

April 20, 2012

Illinois EPA
Bureau of Air
Air Quality Planning Section (#39)
P.O. Box 19276
Springfield, IL 62794-9276

Attn: Annual Emission Report

Re: 2011 Annual Emissions Report for 119090AAO – Shell Oil Products US

To Whom It May Concern:

URS Corporation (URS), on behalf of Shell Oil Products US, is submitting the enclosed 2011 Annual Emissions Report (Report) for Federally Enforceable State Operating Permits (FESOP) 11060036, 10120040, and 11050032.

Please contact me with any questions or comments.

Sincerely,

Robert E. Mooshegian, CHMM

Senior Project Manager

URS Corporation

Encl.: APCA0530 - Annual Emissions Report - 2011

cc: Mr. Kevin E. Dyer, Shell Oil Products, US

Fax: 314.429.0462

Illinois Environmental Protection Agency Division of Air Pollution Control

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Date: 4/12/2012

DAPC - ANNUAL AIR EMISSIONS REPORT - 2011 119090AAO - Shell Oil Products US - SOURCE DATA -

					9.000				
	AIRS:	17-119-04	40	IEPA USE ONLY	SIC 1:	4613	NAICS 1:	486910	
SOURCE	FINDS:	***************************************		IEPA USE ONLY	SIC 2:		NAICS 2:		
	FEIN:	52207452	8		SIC 3:		NAICS 3:	_	
LOCATION					SIC 4:		NAICS 4:	_	
200/111011	LATITUDE	:	38:50:42.3168	1	SIC 5:		NAICS 5:	_	
	LONGITUE		90:04:34.0752		SIC 6:		NAICS 6:		
	Shell Oil Pi Chaffer St. Roxana, IL	and 8th St.							
SOURCE	CONTACT	: Kevin E. D	Dyer						
ADDRESS	PHONE	: (618) 288-	-7237						
			¥				0		
	Shell Oil P	roducts US							
12	17 Junction	n Dr. PMB 3	399						
ANNUAL	Glen Carb	on, IL 62034	1-43000						
EMISSION									
REPORT									
MAILING	CONTACT	: Kevin E. [Oyer						
ADDRESS	PHONE	: (618) 288	-7237						
	FAX	ζ:							
	E-Mai								
	designed t	o assure tha	at qualifield perso	locument and all attachm onnel properly gather and offormation, the information	d evaluate the infor	mation submitted.	Based on my inc	luiry of the p	person or persons
		1/	- 1			11-	/		

AUTHORIZED SIGNATURE

Kevin E. Dyer, Principal Project Manager

TYPED OR PRINTED NAME AND TITLE

DATE 4

(618) 288-7237

TELEPHONE NUMBER

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

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119090AAO - Shell Oil Products US

- ANNUAL SOURCE EMISSIONS -

	SOURCE REPORTED			IEPA 2011
	EMISSIONS	ALLOWABLE*	EMISSIONS**	ESTIMATED
	FOR 2011	EMISSIONS	REPORTED FOR 2010	EMISSIONS
POLLUTANT CODE	(TONS/YEAR)	(TONS/YEAR)	(TONS/YEAR)	(TONS/YEAR)
CO	0.11	0.511056		0.476986
CO ₂	150.24	681.408000		681.408000
Methane	1.71	0.013060		0.013060
N ₂ O	0.00	0.012492		0.012492
NH_3	0.00	0.018171		0.018171
NO _x	0.44	0.620256		0.567840
Part	0.01	0.048048		0.043156
PM ₁₀	0.01	0.043156		0.043156
PM _{2.5}	0.01	0.043156		0.043156
SO ₂	0.00	3.699696		0.003407
VOM	2.93	24.928831		24.928831
V OIV:	2,30		1.7 4 10 10 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1	to at any make a fee management of

^{*} The Allowable Emissions (shown above) in the IEPA 2011 Annual Emissions Report are inconsistent with the permitted annual emission rates in permits 10120040, 11050032, and 11060036. Please be aware of this inconsistency during the review of the submitted report.

^{**}Emission units began operation in 2011. No emissions were generated or reported in 2010.

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119090AAO - Shell Oil Products US

- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
10120040 11050032 11060036 11060037	CONSTRUCTION CONSTRUCTION LIFETIME TITLE V	Soil Vapor Extraction Treatment System Soil Vapor Extraction Treatment System w/Dual ICE SVE Treatment System CLOSED	GRANTED GRANTED GRANTED	03-01-2011 05-31-2011 07-14-2011	

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119090AAO - Shell Oil Products US

- FUEL COMBUSTION DATA -

POINT	0003	-	Regenerative Thermal Ox	kidizer						
			BEGAN OPERATION	ON: 06/2011		01/2012		PERMIT:	11060036	
			CEASED OPERATION	ON:				SCC:	40290013	
MODE.	01		Natural gas combustion					SIC:	4613	
MODE:		-						· · · · · · · · · · · · · · · · · · ·		····
DESCRIPTI	ION CORR	ECTION	:							
			· · · · · · · · · · · · · · · · · · ·	PERCENT THE	ROUGHPUTS:	DEC - FEB:	0.0%	MAR - MAY:	0.0%	
BEGAN OP	ERATION:		01/2012			JUN - AUG:	0.0%	SEP - NOV:	0.0%	
CEASED O	PERATION	٧:								
FUEL TYPE	<u>:</u>	1 NAT	URAL GAS			HEAT CONTENT	:	_	1,000	Btu/ft ³
INPUT (MM	IBTU/HR):			1.40		SULFUR CONTE	:NT: (%):			
	,					ASH CONTENT	(%):	·		
						NITROGEN CON	ITENT (%):	_		
UNITS:			MMBtu		UNITS:			MMBtu		
ONTO.		AN	INUAL OPERATION			PEAK	OZONE SEAS	SON OPERATION		
HOURS/DA	\Υ:			0	HOURS/D	AY			0	
DAYS/WEE				0	DAYS/WE	EK			0	
					I hveekoko	FAGGN			Λ	

OPERATION	
0	
0	
0	
0	
0.00	
No	
	0 0 0 0

UNITS:	MINIBTU
PEAK OZO!	NE SEASON OPERATION
HOURS/DAY	0
DAYS/WEEK	0
WEEKS/SEASON	0
HOURS/SEASON	0
START TIME:	00:00
END TIME:	23:59
RATE/HR:	0.00
CONFIDENTIAL:	No

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119090AAO - Shell Oil Products US

- FUEL COMBUSTION DATA -

POINT 0	003	 Regenerative Thermal 	Oxidizer				
		BEGAN OPERATION: 06/201	4	01/	2012	PERMIT:	11060036
		CEASED OPERATION:				_ SCC:	40290013
MODE: 0)1	- Natural Gas Combustion	on				
POLLUTANT		METHOD		EMISSION FA	ACTOR	EMISSION RA	
CODE		IEPA REPO	ORTED_	IEPA R	EPORTED		REPORTED
CO		3	3	84	84 lbs/10 ⁶ scf	0.1092	0.000
CO ₂		3	3	120,000	120,000 lbs/10°scf	156	0.000
Methane		3	3	2.3	2.3 lbs/10 ⁶ scf	0.00299	0.000
N ₂ O		3	3	2.2	2.2 lbs/10 scf	0.00286	0.000
NH ₃		3	3	3.2	3.2 lbs/10 ⁶ scf	0.00416	0.000
NO _X		3	3	100	100 lbs/10°scf	0.13	0,000
PM		3	3	7.6	7.6 lbs/10 ⁶ scf	0.00988	0.000
PM ₁₀		3	3	7.6	7.6 lbs/10 ⁶ scf	0.00988	0.000
PM _{2,5}		3	3	7.6	7.6 lbs/10 ⁶ scf	0.00988	0.000
SO ₂		3	3	0.6	0.6 lb/10°scf	0.00078	0.000
VOM		3	3	5.5	5.5 lbs/10 ⁶ scf	0.00715	0.000
						OZONE S	EASON
POLLUTANT		METHOD		EMISSION FA		EMISSION RA	
CODE		IEPA REPO	ORTED	IEPA R	EPORTED	IEPA	REPORTED
NO _X		3	3		100 lbs/10 ⁶ scf		0.000
VOM		3	3		5.5 lbs/10 ⁶ scf		0.000
CAPTURING CO							
STACK	0003	CAPT	JRE EFFICIENCY:	100%			

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119090AAO - Shell Oil Products US

- PROCESS DATA -

COLUT	004	Call contraction proto							
POINT	001	 Soil vapor extraction syste 	1(1						
		BEGAN OPERATION	N: 12/2010		05/2011		PERMIT	: 11060036	
		CEASED OPERATIO	N:				SCC	: 50410310	
MODE:	01	-					SIC	: 4613	
BEGAN OPI		05/2011	PERCENT THRO	OUGHPUTS:	DEC - FEB: JUN - AUG:	12.1% 39.4%	MAR - MAY: SEP - NOV:	9.1% 39.4%	
UNITS:	TONS PR	OCESSED Pounds Treated		UNITS:	TONS PROCE	SSED Pounds	Treated		
		ANNUAL OPERATION			PEA	K OZONE SEAS	ON OPERATION		
HOURS/DA	Y:		24	HOURS/D	AY				24
i			_1	In 1) (0,14 m	F**1.4				-

HOURS/DAY:		24
DAYS/WEEK:		7
WEEKS/YEAR:		33
HOURS/YEAR:		5,544
RATE/HR:	21.14	
CONFIDENTIAL:	No	

PE/	AK OZONE SEASON OPERAT	ION
HOURS/DAY		24
DAYS/WEEK		7
WEEKS/SEASON		13
HOURS/SEASON		2,184
START TIME:	00:00	
END TIME:	23:59	
RATE/HR:		12.13
CONFIDENTIAL:		No

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119090AAO - Shell Oil Products US

- PROCESS DATA -

POINT	001	- Soil vapor extraction system		
		BEGAN OPERATION:	6/2005	PERMIT: 11060036
		CEASED OPERATION:		SCC: 50410310
MODE:	01	- Soil Vapor Extraction System with Interna	al Combustion Engine (3 units) controls	
POLLUTANT CODE VOM	_	METHOD IEPA REPORTED 2 2	EMISSION FACTOR IEPA REPORTED 0.05	EMISSION RATE (LB/HR) IEPA REPORTED 5.7 1.057
POLLUTANT CODE VOM		METHOD IEPA REPORTED 2	EMISSION FACTOR IEPA REPORTED 0.05	OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED 0.606
CAPTURING CAPTURING	CONTROLS: STACKS:	0002		
STACK	0002	CAPTURE EFFICIENCY	100%	

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119090AAO - Shell Oil Products US

- FUEL COMBUSTION DATA -

Internal Combustion Engines (3) POINT 0002 05/2011 PERMIT: 10120040, 11050032 BEGAN OPERATION: 06/2011 SCC: 50410530 CEASED OPERATION: 01/2012 SIC: 4613 MODE: Dual Fuel Combustion - Propane/Soil Vapor 01 DESCRIPTION CORRECTION: 9.1% PERCENT THROUGHPUTS: DEC - FEB: 12.1% MAR - MAY: SEP - NOV: **BEGAN OPERATION:** 05/2011 39.4% 39.4% JUN - AUG: CEASED OPERATION: 1,000 **HEAT CONTENT:** Propane Btu/ft³ **FUEL TYPE:** 69 Other Dual Fuel 18.3 (permitted total of 3 units) **HEAT CONTENT:** Soil Vapors 21,070 Btu/lb INPUT (MMBTU/HR): ASH CONTENT (%): NITROGEN CONTENT (%): LINETO MAMPH UNITS: MMBtu/hr

ANNU	AL OPERATION
HOURS/DAY:	24
DAYS/WEEK:	7
WEEKS/YEAR:	33
HOURS/YEAR:	5,544
RATE/HR:	0.49
CONFIDENTIAL:	No
<u> </u>	

UNITS:	MMBtu
PEAK OZONE S	SEASON OPERATION
HOURS/DAY	24
DAYS/WEEK	7
WEEKS/SEASON	13
HOURS/SEASON	2,184
START TIME:	00:00
END TIME:	23:59
RATE/HR:	0.41
CONFIDENTIAL:	No

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119090AAO - Shell Oil Products US

- FUEL COMBUSTION DATA -

POINT NOW PERMIT: 11080096 110800			- FUEL COMBUSTION	DATA -	
NODE: 01	POINT	0002	- Internal Combustion Engines (3)		
NODE: 01			REGAN OPERATION: 06/2011 05/2011		PERMIT: 11060036
MODE: 01			0		SCC: 40290013
METHOD IEPA REPORTED IEPA IEPA			on town or a transfer		
POLLUTANT CODE IEPA REPORTED IEPA REPORTED IEPA REPORTED REPORTED REPORTED	MODE:	01	 Dual Fuel Combustion - Propane/Soil Vapor 		
CODE IEPA REPORTED IEPA REPORTED IEPA REPORTED CO 3 0.082 lbs/MMBtu 0.040 CO_2 3 110 lbs/MMBtu 54 Methane 3 1.25 lbs/MMBtu 0.616 NO_X 3 0.032 lbs/MMBtu 0.158 PM 3 0.0066 lbs/MMBtu 0.003 PM ₁₀ 3 0.0066 lbs/MMBtu 0.003 PM _{2.5} 3 0.0066 lbs/MMBtu 0.003 SO ₂ 3 0.0034 lbs/MMBtu 0.002 VOM 3 0.0021 lbs/MMBtu 0.001 EMISSION FACTOR IEPA REPORTED EMISSION RATE (LB/HR) IEPA REPORTED NO _X 3 0.32 lbs/MMBtu 0.131 VOM 3 0.0021 lbs/MMBtu 0.001	POLLUTANT		METHOD		
CO			IEPA REPORTED		
CO2 3 110 lbs/MMBtu 54 Methane 3 1.25 lbs/MMBtu 0.616 NOx 3 0.32 lbs/MMBtu 0.158 PM 3 0.0066 lbs/MMBtu 0.003 PM10 3 0.0066 lbs/MMBtu 0.003 PM2.5 3 0.0066 lbs/MMBtu 0.003 SO2 3 0.0034 lbs/MMBtu 0.002 VOM 3 0.0021 lbs/MMBtu 0.001 POLLUTANT METHOD EMISSION FACTOR IEPA REPORTED EMISSION RATE (LB/HR) CODE 1EPA REPORTED 1EPA REPORTED IEPA REPORTED NOx 3 0.32 lbs/MMBtu 0.131 VOM 3 0.0021 lbs/MMBtu 0.001			3		
Methane 3 1.25 lbs/MMBtu 0.016 lbs/MMBtu 0.016 lbs/MMBtu 0.016 lbs/MMBtu 0.016 lbs/MMBtu 0.016 lbs/MMBtu 0.003 lbs/MMBtu 0.002 lbs/MMBtu 0.002 lbs/MMBtu 0.002 lbs/MMBtu 0.001 lbs/MBtu 0.001 lbs/MBtu </td <td></td> <td></td> <td>3</td> <td></td> <td></td>			3		
NOx			3	,	
PM			3		
PM ₁₀ 3 0.0066 lbs/MMBtu 0.003 PM _{2.5} 3 0.0066 lbs/MMBtu 0.003 SO ₂ 0.0034 lbs/MMBtu 0.002 VOM 0 3 0.0021 lbs/MMBtu 0.002 POLLUTANT 0 0.002 0.0021 lbs/MMBtu 0.001 POLLUTANT 0 0.002 0.0021 lbs/MMBtu 0.001 POLLUTANT 0 0.002 0.0021 lbs/MMBtu 0.001 CODE 0 0.002 0.0021 lbs/MMBtu 0.001 NO _X 0 0.002 0.0021 lbs/MMBtu 0.131 VOM 0 0.0021 lbs/MMBtu 0.001 CAPTURING CONTROLS: CAPTURING STACKS:			3	0.0066 lbs/MMBtu	
PM _{2.5} SO ₂ VOM POLLUTANT CODE NO _X VOM CAPTURING CONTROLS: CAPTURING STACKS: SO ₂ 3 0.0034 lbs/MMBtu 0.002 0.0021 lbs/MMBtu 0.002 0.0021 lbs/MMBtu 0.002 0.0021 lbs/MMBtu 0.003 0.0021 lbs/MMBtu 0.001 0.0021 lbs/MMBtu 0.001 0.0021 lbs/MMBtu 0.001 0.001 0.0021 lbs/MMBtu 0.001 0.0021 lbs/MMBtu 0.001			3	0.0066 lbs/MMBtu	
SO2 VOM 3 0.0034 lbs/MMBtu 0.002 VOM POLLUTANT CODE METHOD IEPA REPORTED EMISSION FACTOR IEPA REPORTED EMISSION RATE (LB/HR) IEPA REPORTED NO _X VOM 3 0.32 lbs/MMBtu 0.131 VOM CAPTURING CONTROLS: CAPTURING STACKS: 0.001 VOM 0.001 VOM			3	0.0066 lbs/MMBtu	0.003
VOM OZONE SEASON EMISSION FACTOR IEPA REPORTED NOX VOM CAPTURING CONTROLS: CAPTURING STACKS: OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED O.001 OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED O.001				0.0034 lbs/MMBtu	0.002
POLLUTANT CODE NO _X VOM CAPTURING CONTROLS: CAPTURING STACKS: METHOD IEPA REPORTED METHOD IEPA REPORTED EMISSION FACTOR IEPA REPORTED IEPA REPORTED OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED OZONE SEASON EMISSION FACTOR IEPA REPORTED OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED O.032 lbs/MMBtu O.131 OZONE SEASON EMISSION RATE (LB/HR) IEPA REPORTED O.032 lbs/MMBtu O.001				0.0021 lbs/MMBtu	0.001
POLLUTANT METHOD IEPA REPORTED NO _X VOM CAPTURING CONTROLS: CAPTURING STACKS: METHOD IEPA REPORTED IEPA REPORTED EMISSION FACTOR IEPA REPORTED O.32 lbs/MMBtu O.131 O.001	VOIVI		v		
CODE IEPA REPORTED IEPA REPORTED NO _X VOM CAPTURING CONTROLS: CAPTURING STACKS:					
CODE IEPA REPORTED 1EPA REPORTED 1EPA REPORTED 1EPA REPORTED 1EPA REPORTED 1.31 0.32 lbs/MMBtu 0.131 VOM CAPTURING CONTROLS: CAPTURING STACKS:	POLLUTANT	-	METHOD		
NO _X VOM 3 0.032 lbs/MMBtu 0.131 0.001 CAPTURING CONTROLS: CAPTURING STACKS:			IEPA REPORTED		
VOM 3 0.0021 lbs/MMBtu 0.001 CAPTURING CONTROLS: CAPTURING STACKS:			3	- ·	
CAPTURING CONTROLS: CAPTURING STACKS:			3	0.0021 lbs/MMBtu	0.001
CAPTURING STACKS:					
STACK 0002 CAPTURE EFFICIENCY: 100%					
	STACK	0002	CAPTURE EFFICIENCY:	100%	

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119090AAO - Shell Oil Products US

- CONTROL DEVICE DATA -

CONTROL 0001

Regenerative Thermal Oxidizers

BEGAN OPERATION: 06/2011

01/2012

PERMIT:

11060036

CEASED OPERATION:

CONTROL CODE:

131

MODE:

01

NATURAL GAS COMBUSTION

REMOVAL EFFICIENCY

ANNUAL OPERATION

PEAK OZONE SEASON OPERATION

METHOD

POLLUTANT CODE

EFFICIENCY REPORTED **IEPA**

METHOD

EFFICIENCY

IEPA REPORTED IEPA REPORTED

REPORTED IEPA

VOM

97% 97% 97%

97%

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK

0003

CAPTURE EFFICIENCY:

100%

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119090AAO - Shell Oil Products US

- CONTROL DEVICE DATA -

CONTROL 0002

Internal Combustion Engines (3)

BEGAN OPERATION: 06/2011

05/2011

PERMIT: 10120040, 11050032

CEASED OPERATION:

01/2012

CONTROL CODE:

099

01 MODE:

Dual Fuel Combustion - Propane/Soil Vapors

REMOVAL EFFICIENCY

ANNUAL OPERATION

METHOD

PEAK OZONE SEASON OPERATION

METHOD

POLLUTANT CODE

EFFICIENCY REPORTED **IEPA**

IEPA REPORTED

EFFICIENCY IEPA REPORTED

IEPA REPORTED

VOM

95%

95%

CAPTURING CONTROLS:

CAPTURING STACKS:

STACK 0002 CAPTURE EFFICIENCY:

100%

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119090AAO - Shell Oil Products US

- STACK DATA -

		DIAMETER (FT)		FLOW RATE (ACFM)		TEMPERATURE	
STACK	DESCRIPTION		HEIGHT (FT)	IEPA	REPORTED	IEPA	REPORTED
0001	Soil vapor extraction system*	0.7 4 NA	18 NA	1,020	NA	104	NA
0002	Internal Combustion Engine**	0.17	14		336		770
0003	Regenerative Thermal Oxidizer	1,83 1.5	30 18.5	10,000	NA***	200	NA***

^{*}The soil vapor extraction system (POINT 001) exhausted through STACK 0002 in 2011.

^{**}Parameters are for a single engine.

^{***}The regenerative thermal oxidizer did not operate in 2011.