0.42

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2		.42	.42	0.42

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.02	END TIME:		
RATE/HR:	0.0000	0.00001	PWR (LB/HR):	0.0000	0.002
			RATE/HR:	0.0000	0.00001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.025	.02	0.02
PO	2	2	N/A			.0023	0	N/A
VOM	2	2	2			.025	.02	0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2			.02	.02	0.02

CAPTURING CONTROLS:

CONTROL 0002 - CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.006	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.006
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.0042 0.006
PO	2	2	N/A		.0023	0 N/A
VOM	2	2	2		.001	.0042 0.006

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.0042	.0042 0.006

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%	1			99%		1
PO	99.000	N/A	1			N/A		-
VOM	99.000	99%	1			99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000			99%				1
PO	99.000			99%				1
VOM	99.000			99%				1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100

Sterigenics.

April 28, 2011

RECEIVED

MAY 06 2011

Illinois Environmental Protection Agency
BUREAU OF AIR
STATE OF ILLINOIS

Illinois Environmental Protection Agency
Bureau of Air Quality Planning Section (#39)
1021 North Grand Avenue East
PO Box 19276
Springfield, IL 62794-9276

Attn: 2010 Annual Emission Report

Re: 2010 Annual Emission Report for Sterigenics U.S., LLC. Willowbrook, IL. Facilities ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2010.

Please contact me if you have any questions with regard to this submission. I can be reached at 630-928-1771.

Sincerely,

Kevin Wagner
Director, Environmental Health & Safety

Enclosure: Annual Emission Report

cc: Sandra Haissig – Willowbrook General Manager
Kathleen Hoffman – Vice-President RA/QA
Don Currie-Vice-President Operations

Sterigenics International, Inc.
2015 Spring Road, Suite 650 ▫ Oak Brook, IL 60523
Tel 630.928.1700 ▫ Fax 630.928.1701 ▫ www.sterigenics.com

Report: APCA0530 Illinois Environmental Protection Agency Page: 1
Division of Air Pollution Control Date: 11-20-2009
DAPC - ANNUAL EMISSIONS REPORT - 2009

05/10/2016 2:40PM A 170000075246 043110AAC STERIGENICS US LLC 10G 05/03/2010 AER2009 1,647,237
A000279 B:82506 F:50497 I:00000080 EPA2466 08/30/2010 EPA2466 09/30/2010 A16-00107

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213	IEPA USE ONLY	SIC 1:	7389	NAICS 1:	561499	
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:		
FEIN:	363326376		SIC 3:		NAICS 3:		
D&B:	144911518		SIC 4:		NAICS 4:		
LATITUDE:	41:44:52.6380		SIC 5:		NAICS 5:		
LONGITUDE:	87:56:22.8120		SIC 6:		NAICS 6:		

SOURCE ADDRESS

Sterigenics US LLC

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
EMAIL:

RECEIVED
MAY 03 2010
BUREAU OF AIR
ILLINOIS EPA

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics US LLC

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman — 4/30/10
AUTHORIZED SIGNATURE — DATE

Kathleen Hoffman - VP RA/QA — 630.928.1758
TYPED OR PRINTED NAME AND TITLE — TELEPHONE NUMBER

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2009 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2008 (TONS/YEAR)	IEPA 2009 ESTIMATED EMISSIONS (TONS/YEAR)
CO	1.81	2.678458	2.000000	2.678458
CO2	3502.4	3,826.368000	3,860.220000	3,826.368000
ETO	2.8	26.963184	3.540000	4.224864
METHANE	0.065	0.073339	0.072000	0.073339
N2O	0.063	0.070150	0.069000	0.070150
NH3	0.073	0.102036	0.080000	0.102036
NOX	2.99	3.450720	3.300000	3.188640
PART	0.223	0.257712	0.246000	0.242337
PM10	0.223	0.242337	0.246000	0.242337
PM2.5	0.223	0.242337	0.246000	0.242337
PO	0.07	0.020092	0.032000	0.012364
SO2	0.011	0.030139	0.010000	0.019132
VOM	2.36	27.185952	2.600000	4.400239

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
09020021	CONSTRUCTION	Alternative Mode of Emission Control for Aeration	GRANTED	04-20-2009	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0005	0.0000	RATE/HR:	0.0005	0.0000

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: / 1999 _____ SCC: 10200603

CEASED OPERATION: / _____

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.42	.04	0.05
CO2	3	3		120000		600	62	68.0
METHANE	3	3		2.3		.0115	.001	0.001
N2O	3	3		2.2		.011	.001	0.001
NH3	3	3		3.2		.016	.001	0.002
NOX	3	3		100		.5	.05	0.05
PART	3	3		7.6		.038	.004	0.004
PM10	3	3		7.6		.038	.004	0.004
PM2.5	3	3		7.6		.038	.004	0.004
SO2	3	3		.6		.003	.0003	0.0003
VOM	3	3		5.5		.0275	.0003	0.003

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX		3					.05	0.05
VOM		3					.0025	0.003

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Storigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0020	0.002	RATE/HR:	0.0020	0.002

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.14	0.13
CO2	3	3		120000		276	199	189.0
METHANE	3	3		2.3		.00529	.004	0.004
N2O	3	3		2.2		.00506	.004	0.003
NH3	3	3		3.2		.00736	.005	0.005
NOX	3	3		100		.23	.166	0.158
PART	3	3		7.6		.01748	.13	0.012
PM10	3	3		7.6		.01748	.13	0.012
PM2.5	3	3		7.6		.01748	.13	0.012
SO2	3	3		.6		.00138	.001	0.001
VOM	3	3		5.5		.01265	.009	0.009

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX		3	3				.166	0.158
VOM		3	3				.009	0.009

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1 PERMIT: 95120085

BEGAN OPERATION: / _____ SCC: 10200603

CEASED OPERATION: / _____

MODE 01 -

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS:

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DEC - FEB:	25.00	% 25	MAR - MAY:	25.00	% 25
JUN - AUG:	25.00	% 25	SEP - NOV:	25.00	% 25

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52
HOURS/YEAR:	6,736	8,736
PWR (LB/HR):	50.0000	50
RATE/HR:	0.0250	0.0250

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	50.0000	50
RATE/HR:	0.0250	0.0250

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.08 0.09
VOM	2	2	2		.1	.08 0.09

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.08 0.09

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00 %

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS:

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

DEC - FEB:	25.00	% 25	MAR - MAY:	25.00	% 25
JUN - AUG:	25.00	% 25	SEP - NOV:	25.00	% 25

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8,736
PWR (LB/HR):	0.0000	0.0002
RATE/HR:	0.0000	0.0000

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	0.0000	0.0002
RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.004	.0002 0.0002
VOM	2	2	2		.004	.0002 0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.0002 0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.1000	0.11	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.11
			RATE/HR:	0.0001	0.0001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.03	.13 0.11
VOM	2	2	2		.03	.13 0.11

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.13 0.11

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS:

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DEC - FEB:	25.00 %	25	MAR - MAY:	25.00 %	25
JUN - AUG:	25.00 %	25	SEP - NOV:	25.00 %	25

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.5000	0.42	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.5000	0.42
			RATE/HR:	0.0002	0.0002

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.808	.46 0.42
VOM	2	2	2		.808	.46 0.42

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.46 0.42

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.1000	0.02	END TIME:		
RATE/HR:	0.0001	0.00001	PWR (LB/HR):	0.1000	0.02
			RATE/HR:	0.0001	0.00001

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.025	.127 0.02
PO	2	2	N/A		.0023	0
VOM	2	2	2		.025	.127 0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.127 0.02

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.-%

CAPTURING STACKS:

043110AAC - Storigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.0042	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.0042
			RATE/HR:	0.0000	0.0000

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / _____

SCC: 31502001

CEASED OPERATION: / _____

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.005 0.0042
PO	2	2	n/a		.0023	0 -
VOM	2	2	2		.001	.005 0.0042

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.005 0.0042

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.0 %

CAPTURING STACKS:

043110AAC - Storigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%	1			99%		
PO	99.000	N/A	1			N/A		
VOM	99.000	99%	1			99%		

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100. - %

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 141

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000			99%				1
PO	99.000			99%				1
VOM	99.000			99%				1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100.00%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK	DIAMETER (FT)	HEIGHT (FT)	FLOW RATE (ACFM)	TEMPERATURE (F)
0001 - Deoxx stack	0.75	40	200	95
0006 - Acid-water scrubber	3.00	33	15500	69
0014 - 2 Boilers (Willowbrook II)	2.70	50	8859	341
0015 - Boiler 1	2.70	5	3300	430
0016 - Sterilizer SV-4	1.22	41	1080	100
0017 - Sterilizers SV-1, 2, 3 and 5	1.22	41	1080	100

Sterigenics.

April 30, 2010

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
1021 North Grand Avenue East
PO Box 19276
Springfield, IL 62794-9276

Attn: 2009 Annual Emission Report

Re: 2009 Annual Emission Report for Sterigenics U.S., LLC. Willowbrook, IL. Facilities ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2009.

Please contact me if you have any questions with regard to this submission. I can be reached at 630-928-1771.

Sincerely,

Kevin Wagner
Director, Environmental Health & Safety

RECEIVED
MAY 03 2010
BUREAU OF AIR
ILLINOIS EPA

Enclosure: Annual Emission Report

cc: Sandra Haissig – Willowbrook General Manager
Kathleen Hoffman – Vice-President RA/QA
Don Currie-Vice-President Operations

Sterigenics International, Inc.
2015 Spring Road, Suite 650 • Oakbrook, IL 60523
Tel 800.472.4508 • Fax 630.928.1701 • www.sterigenics.com

Report: APCA0531

Illinois Environmental Protection Agency
Division of Air Pollution Control

Page: 01
Date: 11-17-2008

DAPC - ANNUAL EMISSIONS REPORT - 2008

043110AAC - Sterigenics US LLC

- SOURCE DATA -

AIRS:	17-043-0213	IEPA USE ONLY	SIC 1:	7389		NAICS 1:	561499
FINDS:	ILD984803320	IEPA USE ONLY	SIC 2:			NAICS 2:	
FEIN:	363326376		SIC 3:			NAICS 3:	
D&B:	144911518		SIC 4:			NAICS 4:	
LATITUDE:	41:44:52.6380		SIC 5:			NAICS 5:	
LONGITUDE:	87:56:22.8120		SIC 6:			NAICS 6:	

SOURCE LINE AND LOCATION

Sterigenics US LLC

7775 S Quincy St
Willowbrook, IL 60521
CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-Mail:

SOURCE ADDRESS

RECEIVED
APR 27 2009
ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR
STATE OF ILLINOIS

Sterigenics US LLC

2015 Spring Rd
Oak Brook, IL 60523
CONTACT: Kevin Wagner
PHONE: 630-928-1771 EXT:
FAX: 630-928-1701
E-MAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/23/09
DATE

Kathleen Hoffman
TYPED OR PRINTED NAME AND TITLE

630.928.1758
TELEPHONE NUMBER

10/02/2018 3:17PM A 170000075246 043110AAC STERIGENICS US LLC 04/27/2009 AER2008 1,566,939
A000166 B:79817 F:50497 I:00000020 EPA4468 04/22/2010 EPA2468 04/06/2010 A16-00011 10G

DAPC - ANNUAL EMISSIONS REPORT - 2008

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	SOURCES REPORTED EMISSIONS FOR 2008 (TONS/YEAR)	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2007 (TONS/YEAR)	IEPA 2008 ESTIMATED EMISSIONS (TONS/YEAR)
CO	2.00	2.678458	2.100000	2.678458
CO2	3860.22	3,826.368000	3,914.378000	3,826.368000
ETO	3.54	26:963184	3.670000	4.224864
METHANE	0.072	0.073339	0.073000	0.073339
N2O	0.069	0.070150	0.070000	0.070150
NH3	0.080	0.102036	0.081800	0.102036
NOX	3.30	3.450720	3.376000	3.188640
PART	0.246	0.257712	0.247900	0.242337
PM10	0.246	0.242337	0.247900	0.242337
PM2.5	0.246	0.242337	0.247900	0.242337
PO	0.032	0.020092	0.036000	0.012364
SO2	0.010	0.030139	0.015000	0.019132
VOM	2.60	27.185952	2.600000	4.400239

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
			END TIME:		
RATE/HR:	0.0005	0.0000	RATE/HR:	0.0005	0.0000
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84	84		.42	.04	0.04
CO2	3	3		120000			600	55	62
METHANE	3	3		2.3			.0115	.001	0.001
N2O	3	3		2.2			.011	.001	0.001
NH3	3	3		3.2	3.2		.016	.002	0.001
NOX	3	3		100	100		.5	.05	0.05
PART	3	3		7.6	7.6		.038	.004	0.004
PM10	3	3		7.6	7.6		.038	.004	0.004
PM2.5	3	3		7.6	7.6		.038	.004	0.004
SO2	3	3		.6	7.6		.003	.0003	0.0003
VOM	3	3		5.5	5.5		.0275	.0025	0.0003

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3					.05	.05	0.05
VOM	3	3					.0025	.0025	0.0025

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

BEGAN OPERATION: / 1985

CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0017	0.002	RATE/HR:	0.0017	0.002
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1 PERMIT: 95120085

BEGAN OPERATION: / SCC: 10200603

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84		.1932	.144	0.140
CO2	3	3		120000		276	2.06	199
METHANE	3	3		2.3		.00529	.004	0.004
N2O	3	3		2.2		.00506	.004	0.004
NH3	3	3		3.2		.00736	.005	0.005
NOX	3	3		100		.23	.172	0.166
PART	3	3		7.6		.01748	.013	0.130
PM10	3	3		7.6		.01748	.013	0.130
PM2.5	3	3		7.6		.01748	.013	0.130
SO2	3	3		.6		.00138	.001	0.001
VOM	3	3		5.5		.01265	.01	0.009

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3			.172	.172	0.166
VOM	3	3	3			.01	.01	0.009

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8,736
PWR (LB/HR):	50.0000	50 LB/HR
RATE/HR:	0.0250	0.0250
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	50.0000	50 LB/HR
RATE/HR:	0.0250	0.0250
CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.08 0.08
VOM	2	2	2		.1	.08 0.08

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.08	.08 0.08

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.0002	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.0002
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.0000
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1997 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2		.004	.0002	.0002
VOM	2	2	2		.004	.0002	.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2	2		.0002	.0002	.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4

PERMIT: 95120085

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION: STERILIZER SV-4 BACKVENT

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.1000	0.13 LB/HR	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.13
CONFIDENTIAL:	Y		RATE/HR:	0.0001	0.0001
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4 PERMIT: 95120085

BEGAN OPERATION: / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.03	.14 0.13
VOM	2	2	2		.03	.14 0.13

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.14	.14 0.13

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION: STERILIZERS SV-1, 2, 3 and 5 Backvents

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.4000	0.46 LB/HR	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.46
CONFIDENTIAL:	Y		RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.808	.48 0.46
VOM	2	2	2		.808	.48 0.46

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.48	.48 0.46

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.1000	0.127	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.1000	0.127
CONFIDENTIAL:	Y		RATE/HR:	0.0001	0.0001
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.025	.133 0.127
PO	2	2			.0023	0 0
VOM	2	2	2		.025	.133 0.127

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.133	.133 0.127

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.005	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.005
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.0000
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.006 0.005
PO	2	2	N/A		.0023	0 0
VOM	2	2	2		.001	.006 0.005

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.006	.006 0.005

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99%	1			99%		
PO	99.000	N/A	1			N/A		
VOM	99.000	99%	1			99%		

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA -

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION: WBI AAT ACID WATER SCRUBBER

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000			99.0				1
PO	99.000			99.0				1
VOM	99.000			99.0				1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0001 - Deoxx stack

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75		
HEIGHT (FT):		40		
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	
TEMPERATURE (F):	IEPA -	95	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0006 - Acid-water scrubber

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

DESCRIPTION CORRECTION: WBI AAT ACID WATER SCRUBBER

DIAMETER (FT):		3.00		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	
TEMPERATURE (F):	IEPA -	69	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0014 - 2 Boilers (Willowbrook II)

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0015 - Boiler 1

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION: WBI Boiler

DIAMETER (FT):		2.70		
HEIGHT (FT):		5		
FLOW RATE (ACFM):	IEPA -	3300	REPORTED -	
TEMPERATURE (F):	IEPA -	430	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0016 - Sterilizer SV-4

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		1.22		
HEIGHT (FT):		41		
FLOW RATE (ACFM):	IEPA -	1080	REPORTED -	
TEMPERATURE (F):	IEPA -	100	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0017 - Sterilizers SV-1, 2, 3 and 5

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		1.22		
HEIGHT (FT):		41		
FLOW RATE (ACFM):	IEPA -	1080	REPORTED -	
TEMPERATURE (F):	IEPA -	100	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

Sterigenics.

April 24, 2009

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (#39)
PO Box 19276
Springfield, IL 62794-9276

Attn: Annual Emission Report

Re: 2008 Annual Emission Report for Sterigenics U.S., LLC. Willowbrook, IL. Facilities ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2008. Any changes or additions have been made in blue ink.

Please contact me if you have any questions with regard to this submission. I can be reached at 630-928-1771.

Sincerely,

Kevin Wagner
Director, Environmental Health & Safety

Enclosure: Annual Emission Report

cc: Sandra Haissig – Willowbrook General Manager
Kathleen Hoffman – Vice-President RA/QA
Don Currie-Vice-President Operations

Sterigenics International, Inc.
2015 Spring Road, Suite 650 • Oakbrook, IL 60523
Tel 800.472.4508 • Fax 630.928.1701 • www.sterigenics.com

Report: APCA0530 Illinois Environmental Protection Agency Page: 01
Division of Air Pollution Control Date: 12-12-2007
DAPC - ANNUAL EMISSIONS REPORT - 2007

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: ~~561499~~	339999
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 363326376		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.6380		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:22.8120		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: ~~Stephen Morris~~ KEVIN WAGNER
PHONE: 630-928-~~1724~~ 1771 EXT:
FAX: 630-928-1701
EMAIL:

RECEIVED
MAY 01 2008
IEPA - BUREAU OF AIR
STATE OF ILLINOIS

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics ~~UC~~ US LLC

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: ~~Stephen Morris~~ KEVIN WAGNER
PHONE: 630-928-~~1724~~ 1771 EXT:
FAX: 630-928-1701
E-MAIL:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/30/08
DATE

Kathleen Hoffman
TYPED OR PRINTED NAME AND TITLE

630-928-1758
TELEPHONE NUMBER

10/02/2018 3:18PM A 170000075246 043110AAC STERIGENICS US LLC 05/01/2008 AER2007 1,318,909
A000037 B:72451 F:50497 I:00000034 PA2266 01/08/2009 EPA2466 03/16/2009 A16-00025 10G

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2006 (TONS/YEAR)	IEPA 2007 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2007 (TONS/YEAR)
CO	2.678458	2.050000	2.678458	2.10
CO2	3,826.368000		3,826.368000	3,914.378
ETO	26.963184	2.380000	4.224864	3.67
METHANE	0.073339		0.073339	0.073
N2O	0.070150		0.070150	0.070
NH3	0.102036	0.080000	0.102036	0.0818
NOX	3.450720	3.300000	3.188640	3.3760
PART	0.257712	0.185000	0.242337	0.2479
PM10	0.242337	0.185000	0.242337	0.2479
PM2.5	0.242337	0.185000	0.242337	0.2479
PO	0.020092	0.030000	0.012364	0.036
SO2	0.030139	0.015000	0.019132	0.015
VOM	27.185952	2.540000	4.400239	2.60

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-26-2006	12-26-2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0050	0.0000	RATE/HR:	0.0050	0.0000
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2) PERMIT: 95120085

BEGAN OPERATION: / 1999 SCC: 10200603

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		84	84		.42	.32	0.04
CO2	3			120000			600		55
METHANE	3			2.3			.0115		0.001
N2O	3			2.2			.011		0.001
NH3	3	3		3.2	3.2		.016	.036	0.002
NOX	3	3		100	100		.5	.5	0.05
PART	3	3		7.6	7.6		.038	.028	0.004
PM10	3	3		7.6	7.6		.038	.028	0.004
PM2.5	3	3		7.6	7.6		.038	0	0.004
SO2	3	3		.6	7.6		.003	.028	0.0003
VOM	3	3		5.5	5.5		.0275	.02	0.0025

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3		100	100		.5	.5	0.05
VOM	3	3		5.5	5.5		.02	.02	0.0025

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 Boilers (WBII-BOILER-1 and WBII-BOILER-2)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: / 1985
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: % 25 MAR - MAY: % 25
JUN - AUG: % 25 SEP - NOV: % 25

BEGAN OPERATION: / 1985
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
		START TIME:	
		END TIME:	
RATE/HR:	0.002	RATE/HR:	0.002
CONFIDENTIAL:		CONFIDENTIAL:	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
CO	3	3	84		.1932	0.144
CO2	3	3	120000		276	206
METHANE	3	3	2.3		.00529	0.004
N2O	3	3	2.2		.00506	0.004
NH3	3	3	3.2		.00736	0.005
NOX	3	3	100		.23	0.172
PART	3	3	7.6		.01748	0.013
PM10	3	3	7.6		.01748	0.013
PM2.5	3	3	7.6		.01748	0.013
SO2	3	3	.6		.00138	0.001
VOM	3	3	5.5		.01265	0.010

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
NOX	3	3	100		.23	0.172
VOM	3	3	5.5		.01265	0.010

CAPTURING CONTROLS: boiler 1 stack

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0011 - Boiler 1 PERMIT: 95120085

BEGAN OPERATION: / _____ SCC: 10200603

CEASED OPERATION: / _____

MODE 01 -

CAPTURING STACKS:

STACK 0015 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	104.0000	50#/hr	END TIME:		
RATE/HR:	0.0520	0.025	PWR (LB/HR):	104.0000	50#/hr
CONFIDENTIAL:	Y		RATE/HR:	0.0520	0.025
			CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - Sterilization chambers SC-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.08 0.08
VOM	2	2	2		.1	.08 0.08

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.08	.08 0.08

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1997 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8736
PWR (LB/HR):	0.4000	0.0002
RATE/HR:	0.0002	0.0000001
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	0.4000	0.0002
RATE/HR:	0.0002	0.0000001
CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - 3 Aeration Rooms (AR) PERMIT: 95120085

BEGAN OPERATION: 07 / 1997 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.004	.0002 0.0002
VOM	2	2	2		.004	.0002 0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.0002	.0002 0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4 PERMIT: 95120085

BEGAN OPERATION: / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION: STERILIZER SV-4 BACKVENT

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8736
PWR (LB/HR):	0.0000	0.14
RATE/HR:	0.0000	0.0001
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	0.0000	0.14
RATE/HR:	0.0000	0.0001
CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - Sterilizer SV-4 PERMIT: 95120085

BEGAN OPERATION: / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.03	.085 0.14
VOM	2	2	2		.03	.085 0.14

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.085	.085 0.14

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0016 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION: STERILIZERS SV-1, 2, 3 and 5 BACKVENTS

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.2000	0.48	END TIME:		
RATE/HR:	0.0001	0.0002	PWR (LB/HR):	0.2000	0.48
CONFIDENTIAL:	Y		RATE/HR:	0.0001	0.0002
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - Sterilizers SV-1, 2, 3 and 5 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.808	.22 0.48
VOM	2	2			.808	.22 0.48

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.22	.22 0.48

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0017 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,726	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.1000	0.133	END TIME:		
RATE/HR:	0.0000	0.0001	PWR (LB/HR):	0.1000	0.133
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.0001
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - Sterilizer SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.025	.025 0.133
PO	2				.0023	0
VOM	2	2	2		.025	.025 0.133

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.025	.025 0.133

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1999
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.006	END TIME:		
RATE/HR:	0.0000	0.0000	PWR (LB/HR):	0.0000	0.006
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.0000
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 Aeration rooms (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.007 0.006
PO	2	2	N/A		.0023	0 0
VOM	2	2	2		.001	.007 0.006

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.007	.007 0.006

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA

CONTROL 0002 - WB II Acid-Water Scrubber

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000	99%	1	1			99%			
PO	99.000		N/A	1				N/A			
VOM	99.000	99.000	99%	1	1			99%			

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA

CONTROL 0005 - Acid-water scrubber

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION: WDI AAT Acid Water Scrubber

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.000		99.0				1
PO	99.000	99.000		99.0				1
VOM	99.000	99.000		99.0				1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0001 - Deoxx stack

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75		
HEIGHT (FT):		40		
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200
TEMPERATURE (F):	IEPA -	95	REPORTED -	95
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0006 - Acid-water scrubber

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION: WBI AAT Acid water Scrubber

DIAMETER (FT):		3.00		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500
TEMPERATURE (F):	IEPA -	69	REPORTED -	69
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0014 - 2 Boilers (Willowbrook II)

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70			
HEIGHT (FT):		50			
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	8859	
TEMPERATURE (F):	IEPA -	341	REPORTED -	341	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0015 - Boiler 1

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION: WBI Boiler

DIAMETER (FT):		2.70		
HEIGHT (FT):		5		
FLOW RATE (ACFM):	IEPA -	3300	REPORTED -	
TEMPERATURE (F):	IEPA -	430	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0016 - Sterilizer SV-4

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		1.22		
HEIGHT (FT):		41		
FLOW RATE (ACFM):	IEPA -	1080	REPORTED -	
TEMPERATURE (F):	IEPA -	100	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0017 - Sterilizers SV-1, 2, 3 and 5

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		1.22		
HEIGHT (FT):		41		
FLOW RATE (ACFM):	IEPA -	1080	REPORTED -	
TEMPERATURE (F):	IEPA -	100	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

Sterigenics.

April 28, 2008

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
Attn: Annual Emission Report
1021 North Grand Avenue East
Springfield, IL. 62702

RECEIVED
MAY 0 1 2008
IEPA - BUREAU OF AIR
STATE OF ILLINOIS

Re: 2007 Annual Emission Report for Sterigenics U.S, LLC. Willowbrook, IL. Facilities-ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2007. Any changes or additions have been made in black ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission. I can be reached at 630-928-1724.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Kathleen Hoffman, VP-RA/QA
Kevin Wagner, Director EH&S
Sandra Haissig, General Manager-Willowbrook

Sterigenics International, Inc.
2015 Spring Road, Suite 650 ▫ Oak Brook, IL 60523
Tel 630.928.1700 ▫ Fax 630.928.1701 ▫ www.sterigenics.com

DAPC - ANNUAL EMISSIONS REPORT - 2006

043110AAC - Sterigenics US LLC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561499	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 363326376		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.6380		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:22.8120		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics US LLC

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
EMAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics UC LLC

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
E-MAIL:

RECEIVED
APR 27 2007
ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR
STATE OF ILLINOIS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/26/07
DATE

Kathleen Hoffman - Vice President, RA/QA
TYPED OR PRINTED NAME AND TITLE

630-928-1758
TELEPHONE NUMBER

10/02/2018 3:18PM A 170000075246 043110AAC STERIGENICS US LLC 04/27/2007 AER2006 1,375,518
A000075 B:74239 F:50497 I:00000042 EPA2466 02/04/2009 EPA2466 05/04/2009 A16-00052 10G

043110AAC - Sterigenics US LLC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2005 (TONS/YEAR)	IEPA 2006 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2006 (TONS/YEAR)
CO	0.724651	2.370000	0.724651	2.05
ETO	25.920149	2.900000	12.407264	2.38
NH3	0.110423	0.090000	0.110423	0.08
NOX	3.450720	3.000000	3.450720	3.3
PART	0.257712	0.220000	0.257712	0.185
PM10	0.257712	0.220000	0.257712	0.185
PM2.5	0.257712	0.220000	0.257712	0.185
PO	0.020092	0.060000	0.000538	0.03
SO2	0.030139	0.020000	0.020704	0.015
VOM	26.299728	2.990000	12.597054	2.54

043110AAC - Sterigenics US LLC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT	GRANTED	02-09-2006	
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	~~07-14-2004~~ 12/26/2006	~~10-10-2005~~ 12/26/2011

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1985
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0050	0.0050	RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	84	84	.0525	.39	0.16
NH3	3	3	3	3.2	3.2	3.2	.008	.015	0.018
NOX	3	3	3	100	100	100	.25	.5	0.25
PART	3	3	3		7.6	7.6	.018	.04	0.014
PM10	3	3	3		7.6	7.6	.018	.04	0.014
PM2.5	3						.018		
SO2	3	3	3	.6	.6	0.6	.0015	.002	0.014
VOM	3	3	3	5.5	5.5	5.5	.01375	.026	0.010

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3	100	100	100	.5	.5	0.25
VOM	3	3	3	5.5	5.5	5.5	.026	.026	0.010

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0010 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
			END TIME:		
RATE/HR:	0.0050	0.0050	RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics US LLC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	84	84	.1134	.15	0.32
NH3	3	3	3	3.2	3.2	3.2	.01728	.006	0.036
NOX	3	3	3	100	100	100	.54	.19	0.50
PART	3	3	3		7.6	7.6	.041	.014	0.028
PM10	3	3	3		7.6	7.6	.041	.014	0.028
PM2.5	3						.041		
SO2	3	3	3	.6	7.6	7.6	.00324	.014	0.028
VOM	3	3	3	5.5	5.5	5.5	.0297	.01	0.020

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3	3	3	100	100	100	.19	.19	0.50
VOM	3	3	3	5.5	5.5	5.5	.01	.01	0.02

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	104.0000	104.0	END TIME:		
RATE/HR:	0.0520	0.052	PWR (LB/HR):	104.0000	104.0
CONFIDENTIAL:	Y		RATE/HR:	0.0520	0.052
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.1	.1 0.08
VOM	2	2			.1	.1 0.08

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.1	.1 0.08

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			2	.004 0.0002
VOM	2	2			2	.004 0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.004	.004 0.0002

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.4000	0.4	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.40
CONFIDENTIAL:	Y		RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 95120085

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52.0	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.085	END TIME:		
RATE/HR:	0.0000	0.00004	PWR (LB/HR):	0.0000	0.085
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.00004
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4 PERMIT: 95120085

BEGAN OPERATION: / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.24	.0003 0.085
VOM	2	2	2		.24	.0003 0.085

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0003	.0003 0.085

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	1.0000	0.22	END TIME:		
RATE/HR:	0.0005	0.0001	PWR (LB/HR):	1.0000	0.22
CONFIDENTIAL:	Y		RATE/HR:	0.0005	0.0001
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.5	1 0.22
VOM	2	2			.5	1 0.22

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			1	1 0.22

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,726	8736
PWR (LB/HR):	25.0000	0.16
RATE/HR:	0.0120	0.00008
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/SEASON:	13	52
HOURS/SEASON:	2,184	2184
START TIME:		
END TIME:		
PWR (LB/HR):	25.0000	0.16
RATE/HR:	0.0120	0.00008
CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4 PERMIT: 95120085

BEGAN OPERATION: 12 / 1997 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.00026	.025 0.025
PO	2	2			.0001	0 0
VOM	2	2			.00026	.025 0.025

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.025	.025 0.025

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.0000	0.007	END TIME:		
RATE/HR:	0.0000	0.000003	PWR (LB/HR):	0.0000	0.007
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.000003
			CONFIDENTIAL:	Y	

043110AAC - Sterigenics US LLC

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	_____	_____	.001	.001 0.007
PO	2	2	_____	_____	.0001	0 0
VOM	2	2	_____	_____	.001	.001 0.007

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	_____	_____	.001	.001 0.007

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA

CONTROL 0002 - WB II ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED		PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000		1	1	1						
PO	99.000			1								
VOM	99.000	99.000		1	1	1	99.000	99.0%		1	1	

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:
WBI AAT Acid-water scrubber

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.000		1		99.9		1
PO	99.000	99.000		1		99.9		1
VOM	99.000	99.000		1	99.000	99.9	1	1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75			
HEIGHT (FT):		40			
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200	
TEMPERATURE (F):	IEPA -	95	REPORTED -	95	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0010 - WB1 BOILER

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		
WHERE MEASURED :	Center Of Facility			

043110AAC - Sterigenics US LLC

- STACK DATA -

STACK 0014 - CREATED STACK

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

DESCRIPTION CORRECTION: AAT Acid Water Scrubber

DIAMETER (FT):		2.70	_____
HEIGHT (FT):		50	_____
FLOW RATE (ACFM):	IEPA -	8859	REPORTED - _____
TEMPERATURE (F):	IEPA -	341	REPORTED - _____
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380	_____
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120	_____
DATUM :		NAD27	_____
SCALE :		24000	_____
METHOD:		018	_____
ACCURACY :		20	_____

WHERE MEASURED : Center Of Facility

Sterigenics.

RECEIVED

APR 2 7 2007

ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR
STATE OF ILLINOIS

April 26, 2007

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
Attn: Annual Emission Report
1021 North Grand Avenue East
Springfield, IL. 62702

Re: 2006 Annual Emission Report for Sterigenics U.S, LLC. Willowbrook, IL. Facilities-ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2006. Any changes or additions have been made in black ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-RA/QA
Ms. Sandra Haissig, General Manager-Willowbrook

Sterigenics International, Inc.
2015 Spring Road, Suite 650 ▫ Oak Brook, IL 60523
Tel 630.928.1700 ▫ Fax 630.928.1701 ▫ www.sterigenics.com

DAPC - ANNUAL EMISSIONS REPORT - 2005

043110AAC - Sterigenics EO, Inc.

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561499	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 363326376		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.6380		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:22.8120		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics ~~EO, Inc.~~ U.S., LLC.

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
EMAIL:

RECEIVED
MAY 01 2006
Environmental Protection Agency
Bureau of Air
STATE OF ILLINOIS

ANNUAL EMISSION REPORT MAILING ADDRESS

Sterigenics ~~International, Inc~~ U.S, LLC

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
E-MAIL:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/28/06
DATE

Kathleen Hoffman
TYPED OR PRINTED NAME AND TITLE

630-928-1758
TELEPHONE NUMBER

10/02/2018 3:18PM A 170000075246 043110AAC STERIGENICS US LLC 05/01/2006 AER2005 1,422,787
A000122 B:75583 F:50497 I:00000014 EPA246 07/06/2009 A16-00010G
05/21/2009

043110AAC - Sterigenics EO, Inc.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2004 (TONS/YEAR)	IEPA 2005 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2005 (TONS/YEAR)
CO	0.724651	2.370000	0.724651	2.37
ETO	25.920149	3.100000	12.407264	2.90
NH3	0.110423	0.090000	0.110423	0.09
NOX	3.450720	3.000000	3.450720	3.00
PART	0.257712	0.220000	0.257712	0.23
PM10	0.257712	0.220000	0.257712	0.22
PM2.5	0.257712	0.220000	0.257712	0.22
PO	0.020092	0.220000	0.000538	0.06
SO2	0.030139	0.020000	0.020704	0.02
VOM	26.299728	3.110000	12.597054	2.99

043110AAC - Sterigenics EO, Inc.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
05120010	CONSTRUCTION	BACK VENT DISCONNECT			
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	07-14-2004	10-18-2005

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		00.01
			END TIME:		24.00
RATE/HR:	0.0050	0.0050	RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	84	84	.0525	.39	0.39
NH3	3	3	3	3.2	3.2	3.2	.008	.015	0.015
NOX	3	3	3	100	100	100	.25	.5	0.5
PART	3	3	3		7.6	7.6	.018	.04	0.04
PM10	3	3	3		7.6	7.6	.018	.04	0.04
PM2.5	3						.018		
SO2	3	3	3	.6	.6	0.6	.0015	.002	0.002
VOM	3	3	3	5.5	5.5	5.5	.01375	.026	0.026

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
NOX	3		3	100		100	.25		0.5
VOM	3		3	5.5		5.5	.01375		0.026

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0010 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: /
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 % MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25 % SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1999
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8,736
RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N	

UNITS: MILLION CUBIC FEET BURNED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2,184
START TIME:		00.01
END TIME:		24.00
RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N	

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	84	84	.1134	.15	0.15
NH3	3	3	3	3.2	3.2	3.2	.01728	.006	0.006
NOX	3	3	3	100	100	100	.54	.19	0.19
PART	3	3	3		7.6	7.6	.041	.014	0.014
PM10	3	3	3		7.6	7.6	.041	.014	0.014
PM2.5	3						.041		
SO2	3	3	3	.6	7.6	7.6	.00324	.014	0.014
VOM	3	3	3	5.5	5.5	5.5	.0297	.01	0.01

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
NOX	3		3	100		100	.54		0.19
VOM	3		3	5.5		5.5	.0297		0.01

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	104.0000	104	END TIME:		
RATE/HR:	0.0520	0.0520	PWR (LB/HR):	104.0000	104
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0520	0.0520
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3 PERMIT: 95120085

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.1	.1 0.1
VOM	2	2	2		.1	.1 0.1

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.1	.1 0.1

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.4000	0.400	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.400
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		2	.02 0.004
VOM	2	2	2		2	.02 0.004

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		2	.02 0.004

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 95120085

BEGAN OPERATION: / ~~1984~~ 1990

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / ~~1984~~ 1990

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.2000	0.0003	END TIME:		
RATE/HR:	0.0001	0.000001	PWR (LB/HR):	0.2000	0.0003
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0001	0.000001
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4 PERMIT: 95120085

BEGAN OPERATION: / ~~1984~~ 1999 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.24	.24 0.0003
VOM	2	2	2		.24	.24 0.0003

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.24	.24 0.0003

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	1.0000	1.0	END TIME:		
RATE/HR:	0.0001	0.0005	PWR (LB/HR):	1.0000	1.0
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0001	0.0005
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 95120085

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.5	.5 1.0
VOM	2	2	2		.5	.5 1.0

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.5	.5 1.0

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / ~~1997~~ 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,726	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	24.0000	25.0	END TIME:		
RATE/HR:	0.0030	0.012	PWR (LB/HR):	24.0000	25.0
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0030	0.012
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / ~~1997~~ 1999

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.00026	.027 0.025
PO	2	2	2		.0001	0 0
VOM	2	2	2		.00026	.027 0.025

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.00026	.027 0.025

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / 1999
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1999
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8,736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	0.3000	0.001	END TIME:		
RATE/HR:	0.0000	0.0000005	PWR (LB/HR):	0.3000	0.001
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0000	0.0000005
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / /

CEASED OPERATION: / /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.001	.001	0.001
PO	2	2	2			.0001	0	0
VOM	2	2	2			.001	.001	0.001

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2				.001	.001	0.001

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- CONTROL DEVICE DATA

CONTROL 0002 - WB II ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / ~~1988~~ 1999

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED		PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000	99.000	1	1	1		99.00				1
PO	99.000		—	1		—		—				—
VOM	99.000	99.000	99.000	1	1	1	99.000	99.00		1		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- CONTROL DEVICE DATA

WBI

CONTROL 0005 -A ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000	99.0	1	1			99.00		1	
PO	99.000	99.000	99.0	1	1			99.00		1	
VOM	99.000	99.000	99.0	1	1		99.000	99.00	1	1	

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75			
HEIGHT (FT):		40			
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200	
TEMPERATURE (F):	IEPA -	95	REPORTED -	95	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0010 - WB1 BOILER

BEGAN OPERATION: / 1985
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0014 - CREATED STACK

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION: AAT Acid Water Scrubber

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

Sterigenics.

April 28, 2006

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
Attn: Annual Emission Report
1021 North Grand Avenue East
Springfield, IL. 62702

Re: 2005 Annual Emission Report for Sterigenics U.S, LLC. Willowbrook, IL. Facilities-ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics U.S., LLC Annual Emissions Report for the year 2005. Any changes or additions have been made in black ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-RA/QA
Ms. Sandra Haissig, General Manager-Willowbrook

Sterigenics International, Inc.
2015 Spring Road, Suite 650 ▫Oak Brook, IL 60523
Tel 630.928.1700 ▫Fax 630.928.1701 ▫www.sterigenics.com

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2004

Page: 01
Date: 12-02-2004

043110AAC - Sterigenics EO, Inc.

- SOURCE DATA -

AIRS: 17-043-0213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561499	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 363326376		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.6380		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:22.8120		SIC 6:		NAICS 6:	

SOURCE ADDRESS

Sterigenics EO, Inc.

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
EMAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

~~IBAS & I Inc~~ Sterigenics International, Inc

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Stephen Morris

PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
E-MAIL:

RECEIVED
APR 29 2005

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Stephen Dana Morris
AUTHORIZED SIGNATURE

4/28/05
DATE

Stephen DANA MORRIS
TYPED OR PRINTED NAME AND TITLE

630-928-1724
TELEPHONE NUMBER

10/02/2018 3:19PM A 170000075246 043110AAC STERIGENICS US LLC 04/29/2005 AER2004 1,578,174
A000183 B:80024 F:50497 I:00000045 EPA246 03/25/2010 EPA2AUG 04/13/2010 A16-00066 10G

DAPC - ANNUAL EMISSIONS REPORT - 2004

043110AAC - **Sterigenics EO, Inc.**

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2003 (TONS/YEAR)	IEPA 2004 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2004 (TONS/YEAR)
CO	0.724651	0.220000	0.724651	2537 ADM 4/29/05
ETO	25.920149	2.600000	12.407264	3.10
NH3	0.110423	0.008000	0.110423	0.09
NOX	3.450720	0.733000	3.450720	3.00
PART	0.257712	0.020000	0.257712	0.22
PM10	0.257712	0.020000	0.257712	0.22
PM2.5	0.257712		0.257712	0.22
PO	0.020092	0.010000	0.000538	0.22
SO2	0.030139	0.001500	0.020704	0.02
VOM	26.299728	0.014000	12.597054	3.11 *

* Includes ETO & PO

043110AAC . Sterigenics EO, Inc.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	04-21-2004	10-18-2005

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1985
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8736
RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N	

UNITS: MILLION CUBIC FEET BURNED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		00.01
END TIME:		24.00
RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N	

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0009 -3 BOILERS (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	21	84	.0525	.0009	0,39
NH3	3	3	3	3.2	3.2	3.2	.008	.0001	0,015
NOX	3	3	3	100	100	100	.25	.004	0,50
PART	3	3	3		7.6	7.6	.018	.0003	0,04
PM10	3	3	3		7.6	7.6	.018	.0003	0,04
PM2.5	3						.018		
SO2	3	3	3	.6	.6	0.6	.0015	.00002	0,002
VOM	3	3	3	5.5	5.5	5.5	.01375	.0002	0,026

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0010 CAPTURE EFFICIENCY: 100.00 % 100.00%

This for all three boilers at WBI.

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 2000

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 2000

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		00.01
			END TIME:		24.00
RATE/HR:	0.0050	0.0050	RATE/HR:	0.0050	0.0050
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Sterigenics EO, Inc.

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 2000

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3	3	21	21	84	.1134	.0009	0.15
NH3	3	3	3	3.2	3.2	3.2	.01728	.0001	0.006
NOX	3	3	3	100	100	100	.54	.004	0.19
PART	3	3	3		7.6	7.6	.041	.0003	0.014
PM10	3	3	3		7.6	7.6	.041	.0003	0.014
PM2.5	3						.041		
SO2	3	3	3	.6	7.6	7.6	.00324	.00002	0.014
VOM	3	3	3	5.5	5.5	5.5	.0297	.0002	0.01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100.00

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		
PWR (LB/HR):	104.0000	104	END TIME:		
RATE/HR:	0.0520	0.0520	PWR (LB/HR):	104.0000	104
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0520	0.0520
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.1	.1 0,1
VOM	2	2			.1	.1 0,1

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.1 0.1

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.4000	0.4	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.4
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		2	2 0.02
VOM	2	2	2		2	2 0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				2 0.02

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		00.01
PWR (LB/HR):	0.2000	0.24	END TIME:		24.00
RATE/HR:	0.0001	0.00002	PWR (LB/HR):	0.2000	0.24
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0001	0.00002
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4 PERMIT: 84060002

BEGAN OPERATION: / 1984 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.24	.24 0.24
VOM	2	2			.24	.24 0.24

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.24 0.24

CAPTURING CONTROLS:

CONTRCL 0002 CAPTURE EFFICIENCY: 100.00 % 100.00%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2,184
			START TIME:		00.01
PWR (LB/HR):	0.5000	1.00	END TIME:		24.00
RATE/HR:	0.0002	0.0001	PWR (LB/HR):	0.5000	1.00
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0002	0.0001
			CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.5	.5 0.5
VOM	2	2	2		.5	.5 0.5

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.5 0.5

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100 %

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52
HOURS/YEAR:	8,736	8736
PWR (LB/HR):	24.0000	24.0
RATE/HR:	0.0120	0.003
CONFIDENTIAL:	Y	Y

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0
WEEKS/SEASON:	13	13
HOURS/SEASON:	2,184	2184
START TIME:		00.01
END TIME:		24.00
PWR (LB/HR):	24.0000	24.0
RATE/HR:	0.0120	0.003
CONFIDENTIAL:	Y	Y

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4 PERMIT: 95120085

BEGAN OPERATION: 12 / 1997 SCC: 31502001

CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.00026	.00026 0.027
PO	2	2	2		.0001	0 0
VOM	2	2	2		.00026	.00026 0.027

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.00026 0.027

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100.0%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		00.01
PWR (LB/HR):	0.3000	0.32	END TIME:		24.00
RATE/HR:	0.0002	0.00003	PWR (LB/HR):	0.3000	0.32
CONFIDENTIAL:	Y	Y	RATE/HR:	0.0002	0.00003
			CONFIDENTIAL:	Y	Y

DAPC - ANNUAL EMISSIONS REPORT - 2004

043110AAC - **Sterigenics EO, Inc.**

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.001	.001 0.001
PO	2	2	2		.0001	0 0
VOM	2	2	2		.001	.001 0.001

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2	2			.001 0.001

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Sterigenics EO, Inc.

- CONTROL DEVICE DATA

CONTROL 0002 - WB II ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED		PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000	99.0	1	1	1		ETO	99.00			1
PO	99.000		~	1		~		PO	N/A			1
VOM	99.000	99.000	99.0	1	1	1		~~VOM 99.000~~ VOM	99.00		1	1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED		PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000	99%	1				ETO	99%			1
PO	99.000		99%					PO	99%			1
VOM	99.000	99.000	99%	1				VOM ~~99.000~~	99%	1		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75		
HEIGHT (FT):		40		
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200
TEMPERATURE (F):	IEPA -	95	REPORTED -	95
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :		NAD27			
SCALE :		24000			
METHOD:		018			
ACCURACY :		20			

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0010 - WB1 BOILER

BEGAN OPERATION: / 1985
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

043110AAC - Sterigenics EO, Inc.

- STACK DATA -

STACK 0014 - CREATED STACK

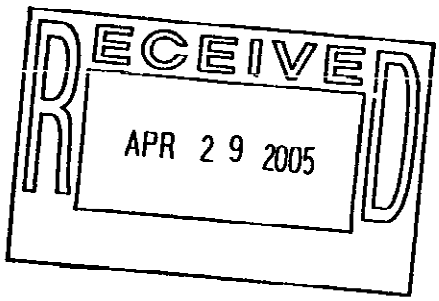
BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:
AAT ACID WATER SCRUBBER

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :		NAD27		
SCALE :		24000		
METHOD:		018		
ACCURACY :		20		

WHERE MEASURED : Center Of Facility

Sterigenics.



April 29, 2005

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
Attn: Annual Emission Report
1021 North Grand Avenue East
Springfield, IL. 62702

Re: 2004 Annual Emission Report for Sterigenics EO, Inc. Willowbrook, IL. Facilities-ID# 043110AAC

To Whom It May Concern,

Enclosed is Sterigenics EO, Inc.'s Annual Emissions Report for the year 2004. Any changes or additions have been made in blue ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-RA/QA
Ms. Sandra Haissig, General Manager-Willowbrook

2015 Spring Road, Suite 650, Oak Brook, IL 60523
www.sterigenics.com (630) 928 - 1700 Fax: (630) 928 - 1701

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control

Page: 01
Date: 01-05-2004

DAPC - ANNUAL EMISSIONS REPORT - 2003

043110AAC - Ion Beam Applications Inc

- SOURCE DATA -

SOURCE LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	SIC 1: 7389		NAICS 1: 561499	
FINDS: ILD984803320	IEPA USE ONLY	SIC 2:		NAICS 2:	
FEIN: 363326376		SIC 3:		NAICS 3:	
D&B: 144911518		SIC 4:		NAICS 4:	
LATITUDE: 41:44:52.6380		SIC 5:		NAICS 5:	
LONGITUDE: 87:56:22.8120		SIC 6:		NAICS 6:	

SOURCE ADDRESS

~~Ion Beam Applications Inc~~ IBAS&I, Inc

7775 S Quincy St
Willowbrook, IL 60521

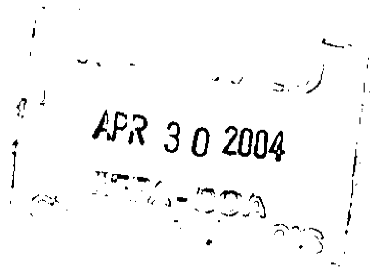
CONTACT: Kathleen Hoffman
PHONE: 630-928-1758 EXT:
FAX: 630-928-1701
EMAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

~~Griffith Micro Science Inc/Ion Beam App~~ IBAS&I, Inc,

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Stephen Morris
PHONE: 630-928-1724 EXT:
FAX: 630-928-1701
E-MAIL:



I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Stephen Morris
AUTHORIZED SIGNATURE

4/30/04
DATE

Stephen MORRIS
TYPED OR PRINTED NAME AND TITLE

(630) 928-1724
TELEPHONE NUMBER

10/02/2018 3:19PM A 170000075246 043110AAC STERIGENICS US LLC 04/30/2004 1,607,284
000222 B:81290 F:50497 I:00000004 EPA466 06/15/2010 EPA266 06/24/2010 A16-0038 10G AER2003

043110AAC - Ion Beam Applications Inc

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2002 (TONS/YEAR)	IEPA 2003 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2003 (TONS/YEAR)
CO	0.724651	0.004000	0.724651	0.22
ETO	25.920149	2.875000	25.310645	2.60
NH3	0.110423	0.000400	0.110423	0.008
NOX	3.450720	0.017500	3.450720	0.733
PART	0.257712	0.001300	0.257712	0.020
PM10	0.257712	0.001300	0.257712	0.020
PO	0.020092	0.000100	0.012364	0.010
SO2	0.030139	0.000100	0.020704	0.0015
VOM	26.299728	0.001000	26.234830	0.014

043110AAC - Ion Beam Applications Inc

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	01-16-2002	10-18-2005

043110AAC - Ion Beam Applications Inc

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: / 1985

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:
BOILERS (3)

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		00.00
			END TIME:		24:00
RATE/HR:	0.0050		RATE/HR:	0.0050	
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Ion Beam Applications Inc

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		21	21		.0525	.0009	
NH3	3	3		3.2	3.2		.008	.0001	
NOX	3	3		100	100		.25	.004	
PART	3	3			7.6		.018	.0003	
PM10	3	3			7.6		.018	.0003	
SO2	3	3		.6	.6		.0015	.00002	
VOM	3	3		5.5	5.5		.01375	.0002	

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0010 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Ion Beam Applications Inc

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 2000

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 2000

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		00:01
			END TIME:		24:00
RATE/HR:	0.0050		RATE/HR:	0.0050	
CONFIDENTIAL:	N		CONFIDENTIAL:	N	

043110AAC - Ion Beam Applications Inc

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200503

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
CO	3	3		21	21		.1134	.0009	
NH3	3	3		3.2	3.2		.01728	.0001	
NOX	3	3		100	100		.54	.004	
PART	3	3			7.6		.041	.0003	
PM10	3	3			7.6		.041	.0003	
SO2	3	3		.6	7.6		.00324	.00002	
VOM	3	3		5.5	5.5		.0297	.0002	

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED		OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
PWR (LB/HR):	104.0000	END TIME:	
RATE/HR:	0.0520	PWR (LB/HR):	104.0000
CONFIDENTIAL:	Y	RATE/HR:	0.0520
		CONFIDENTIAL:	Y

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.64	.1
VOM	2	2	~			.769	.1

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2					.1

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	0.4000		END TIME:		
RATE/HR:	0.0002		PWR (LB/HR):	0.4000	
CONFIDENTIAL:	Y		RATE/HR:	0.0002	
			CONFIDENTIAL:	Y	

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 95120085

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			3.6	.216 2.0
VOM	2	2			3.6	.216 2.0

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.216 2.0

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		0:00
PWR (LB/HR):	0.2000	0.24	END TIME:		24:00
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0.24
CONFIDENTIAL:	Y		RATE/HR:	0.0001	0.0001
			CONFIDENTIAL:	Y	

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.4	.24 0.25
VOM	2	2			.4	.24 0.25

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.24 0.25

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	
DAYS/WEEK:	7.0	
WEEKS/YEAR:	52	
HOURS/YEAR:	8,736	
PWR (LB/HR):	1.0000	0.50
RATE/HR:	0.0005	0.0002
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	
DAYS/WEEK:	7.0	
WEEKS/SEASON:	13	
HOURS/SEASON:	2,184	
START TIME:		
END TIME:		
PWR (LB/HR):	1.0000	0.50
RATE/HR:	0.0005	0.0002
CONFIDENTIAL:	Y	

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.808	.54 0.50
VOM	2	2			.808	.54 0.50

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.54 0.50

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 95120085

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	24.0000		END TIME:		
RATE/HR:	0.0120		PWR (LB/HR):	24.0000	
CONFIDENTIAL:	Y	✓	RATE/HR:	0.0120	
			CONFIDENTIAL:	Y	✓

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4 PERMIT: 95120085

BEGAN OPERATION: 12 / 1997 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.3434	.00014 0.00026
PO	2	2			.0023	0
VOM	2	2			.382	.00014 0.00026

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.00014 0.00026

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1999

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	0.3000		END TIME:		
RATE/HR:	0.0002		PWR (LB/HR):	0.3000	
CONFIDENTIAL:	Y		RATE/HR:	0.0002	
			CONFIDENTIAL:	Y	

043110AAC - Ion Beam Applications Inc

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: / /

CEASED OPERATION: / /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.0137	.0005 0.0010
PO	2	2			.0023	0
VOM	2	2			.016	.0005 0.0010

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				.0005 0.0010

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

043110AAC - Ion Beam Applications Inc

- CONTROL DEVICE DATA

CONTROL 0002 - WB II ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988 2000

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED		PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000		1	1			99.00				1
PO	99.000			1				99.08				1
VOM	99.000	99.000		1	1		99.000			1		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Ion Beam Applications Inc

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: 11 / 1998 1988

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.000		1		99.00		1
PO	99.000	99.00		1		99.00		1
VOM	99.000	99.000		1	99.000			1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 %

043110AAC - Ion Beam Applications Inc

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75			
HEIGHT (FT):		40			
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200	
TEMPERATURE (F):	IEPA -	95	REPORTED -	95	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :					
SCALE :					
METHOD:					
ACCURACY :					
WHERE MEASURED :					

043110AAC - Ion Beam Applications Inc

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380			
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120			
DATUM :					
SCALE :					
METHOD:					
ACCURACY :					
WHERE MEASURED :					

043110AAC - Ion Beam Applications Inc

- STACK DATA -

STACK 0010 - WB1 BOILER

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	
TEMPERATURE (F):	IEPA -	341	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :				
SCALE :				
METHOD:				
ACCURACY :				
WHERE MEASURED :				

043110AAC - Ion Beam Applications Inc

- STACK DATA -

STACK 0014 - CREATED STACK

BEGAN OPERATION: / _____

CEASED OPERATION: / _____

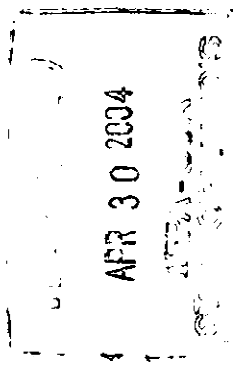
DESCRIPTION CORRECTION:

DIAMETER (FT):		2.70		
HEIGHT (FT):		50		
FLOW RATE (ACFM):	IEPA -	8859	REPORTED -	_____
TEMPERATURE (F):	IEPA -	341	REPORTED -	_____
LATITUDE (DD:MM:SS.SSSS):		41:44:52.6380		
LONGITUDE (DD:MM:SS.SSSS):		87:56:22.8120		
DATUM :				
SCALE :				
METHOD:				
ACCURACY :				
WHERE MEASURED :				

IBA

April 29, 2004

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
Attn: Annual Emission Report
1021 North Grand Avenue East
Springfield, IL. 62702



Re: 2003 Annual Emission Report for IBA S&I, Inc. Willowbrook, IL. Facilities

To Whom It May Concern,

Enclosed is IBA S&I, Inc.'s Annual Emissions Report for the year 2003. Any changes or additions have been made in red ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-EH&S
Mr. Jack Fitzpatrick, General Manager-Willowbrook

Spring Road, Suite 650, Oak Brook, IL 60523 ❑ Tel.: (800) 811 4674 ❑ Fax: (630) 928-1701 ❑ Website: http://www.iba-worldwide.com

September 13, 2004
Omair Haq

Annual Emission Report Review Notes

043110AAC
Sterigenics EO, Inc.
2015 Spring Road, Suite 650
Oak Brook, Illinois 60523

Long, Reporting year 2003
Title-V
Report Status **acceptable**

Source identification completed.
Reported Emission Ok
Stacks velocity Ok
Reported HAP Ok

Report: APCA0530 Illinois Environmental Protection Agency Page: 01
Division of Air Pollution Control Date: 12-12-2002

DAPC - ANNUAL EMISSIONS REPORT - 2002

CG

043110AAC - ION BEAM APPLICATIONS INC

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	LATITUDE: 41:44:52.0000	
FINDS: ILD984803320	IEPA USE ONLY	LONGITUDE: 87:56:38.0000	
FEIN: 363326376		YEAR OF DATUM:	
D&B: 144911518		SCALE:	
SIC 1: 7389		METHOD: E	
SIC 2:		ACCURACY: 1.0000 MIN	
SIC 3:		WHERE MEASURED: MIDWEST & QUINCY INTERSI	

SOURCE ADDRESS

Ion Beam Applications Inc

7775 S Quincy St
Willowbrook, IL 60521

CONTACT: Kathleen Hoffman

PHONE: 630-928-1758 EXT:
FAX: 630-928-1701
E-MAIL:

ANNUAL EMISSION REPORT MAILING ADDRESS

Griffith Micro Science Inc/Ion Beam App

2015 Spring Rd
Oak Brook, IL 60523

CONTACT: Stephen Morris
PHONE: ~~773-867-7224~~ 630-928-1724 EXT:
FAX: ~~773-867-7201~~
E-MAIL: 630-928-1701

APR 2 0 2003

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Stephen Dane Morris
AUTHORIZED SIGNATURE

4/25/03
DATE

Stephen MORRIS, DIREH'S
TYPED OR PRINTED NAME AND TITLE

630-928-1724
TELEPHONE NUMBER

02/28/2011 5:57AM A 170000075246 043110AAC STERIGENICS US LLC 10G 04/28/2003 AER2002 1,664,545
A000361 B:83162 F:50497 I:00000029 EPA2466 10/27/2010 EPA2575 10/29/2010

043110AAC - ION BEAM APPLICATIONS INC

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2001 (TONS/YEAR)	IEPA 2002 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2002 (TONS/YEAR)
CO	0.724651		0.724651	0.004
ETO	25.920149	3.073000	25.310645	2.875
NH3	0.110423		0.110423	0.0004
NOX	3.450720		3.450720	0.0175
PART	0.257712		0.262255	0.00130
PM10	0.262255		0.262255	0.00130
PO	0.020092		0.012364	< 0.00001
SO2	0.030139		0.020704	0.00010
VOM	26.299728	4.104000	26.234830	0.0010

043110AAC - ION BEAM APPLICATIONS INC

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	01-16-2002	10-18-2005
96120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12-22-1997	07-23-1999
97110041	JOINT	STERILIZATION CHAMBER "C"	GRANTED	12-22-1997	08-08-1999
98100091	JOINT	SCRUBBER /DRY BEDS	GRANTED	11-30-1998	11-30-2003
99040046	JOINT	WILLOWBROOK II FACILITY	GRANTED	09-24-1999	05-05-2004
99050004	JOINT	STERILIZATION OF MEDICAL SUPPLIES/SPICES	GRANTED	06-30-1999	06-30-2004

043110AAC - ION BEAM APPLICATIONS INC

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)
Boilers 3

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: % 25 MAR - MAY: % 25
JUN - AUG: % 25 SEP - NOV: % 25

BEGAN OPERATION: / 1985

CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS

INPUT (MMBTU/HR): 2.5

HEAT CONTENT: 1000 Btu/ft3

SULFUR CONTENT (%):

ASH CONTENT (%):

NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
		START TIME:	00:01
		END TIME:	24:00
RATE/HR:	0.005	RATE/HR:	0.005
CONFIDENTIAL:		CONFIDENTIAL:	

043110AAC - ION BEAM APPLICATIONS INC

- FUEL COMBUSTION DATA -

POINT 0009 - BOILER (WILLOWBROOK I)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
CO	3	3	21	21	.0525	0.0009
NH3	3	3	3.2	3.2	.008	0.0001
NOX	3	3	100	100	.25	0.0040
PART	3	3	7.6	7.6	.019	0.0003
PM10	3	3	7.6	7.6	.019	0.0003
SO2	3	3	.6	0.6	.0015	0.00002
VOM	3	3	5.5	5.5	.01375	0.00020

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0010 CAPTURE EFFICIENCY: 100.00 % 100

043110AAC - ION BEAM APPLICATIONS INC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 2000
CEASED OPERATION: /

SCC: 10200603

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: % 25 MAR - MAY: % 25
JUN - AUG: % 25 SEP - NOV: % 25

BEGAN OPERATION: / 2000
CEASED OPERATION: /

FUEL TYPE: 1 NATURAL GAS
INPUT (MMBTU/HR): 6.6

HEAT CONTENT: 1000 Btu/ft3
SULFUR CONTENT (%):
ASH CONTENT (%):
NITROGEN CONTENT (%):

UNITS: MILLION CUBIC FEET BURNED

UNITS: MILLION CUBIC FEET BURNED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
		START TIME:	24:00
		END TIME:	23:59
RATE/HR:	0.005	RATE/HR:	0.005
CONFIDENTIAL:		CONFIDENTIAL:	

043110AAC - ION BEAM APPLICATIONS INC

- FUEL COMBUSTION DATA -

POINT 0010 - 2 BOILERS (WILLOWBROOK II)

PERMIT: 95120085

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC: 10200603

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
CO	3	3	21	21	.1134	0.0009
NH3	3	3	3.2	3.2	.01728	0.0001
NOX	3	3	100	100	.54	0.0040
PART	3	3	7.6	7.6	.04104	0.0003
PM10	3	3	7.6	7.6	.04104	0.0003
SO2	3	3	.6	0.6	.00324	0.00002
VOM	3	3	5.5	5.5	.0297	0.0002

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0014 CAPTURE EFFICIENCY: 100.00 % 100

NUMBER : 1

WITHHELD DOCUMENT

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.64	.64 0.100
VOM	2	2	2		.769	.65 0.100

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.65	.65 0.100

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

NUMBER : 2

WITHHELD DOCUMENT

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 96120054

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		3.6	.024 0.216
VOM	2	2	2		3.6	.025 0.216

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.025	.025 0.216

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

NUMBER : 3

WITHHELD DOCUMENT

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.4	.024 0,240
VOM	2	2	2			.4	.024 0,240

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			.024	.024 0,240

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

NUMBER : 4

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2		.808	.047 0.54
VOM	2	2	2		.808	.047 0.54

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.047	.047 0.54

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100%

CAPTURING STACKS:

NUMBER : 5

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 97110041

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2	2			.3434	.29	0.00014
PO	2		2			.0023		-0-
VOM	2	2	2			.382	.29	0.00014

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2				.29	.29	0.00014

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100

CAPTURING STACKS:

NUMBER : 6

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS INC

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			.0137	.003 0.0005
PO	2		2			.0023	-0-
VOM	2	2	2			.016	.003 0.0005

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			0	0 0.0005

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 100.00 % 100

CAPTURING STACKS:

043110AAC - ION BEAM APPLICATIONS INC

- CONTROL DEVICE DATA

CONTROL 0002 - WB II ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED		ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED		PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED	
ETO	99.000	99.000		1	1	1		ETO 99.00			1
PO	99.000			1		-		99.00			1
VOM	99.000	99.000		1	1	1		~~99.000~~ VOM 99.00		1	1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - ION BEAM APPLICATIONS INC

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER

PERMIT: 98100091

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.000				99		1
PO	99.000					99		1
VOM	99.000	99.000				99		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 100

043110AAC - ION BEAM APPLICATIONS INC

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75		
HEIGHT (FT):		40		
FLOW RATE (ACFM):	IEPA -	200	REPORTED -	200
TEMPERATURE (F):	IEPA -	95	REPORTED -	95
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :				
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		

WHERE MEASURED : MIDWEST & QUINCY INTERSECTION

043110AAC - ION BEAM APPLICATIONS INC

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	15500	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000			
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000			
DATUM :					
SCALE :					
METHOD:		E			
ACCURACY :		1 MIN			
WHERE MEASURED :	MIDWEST & QUINCY INTERSECTION				

043110AAC - ION BEAM APPLICATIONS INC

- STACK DATA -

STACK 0010 - WB1 BOILER

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	
TEMPERATURE (F):	IEPA -	69	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :				
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		
WHERE MEASURED :	MIDWEST & QUINCY INTERSECTION			

043110AAC - ION BEAM APPLICATIONS INC

- STACK DATA -

STACK 0014 - CREATED STACK

BEGAN OPERATION: /
CEASED OPERATION: /

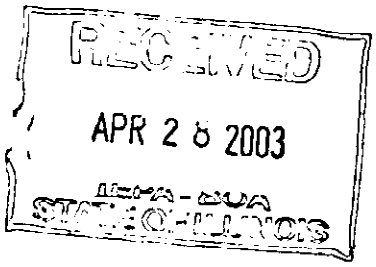
DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	
TEMPERATURE (F):	IEPA -	69	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :				
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		
WHERE MEASURED :	MIDWEST & QUINCY INTERSECTION			

IBA

April 25, 2003

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
1021 North Grand Avenue East
Springfield, IL. 62794-9276



Attn: Annual Emission Report

Re: Annual Emission Report for IBA S&I, Inc. Willowbrook, IL. Facility

To Whom It May Concern,

Enclosed is IBA S&I, Inc.'s Annual Emissions Report for the year 2002. Any changes or additions have been made in red ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director Environmental Health and Safety

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-EH&S
Mr. Mark Bogs, General Manager-Willowbrook

List of Withheld Documents

I have reviewed the documents in the Illinois Environmental Protection Agency file for: ION BEAM APPLICATIONS
Facility I.D.# 043 110 AAC Permit # AER 2002 REPORT
and, consistent with the obligations of the Illinois EPA under Section 7 of the Environmental Protection Act, (Ill. Rev. Stat., Ch. 111 1/2, Sec. 1007), I have removed the following documents from the file and inserted such documents in an envelope marked **"WITHHELD DOCUMENTS"**.

Document Number	Document Date	General Description	Reason for Withholding (Number Corresponds to reason at bottom of page)
1	12-12-2002	AER 2002	7

1 - Internal communications of the Illinois EPA compiled for enforcement purposes or for internal purposes of the Illinois EPA, 2 Ill. Adm. Code 1828.202(a)(1)(C).

2 - Internal communications of the Illinois EPA that are preliminary drafts, notes, recommendations, memoranda, or other records where opinions are expressed, 2 Ill. Adm. Code 1828.202(a)(1)(E).

3 - Information which, if disclosed, would constitute a clearly unwarranted invasion of personal privacy, (i.e., the identity of persons who make oral or written complaints, or provide information to the Illinois EPA), unless such disclosure is consented to in writing by the individual subjects of such information, 2 Ill. Adm. Code 1828.202(a)(1)(B).

4 - Trade secrets as determined pursuant to 35 Ill. Adm. Code 130 and 2 Ill. Adm. Code 1828.202(a)(1)(F).

5 - Information claimed trade secret, which is pending perfection, 35 Ill. Adm. Code 130.308.

6 - Information determined exempt from disclosure pursuant to 2 Ill. Adm. Code 1828.202 and 2 Ill. Adm. Code 1828.406.

7 - Information claimed exempt from disclosure, which is pending perfection, 2 Ill. Adm. Code 1828.405(g).

RHall
Division of Air Pollution Control Reviewer

1-29-07
Date Reviewed

1,664,546 AER2002 10G 04/28/2003 STERIGENICS US LLC EPA2575 10/29/2010 043110AAC EPA2466 10/27/2010 17000007524 6 A 3:19PM B:83162 F:50497 I:00000030 10/02/2018 A000361

043110AAC - ION BEAM APPLICATIONS INC

cet 1

- PROCESS DATA -

POINT 0001 - STERILIZATION CHAMBERS SC-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	48.0000	104	END TIME:		
RATE/HR:	0.0240	0.052	PWR (LB/HR):	48.0000	104
CONFIDENTIAL:	Y		RATE/HR:	0.0240	0.052
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS INC

WD2

- PROCESS DATA -

POINT 0002 - AERATION CHAMBER (AC) AND AERATION ROOM (AR)

PERMIT: 96120054

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % 25% SEP - NOV: 25.00 % 25%

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52.	WEEKS/SEASON:	13	13.
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.4000	0.400	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.400
CONFIDENTIAL:	Y		RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS INC

4 of 3

- PROCESS DATA -

POINT 0004 - STERILIZER BACKVENT SV-4

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52.	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	1.0000	0.240	END TIME:		
RATE/HR:	0.0005	0.00012	PWR (LB/HR):	1.0000	0.240
CONFIDENTIAL:	Y		RATE/HR:	0.0005	0.00012
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS INC

1984

- PROCESS DATA -

POINT 0005 - STERILIZER BACKVENTS SV-1, 2 AND 3

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	8.0000	1.04	END TIME:		
RATE/HR:	0.0040	0.00052	PWR (LB/HR):	8.0000	1.04
CONFIDENTIAL:	Y		RATE/HR:	0.0040	0.00052
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS INC

CK 5

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBER SC-4

PERMIT: 97110041

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 25.00 % 25 SEP - NOV: 25.00 % 25

BEGAN OPERATION: / 1/2000
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	48.0000	24.0	END TIME:		
RATE/HR:	0.0240	0.012	PWR (LB/HR):	48.0000	24.0
CONFIDENTIAL:	Y		RATE/HR:	0.0240	0.012
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS INC

W86

- PROCESS DATA -

POINT 0008 - 2 AERATION ROOMS (WBII-AR)

PERMIT: 95120085

BEGAN OPERATION: /
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 75.00 % 25 MAR - MAY: 25.00 % 25
JUN - AUG: 0.00 % 25 SEP - NOV: 0.00 % 25

BEGAN OPERATION: / 1999 1999
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		
HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	12	52
HOURS/YEAR:	2,016	8736
PWR (LB/HR):	0.2000	0.32
RATE/HR:	0.0001	0.00016
CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	0.0	24.0
DAYS/WEEK:	0.0	7.0
WEEKS/SEASON:	0	13.0
HOURS/SEASON:	0	2184
START TIME:		
END TIME:		
PWR (LB/HR):	0.0000	0.32
RATE/HR:	0.0000	0.00016
CONFIDENTIAL:	Y	

List of Withheld Documents

I have reviewed the documents in the Illinois Environmental Protection Agency file for: TOM BEAM APPLICATIONS
Facility I.D.# 043110AAC Permit # AER 2002 REPORT
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RHall
Division of Air Pollution Control Reviewer

1.29.07
Date Reviewed

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2001

Page: 01
Date: 12-13-2001

043110AAC - ION BEAM APPLICATIONS,INC.

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213 IEPA USE ONLY
FINDS: ILD984803320 IEPA USE ONLY
FEIN: 363326376
D&B: 144911518
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:44:52.0000
LONGITUDE: 87:56:38.0000
YEAR OF DATUM: 1992
SCALE:
METHOD: E
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUINCY INTERSE

SOURCE ADDRESS

Ion Beam Applications, Inc.

7775 S Quincy St
Willowbrook, IL 60521
CONTACT: Kathleen Hoffman
PHONE: 630-928-1758 ~~773-867-7258~~ EXT:
FAX: ~~773-867-7201~~
E-MAIL: 630-928-1701

RECEIVED
MAY 01 2002
IEPA/DAPC

ANNUAL EMISSION REPORT MAILING ADDRESS

Griffith Micro Science Inc./Ion Beam App
2015 SPRING ROAD
~~8550 W. Bryn Mawr Ave~~
~~Chicago,~~ IL ~~60631~~
OakBrook 60523
CONTACT: Stephen Morris
PHONE: 630 928 1724 ~~773-867-7224~~ EXT:
FAX: ~~773-867-7201~~
E-MAIL: 630-928-1701

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

KA Hoffman
AUTHORIZED SIGNATURE

4/30/02
DATE

Kathleen Hoffman
TYPED OR PRINTED NAME AND TITLE

630-928-1758
TELEPHONE NUMBER

08/07/2017 4:45PM A 17000075246 043110AAC STERIGENICS U S LLC 10G 05/01/2002 AER2001 975,505
A000002 B:62380 F:50497 I:00000105 TOMREUTE 07/29/2015 TOMREUTE 08/16/2016

043110AAC - ION BEAM APPLICATIONS,INC.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 2000 (TONS/YEAR)	IEPA 2001 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2001 (TONS/YEAR)
ETO	4.472273	5.190000	4.470910	3.073
VOM	131.060792	5.210000	4.470910	4.104

043110AAC - ION BEAM APPLICATIONS,INC.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	10-18-2000	10-18-2005
96120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12-22-1997	07-23-1999
97110041	JOINT	STERILIZATION CHAMBER "C"	GRANTED	12-22-1997	08-08-1999
98100091	JOINT	SCRUBBER /DRY BEDS	GRANTED	11-30-1998	11-30-2003
99040046	JOINT	WILLOWBROOK II FACILITY	GRANTED	09-24-1999	05-05-2004
99050004	JOINT	STERILIZATION OF MEDICAL SUPPLIES/SPICES	GRANTED	06-30-1999	06-30-2004

NUMBER : 1

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-6

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2 2			1.0188	.32 0.64
VOM	2	2 2			1.0188	.33 0.65

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2 2			.33	.33 0.65

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 % 100%

CAPTURING STACKS:

NUMBER : 2

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS

PERMIT: 96120054

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

SCC: 31502001

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.016	0.024
VOM	2	2			.016	0.025

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.016	.016 0.025

CAPTURING CONTROLS: 99%

CAPTURING STACKS: 100%

NUMBER : 3

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0004 - AERATION HOT CELLS

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 - AERATION HOT CELLS (A1 - A8)

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.005	0.024
VOM	2	2			.005	0.024

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.005	.005 0.024

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

NUMBER : 4

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0005 - STERILIZER CHAMBERS #7

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC:

MODE 01 - STERILIZER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2				.027	0.047
VOM	2				.027	0.047

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.027	.027 0.047

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STACKS:

NUMBER : 5

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBERS #8-13

PERMIT: 97110041

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

SCC:

MODE 01 - 8-13

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2				.7 0.29
VOM	2	2				.7 0.29

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.7	.7 0.29

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STACKS:

NUMBER : 6

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0007 - WBII STERILIZERS

PERMIT:

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC:

MODE 01 - WBII STERILIZERS (SD,SE,SF)

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.112	0.005
VOM	2	2			.112	0.005

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.112	0.000

CAPTURING CONTROLS:

CONTROL 0006 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

NUMBER : 7

WITHHELD DOCUMENT

Printed on Recycled Paper

043110AAC - ION BEAM APPLICATIONS,INC.

- PROCESS DATA -

POINT 0008 - WBII AERATION ROOMS 1 & 2

PERMIT:

BEGAN OPERATION: /

CEASED OPERATION: /

SCC:

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.004	0.003
VOM	2	2			.004	0.003

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.004	.004 -0-

CAPTURING CONTROLS:

CAPTURING STACKS:

043110AAC - ION BEAM APPLICATIONS,INC.

- CONTROL DEVICE DATA

CONTROL 0002 - CHEMROX, INC./CET ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988

CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO		99.000		1		99%		1
VOM		99.000		1		99%		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 99%

043110AAC - ION BEAM APPLICATIONS,INC.

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER WITH 8 DRY BEDS

PERMIT: 98100091

BEGAN OPERATION: 11 / 1998

CEASED OPERATION: /

CONTROL CODE: 001

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO		99.000		1				1
VOM	99.000	99.000		1				1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 % 99%

043110AAC - ION BEAM APPLICATIONS,INC.

- CONTROL DEVICE DATA

CONTROL 0006 - WB II SCRUBBER / DRY BED

PERMIT: 98100091

BEGAN OPERATION: / 1999

CEASED OPERATION: /

CONTROL CODE: 018

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO		99.000		1		-0-		1
VOM		99.000		1		-0-		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0009 CAPTURE EFFICIENCY: 100.00 % 100%

043110AAC - ION BEAM APPLICATIONS,INC.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75			
HEIGHT (FT):		40			
FLOW RATE (ACFM):	IEPA -	173	REPORTED -	200	
TEMPERATURE (F):	IEPA -	200	REPORTED -	95	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000			
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000			
DATUM :					
SCALE :					
METHOD:		E			
ACCURACY :					
WHERE MEASURED :					

043110AAC - ION BEAM APPLICATIONS,INC.

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000			
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000			
DATUM :		1992			
SCALE :					
METHOD:		E			
ACCURACY :		1 MIN			

WHERE MEASURED : MIDWEST & QUINCY INTERSECTION

043110AAC - ION BEAM APPLICATIONS,INC.

- STACK DATA -

STACK 0007 - CREATED STACK

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	
TEMPERATURE (F):	IEPA -	69	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :		1992		
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		
WHERE MEASURED :	MIDWEST & QUINCY INTERSECTION			

043110AAC - ION BEAM APPLICATIONS,INC.

- STACK DATA -

STACK 0008 - CREATED STACK

BEGAN OPERATION: /
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	
TEMPERATURE (F):	IEPA -	69	REPORTED -	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :		1992		
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		

WHERE MEASURED : MIDWEST & QUINCY INTERSECTION

043110AAC - ION BEAM APPLICATIONS, INC.

- STACK DATA -

STACK 0009 - WB II SCRUBBER STACK

BEGAN OPERATION: / 1999
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -		REPORTED -	15500
TEMPERATURE (F):	IEPA -		REPORTED -	70
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :		1992		
SCALE :				
METHOD:		E		
ACCURACY :		1 MIN		
WHERE MEASURED :	MIDWEST & QUINCY INTERSECTION			

IBA

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MAY 01 2002
IEPA - BOA
STATE OF ILLINOIS

April 30, 2002

Illinois Environmental Protection Agency
Division of Air Pollution Control
Air Quality Planning Section (#39)
1021 North Grand Avenue East
Springfield, IL. 62794-9276
Attn: Annual Emission Report

Re: Annual Emission Report for Griffith Micro Science, Inc. Willowbrook, IL. Facility

Gentlemen,

Enclosed is IBA/Griffith Micro Science, Inc.'s Annual Emissions Report for the year 2001. Any changes or additions have been made in red ink.

Please do not hesitate in contacting me should you have any questions with regard to this submission.

Yours truly,

Stephen Dana Morris
Director EH&S

Enclosure: Annual Emission Report

cc: Ms. Kathleen Hoffman, VP-EH&S
Mr. Mark Bogs, Plant Manager-Willowbrook

2015 Spring Road, Suite 650, Oak Brook, IL 60523 ❑ Tel.: (800) 811 4674 ❑ Fax: (630) 928 1701 ❑ Website: http://www.iba-worldwide.com

GRIFFITH MICRO SCIENCE SteriGenics RDI™ SCANDITRONIX WELLHOFER

043110AAC - ION BEAM APPLICATIONS,INC.

UPI

- PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-6

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13.0
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	48.0000	48.0	END TIME:		
RATE/HR:	0.0240	0.0240	PWR (LB/HR):	48.0000	48.0
CONFIDENTIAL:	Y		RATE/HR:	0.0240	0.024
			CONFIDENTIAL:	Y	

10/02/2018 4:45PM A 170000075246 043110AAC STERIGENICS U S LLC 10G 05/01/2002 AER2001 975,506
A000002 B:62380 F:50497 I:00000106 TOMREUTE 07/29/2015 TOMREUTE 08/16/2016

043110AAC - ION BEAM APPLICATIONS,INC.

UV02

- PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS

PERMIT: 96120054

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

SCC: 31502001

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	0.4000	0.4	END TIME:		
RATE/HR:	0.0002	0.0002	PWR (LB/HR):	0.4000	0.40
CONFIDENTIAL:	Y		RATE/HR:	0.0002	0.0002
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS,INC.

WDB

- PROCESS DATA -

POINT 0004 - AERATION HOT CELLS

PERMIT: 84060002

BEGAN OPERATION: / 1984
CEASED OPERATION: /

SCC: 31502001

MODE 01 - AERATION HOT CELLS (A1 - A8)

DESCRIPTION CORRECTION:

BEGAN OPERATION: / 1984
CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24.0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7.0
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	1.0000	1.067	END TIME:		
RATE/HR:	0.0005	0.0005	PWR (LB/HR):	1.0000	1.067
CONFIDENTIAL:	Y		RATE/HR:	0.0005	0.0005
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS,INC.

W04

- PROCESS DATA -

POINT 0005 - STERILIZER CHAMBERS #7

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC:

MODE 01 - STERILIZER

DESCRIPTION CORRECTION:

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

UNITS:

UNITS:

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	8.0000	8.0	END TIME:		
RATE/HR:	0.0040	0.0040	PWR (LB/HR):	8.0000	8.0
CONFIDENTIAL:	Y		RATE/HR:	0.0040	0.0040
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS,INC.

WD5

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBERS #8-13

PERMIT: 97110041

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

SCC:

MODE 01 - 8-13

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: /
CEASED OPERATION: /

UNITS:

UNITS:

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	24
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	7
WEEKS/YEAR:	52	52	WEEKS/SEASON:	13	13
HOURS/YEAR:	8,736	8736	HOURS/SEASON:	2,184	2184
			START TIME:		
PWR (LB/HR):	48.0000	48	END TIME:		
RATE/HR:	0.0240	0.024	PWR (LB/HR):	48.0000	48
CONFIDENTIAL:	Y		RATE/HR:	0.0240	0.024
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS,INC.

WD 4

- PROCESS DATA -

POINT 0007 - WBII STERILIZERS

PERMIT: 99040046

BEGAN OPERATION: / 1999

CEASED OPERATION: /

SCC:

MODE 01 - WBII STERILIZERS (SD,SE,SF)

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 75% MAR - MAY: 25.00 % 25%
JUN - AUG: 25.00 % -0- SEP - NOV: 25.00 % -0-

BEGAN OPERATION: / 1999
CEASED OPERATION: /

UNITS:

UNITS:

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24.0	HOURS/DAY:	24.0	0
DAYS/WEEK:	7.0	7.0	DAYS/WEEK:	7.0	0
WEEKS/YEAR:	52	12	WEEKS/SEASON:	13	0
HOURS/YEAR:	8,736	2016	HOURS/SEASON:	2,184	0
			START TIME:		
PWR (LB/HR):	24.0000	24.0	END TIME:		
RATE/HR:	0.0120	0.012	PWR (LB/HR):	24.0000	0
CONFIDENTIAL:	Y		RATE/HR:	0.0120	0
			CONFIDENTIAL:	Y	

043110AAC - ION BEAM APPLICATIONS, INC.

WD1

- PROCESS DATA -

POINT 0008 - WBII AERATION ROOMS 1 & 2

PERMIT: 99040046

BEGAN OPERATION: /
CEASED OPERATION: /

SCC:

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % 75 % MAR - MAY: 25.00 % 25 %
JUN - AUG: 25.00 % -0- SEP - NOV: 25.00 % -0-

BEGAN OPERATION: / 1999
CEASED OPERATION: /

UNITS:

UNITS:

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	24	HOURS/DAY:	24.0	0
DAYS/WEEK:	7.0	7	DAYS/WEEK:	7.0	0
WEEKS/YEAR:	52	12	WEEKS/SEASON:	13	0
HOURS/YEAR:	8,736	2016	HOURS/SEASON:	2,184	0
			START TIME:		
PWR (LB/HR):	0.2000	0.266	END TIME:		
RATE/HR:	0.0001	0.0001	PWR (LB/HR):	0.2000	0
CONFIDENTIAL:	Y		RATE/HR:	0.0001	0
			CONFIDENTIAL:	Y	

10/03/2018 5:50PM A002902 043110AAC 10G 2.996.732 1700000075246 04/30/2001 A STERIGENICS US LLC
B:35846 F:504971:00000065 EMISSIONS TEST REPOR

Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2000

Page: 01
Date: 12-19-2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213 IEPA USE ONLY	LATITUDE:	41:44:52.0000
FINDS:	ILD984803320 IEPA USE ONLY	LONGITUDE:	87:56:38.0000
FEIN:	363326376	YEAR OF DATUM:	1992
D&B:	144911518	SCALE:	
SIC 1:	7389	METHOD:	E
SIC 2:		ACCURACY:	1.0000 MIN
SIC 3:		WHERE MEASURED:	MIDWEST & QUINCY INTERS

SOURCE ADDRESS

Griffith Micro Science, Inc.
7775 S Quincy St
Willowbrook, IL 60521
CONTACT: ~~Kathleen Hoffman~~ Stephen MORRIS
PHONE: 773-867-~~7250~~ 7224 EXT:
FAX: 773-867-7201
E-MAIL:

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RELEASABLE MAY 29 2001

ANNUAL EMISSION REPORT MAILING ADDRESS

Griffith Micro Science Inc.
~~2001 Spring Road, Suite 500~~
~~Oak Brook, IL 60521-1887~~
8550 W. BRYN MAWRAR
CHICAGO, IL 60631
CONTACT: ~~Ms. Kathleen Hoffman~~ Stephen MORRIS
PHONE: 773-867-~~7250~~ 7224 EXT:
FAX: 773-867-7201
E-MAIL

IEPA - DAPC - SPFLD
OCT 01 2018
REVIEWER: MED

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Stephen Dana Morris
AUTHORIZED SIGNATURE

4/26/01
DATE

Stephen DANA MORRIS, DIR, EH&S
TYPED OR PRINTED NAME AND TITLE

(773) 867-7224
TELEPHONE NUMBER

RECEIVED
APR 30 2001
IEPA-Bureau of Air
State of Illinois

10/03/2018 5:50PM A002902 043110AAC 10G 2,996,733 170000075246 04/26/2001 A STERIGENICS US LLC
B:35846 F:50497 I:00000064 EMISSIONS TEST REPOR

The appearance of some of the images following this page is due to

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(217) 525-5860

Report: APCA0530 — Illinois Environmental Protection Agency — Page: 02
Division of Air Pollution Control — Date: 09-19-2018
DAPC - ANNUAL EMISSIONS REPORT - 2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0313 IEPA USE ONLY
FINDS: ILD984809320 IEPA USE ONLY
PEIN: 3633263776
D&B: 144911515
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:45:53.0000
LONGITUDE: 87:56:30.0000
YEAR OF DATA: 1992
SCALE:
METHOD: B
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUICKY ENTERO

SOURCE ADDRESS

Griffith Micro Science, Inc.

7775 S Quincy St
Willowbrook, IL 60521
CONTACT: ~~Kathleen Hoffman~~ Stephen Morris
PHONE: 773-867-~~7250~~ 7224 EXT:
FAX: 773-867-7201
E-MAIL:

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE
OCT 01 2018
REVIEWER: MED

ANNUAL EMISSION REPORT MAILING ADDRESS

Griffith Micro Science Inc.

~~2001 Spring Road, Suite 500~~
~~Oak Brook, IL 60521-1887~~
8550 W. Bryn Mawr
Chicago, IL 60631

CONTACT: ~~Ms. Kathleen Hoffman~~ Stephen Morris
PHONE: 773-867-~~7250~~ 7224 EXT:
FAX: 773-867-7201
E-MAIL

ALL ANNUAL EMISSIONS REPORT DATA VERIFIED, MODIFIED OR PROVIDED ON BEHALF OF THE COMPANY NAMED ABOVE, WHETHER SUBMITTED ELECTRONICALLY OR IN WRITING, REPRESENTS THE BEST AVAILABLE INFORMATION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Stephen Dane Morris — AUTHORIZED SIGNATURE
4/26/01 — DATE

Stephen Dane Morris Director — TYPED OR PRINTED NAME AND TITLE
(773) 867-7224 — TELEPHONE NUMBER

Waiver of Claim DD 09-21-2018 mel

2018/09/19 14:21

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1999 (TONS/YEAR)	IEPA 2000 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 2000 (TONS/YEAR)
ETG	4.472273	7.970000	4.470910	5.19
VOM	131.060792	7.970000	4.470910	5.21

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-19-1986	
85040074	OPERATING	GAS STERILIZATION SYSTEM B			
86120004	OPERATING	GAS STERILIZATION SYSTEM	GRANTED	02-15-1991	
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	10-18-2000	10-18-2005
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF	GRANTED	12-22-1997	07-23-1999
95120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12-22-1997	08-08-1999
97110041	JOINT	STERILIZATION CHAMBER "C"	GRANTED	11-30-1998	11-30-2003
98100091	JOINT	SCRUBBER /DRY BEDS	GRANTED	09-24-1999	5-05-2004
99040046	JOINT	WILLOWBROOK II FACILITY	GRANTED	06-30-1999	06-30-2004
99050004	JOINT	STERILIZATION OF MEDICAL SUPPLIES/SPICES			

043110AAC - GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-6 PERMIT: 84-60002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
PWR (LB/HR):	48.0000	END TIME:	
RATE/HR:	~~0.0100~~ 0.024	PWR (LB/HR):	48.0000
CONFIDENTIAL:	Y	RATE/HR:	~~0.0100~~ 0.024
		CONFIDENTIAL:	Y

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-6 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: /

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2	2			1.0188	~~.42~~ 0.32
VOM	2	2	2			1.0188	~~.41~~ 0.33

POLLUTANT CODE	METHOD IEPA	METHOD REP		EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2			.41	.41 0.33

CAPTURING EQUIPMENT:

CONTROL 0002 CAPTURE EFFICIENCY: 90.00 % 100%

CONTROL EQUIPMENT:

043110AAC - GRIFFITF MICRO SCIENCE, INC.

PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS

PERMIT: 96120054

SCC: 31502001

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
			END TIME:		
PWR (LB/HR):	~~0.1000~~	C 4.00	PWR (LB/HR):	~~0.1000~~	C 4.00
RATE/HR:	~~0.0003~~	C 0.0012	RATE/HR:	~~0.0003~~	C 0.0012
CONFIDENTIAL:	Y		CONFIDENTIAL:	Y	

[illegible]43110AAC - GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA -

POINT 0002 EAST, WEST AND FAR WEST AERATION CELLS PERMIT: 96120054

BEGAN OPERATION: 07 / 1997 SCC: 31502001

CEASED OPERATION: /

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
STO	2	2				.12 2.616
VOM	2	2				.12 2.616

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/DAY) IEPA	OZONE SEASON EMISSION RATE (LB/DAY) REPORTED
VOM	2	2			.12	.12 2.616

APPLYING CONTROL: 99%

CONTROL STATUS: 99%

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0004 - ~~AERATION HOT CELLS~~

PERMIT: 84060002

BEGAN OPERATION: / 1984

SCC: 31502001

CEASED OPERATION: /

MODE 01 -

DESCRIPTION CORRECTION:
AERATION HOT CELLS (A1 - A8)

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	~~0.0000~~	1.067	END TIME:		
RATE/HR:	~~0.3700~~	0.0005	PWR (LB/HR):	~~0.0000~~	1.067
CONFIDENTIAL:	Y		RATE/HR:	~~0.3700~~	0.0005
			CONFIDENTIAL:	Y	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0004 - AERATION HOT CELLS

PERMIT: 84060002

BEGAN OPERATION: / 1984

CEASED OPERATION: /

SCC: 31502001

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			~~.015~~	0.005
VOM	2	2			~~.015~~	0.005

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		015	~~.015~~ 0.005

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS: CAPTURE EFF. 100.00%

[illegible]AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0005 - STERILIZER CHAMBERS #7

PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

SCC:

MODE 01 - STERILIZER

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

UNITS: Tons of Ethylene Oxide Consumed UNITS: Tons of Ethylene Oxide Consumed

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
PWR (LB/HR):	8.0000	END TIME:	
RATE/HR:	0.0010 C C4	PWR (LB/HR):	8.0000
CONFIDENTIAL:	Y	RATE/HR:	0.0010 C C4
		CONFIDENTIAL:	Y

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0005 - STERILIZER CHAMBERS #7 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC:

CEASED OPERATION: /

MODE 01 - STERILIZER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.034	0.027
VOM	2	2			.034	0.027

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2	2		.034	.034 0.027

CAPTURING CONTROLS

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STAGE: Sterilizer Exhaust

043110AAC . GRIFFITH MICRO SCIENCE, INC.

. PROCESS DATA .

POINT 0006 . STERILIZER CHAMBERS #8-13 PERMIT: 97113041

BEGAN OPERATION: 12 . 1997 SCC:

CEASED OPERATION:

MODE 0. . 8-13

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION:
CEASED OPERATION:

UNITS: UNITS:

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
		END TIME:	
PWR (LB/HR):	48.0000	PWR (LB/HR):	48.0000
RATE/HR:	0.0200	RATE/HR:	0.0200
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0006 - STERILIZER CHAMBERS #8-13 PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 SCC:
CEASED OPERATION: /

MODE 01 - 8-13

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	2			.88	0.70
VOM	2	2			.88	0.70

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.88	0.70

CONTROL EQUIPMENT

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STACKS Sterilizer Exhaust 100 %

[illegible] GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA

POINT 0007 WAFT STERTLIZERS PERMIT:

BEGAN OPERATION: 19[illegible]

CEASED OPERATION:

MODE 01

DESCRIPTION CORRECTION:
[illegible]

PERCENT THROUGHPUTS: DEC - FEB: 25.00 * MAR - MAY: 25.00 *
JUN - AUG: 25.00 * SEP - NOV: 25.00 *

BEGAN OPERATION: 1999

CEASED OPERATION:

UNITS: [illegible] UNITS: [illegible]

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
		END TIME:	
PWR (LB/HR):	48.0000 *	PWR (LB/HR):	48.0000 *
RATE/HR:	0.0003	RATE/HR:	0.0003
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

Report AP/A [illegible] Illinois Environmental Protection Agency Page [illegible]

[illegible]

[illegible] ANNUAL EMISSION [illegible]

[illegible] GRIFFITH MICROSCIENCE INC

[illegible]

POINT [illegible] WBIT AERATION PERMIT [illegible]

BEGAN OPERATION:

CEASED OPERATION:

MODE [illegible]

DESCRIPTION CORRECTION:

[illegible]

PERCENT THROUGHPUT: [illegible]

BEGAN OPERATION: 1999

CEASED OPERATION:

UNITS:

ANNUAL OPERATION

HOURS DAY: 24.0

DAYS WEEK: [illegible]

WEEKS YEAR: [illegible]

HOURS YEAR: [illegible]

PWR LB HR [illegible] 20.

RATE HR: [illegible]

CONFIDENTIAL Y

UNITS:

PEAK [illegible]

HOURS DAY [illegible]

DAYS WEEK [illegible]

WEEKS YEAR [illegible]

HOURS YEAR [illegible]

START [illegible]

END [illegible]

[illegible]

[illegible]

CONFIDENTIAL

343110AAC . GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0008 WBII AERATION PERMIT:

BEGAN OPERATION: SCC:
CEASED OPERATION:

MODE 01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED	
ETO	2	2			.001		.004
VOM	2	1			.004		.004

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED	
VOM	2	2			.004	.004	.004

19%

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0002 - CHEMROX, INC./CET ACID-WATER SCRUBBER

PERMIT: 95120085

BEGAN OPERATION: / 1988

CONTROL CODE: 036

CEASED OPERATION: /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO		99.000		1		99.0		
VOM		99.000		1		99.0		

CAPTURING CONTROLS.

CAPTURING STACKS.

STACK 0001 CAPTURE EFFICIENCY: 100.00 % 99%

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER WITH 8 DRY BEDS PERMIT: 98100391

BEGAN OPERATION: 11 1998 CONTROL CODE: 001
CEASED OPERATION: /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY		ANNUAL OPERATION METHOD		PEAK OZONE SEASON OPERATION EFFICIENCY		PEAK OZONE SEASON OPERATION METHOD	
	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED
ETO		99.000						
VOM	99.000	99.000						

CAPTURING CONTROLS

CAPTURING STACKS

STACK 0006 CAPTURE EFFICIENCY: 100.00 %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0006 - WB II SCRUBBER - DRY BED PERMIT: 98100091

BEGAN OPERATION: / 1999 CONTROL CODE: 018
CEASED OPERATION: / /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY		ANNUAL OPERATION METHOD		PEAK OZONE SEASON OPERATION EFFICIENCY		PEAK OZONE SEASON OPERATION METHOD	
	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED
ETO		99.000		1		99.0		
VOM		99.000		1		99.0		

CAPTURE EFFICIENCY

CAPTURE SYSTEMS

STACK 0009 CAPTURE EFFICIENCY: 100.00 %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75		
HEIGHT (FT):		40		
FLOW RATE (ACFM):	IEPA -	173	REPORTED -	200
TEMPERATURE (F):	IEPA -	200	REPORTED -	95
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000		
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000		
DATUM :				
SCALE :				
METHOD:		E		
ACCURACY :				
WHERE MEASURED :				

043110AAC GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 199

CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT):		3.00		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA -	2	REPORTED -	15500
TEMPERATURE (F):	IEPA -	69	REPORTED -	69
LATITUDE (DD:MM:SS.SSSS):				
LONGITUDE (DD:MM:SS.SSSS):				
DATUM :				
SCALE :				
METHOD:				
ACCURACY :				
WHERE MEASURED :				

043113AAC - GRIFFITH MICRO SCIENCE INC.

- STACK DATA

STACK 03 - CREATED STACK

BEGAN OPERATION:
CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA	2	REPORTED	2
TEMPERATURE (F):	IEPA	69	REPORTED	69

LATITUDE (DD:MM:SS SSSS):
LONGITUDE (DD:MM:SS SSSS):
DATUM:
SCALE:
METHOD:
ACCURACY:
WHERE MEASURED:

[illegible]AAC GRIFFITH MICRO SCIENCE, INC

STACK DATA

STACK [illegible] - CREATED STACK

BEGAN OPERATION:

CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT)		0.13		
HEIGHT (FT)		33		
FLOW RATE (ACFM)	IEPA	2	REPORTED	2
TEMPERATURE (F)	IEPA	69	REPORTED	69

LATITUDE (DD:MM:SS.SSSS):

LONGITUDE (DD:MM:SS.SSSS):

DATUM :

SCALE :

METHOD:

ACCURACY :

WHERE MEASURED :

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC ANNUAL EMISSIONS REPORT - 2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0009 - WB 11 SCRUBBER STACK

BEGAN OPERATION: 1999
CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT):	1.00		
HEIGHT (FT):	33		
FLOW RATE (ACFM):	IEPA -	REPORTED -	15500
TEMPERATURE (F):	IEPA -	REPORTED -	70

LATITUDE (DD:MM:SS.SSSS):
LONGITUDE (DD:MM:SS.SSSS):
DATUM :
SCALE :
METHOD:
ACCURACY :
WHERE MEASURED :

IBA

April 26, 2001

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance and Systems Management
1021 North Grand Avenue East
Springfield, IL 62794-9276
Attn: Annual Emission Report

RE: Annual Emission Report for Griffith Micro Science, Inc. Willowbrook, IL Facility

Gentlemen,

Enclosed is IBA Griffith Micro Science, Inc. Annual Emissions Report for the year 2000. Those changes and/or additions have been made in blue ink.

Please do not hesitate in contacting me should you have any questions regarding this submission.

Yours truly,

Stephen Dana Morris
Director EH&S

Enclosure: Annual Emission Report

cc: Kathleen Hoffman
Mark Bogs

[illegible] Chicago, IL 60631 Tel: (800) 815-6574 Fax: (773) 867-[illegible]

RDI

Report: APCA0530

Illinois Environmental Protection Age[redacted]
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 1999

Page: 01
Date: 01-06-2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

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MAY 01 2000
Environmental Protection Agency
Bureau of Air
State of Illinois

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS:	17-043-0213	IEPA USE ONLY	
FINDS:	ILD984803320	IEPA USE ONLY	
FEIN:	363326376		
D&B:	144911518		
SIC 1:	7389		
SIC 2:			
SIC 3:			

LATITUDE:	41:44:52.0000
LONGITUDE:	87:56:38.0000
YEAR OF DATUM:	1992
SCALE:	
METHOD:	E
ACCURACY:	1.0000 MIN
WHERE MEASURED:	MIDWEST & QUINCY INTERS

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.

7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521

CONTACT: KATHLEEN HOFFMAN

PHONE: ~~972-519-9217~~ 773-867-7258 EXT:
FAX: ~~972-758-0234~~ 773-867-7201

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ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE INC.

2001 SPRING ROAD, SUITE 500
OAKBROOK, IL 60521-1887

CONTACT: KATHLEEN HOFFMAN

PHONE: ~~972-519-9217~~ 773-867-7258 EXT:
FAX: ~~972-758-0234~~ 773-867-7201

IEPA - DIVISION OF RECORDS MANAGEMENT
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OCT 01 2018

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KA Hoffman
AUTHORIZED SIGNATURE

5/1/00
DATE

EH&S Director
TYPED OR PRINTED NAME AND TITLE

773-867-7258
TELEPHONE NUMBER

10/03/2018 5:50PM A002902 043110AAC 10G 2,996,730 17000075346 06/22/2000 A STERIGENICS US LLC
B:35846 F:50497 I:00000063 EMISSIONS TEST REPOR

10/03/2018 5:50PM A002902 043110AAC 10G 2,996,731 170000075246 01/06/2000 A STERIGENICS US LLC
B:35846 F:50497 I:00000062 EMISSIONS TEST REPOR

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Report: APCA0530

Illinois Environmental Protection Agency
Division of Air Pollution Control
DAPC - ANNUAL EMISSIONS REPORT - 1999

Page: 01
Date: 01-06-2000

043110AAC - GRIFFITH MICRO SCIENCE, INC.

SOURCE DATA

SOURCE IDS AND LOCATION

AIRS: 17-043-0213 IEPA USE ONLY
FINDS: ILD984803320 IEPA USE ONLY
FEIN: 363726376
D&B: 144911518
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:44:52.0000
LONGITUDE: 87:56:38.0000
YEAR OF DATUM: 1992
SCALE:
METHOD: E
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUINCY INTERS

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.
7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521
CONTACT: KATHLEEN HOFFMAN
PHONE: ~~972-519-9219~~ 773-867-7258 EXT:
FAX: ~~972-758-0234~~ 773-867-7201

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RELEASABLE

ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE INC
2001 SPRING ROAD, SUITE 500
OAKBROOK, IL 60521-1887
CONTACT: KATHLEEN HOFFMAN
PHONE: ~~972-519-9277~~ 773-867-7258 EXT:
FAX: ~~972-758-0234~~ 773-867-7201

OCT 01 2018

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KA Hoffman
AUTHORIZED SIGNATURE

5/1/00
DATE

EH&S Director
TYPED OR PRINTED NAME AND TITLE

773-867-7258
TELEPHONE NUMBER

WAIVER OF CLAIM
DTD 09-21-2018

Report: APCA0530 Illinois Environmental Protection Agency Page: 02
Division of Air Pollution Control Date: 01-06-2000
DAPC ANNUAL EMISSIONS REPORT - 1999

043110AAC -- GRIFFITH MICRO SCIENCE, INC

ANNUAL SOURCE EMISSIONS

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1998 (TONS/YEAR)	IEPA 1999 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1999 (TONS/YEAR)
NOX	34.472273	17.700000	4.470910	7.47
VOM	131.060792	17.700000	4.470910	7.47

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DAPC - ANNUAL EMISSIONS REPORT - 1999

043110AAC - GRIFFITH MICRO SCIENCE, INC.

PERMIT LISTING

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS STATUS	STATUS DATE	STATUS EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03-11-1996	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
88070038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02-15-1991	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF			
96120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12-22-1997	07-23-1999
97110041	JOINT	STERILIZATION CHAMBER "G"	GRANTED	12-22-1997	08-08-1999
98100031	JOINT	SCRUBBER /DRY BEDS	GRANTED	11-30-1998	11-30-2003
99040016	JOINT	WILLOWBROOK II FACILITY	GRANTED	08-24-1999	05-05-2004
99050004	JOINT	STERILIZATION OF MEDICAL SUPPLIES/SPICES	GRANTED	06-30-1999	06-30-2004

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-6 PERMIT: 84060092

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: / /

MODE 01

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: / /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
PWR (LB/HR):	48.0000	END TIME:	
RATE/HR:	0.0100	PWR (LB/HR):	48.0000
CONFIDENTIAL:	Y	RATE/HR:	0.0100
		CONFIDENTIAL:	Y

043110AAC - GRIFFITH MICRO SCIENCE, INC

PROCESS DATA

POINT 0001 - STERILIZER CHAMBERS #1-6 PERMIT: 81060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001
CEASED OPERATION: / /

MODE 03

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
BTO	2	2			1.0195	41
VOM	2	2			1.0188	41

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			41	41

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CONTROL 0005 CAPTURE EFFICIENCY: 1.00 %

CAPTURING STACKS:

043118AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS PERMIT: 98120054

BEGAN OPERATION: 03 / 1993 SCC: 31503001
CEASED OPERATION: / /

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: / /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
			END TIME:		
PWE (LB/HR):	0.1000		PWE (LB/HR):	0.1000	
RATE/HR:	0.1000	0.0003	RATE/HR:	0.1000	0.0003
CONFIDENTIAL:	Y		CONFIDENTIAL:	Y	

ILLINOIS - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS — PERMIT: 96120054

BEGAN OPERATION: 07 / 1997 — SCC: 30500201

CEASED OPERATION: / /

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LBS/HR) IEPA	EMISSION RATE (LBS/HR) REPORTED
PTC	2				PE 0.12	
VOM	2				EP 0.12	

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			EP 0.12	

CAPTURING CONTROLS:
CONTROL CODE: — CAPTURE EFFICIENCY: 100 %

CAPTURING STACKS:
STACK ____ CODE: — CAPTURE EFFICIENCY: — METHOD: 0 %
STACK ____ CODE: — CAPTURE EFFICIENCY: — METHOD: 0 %
STACK ____ CODE: — CAPTURE EFFICIENCY: — METHOD: 0 %

043520AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0004 - AERATION HOT CELLS PERMIT: 04060037

BEGAN OPERATION: / 1984 SCC: 3350203

CEASED OPERATION: /

MODE 01

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: / 1984
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	23	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
			START TIME:		
PWR (LB/HR):	0.0000	0.01	END TIME:		
RATE/HR:	0.0000	0.37	PWR (LB/HR):	0.0000	0.01
CONFIDENTIAL:	Y		RATE/HR:	0.0000	0.37
			CONFIDENTIAL:	Y	

043110AAC GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0004 - AERATION HOT CELLS PERMIT: 84060002

BEGAN OPERATION: / 1984 SCC: 31302001

CEASED OPERATION: /

MODE 01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO		2				~~.08~~ 0.015
VOM		2				.08 0.015

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	3			.08	~~.08~~ 0.015

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 %

CAPTURING STACKS:

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Division of Air Pollution Control — Date: 01-06-2000

DAPC ANNUAL EMISSIONS REPORT - 1999

043110AAC : GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA

POINT: 0005 STERILIZER CHAMBERS / / PERMIT: 94060002

BEGAN OPERATION: 06 / 1984 SCC:

CEASED OPERATION: / /

MODE: 01 STERILIZER

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 MAR - MAY: 25.00

BEGAN OPERATION: 06 / 1984 JUN - AUG: 25.00 % SEP - NOV: 25.00 %

CEASED OPERATION: / /

UNITS: UNITS:

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION:	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
		END TIME:	
PWR (LB/HR):	0.0000	PWR (LB/HR):	0.0000
RATE/HR:	0.0010	RATE/HR:	0.0010
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

DAPC - ANNUAL EMISSIONS REPORT - 1999

043110AAC - GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA

POINT 0005 - STERILIZER CHAMBERS #7 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC:

CEASED OPERATION: / /

MODE 01 - STERILIZER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO		2			.034	
VOM		2			.034	

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.034	.034

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CONTROL 0005 CAPTURE EFFICIENCY: ~~12.00~~ % 0.370

CAPTURING STACKS:

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Division of Air Pollution Control — Date: 01-06-2000

DAPC - ANNUAL EMISSIONS REPORT - 1999

043110AAC - GRIFFITH MICRO SCIENCE, INC.

PROCESS DATA

POINT 0006 - STERILIZER CHAMBERS #8-13 — PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 — SCC:

CEASED OPERATION: / /

MODE 01 - 8-13

DESCRIPTION CORRECTION:

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % — MAR - MAY: 25.00 %

JUN - AUG: 25.00 % — SEP - NOV: 25.00 %

BEGAN OPERATION: / /

CEASED OPERATION: / /

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
UNITS:		UNITS:	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
		START TIME:	
		END TIME:	
PWR (LB/HR):	48.0000	PWR (LB/HR):	48.0000
RATE/HR:	0.0200	RATE/HR:	0.0200
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

043110AAC - GRIFFITH MICRO SCIENCE INC

PROCESS DATA

POINT: 0006 - STERILIZER CHAMBERS #8-13 PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 SCC:
CEASED OPERATION: / /

MODE: 01 - 8-13

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO		2			.86	
VOM		2			.88	

POLLUTANT CODE	METHOD IEPA	METHOD REP	OZONE SEASON EMISSION FACTOR IEPA	OZONE SEASON EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.88	.88

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95.00 %

CONTROL 0005 CAPTURE EFFICIENCY: 1.00 %

CAPTURING STACKS:

DATE: 2/14/95

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1994

PAGE 1 OF 2

ID NUMBER: 043110AAC NAME: GRIFFITH MICROSCIENCE

- PROCESS DATA -

POINT 0007 - W3TH Sterilizers PERMIT:

BEGAN OPERATION: 1991

CEASED OPERATION:

SCC: 3150200

SIC:

MODE 1

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1

PERCENT THROUGHPUTS: DEC-FEB: 25 % MAR-MAY: 25 %
JUN-AUG: 25 % SEP-NOV: 25 %

BEGAN OPERATION:

CEASED OPERATION:

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
RATE/HR:	0.0005	START TIME:	
RATE/DAY:	0.008	END TIME:	
RATE/YR:	2.76	RATE/HR:	2.76
PWR (LB/HR):	46	PWR (LB/HR):	46
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

IL 532 2219
APC 464 Rev. Dec-95

The Agency is authorized to require this information by 35 Ill. Adm. Code 201.302(a) and (b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

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- EMISSION RATE DATA -

POINT 0027 WBU Strippers PERMIT:

BEGAN OPERATION:

CEASED OPERATION:

SCC: 3-50-200-11

MODE 01 - SIC:

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	TYPICAL EMISSION RATE (LB/HR)
E+C	2		0.013
VOM	2		0.013

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	PEAK OZONE SEASON EMISSION RATE (LB/HR)
E+C	2		0.013
VOM	2		0.013

CAPTURING CONTROLS:

CONTROL 0001 CAPTURE EFFICIENCY: 96 %

CONTROL CAPTURE EFFICIENCY: %

CONTROL CAPTURE EFFICIENCY: %

CAPTURING STACKS:

STACK CAPTURE EFFICIENCY: %

STACK CAPTURE EFFICIENCY: %

STACK CAPTURE EFFICIENCY: %

DATE: 5/1/00

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY — PAGE 3 OF 12

DAPC - ANNUAL EMISSIONS REPORT - 1999

ID NUMBER: 043 000AAC NAME: GRIFFITH MICRO SCIENCE

- PROCESS DATA -

POINT 0008 - VENT Acetone PERMIT:

BEGAN OPERATION:

CEASED OPERATION:

SCC:

MODE - SIC:

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1

BEGAN OPERATION:

CEASED OPERATION:

PERCENT THROUGHPUTS: DEC-FEB: 25 % MAR-MAY: 25 %
JUN-AUG: 25 % SEP-NOV: 25 %

UNITS: Tons Ethylene Oxide Consumed

UNITS: Tons Ethylene Oxide Consumed

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
RATE/HR:	0.00001	START TIME:	
RATE/DAY:	0.0003	END TIME:	
RATE/YR:	0.115	RATE/HR:	0.1
PWR (LB/HR):	0.1	PWR (LB/HR):	0.1
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

IL-532 2219
APC 464 Rev. Dec-99

The Agency is authorized to require this information by 35 Ill. Adm. Code 101.302(a) and (b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act. 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

- EMISSION RATE DATA -

POINT 0008 - WBII Ae-24-20 PERMIT:

BEGAN OPERATION:

CEASED OPERATION:

MODE 01 SCC:

SIC:

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	TYPICAL EMISSION RATE (LB/HR)
PM	2		0.004
VOM	2		0.004

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	PEAK OZONE SEASON EMISSION RATE (LB/HR)
PM	2		0.004
VOM	2		0.004

CAPTURING CONTROLS:

CONTROL 0006 CAPTURE EFFICIENCY: 100 %

CONTROL CAPTURE EFFICIENCY: %

CONTROL CAPTURE EFFICIENCY: %

CAPTURING STACKS:

STACK CAPTURE EFFICIENCY: %

STACK CAPTURE EFFICIENCY: %

STACK CAPTURE EFFICIENCY: %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

CONTROL DEVICE DATA

CONTROL 0002 - CHEMROX, INC./CET ACID-WATER SCRUBBER PERMIT: 95120085

BEGAN OPERATION: / 1988 CONTROL CODE: 036

CEASED OPERATION: /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY		ANNUAL OPERATION METHOD		PEAK OZONE SEASON OPERATION EFFICIENCY		PEAK OZONE SEASON OPERATION METHOD	
	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED	IEPA	REPORTED
ETO		99.000		1		99.0		1
VOM		99.000		1		99.0		1

CAPTURING CONTROLS

CAPTURING STACKS

STACK 0001 CAPTURE EFFICIENCY: 100.00 %

043110AAC GRIFFITH MICRO SCIENCE, INC

CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER WITH 8 DRY BEDS PERMIT: 96100091

BEGAN OPERATION: 11 / 1998 CONTROL CODE: 001

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY

POLLUTANT	ANNUAL OPERATION EFFICIENCY IEPA	ANNUAL OPERATION EFFICIENCY REPORTED	ANNUAL OPERATION METHOD IEPA	ANNUAL OPERATION METHOD REPORTED	PEAK OZONE SEASON OPERATION EFFICIENCY IEPA	PEAK OZONE SEASON OPERATION EFFICIENCY REPORTED	PEAK OZONE SEASON OPERATION METHOD IEPA	PEAK OZONE SEASON OPERATION METHOD REPORTED
ETO	99.000	99.000	1			99.0		1
VOM	99.000	99.000	1			99.0		1

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0006 CAPTURE EFFICIENCY: 100.00 %

DATE: 5/1/00

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1999

ID NUMBER: 043 110AAC NAME: GRIFFITH MICRO SCIENCE

- CONTROL DEVICE DATA -

CONTROL 0006 - WBI Scrubber / Dry Bed PERMIT: ____

BEGAN OPERATION: 1999 CONTROL CODE: ____

CEASED OPERATION: ____

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

POLLUTANT	EtO	EFFICIENCY:	99 %	METHOD:	1
POLLUTANT	VOM	EFFICIENCY:	99 %	METHOD:	1
POLLUTANT		EFFICIENCY:	%	METHOD:	

CAPTURING CONTROLS:

CONTROL		CAPTURE EFFICIENCY:	%
CONTROL		CAPTURE EFFICIENCY:	%
CONTROL		CAPTURE EFFICIENCY:	%

CAPTURING STACKS:

STACK	0009	CAPTURE EFFICIENCY:	100 %
STACK		CAPTURE EFFICIENCY:	%
STACK		CAPTURE EFFICIENCY:	%

Il 532 2223
APC 458 Rev. Dec-95

The Illinois EPA is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.102(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA:

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.75			
HEIGHT (FT):		40			
FLOW RATE (ACFM):	IEPA	173	REPORTED	200	
TEMPERATURE (F):	IEPA	200	REPORTED	95	
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000			
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000			
DATUM:					
SCALE:					
METHOD:		E			
ACCURACY:		0			
WHERE MEASURED:					

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Division of Air Pollution Control — Date: 01-06-2000

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043110AAC GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0002 - WEST AERATION ROOM EXHAUST

BEGAN OPERATION: 07 / 1997

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.00	
HEIGHT (FT):		20	
FLOW RATE (ACFM):	IEPA	REPORTED	2500
TEMPERATURE (F):	IEPA	REPORTED	120
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000	
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000	
DATUM:			
SCALE:			
METHOD:			
ACCURACY:			
WHERE MEASURED:			

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0003 - FAR WEST AERATION ROOM EXHAUST

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.00	
HEIGHT (FT):		24	
FLOW RATE (ACFM):	IEPA -	REPORTED -	2000
TEMPERATURE (F):	IEPA -	REPORTED -	110
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000	
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000	
DATUM:			
SCALE:			
METHOD:			
ACCURACY:			
WHERE MEASURED:			

DAPC ANNUAL EMISSIONS REPORT - 1999

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0004 - EAST AERATION ROOM EXHAUST

BEGAN OPERATION: / 1988

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.00	
HEIGHT (FT):		24	
FLOW RATE (ACFM):	IEPA	REPORTED	2000
TEMPERATURE (F):	IEPA	REPORTED	110
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000	
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000	
DATUM:			
SCALE:			
METHOD:			
ACCURACY:			
WHERE MEASURED:			

DAPC - ANNUAL EMISSIONS REPORT - 1999

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0005 - AETATION HOT CELLS EXHAUST

RECAP OPERATION: / 1984

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.00	
HEIGHT (FT):		24	
FLOW RATE (ACFM):	IEPA	REPORTED:	2000
TEMPERATURE (F):	IEPA	REPORTED:	120
LATITUDE (DD:MM:SS.SSSS):		41:44:52.0000	
LONGITUDE (DD:MM:SS.SSSS):		87:56:38.0000	
DATUM:			
SCALE:			
METHOD:			
ACCURACY:			
WHERE MEASURED:			

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0006 - SCRUBBER/DRY BED STACK

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: / /

DESCRIPTION CORRECTION:

DIAMETER (FT):		2.00			
HEIGHT (FT):		33			
FLOW RATE (ACFM):	IEPA -	0	REPORTED -	15500	
TEMPERATURE (F):	IEPA -	69	REPORTED -	69	
LATITUDE (DD:MM:SS.SSSS):					
LONGITUDE (DD:MM:SS.SSSS):					
DATUM:					
SCALE:					
METHOD:					
ACCURACY:					
WHERE MEASURED:					

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0007 - ~~CREATED STACK~~ ~~W3 II Stack~~

BEGAN OPERATION: /

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33	
HEIGHT (FT):		33	
FLOW RATE (ACFM):	IEPA -	2	REPORTED -
TEMPERATURE (F):	IEPA -	69	REPORTED -
LATITUDE (DD:MM:SS.SSSS):			
LONGITUDE (DD:MM:SS.SSSS):			
DATUM :			
SCALE :			
METHOD:			
ACCURACY :			
WHERE MEASURED :			

043110AAC - GRIFFITH MICRO SCIENCE, INC.

STACK DATA

STACK 0008 - CREATED STACK

BEGAN OPERATION: /

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):		0.33		
HEIGHT (FT):		33		
FLOW RATE (ACFM):	IEPA	2	REPORTED	
TEMPERATURE (F):	IEPA	69	REPORTED	
LATITUDE (DD:MM:SS.SSSS):				
LONGITUDE (DD:MM:SS.SSSS):				
DATUM:				
SCALE:				
METHOD:				
ACCURACY:				
WHERE MEASURED:				

DATE: 5/1/00

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1999

ID NUMBER: 043110AAC NAME: Griffith Micro Science

- STACK DATA -

STACK 0049 - WB II Scrubber Stack

BEGAN OPERATION: 1999

CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT): 3

HEIGHT (FT): 33

TEMPERATURE (F): 70

FLOW RATE (ACFM): 15,500

VELOCITY (FT/MIN): CALCULATED BY IEPA

LATITUDE (DD:MM:SS):

LONGITUDE (DD:MM:SS):

METHOD:

IL 532 2224
APC 469 Rev. Dec-95

The agency is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.302(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act. 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

IBA

May 1, 2000

RECEIVED

MAY 01 2000

Illinois Environmental Protection Agency
Division Of Air Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

Dear Illinois EPA:

Attached is a completed 1999 Annual Emissions Report for our facility in Willowbrook, Illinois. Any corrections or additions to the report have been made in red ink.

If you have any questions or comments on this application, feel free to call me at (773) 867-7258.

Regards,

KA Hoffman

Kathleen Hoffman, P.E.
Environmental, Health & Safety Director

Attachments: 1999 Annual Emissions Report

8550 West Bryn Mawr Avenue, Suite 600 • Chicago, IL 60631 ☐ Tel: (800) 811-4674 ☐ Fax: (773) 867-7201 ☐ Website: http://www.iba.be

GRIFFITH SteriGenics RDI

10/03/2018 5:50PM A002902 043110AAC 10G 2,996,729 170000075246 04/30/1999 A STERIGENICS US LLC
B:35846 F:50497 I:00000061 EMISSIONS TEST REPOR

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12/14/98

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC ANNUAL EMISSIONS REPORT - 1998

PAGE 1

APR 30 1999

ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR
STATE OF ILLINOIS

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0002300162 3

SOURCE DATA

SOURCE IDS AND LOCATION

AIRS: 17-043-0213 IEPA USE ONLY
FINDS: ILD984772459 IEPA USE ONLY
FEIN: 363326376
D&B: 144911578
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:44:52.0000
LONGITUDE: 87:56:38.0000
YEAR OF DATUM: 1992
SCALE:
METHOD: E
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUINCY INTERS

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.
7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521
CONTACT: KATHLEEN ~~STEILEN~~ HOFFMAN
PHONE: 972-519-9217 EXT:
FAX: 972-758-0234

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE INC.
2001 SPRING ROAD, SUITE 500
OAKBROOK, IL 60521-1887
CONTACT: KATHLEEN ~~STEILEN~~ HOFFMAN
PHONE: 972-519-9217 EXT:
FAX: 972-758-0234

OCT 01 2018

REVIEWER: MED

043110AAC

ALL ANNUAL EMISSIONS REPORT DATA VERIFIED, MODIFIED OR PROVIDED ON BEHALF OF THE COMPANY NAMED ABOVE, WHETHER SUBMITTED ELECTRONICALLY OR IN WRITING, REPRESENTS THE BEST AVAILABLE INFORMATION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Kathleen Hoffman 4/29/99
AUTHORIZED SIGNATURE DATE

Kathleen Hoffman EH&S Director 972-519-9217
TYPED OR PRINTED NAME AND TITLE TELEPHONE NUMBER

Waiver of Claim
DTD 09-21-2018 MED

043110AAC GRIFFITH MICRO SCIENCE, INC.

0203001624

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1997 (TONS/YEAR)	IEPA 1998 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1998 (TONS/YEAR)
ETH		15.4000		17.7
VOM	131.0400	15.4000	9.1500	17.7

143110AAC GRIFFITH MICRO SCIENCE, INC.

PERMIT LISTING

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
94060002	OPERATING	STERILIZER	GRANTED	05/20/94	03/31/96
95040074	OPERATING	GAS STERILIZATION SYSTEM 6			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO #94060002	GRANTED	02/15/91	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF			
96120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12/22/97	07/23/99
97110041	JOINT	STERILIZATION CHAMBER "C"	GRANTED	12/22/97	08/08/99
98100091	JOINT	SCRUBBER /DRY BEDS	GRANTED	11/30/98	11/30/03

12/14/98

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1998

PAGE 4

043110AAC - GRIFFITH MICRO SCIENCE, INC.

02023001626

- PROCESS DATA -

POINT 0001 - - STERILIZER CHAMBERS #1-10

PERMIT 84050002

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

SCC: 31502001

STC: 2185

MODE 01 -

DESCRIPTION CORRECTION:
STERILIZER CHAMBERS #1-10

IDENTICAL POINTS: ~~12~~ 1

PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
JUN - AUG: 25.00 % SEP - NOV: 25.00 %

BEGAN OPERATION: 06 / 1984

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
RATE/HR:	0.0020	0.01	START TIME:		
RATE/DAY:	0.5800	0.25	END TIME:		
RATE/YR:	0.0520	91.6	RATE/HR:	0.0020	0.01
PWR (LB/HR):	~~8.0000~~	48.0	PWR (LB/HR):	~~8.0000~~	48.0
CONFIDENTIAL: Y			CONFIDENTIAL: Y		

43110AAC GRIFFITH MICRO SCIENCE, INC.

02023001627

- PROCESS DATA -

POINT 0001 - STERILIZER CHAMBERS #1-10 PERMIT 84060002

BEGAN OPERATION: 06 / 1984 SCC 31502001

CEASED OPERATION: / SIC 7389

MODE 01

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
VOM	2	~~5~~ 2			.0849	~~20~~ 0.41
ETO		2				0.41

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
VOM		~~5~~ 2				~~20~~ 0.41
ETO		2				0.41

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: ~~100.00~~ 3.0%

CAPTURING STACKS:

CONTROL 0002 CAPTURE EFFICIENCY: 95%

043110AAC - GRIFFITH MICRO SCIENCE, INC.

02023001623

- PROCESS DATA -

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS PERMIT: 95120054

BEGAN OPERATION: 07 / 1997 SCC: 31502001

CEASED OPERATION: / SIC:

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 3 PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

BEGAN OPERATION: 07 / 1997 JUN - AUG: 25.00 % SEP - NOV: 25.00 %

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	0.0	24	HOURS/DAY:		24
DAYS/WEEK:	0.0	7	DAYS/WEEK:		7
WEEKS/YEAR:	0	52	WEEKS/SEASON:		12
HOURS/YEAR:	0	8736	HOURS/SEASON:		2184
RATE/HR:	0.0000	0.0003	START TIME:		
RATE/DAY:	0.0000	0.008	END TIME:		
RATE/YR:	0.0000	2.98	RATE/HR:		0.0003
PWR (LB/HR):	0.0000	0.1	PWR (LB/HR):	0.0000	0.1
CONFIDENTIAL:	Y		CONFIDENTIAL:	Y	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0202300162

PROCESS DATA

POINT 0002 - EAST, WEST AND FAR WEST AERATION CELLS PERMIT: 96120054

BEGAN OPERATION: 11 / 1997 SCC: 3150200

CEASED OPERATION: / / SIC:

MODE: 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO		2				0.06
VOM		2				0.02

POLLUTANT CODE	METHOD IEPA	METHOD REP	OZONE SEASON EMISSION FACTOR IEPA	OZONE SEASON EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2				0.08
STU		2				0.08

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: 100.00 % C

CAPTURING STACKS:

STACK 0002 CAPTURE EFFICIENCY: 33.00 %

STACK 0003 CAPTURE EFFICIENCY: 33.00 %

STACK 0004 CAPTURE EFFICIENCY: 33.00 %

12/14/98

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1998

PAGE 8

043110AAC - GRIFFITH MICRO SCIENCE, INC.

02023001630

- PROCESS DATA -

POINT 0003 - ETHYLENE OXIDE STERILIZATION CHAMBER #1 PERMIT 971100

BEGAN OPERATION: 12 / 1997 SCC 1150[illegible]

CEASED OPERATION: / SIC

MODE 01 - ETHYLENE OXIDE STERILIZATION CHAMBER

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1 PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

BEGAN OPERATION: 12 / 1997 JUN - AUG: 25.00 % SEP - NOV: 25.00 %

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24.0
DAYS/WEEK:	7.0	DAYS/WEEK:	7.0
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8,736	HOURS/SEASON:	2,184
RATE/HR:	0.0030	START TIME:	
RATE/DAY:	0.0780	END TIME:	
RATE/YR:	28.7000	RATE/HR:	0.0030
PWR (LB/HR):	0.0000	PWR (LB/HR):	0.0000
CONFIDENTIAL: Y		CONFIDENTIAL: Y	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0202300163

PROCESS DATA

POINT 0003 - ETHYLENE OXIDE STERILIZATION CHAMBER "C" PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 SCC: 31502001

CEASED OPERATION: / SIC:

MODE 01 - ETHYLENE OXIDE STERILIZATION CHAMBER "C"

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	REPORTED	EMISSION RATE (LB/HR) IEPA	REPORTED
ETO	5				39	
VOM	5				39	

OZONE SEASON

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	REPORTED	EMISSION RATE (LB/HR) IEPA	REPORTED
VOM	5				39	

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY 100.00 %

CAPTURING STACKS:

0431110AAC - GRIFFITH MICRO SCIENCE, INC.

0320230016 32

- PROCESS DATA -

POINT 0004 - ETHYLATION HOT CELLS PERMIT: 84060002

BEGAN OPERATION: / 1984
CEASED OPERATION: /

SCC: 31502001
SIC: 7389

MODE 01

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 8 PERCENT THROUGHPUTS: DEC - FEB 25.00 % MAR - MAY 25.00 %
BEGAN OPERATION: / 1984 JUN - AUG 25.00 % SEP - NOV 25.00 %
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			
HOURS/DAY:	24.0		
DAYS/WEEK:	7.0		
WEEKS/YEAR:	52		
HOURS/YEAR:	8,736		
RATE/HR:		0.0000	0.003
RATE/DAY:		0.0000	0.001
RATE/YR:		0.0000	0.372
PWR (LB/HR):			0.01
CONFIDENTIAL: Y			

UNITS: TONS ETHYLENE OXIDE CONSUMED

PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0	
DAYS/WEEK:	7.0	
WEEKS/SEASON:	13	
HOURS/SEASON:	2,184	
START TIME:		
END TIME:		
RATE/HR:		0.002
PWR (LB/HR):		0.01
CONFIDENTIAL: Y	Y	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0200300163 3

- PROCESS DATA -

POINT 0004 AERATION HOT CELLS PERMIT 84060002

BEGAN OPERATION / 1984 SCC 31502001

CEASED OPERATION / SIC 7389

MODE 01

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	REPORTED	EMISSION RATE (LB/HR) IEPA	REPORTED
VOM	2					0.38
ETO	2					0.03

POLLUTANT CODE	METHOD IEPA	REP	EMISSION FACTOR IEPA	REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	REPORTED
VOM	2					0.38
ETO	2					0.03

CAPTURING CONTROLS:

CONTROL 0005 CAPTURE EFFICIENCY: ~~100.00~~ C

CAPTURING STACKS:

STACK 0005 CAPTURE EFFICIENCY 100 %

020230 01634

DATE: 04/28/99

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1998

ID NUMBER: 043110AAC NAME: GRIFFITH MICRO SCIENCE, INC

0005

- PROCESS DATA -

POINT A - STERILIZER CHAMBERS # 7 - PERMIT: 8406002

BEGAN OPERATION: 06/1984

CEASED OPERATION:

SCC: 3.50200 1

SIC: 7389

MODE 01

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1

BEGAN OPERATION: 06/1984

CEASED OPERATION:

PERCENT THROUGHPUTS: DEC-FEB: 25 % MAR-MAY: 25 %
JUN-AUG: 25 % SEP-NOV: 25 %

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24.0	HOURS/DAY:	24
DAYS/WEEK:	7.0	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
RATE/HR:	0.001	START TIME:	
RATE/DAY:	0.02	END TIME:	
RATE/YR:	7.6	RATE/HR:	0.001
PWR (LB/HR):	8.0	PWR (LB/HR):	8.0
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

IL 532 2219
APC 464 Rev. Dec-95

The Agency is authorized to require this information by 35 Ill. Adm. Code 201.202(a) and (b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 7/42-45. This form has been approved by the Forms Management Center.

0202300635

2005

- EMISSION RATE DATA -

POINT A - STERILIZER CHAMBER # 7 PERMIT: 8406002

BEGAN OPERATION: 06/1991

CEASED OPERATION: _____

SCC: 31502001

SIC: 7389

MODE 01

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	TYPICAL EMISSION RATE (LB/HR)
VOM	2		0.034
ETO	2		0.034

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	PEAK OZONE SEASON EMISSION RATE (LB/HR)
VOM	2		0.034
ETO	2		0.034

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95 %

CONTROL 0005 CAPTURE EFFICIENCY: 2 %

CONTROL _____ CAPTURE EFFICIENCY: _____ %

CAPTURING STACKS:

STACK _____ CAPTURE EFFICIENCY: _____ %

STACK _____ CAPTURE EFFICIENCY: _____ %

STACK _____ CAPTURE EFFICIENCY: _____ %

020230 01636

DATE: 04/28/99

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1998

ID NUMBER: 09311 0AAC NAME: GRIFFITH MICRO SCIENCE, INC

- PROCESS DATA -

POINT B - STERILIZER CHAMBERS # 8-13 PERMIT: ~~[illegible]~~ 97110041

BEGAN OPERATION: ~~[illegible]~~ 12/1997

CEASED OPERATION:

SCC: 31502001

MODE 01 - SIC: 7389

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1

BEGAN OPERATION: 06/1984

CEASED OPERATION:

PERCENT THROUGHPUTS: DEC-FEB: 25 % MAR-MAY: 25 %
JUN-AUG: 25 % SEP-NOV: 25 %

UNITS: TONS ETHYLENE OXIDE CONSUMED UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
RATE/HR:	0.02	START TIME:	
RATE/DAY:	0.54	END TIME:	
RATE/YR:	198.4	RATE/HR:	0.02
PWR (LB/HR):	48.0	PWR (LB/HR):	48.0
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

IL 532 2219
APC 464 Rev. Dec-95

The Agency is authorized to require this information by 35 Ill. Adm. Code 201.302(a) and (b) and Part 394. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

020230001637

0006

- EMISSION RATE DATA -

POINT B - STERILIZER CHAMBERS #8-13

PERMIT: 97110041 ~~8406002~~

BEGAN OPERATION: ~~[illegible]~~ 12/1997

CEASED OPERATION: _____

SCC: 31502001

SIC: 7389

MODE 01 -

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	TYPICAL EMISSION RATE (LB/HR)
VOM	2		0.88
ETO	2		0.88

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	PEAK OZONE SEASON EMISSION RATE (LB/HR)
VOM	2		0.88
ETO	2		0.88

CAPTURING CONTROLS:

CONTROL 0002 CAPTURE EFFICIENCY: 95 %

CONTROL 0005 CAPTURE EFFICIENCY: 1 %

CONTROL _____ CAPTURE EFFICIENCY: _____ %

CAPTURING STACKS:

STACK _____ CAPTURE EFFICIENCY: _____ %

STACK _____ CAPTURE EFFICIENCY: _____ %

STACK _____ CAPTURE EFFICIENCY: _____ %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

02023001638

- CONTROL DEVICE DATA

CONTROL 0002 - CHEMROX, INC /CET ACID-WATER SCRUBBER PERMIT: 95120085

BEGAN OPERATION: / 1988 CONTROL CODE: 036

CEASED OPERATION: /

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

ETO	EFFICIENCY:	99.00 %	METHOD:	
VOM	EFFICIENCY:	99.00 %	METHOD:	

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK ~~0004~~ 0001 CAPTURE EFFICIENCY: 100.00 %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

020230 01639

- CONTROL DEVICE DATA

CONTROL 0005 - ACID-WATER SCRUBBER WITH 8 DRY BEDS PERMIT: 98100091

BEGAN OPERATION: 11 / 1998 _____

CEASED OPERATION: / _____ CONTROL CODE: 001 _____

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

ETO EFFICIENCY: 99.00 % _____ METHOD: _____

VOM EFFICIENCY: 99.00 % _____ METHOD: _____

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 0001, CAPTURE EFFICIENCY: 100.00 % _____

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0220300164O

STACK DATA

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: / /

DESCRIPTION CORRECTION

DIAMETER (FT)	75	
HEIGHT (FT)	40	
TEMPERATURE (F)	95	
FLOW RATE (ACFM)	200	
VELOCITY (FT/MIN)	452.706335	CALCULATED BY IEPA
LATITUDE (DD MM SS)	41:44:52.0000	
LONGITUDE (DD MM SS)	87:56:38.0000	
METHOD	E	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0202300016411

- STACK DATA -

STACK C002 - WEST AERATION ROOM EXHAUST

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

DESCRIPTION/CORRECTION:

DIAMETER (FT)	2	
HEIGHT (FT)	20	
TEMPERATURE (F)	120	
FLOW RATE (ACFM)	2500	
VELOCITY (FT/MIN)	795.772854	CALCULATED BY IEPA
LATITUDE (DD:MM:SS)		
LONGITUDE (DD:MM:SS)		
METHOD		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

02023001642

- STACK DATA -

STACK 0003 - FAR WEST AERATION ROOM EXHAUST

BEGAN OPERATION: 12 / 1997

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):	2	
HEIGHT (FT):	24	
TEMPERATURE (F):	110	
FLOW RATE (ACFM):	2000	
VELOCITY (FT/MIN):	636.618283	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):		
LONGITUDE (DD:MM:SS):		
METHOD:		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0202300164 3

- STACK DATA -

STACK 0004 - EAST AERATION ROOM EXHAUST

BEGAN OPERATION: / 1986

CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):	2	
HEIGHT (FT):	24	
TEMPERATURE (F):	110	
FLOW RATE (ACFM):	2000	
VELOCITY (FT/MIN):	636.618263	CALCULATED BY IEPA
LATITUDE (DD MM SS):		
LONGITUDE (DD MM SS):		
METHOD:		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

0202300164

STACK DATA

STACK 0005 - AETATION HOT CELLS EXHAUST

BEGAN OPERATION: / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):	2	
HEIGHT (FT):	24	
TEMPERATURE (F):	120	
FLOW RATE (ACFM):	2000	
VELOCITY (FT/MIN)	636.618283	CALCULATED BY IEPA
LATITUDE (DD:MM:SS)		
LONGITUDE (DD:MM:SS)		
METHOD		

DATE: 04/28/99

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1998

PAGE 1 OF 6

ID NUMBER: 073110AAC NAME: GRIFFITH MICRO SCIENCE INC

- STACK DATA -

STACK COG - SCRUBBER / DRY BED STACK

BEGAN OPERATION: 12/1997

CEASED OPERATION:

DESCRIPTION CORRECTION:

DIAMETER (FT): 3

HEIGHT (FT): 33

TEMPERATURE (F): AMBIENT

FLOW RATE (ACFM): 15,500

VELOCITY (FT/MIN): CALCULATED BY IEPA

LATITUDE (DD:MM:SS):

LONGITUDE (DD:MM:SS):

METHOD:

IL 532 2224
APC 469 Rev: Dec-95

The Agency is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.302(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

0230 01645

10/03/2018 5:50PM A002902 043110AAC 10G 2,996,728 170000075246 04/30/1998 A STERIGENICS US LLC
B:35846 F:50497 I:00000060 EMISSIONS TEST REPOR

GRIFFITH MICRO SCIENCE

2001 SPRING ROAD, SUITE 500 OAK BROOK, ILLINOIS USA 60521-1887 (630) 571-1280 FAX: (630) 571-1245

April 30, 1998

Illinois Environmental Protection Agency
Division of Air Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276

Dear Illinois EPA:

Attached is a completed 1997 Annual Emissions Report for our facility in Willowbrook, Illinois. Any corrections or additions to the report have been made in red ink.

If you have any questions or comments on this application, feel free to call me at 972-519-9217.

Regards,

Kathleen A. Steilen

Kathleen A. Steilen, P.E.
Environmental, Health & Safety Director

Attachments: 1997 Annual Emissions Report

WAIVER OF CLAIM DTD 09-21-2018 MEI
IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

OCT 01 2018

REVIEWER: MED

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213	IEPA USE ONLY	LATITUDE: 41:44:52.0000	
FINDS: ILD984772459	IEPA USE ONLY	LONGITUDE: 87:56:38.0000	
FEIN: 363326376		YEAR OF DATUM: 1992	
D&B: 144911518		SCALE:	
SIC 1: 7389		METHOD: E	
SIC 2:		ACCURACY: 1.0000 MIN	
SIC 3:		WHERE MEASURED: MIDWEST & QUINCY INTERS	

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.

7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521

CONTACT: ~~ALLEN AMMERMAN~~ KATHLEEN STEILEN
PHONE: ~~630-472-4514~~ 972-519-9217 EXT:
FAX: ~~630-571-1245~~ 972-758-6234

ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE INC.

2001 SPRING ROAD, SUITE 500
OAKBROOK, IL 60521-1887

CONTACT: ~~ALLEN AMMERMAN~~ KATHLEEN STEILEN
PHONE: ~~630-472-4514~~ 972-519-9217 EXT:
FAX: ~~630-571-1245~~ 972-758-6234

ALL ANNUAL EMISSIONS REPORT DATA VERIFIED, MODIFIED OR PROVIDED ON BEHALF OF THE COMPANY NAMED ABOVE, WHETHER SUBBMITTED ELECTRONICALLY OR IN WRITING, REPRESENTS THE BEST AVAILABLE INFORMATION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Kathleen A. Steilen
AUTHORIZED SIGNATURE

4/30/98
DATE

Kathleen Steilen
Director - Environmental, Health + Safety
TYPED OR PRINTED NAME AND TITLE

972-519-9217
TELEPHONE NUMBER

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1996 (TONS/YEAR)	IEPA 1997 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1997 (TONS/YEAR)
~~VOM~~ - ETO	131.0400	10.8600	4.4501	15 4 lbs/yr

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	GRANTED	05/20/94	03/31/96
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02/15/91	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF			
96120054	JOINT	WEST AND FAR WEST AERATION CELLS	GRANTED	12/22/97	07/23/99
97110041	JOINT	STERILIZATION CHAMBER "C"	GRANTED	12/22/97	08/08/99

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: / SIC: 7389

MODE 01 -

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 12 PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

BEGAN OPERATION: 06 / 1984 JUN - AUG: 25.00 % SEP - NOV: 25.00 %

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
RATE/HR:	~~0.0240~~	0.002	START TIME:		
RATE/DAY:	~~0.5800~~	0.052	END TIME:		
RATE/YR:	~~211.9400~~	19.1	RATE/HR:	~~0.0250~~	0.002
PWR (LB/HR):	~~9.0000~~	8.0	PWR (LB/HR):	~~9.0000~~	8.0
CONFIDENTIAL: Y			CONFIDENTIAL: Y		

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06 / 1984 SCC: 31502001

CEASED OPERATION: / SIC: 7389

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
~~VOM~~ ETO	2	5			.0849	~~245~~ 0.26

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
~~VOM~~ ETO	2	5			.0849	~~246~~ 0.26

CAPTURING CONTROLS:

CONTROL 0001 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STACKS:

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0002 - WEST AND FAR WEST AERATION CELLS WITH HEAT EXCHANGER PERMIT: 96120054

BEGAN OPERATION: 07 / 1997 SCC: 31502001
CEASED OPERATION: / SIC:

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

DESCRIPTION CORRECTION:
- EAST, WEST AND FAR WEST AERATION CELLS

IDENTICAL POINTS: ~~2~~ 3 PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %
BEGAN OPERATION: 07 / 1997 JUN - AUG: 25.00 % SEP - NOV: 25.00 %
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	~~52~~	52	WEEKS/SEASON:	13	
HOURS/YEAR:	~~8,568~~	8736	HOURS/SEASON:	2184	
RATE/HR:	~~1.0000~~	0	START TIME:		
RATE/DAY:	~~24.0000~~	0	END TIME:		
RATE/YR:	~~8,568.0000~~	0	RATE/HR:		
PWR (LB/HR):	~~2,000.0000~~	0	PWR (LB/HR):	~~2,000.0000~~	0
CONFIDENTIAL:	Y		CONFIDENTIAL:	Y	

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0002 - WEST AND FAR WEST AERATION CELLS WITH HEAT EXCHANGER PERMIT: 96120054

BEGAN OPERATION: 07 / 1997 SCC: 31502001

CEASED OPERATION: / SIC:

MODE 01 - WEST AND FAR W. AERATION CELL WITH HEAT EXCHANGER

POLLUTANT CODE	METHOD IEPA REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	4	5		~~77~~	0

POLLUTANT CODE	METHOD IEPA REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0002 CAPTURE EFFICIENCY: ~~50.00~~ 100 %

STACK 0003 CAPTURE EFFICIENCY: ~~50.00~~ 100 %

STACK 0004 CAPTURE EFFICIENCY 100 %

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0003 - ETHYLENE OXIDE STERILIZATION CHAMBER "C" PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 SCC: 31502001

CEASED OPERATION: / SIC:

MODE 01 - ETHYLENE OXIDE STERILIZATION CHAMBER "C"

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 1 PERCENT THROUGHPUTS: DEC - FEB: 25.00 % MAR - MAY: 25.00 %

BEGAN OPERATION: 12 / 1997 JUN - AUG: 25.00 % SEP - NOV: 25.00 %

CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

ANNUAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24 0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	~~52~~	52.	WEEKS/SEASON:	13	
HOURS/YEAR:	~~8,568~~	8 7 3 ~~6~~	HOURS/SEASON:	2184	
RATE/HR:		~~0.0038~~ 0,003	START TIME:		
RATE/DAY:		~~0.0912~~ 0,079	END TIME:		
RATE/YR:		~~32.5584~~ 28.7	RATE/HR:		0 003
PWR (LB/HR):		8.0000	PWR (LB/HR):	8.0000	
CONFIDENTIAL:		Y	CONFIDENTIAL:		Y

UNITS: TONS ETHYLENE OXIDE CONSUMED

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0003 - ETHYLENE OXIDE STERILIZATION CHAMBER "C" PERMIT: 97110041

BEGAN OPERATION: 12 / 1997 SCC: 31502001

CEASED OPERATION: / SIC:

MODE 01 - ETHYLENE OXIDE STERILIZATION CHAMBER "C"

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
ETO	2	5			~~.476~~	0.34
VOM	2	5			~~.476~~	N/A

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED

CAPTURING CONTROLS:

CONTROL ~~0002~~ 0001 CAPTURE EFFICIENCY: 95.00 %

CAPTURING STACKS:

- EMISSION RATE DATA -

PERMIT: 8406002

NT 0004 - Aeration Hot Cells

BEGAN OPERATION: 1984

CEASED OPERATION: _____

SCC: 31502001

SIC: 7389

)E 01 - Aeration Hot Cells

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	TYPICAL EMISSION RATE (LB/HR)
ETO	5		0

POLLUTANT CODE	ESTIMATION METHOD	EMISSION FACTOR	PEAK OZONE SEASON EMISSION RATE (LB/HR)

APTURING CONTROLS:

CONTROL _____ CAPTURE EFFICIENCY: _____ %

CONTROL _____ CAPTURE EFFICIENCY: _____ %

CONTROL _____ CAPTURE EFFICIENCY: _____ %

CAPTURING STACKS:

STACK ~~0005~~ CAPTURE EFFICIENCY: _____ %

STACK 0005 CAPTURE EFFICIENCY: 100 %

STACK _____ CAPTURE EFFICIENCY: _____ %

ATE: 4/30/98

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1997

) NUMBER: 043110AAC NAME: Griffith Micro Science, Inc.

- PROCESS DATA -

OINT 0004 - ~~EMISS~~ Aeration Hot Cells PERMIT: 84060002

BEGAN OPERATION: 1984
CEASED OPERATION:

SCC: 3150201
SIC: 7389

ODE 01 - Aeration Hot Cells

ESCRIPTION CORRECTION:

DENTICAL POINTS: 8
BEGAN OPERATION: 1987
EASED OPERATION:

PERCENT THROUGHPUTS: DEC-FEB: 25 % MAR-MAY: 25 %
JUN-AUG: 25 % SEP-NOV: 25 %

UNITS: TONS ETHYLENE OXIDE Consumed

UNITS: Tons Ethylene Oxide Consumed

ANNUAL OPERATION		PEAK OZONE SEASON OPERATION	
HOURS/DAY:	24	HOURS/DAY:	24
DAYS/WEEK:	7	DAYS/WEEK:	7
WEEKS/YEAR:	52	WEEKS/SEASON:	13
HOURS/YEAR:	8736	HOURS/SEASON:	2184
RATE/HR:	0	START TIME:	
RATE/DAY:	0	END TIME:	
RATE/YR:	0	RATE/HR:	0
PWR (LB/HR):	0	PWR (LB/HR):	0
CONFIDENTIAL:	Y	CONFIDENTIAL:	Y

L 532 2219
PC 464 Rev. Dec-95

The Agency is authorized to require this information by 35 Ill. Adm. Code 101.302(c) and (b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act. 415 ILCS 5/42-65. This form has been approved by the Forms Management Center.

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0001 - DEOXX EMISSION CONTROL SYSTEM PERMIT: 84060002

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

CONTROL CODE: ~~052~~ 013

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

VOM EFFICIENCY: 99.90 % METHOD: 2

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0001 CAPTURE EFFICIENCY: ~~99.99~~ % 100

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0003 - CHEMROX, INC./CET ACID-WATER SCRUBBER PERMIT: 97110041

BEGAN OPERATION: / 1988
CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

CAPTURING CONTROLS:

CAPTURING STACKS:

Control Device does not exist
(Same as Control #0001)

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0002 - CHEMROX, INC./CET ACID-WATER SCRUBBER PERMIT: 95120085

BEGAN OPERATION: / 1988
CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

ETO	EFFICIENCY:	99.00 %	METHOD:	
VOM	EFFICIENCY:	99.00 %	METHOD:	

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0004 CAPTURE EFFICIENCY: 100.00 %

Control Device Does Not Exist
(Same as control #0001)

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA

CONTROL 0004 - CHEMROX, INC./CET ACID-WATER SCRUBBER PERMIT: 95120085

BEGAN OPERATION: 01 / 1988
CEASED OPERATION: /

CONTROL CODE: 036

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:

ETO	EFFICIENCY:	0.00 %	METHOD:
VOM	EFFICIENCY:	0.00 %	METHOD:

CAPTURING CONTROLS:

CAPTURING STACKS:

Control Device Does Not Exist
(See Control 0001)

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06 / 1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):	~~46~~	.75
HEIGHT (FT):	40	
TEMPERATURE (F):	95	
FLOW RATE (ACFM):	~~173~~	200
VELOCITY (FT/MIN):	1040.97318	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):	41:44:52.0000	
LONGITUDE (DD:MM:SS):	87:56:38.0000	
METHOD:	E	

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0002 - WEST AERATION CELL EXHAUST

BEGAN OPERATION: 07 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:
WEST AERATION ROOM EXHAUST

DIAMETER (FT):	2	
HEIGHT (FT):	20	
TEMPERATURE (F):	120	
FLOW RATE (ACFM):	2500	
VELOCITY (FT/MIN):	795.772854	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):		
LONGITUDE (DD:MM:SS):		
METHOD:		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0003 - FAR WEST AERATION CELL EXHAUST

BEGAN OPERATION: 12 / 1997
CEASED OPERATION: /

DESCRIPTION CORRECTION:
FAR WEST AERATION ROOM EXHAUST

DIAMETER (FT):	2	
HEIGHT (FT):	24	
TEMPERATURE (F):	110	
FLOW RATE (ACFM):	2000	
VELOCITY (FT/MIN):	636.618283	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):		
LONGITUDE (DD:MM:SS):		
METHOD:		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0004 - CHEMROX, INC. /CET ACID WATER SCRUBBER EXHAUST

BEGAN OPERATION: / 1988

CEASED OPERATION: /

DESCRIPTION CORRECTION:
FAST AERATION ROOM EXHAUST

DIAMETER (FT):	~~.75~~	2
HEIGHT (FT):	~~35~~	24
TEMPERATURE (F):	~~80~~	110
FLOW RATE (ACFM):	~~200~~	2000
VELOCITY (FT/MIN):	452.706335	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):		
LONGITUDE (DD:MM:SS):		
METHOD:		

BANK DOES NOT HAVE THIS

TE: 4/30/98

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1997

NUMBER: 043110AAC NAME: Griffith Micro Science Inc

- STACK DATA -

STACK 0005 - ~~1~~ Aeration Ht. Coils Exhaust

BEGAN OPERATION: 1984

CEASED OPERATION: _____

SCRIPTION CORRECTION:

DIAMETER (FT): 2

HEIGHT (FT): 24

TEMPERATURE (F): 120

FLOW RATE (ACFM): 2000

VELOCITY (FT/MIN): CALCULATED BY IEPA

LATITUDE (DD:MM:SS): _____

LONGITUDE (DD:MM:SS): _____

METHOD: _____

IL 532 2224
APC 469 Rev. Dec-95

The Agency is authorized to require, and you must disclose, the information on this form pursuant to 35 Ill. Adm. Codes 201.302(a,b) and Part 254. It is not necessary to use this form in providing the information. Failure to disclose the information may result in penalties as provided for in the Environmental Protection Act, 415 ILCS 5/42-45. This form has been approved by the Forms Management Center.

ERMS

Reviewed & Entered-GB

01/14/97

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1996

RECEIVED
MAY 01 1997
IEPA - BOA
STATE OF ILLINOIS

043110AAC - GRIFFITH MICRO SCIENCE, INC.
OWNER: GRIFFITH MICRO SCIENCE, INC.
FACILITY PHONE: 708-654-5151

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213 IEPA USE ONLY
FINDS: ILD984772459 IEPA USE ONLY
FEIN: 363326376
D&B: 144911518
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:44:52.0000
LONGITUDE: 87:56:38.0000
YEAR OF DATUM: 1992
SCALE:
METHOD: E
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUINCY INTERSECTION

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.

7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521
CONTACT: ALLEN AMMERMAN
PHONE: 708-472-4514 EXT:
FAX: 708-571-1245

630-472-4514
630-571-1245

ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE INC.

2001 SPRING ROAD, SUITE 500
OAKBROOK, IL 60521-1887
CONTACT: ALLEN AMMERMAN
PHONE: 708-472-4514 EXT:
FAX: 708-571-1245

ALL ANNUAL EMISSIONS REPORT DATA VERIFIED, MODIFIED OR PROVIDED ON BEHALF OF THE COMPANY NAMED ABOVE, WHETHER SUBMITTED ELECTRONICALLY OR IN WRITING, REPRESENTS THE BEST AVAILABLE INFORMATION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Allen Ammerman
AUTHORIZED SIGNATURE

4-24-97
DATE

Allen Ammerman
TYPED OR PRINTED NAME AND TITLE

630-472-4514
TELEPHONE NUMBER

10/02/2018 3:19PM A 17000075246 043110AAC STERIGENICS US LLC 05/01/1997 AER1996 1,841,167
A000589 B:89474 F:50497 I:0000029 TOMREUTE 12/21/2011 TOMREUTE 12/21/2011 10G

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1995 (TONS/YEAR)	IEPA 1996 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1996 (TONS/YEAR)
VOM	131.0400	10.6600	4.4501	10.86

10.65 + 0.213 = 10.686
Aeration + Deoxx
99.9% Efficiency

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	STERILIZER	NOT REQUIRED	03/19/96	
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02/15/91	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TR			
96120054	JOINT	WEST AERATION CELL			

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

SCC: 31502001
SIC: 7389

MODE 01 -

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 12 PERCENT THROUGHPUTS: DEC-FEB: 25.00% MAR-MAY: 25.00%
BEGAN OPERATION: 06/1984 JUN-AUG: 25.00% SEP-NOV: 25.00%
CEASED OPERATION: /

UNITS: TONS ETHYLENE OXIDE CONSUMED

TYPICAL OPERATION				PEAK OZONE SEASON OPERATION			
HOURS/DAY:	24.0			HOURS/DAY:	24.0		
DAYS/WEEK:	7.0			DAYS/WEEK:	7.0		
WEEKS/YEAR:	52			WEEKS/SEASON:	13 ✓		
HOURS/YEAR:	8,736			HOURS/SEASON:	2,184 ✓		
RATE/HR:		0.0250	0.024	START TIME:			00:00
RATE/DAY:		0.6000	0.58	END TIME:			24:00
RATE/YR:		221.3000	211.94	RATE/HR:		0.0250	
PWR (LB/HR):		8.00	9 000.00*	PWR (LB/HR):		8.00	9,000.00*
CONFIDENTIAL: Y	Y		* Total Product Sterilized	CONFIDENTIAL: Y	Y		* Total Product Treated

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

SCC: 31502001
SIC: 7389

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
VOM	2	2 5			.0849	.0849 ~~.0~~ .0245

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM		2 5				.0849 0.246

CAPTURING CONTROLS:
CONTROL 0001 CAPTURE EFFICIENCY: 100.00% 95.0

CAPTURING STACKS: 95% To DEOXX SYSTEM 0.5% to Sterilizer backvents
4.5% To AERATION STACKS

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA -

CONTROL 0001 - DEOXX EMISSION CONTROL SYSTEM PERMIT: 84060002

BEGAN OPERATION: 06/1984 _____
CEASED OPERATION: / _____

CONTROL CODE: 052 _____

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:
VOM EFFICIENCY: 99.80% 99.9 % METHOD: 6 2

CAPTURING CONTROLS:

CAPTURING STACKS:
STACK 0001 CAPTURE EFFICIENCY: 99.90% 99.99%

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06/1984 _____
CEASED OPERATION: / _____

DESCRIPTION CORRECTION:

DIAMETER (FT):	.3	.458
HEIGHT (FT):	40	
TEMPERATURE (F):	95	
FLOW RATE (ACFM):	173	
VELOCITY (FT/MIN):	2447.44362	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):	41:44:52.0000	
LONGITUDE (DD:MM:SS):	87:56:38.0000	
METHOD:	E	

01/11/96

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DAPC - ANNUAL EMISSIONS REPORT - 1995

RECEIVED
APR 29 1996
IEPA - BOA
STATE OF ILLINOIS

043110AAC - GRIFFITH MICRO SCIENCE, INC.
OWNER: GRIFFITH MICRO SCIENCE, INC.
FACILITY PHONE: 708-654-5151

- SOURCE DATA -

SOURCE IDS AND LOCATION

AIRS: 17-043-0213 IEPA USE ONLY
FINDS: ILD984772459 IEPA USE ONLY
FEIN: 363326376
D&B: 144911518
SIC 1: 7389
SIC 2:
SIC 3:

LATITUDE: 41:44:52.0000
LONGITUDE: 87:56:38.0000
YEAR OF DATUM: 1992
SCALE:
METHOD: E
ACCURACY: 1.0000 MIN
WHERE MEASURED: MIDWEST & QUINCY INTERSECTION

SOURCE ADDRESS

GRIFFITH MICRO SCIENCE, INC.

7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521
CONTACT: ALLEN AMMERMAN
PHONE: 708-654-5183 EXT:
FAX: 708-654-5181

FACILITY PHONE: 708-654-5151

PH. 708-472-4514
FAX 708-571-1245

ANNUAL EMISSION REPORT MAILING ADDRESS

GRIFFITH MICRO SCIENCE, INC.

7775 SOUTH QUINCY STREET
WILLOWBROOK, IL 60521
CONTACT: ALLEN AMMERMAN
PHONE: 708-654-5183 EXT:
FAX: 708-654-5181

GRIFFITH MICRO SCIENCE, INC
2001 SPRING RD., SUITE 500
OAK BROOK, IL 60521-1887
708-472-4514 FAX(708) 571-1245

ALL ANNUAL EMISSIONS REPORT DATA VERIFIED, MODIFIED OR PROVIDED ON BEHALF OF THE COMPANY NAMED ABOVE, WHETHER SUBMITTED ELECTRONICALLY OR IN WRITING, REPRESENTS THE BEST AVAILABLE INFORMATION AND IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE.

Allen Ammerman
AUTHORIZED SIGNATURE

4-4-96
DATE

ALLEN AMMERMAN, ENVIRONMENTAL MANAGER
TYPED OR PRINTED NAME AND TITLE

708-472-4514
TELEPHONE NUMBER

08/15/2011 2:25PM A 17000075246 043110AAC STERIGENICS US LLC 10G 04/29/1996 AER1995 1,782,436
A000462 B:87075 F:50497 I:00000161 JASONJOH 07/12/2011 AMYTURNE 07/18/2011

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1994 (TONS/YEAR)	IEPA 1995 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1995 (TONS/YEAR)
VOM	131.0400	4.8000	4.4501	10.66

VOM PT 1 = 221.3 T/y x 12 x .002 = 5.31 T/y

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
84060002	OPERATING	GAS STERILIZATION TREATMENT	GRANTED	05/20/94	03/31/96*
85040074	OPERATING	GAS STERILIZATION SYSTEM 8			
86120004	OPERATING	GAS STERILIZATION SYSTEM			
90080038	CONSTRUCTION	INCORPORATED INTO 84060002	GRANTED	02/15/91	
95120085	TITLE V	STERILIZATION OF MEDICAL SUPPLIES AND TREATMENT OF SPICES and NUTMEATS			

*PERMIT RENEWAL NOT REQUIRED
PER MARCH 15, 1996 LETTER BY DON SUTTON

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

MODE 01 -

SCC: 31502001
SIC: 7389

DESCRIPTION CORRECTION:

IDENTICAL POINTS: 12
BEGAN OPERATION: 06/1984
CEASED OPERATION: /

PERCENT THROUGHPUTS: DEC-FEB: 25.00% MAR-MAY: 25.00%
JUN-AUG: 25.00% SEP-NOV: 25.00%

UNITS: TONS ETHYLENE OXIDE CONSUMED

TYPICAL OPERATION			PEAK OZONE SEASON OPERATION		
HOURS/DAY:	24.0		HOURS/DAY:	24.0	
DAYS/WEEK:	7.0		DAYS/WEEK:	7.0	
WEEKS/YEAR:	52		WEEKS/SEASON:	13	
HOURS/YEAR:	8,736		HOURS/SEASON:	2,184	
RATE/HR:	0.0250		START TIME:		
RATE/DAY:	0.6000		END TIME:		
RATE/YR:	221.0000	221.3	RATE/HR:	0.0250	
PWR (LB/HR):	8.00		PWR (LB/HR):	8.00	
CONFIDENTIAL: Y			CONFIDENTIAL: Y		

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- PROCESS DATA -

POINT 0001 - STERILIZER RETORTS #1-12 PERMIT: 84060002

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

SCC: 31502001
SIC: 7389

MODE 01 -

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	EMISSION RATE (LB/HR) IEPA	EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0849	.0993

POLLUTANT CODE	METHOD IEPA	METHOD REP	EMISSION FACTOR IEPA	EMISSION FACTOR REPORTED	OZONE SEASON EMISSION RATE (LB/HR) IEPA	OZONE SEASON EMISSION RATE (LB/HR) REPORTED
VOM	2	2			.0849	.0993

CAPTURING CONTROLS:
CONTROL 0001 CAPTURE EFFICIENCY: 100.00%

CAPTURING STACKS:

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- CONTROL DEVICE DATA -

CONTROL 0001 - DEOXX EMISSION CONTROL SYSTEM PERMIT: 84060002

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

CONTROL CODE: 052

DESCRIPTION CORRECTION:

REMOVAL EFFICIENCY:
VOM EFFICIENCY: 99.90% 99.8 METHOD: 6

CAPTURING CONTROLS:

CAPTURING STACKS:
STACK 0001 CAPTURE EFFICIENCY: 100.00% 99.9

043110AAC - GRIFFITH MICRO SCIENCE, INC.

- STACK DATA -

STACK 0001 - DEOXX EMISSION CONTROL STACK

BEGAN OPERATION: 06/1984
CEASED OPERATION: /

DESCRIPTION CORRECTION:

DIAMETER (FT):	.3	
HEIGHT (FT):	40	
TEMPERATURE (F):	95	
FLOW RATE (ACFM):	173	
VELOCITY (FT/MIN):	2447.44362	CALCULATED BY IEPA
LATITUDE (DD:MM:SS):	41:44:52.0000	
LONGITUDE (DD:MM:SS):	87:56:38.0000	
METHOD:	E	

Illinois Environmental Protection Agency
DAPC - VOM Emissions Trading Program - 1995

ID Number 043110AAC Griffith Micro Science, Inc.	Estimation Method	lbs/season (May - Sept)
Point 0001 STERILIZER RETORTS #1-12		
Mode 01	2	8,060

Total Sterilant Gas (E+O) Usage:

(1995)

May '95 — 13,729 / 19,809 lbs } 33,538

June — 30,511 lbs

July — 12,378 / 8,310 } 30,688

August — 33,148

Sept. '95 — 33,396

161,281 lbs.

X .05 Maximum Emissions

8,060 Max. emissions

State of Illinois
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director
217/782-2113

P. O. Box 19506, Springfield, IL 62794-9506

Permit Renewal Not Required

March 15, 1996

Griffith Micro Science, Inc.
Attn: Allen Ammerman
2001 Spring Road, Suite 500
Oak Brook, Illinois 60521-1887

Application No.: 84060002
I.D. No.: 043110AAC
Applicants Designation: STERILIZER
Date Received: February 15, 1996
Source Location: 7775 South Quincy Street, Willowbrook

This is in response to your request for renewal of the above referenced operating permit(s). Pursuant to Section 39.5(4) of the Act, you are no longer required to renew your existing State operating permit(s), because your timely submitted CAAPP application has been deemed complete by the Agency. Therefore, the Agency will not be processing the above listed permit renewal application(s).

Please note you are required by law to continue to operate according to the terms and conditions of your existing State operating permit(s), despite the expiration of such permits, until a CAAPP permit is issued for this source.

In addition, the above referenced regulation does not relieve you of the obligation to comply with all other applicable regulations including, but not limited to, Section 39(a) of the Act. Section 39(a) requires Sources to obtain State operating permits for existing but unpermitted emission units and air pollution control equipment. Additionally, a construction permit must be obtained for the construction or modification of new or existing emission units and/or air pollution control equipment.

If you have any questions regarding this matter, please contact Valeriy Brodsky at 217/782-2113.

Donald E. Sutton/mbr

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:drk

cc: Region 1

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