



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
 P.O. BOX 19506
 SPRINGFIELD, ILLINOIS 62794-9506

FEE DETERMINATION FOR CONSTRUCTION PERMIT APPLICATION	FOR AGENCY USE ONLY	
	ID NUMBER:	
	PERMIT #:	
	COMPLETE <input type="checkbox"/>	DATE COMPLETE:
INCOMPLETE <input type="checkbox"/>		
CHECK #:	ACCOUNT NAME:	

THIS FORM IS TO BE USED BY ALL SOURCES TO SUPPLY FEE INFORMATION THAT MUST ACCOMPANY ALL CONSTRUCTION PERMIT APPLICATIONS. **THIS APPLICATION MUST INCLUDE PAYMENT IN FULL TO BE DEEMED COMPLETE.** MAKE CHECK OR MONEY ORDER PAYABLE TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY. SEND TO THE ADDRESS ABOVE. DO NOT SEND CASH. REFER TO INSTRUCTIONS (197-INST) FOR ASSISTANCE.

SOURCE INFORMATION	
1) SOURCE NAME: Soil Vapor Extraction Treatment System	
2) PROJECT NAME: Roxana Site	3) SOURCE ID NO. (IF APPLICABLE):
4) CONTACT NAME: Kevin E. Dyer	5) CONTACT PHONE NUMBER: (618) 288-7237

FEE DETERMINATION		
6) FILL IN THE FOLLOWING THREE BOXES AS DETERMINED IN SECTIONS 1 THROUGH 4 BELOW:		
\$ 500	+	\$ 500 = \$ 1,000
SECTION 1 SUBTOTAL		GRAND TOTAL

SECTION 1: STATUS OF SOURCE / PURPOSE OF SUBMITTAL	
7) YOUR APPLICATION WILL FALL UNDER ONLY ONE OF THE FOLLOWING SIX CATEGORIES DESCRIBED BELOW. CHECK THE BOX THAT APPLIES, ENTER THE CORRESPONDING FEE IN THE BOX TO THE RIGHT AND COPY THIS FEE INTO THE SECTION 1 SUBTOTAL BOX ABOVE. PROCEED TO APPLICABLE SECTIONS.	
FOR PURPOSES OF THIS FORM:	
<ul style="list-style-type: none"> • MAJOR SOURCE IS A SOURCE THAT IS REQUIRED TO OBTAIN A CAAPP PERMIT. • SYNTHETIC MINOR SOURCE IS A SOURCE THAT HAS TAKEN LIMITS ON POTENTIAL TO EMIT IN A PERMIT TO AVOID CAAPP PERMIT REQUIREMENTS (E.G., FESOP). • NON-MAJOR SOURCE IS A SOURCE THAT IS NOT A MAJOR OR SYNTHETIC MINOR SOURCE. 	
<input type="checkbox"/> EXISTING SOURCE WITHOUT STATUS CHANGE OR WITH STATUS CHANGE FROM SYNTHETIC MINOR TO MAJOR SOURCE OR VICE VERSA. ENTER \$0 AND PROCEED TO SECTION 2. <input type="checkbox"/> EXISTING NON-MAJOR SOURCE THAT WILL BECOME SYNTHETIC MINOR OR MAJOR SOURCE. ENTER \$5,000 AND PROCEED TO SECTION 4. <input type="checkbox"/> EXISTING MAJOR OR SYNTHETIC MINOR SOURCE THAT WILL BECOME NON-MAJOR SOURCE. ENTER \$4,000 AND PROCEED TO SECTION 3. <input type="checkbox"/> NEW MAJOR OR SYNTHETIC MINOR SOURCE. ENTER \$5,000 AND PROCEED TO SECTION 4. <input checked="" type="checkbox"/> NEW NON-MAJOR SOURCE. ENTER \$500 AND PROCEED TO SECTION 3. <input type="checkbox"/> AGENCY ERROR. IF THIS IS A TIMELY REQUEST TO CORRECT AN ISSUED PERMIT THAT INVOLVES ONLY AN AGENCY ERROR AND IF THE REQUEST IS RECEIVED WITHIN THE DEADLINE FOR A PERMIT APPEAL TO THE POLLUTION CONTROL BOARD, THEN ENTER \$0. SKIP SECTIONS 2, 3 AND 4. PROCEED DIRECTLY TO SECTION 5.	\$ 500 SECTION 1 SUBTOTAL

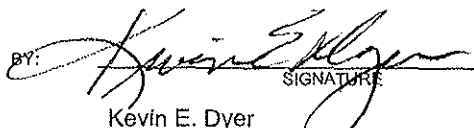
SECTION 2: SPECIAL CASE FILING FEE	
8) FILING FEE. IF THE APPLICATION ONLY ADDRESSES ONE OR MORE OF THE FOLLOWING, CHECK THE APPROPRIATE BOXES, ENTER \$500 IN THE SECOND BOX UNDER FEE DETERMINATION ABOVE, SKIP SECTIONS 3 AND 4 AND PROCEED DIRECTLY TO SECTION 5. OTHERWISE, PROCEED TO SECTION 3 OR 4, AS APPROPRIATE.	
<input type="checkbox"/> ADDITION OR REPLACEMENT OF CONTROL DEVICES ON PERMITTED UNITS <input type="checkbox"/> PILOT PROJECTS/TRIAL BURNS BY A PERMITTED UNIT <input type="checkbox"/> APPLICATIONS ONLY INVOLVING INSIGNIFICANT ACTIVITIES UNDER 35 IAC 201.210 (MAJOR SOURCES ONLY) <input type="checkbox"/> LAND REMEDIATION PROJECTS <input type="checkbox"/> REVISIONS RELATED TO METHODOLOGY OR TIMING FOR EMISSION TESTING <input type="checkbox"/> MINOR ADMINISTRATIVE-TYPE CHANGE TO A PERMIT	

THIS AGENCY IS AUTHORIZED TO REQUIRE AND YOU MUST DISCLOSE THIS INFORMATION UNDER 415 ILCS 5/39. FAILURE TO DO SO COULD RESULT IN THE APPLICATION BEING DENIED AND PENALTIES UNDER 415 ILCS 5 ET SEQ. IT IS NOT NECESSARY TO USE THIS FORM IN PROVIDING THIS INFORMATION. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE

SECTION 3: FEES FOR CURRENT OR PROJECTED NON-MAJOR SOURCES		
9) IF THIS APPLICATION CONSISTS OF A SINGLE NEW EMISSION UNIT OR NO MORE THAN TWO MODIFIED EMISSION UNITS, ENTER \$500.	9)	500
10) IF THIS APPLICATION CONSISTS OF MORE THAN ONE NEW EMISSION UNIT OR MORE THAN TWO MODIFIED UNITS, ENTER \$1,000.	10)	
11) IF THIS APPLICATION CONSISTS OF A NEW SOURCE OR EMISSION UNIT SUBJECT TO SECTION 39.2 OF THE ACT (I.E., LOCAL SITING REVIEW); A COMMERCIAL INCINERATOR OR A MUNICIPAL WASTE, HAZARDOUS WASTE, OR WASTE TIRE INCINERATOR; A COMMERCIAL POWER GENERATOR; OR AN EMISSION UNIT DESIGNATED AS A COMPLEX SOURCE BY AGENCY RULEMAKING, ENTER \$15,000.	11)	
12) IF A PUBLIC HEARING IS HELD (SEE INSTRUCTIONS), ENTER \$10,000.	12)	
13) SECTION 3 SUBTOTAL (ADD LINES 9 THROUGH 12) TO BE ENTERED ON PAGE 1.	13)	500

SECTION 4: FEES FOR CURRENT OR PROJECTED MAJOR OR SYNTHETIC MINOR SOURCES			
Application Contains Modified Emission Units Only	14) FOR THE FIRST MODIFIED EMISSION UNIT, ENTER \$2,000.	14)	
	15) NUMBER OF ADDITIONAL MODIFIED EMISSION UNITS = _____ X \$1,000.	15)	
	16) LINE 14 PLUS LINE 15, OR \$5,000, WHICHEVER IS LESS.	16)	
Application Contains New And/Or Modified Emission Units	17) FOR THE FIRST NEW EMISSION UNIT, ENTER \$4,000.	17)	
	18) NUMBER OF ADDITIONAL NEW AND/OR MODIFIED EMISSION UNITS = _____ X \$1,000.	18)	
	19) LINE 17 PLUS LINE 18, OR \$10,000, WHICHEVER IS LESS.	19)	
Application Contains Netting Exercise	20) NUMBER OF INDIVIDUAL POLLUTANTS THAT RELY ON A NETTING EXERCISE OR CONTEMPORANEOUS EMISSIONS DECREASE TO AVOID APPLICATION OF PSD OR NONATTAINMENT NSR = _____ X \$3,000.	20)	
Additional Supplemental Fees	21) IF THE NEW SOURCE OR EMISSION UNIT IS SUBJECT TO SECTION 39.2 OF THE ACT (I.E., SITING); A COMMERCIAL INCINERATOR OR OTHER MUNICIPAL WASTE, HAZARDOUS WASTE, OR WASTE TIRE INCINERATOR; A COMMERCIAL POWER GENERATOR; OR ONE OR MORE OTHER EMISSION UNITS DESIGNATED AS A COMPLEX SOURCE BY AGENCY RULEMAKING, ENTER \$25,000.	21)	
	22) IF THE SOURCE IS A NEW MAJOR SOURCE SUBJECT TO PSD, ENTER \$12,000.	22)	
	23) IF THE PROJECT IS A MAJOR MODIFICATION SUBJECT TO PSD, ENTER \$6,000.	23)	
	24) IF THIS IS A NEW MAJOR SOURCE SUBJECT TO NONATTAINMENT (NAA) NSR, ENTER \$20,000.	24)	
	25) IF THIS IS A MAJOR MODIFICATION SUBJECT TO NAA NSR, ENTER \$12,000.	25)	
	26) IF APPLICATION INVOLVES A DETERMINATION OF CLEAN UNIT STATUS AND THEREFORE IS NOT SUBJECT TO BACT OR LAER, ENTER \$5,000 PER UNIT FOR WHICH A DETERMINATION IS REQUESTED OR OTHERWISE REQUIRED. _____ X \$5,000.	26)	
	27) IF APPLICATION INVOLVES A DETERMINATION OF MACT FOR A POLLUTANT AND THE PROJECT IS NOT SUBJECT TO BACT OR LAER FOR THE RELATED POLLUTANT UNDER PSD OR NSR (E.G., VOM FOR ORGANIC HAP), ENTER \$5,000 PER UNIT FOR WHICH A DETERMINATION IS REQUESTED OR OTHERWISE REQUIRED. _____ X \$5,000.	27)	
28) IF A PUBLIC HEARING IS HELD (SEE INSTRUCTIONS), ENTER \$10,000.	28)		
29) SECTION 4 SUBTOTAL (ADD LINES 16 AND LINES 19 THROUGH 28) TO BE ENTERED ON PAGE 1.	29)		

SECTION 5: CERTIFICATION	
NOTE: APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED INCOMPLETE.	
30) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE INFORMATION CONTAINED IN THIS FEE APPLICATION FORM IS TRUE, ACCURATE AND COMPLETE.	
BY: 	Principal Project Manager
SIGNATURE	TITLE OF SIGNATORY
Kevin E. Dyer	12, 22, 10
TYPED OR PRINTED NAME OF SIGNATORY	DATE



STATE OF ILLINOIS
 ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF AIR POLLUTION CONTROL
 PERMIT SECTION
 P. O. BOX 19506
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This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

APPLICATION FOR PERMIT (A) <input type="checkbox"/> CONSTRUCT <input type="checkbox"/> OPERATE NAME OF EQUIPMENT TO BE CONSTRUCTED OR OPERATED _____ (B)	FOR AGENCY USE ONLY I.D. NO. _____ PERMIT NO. _____ DATE _____
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NOTE: THIS APPLICATION FORM IS ONLY FOR SOURCES NOT REQUIRED TO OBTAIN A PESOP OR CAAPP PERMIT PURSUANT SECTION 39.5 OF THE ILLINOIS ENVIRONMENTAL PROTECTION ACT.

1a. NAME OF OWNER: Shell Oil Products US		2a. NAME OF OPERATOR: URS Corporation	
1b. STREET ADDRESS OF OWNER: 17 Junction Dr., PMB 399		2b. STREET ADDRESS OF OPERATOR: 1001 Highlands Plaza Dr. West, Suite 300	
1c. CITY OF OWNER: Glenn Carbon		2c. CITY OF OPERATOR: St. Louis	
1d. STATE OF OWNER: IL	1e. ZIP CODE: 62034	2d. STATE OF OPERATOR: MO	2e. ZIP CODE: 63110

3a. NAME OF CORPORATE DIVISION OR PLANT: Not Applicable		3b. STREET ADDRESS OF EMISSION SOURCE: corner of Chaffer St. and 8th St.		
3c. CITY OF EMISSION SOURCE: Roxana	3d. LOCATED WITHIN CITY LIMITS: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	3e. TOWNSHIP: Woodriver	3f. COUNTY: Madison	3g. ZIP CODE: 62048

4. ALL CORRESPONDENCE TO: (TITLE AND/OR NAME OF INDIVIDUAL) Kevin E. Dyer	5. YOUR DESIGNATION FOR THIS APPLICATION: (C) Roxana Site
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE) <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input type="checkbox"/> EMISSION SOURCE	7. WHO IS THE PERMIT APPLICANT? <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR

8. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS/HER SIGNATURE HERETO THE UNDERSIGNED FURTHER CERTIFIES THAT HE/SHE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S):

BY <u>Kevin E. Dyer</u> 12/22/10	BY _____
SIGNATURE	SIGNATURE
Kevin E. Dyer	_____
TYPED OR PRINTED NAME OF SIGNER	TYPED OR PRINTED NAME OF SIGNER
Principal Program Manager	_____
TITLE OF SIGNER	TITLE OF SIGNER
_____	_____
DATE	DATE
12/22/10	_____

(A) THIS FORM IS TO PROVIDE THE ILLINOIS EPA WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS FORM MAY BE USED TO REQUEST A CONSTRUCTION PERMIT, AN OPERATING PERMIT, OR A JOINT CONSTRUCTION AND OPERATING PERMIT.

(B) ENTER THE GENERIC NAME OF THE EQUIPMENT TO BE CONSTRUCTED OR OPERATED. THIS NAME WILL APPEAR ON THE PERMIT WHICH MAY BE ISSUED PURSUANT TO THIS APPLICATION. THIS FORM MUST BE ACCOMPANIED BY OTHER APPLICABLE FORMS AND INFORMATION.

(C) PROVIDE A DESIGNATION IN ITEM 5 ABOVE WHICH YOU WOULD LIKE THE ILLINOIS EPA TO USE FOR IDENTIFICATION OF YOUR EQUIPMENT. YOUR DESIGNATION WILL BE REFERENCED IN CORRESPONDENCE FROM THIS AGENCY RELATIVE TO THIS APPLICATION. YOUR DESIGNATION MUST NOT EXCEED TEN (10) CHARACTERS. (OPTIONAL)

(D) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH 35 ILL. ADM. CODE 201.154 OR 201.158 WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE ILLINOIS EPA A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

BILLING INFORMATION		10. CONTACT PERSON FOR APPLICATION: Heather Breitenbach	
9a. COMPANY NAME: Same as owner		11. CONTACT PERSON'S TELEPHONE NUMBER: (314) 429-0100	
9b. STREET ADDRESS:		12. CONTACT PERSON'S FACSIMILE NUMBER: (314) 429-0462	
9c. CITY:		13. FEDERAL EMPLOYER IDENTIFICATION NUMBER (FEIN): 522074528	
9d. STATE:	9f. BILLING CONTACT PERSON:	14. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CATEGORY: Refined Petroleum Pipeline	
9e. ZIP CODE:	9g. CONTACT TELEPHONE NO.:	15. PRIMARY SIC NUMBER: 4613	16. TAXPAYER IDENTIFICATION NUMBER (TIN): 52-2074528

17. DOES THIS APPLICATION CONTAIN FORM 197-FEE, "CONSTRUCTION PERMIT APPLICATION FEE DETERMINATION?"
 YES NO

18. DOES THE APPLICATION CONTAIN A PLOT PLAN/MAP?
 YES NO
IF THE PLOT PLAN/MAP HAS PREVIOUSLY BEEN SUBMITTED, SPECIFY:
I. D. NO.: _____ APPLICATION NUMBER: _____
IS THE APPROXIMATE SIZE OF APPLICANT'S PREMISES LESS THAN 1 ACRE?
 YES NO IF "NO", SPECIFY _____ ACRES

19. DOES THE APPLICATION CONTAIN A PROCESS FLOW DIAGRAM(S) THAT ACCURATELY AND CLEARLY REPRESENTS CURRENT PRACTICE? YES NO

20. IS THE EMISSION UNIT COVERED BY THIS APPLICATION ALREADY CONSTRUCTED? YES NO
IF "YES", PROVIDE THE DATE CONSTRUCTION WAS COMPLETED:

21. IF THIS APPLICATION INCORPORATES BY REFERENCE A PREVIOUSLY GRANTED PERMIT(S), HAS FORM APC-210, "DATA AND INFORMATION-INTEGRATION BY REFERENCE" BEEN SUBMITTED? YES NO

APPLICATION FOR OPERATING PERMIT ONLY

22. DOES THE STARTUP OF AN EMISSION UNIT COVERED BY THIS APPLICATION PRODUCE AIR CONTAMINANT EMISSIONS IN EXCESS OF APPLICABLE STANDARDS?
 YES NO
IF "YES", HAS FORM APC-203, "OPERATION DURING STARTUP" BEEN COMPLETED FOR THIS UNIT?
 YES NO

23. DOES THIS APPLICATION REQUEST PERMISSION TO OPERATE AN EMISSION UNIT DURING MALFUNCTIONS OR BREAKDOWNS?
 YES NO
IF "YES", HAS FORM APC-204, "OPERATION DURING MALFUNCTION AND BREAKDOWN" BEEN COMPLETED FOR THIS UNIT?
 YES NO

24. IS AN EMISSION UNIT COVERED BY THIS APPLICATION SUBJECT TO A FUTURE COMPLIANCE DATE?
 YES NO
IF "YES", HAS FORM APC-202, "COMPLIANCE PROGRAM & PROJECT COMPLETION SCHEDULE" BEEN COMPLETED FOR THIS UNIT?
 YES NO

25. DOES THE SOURCE COVERED BY THIS APPLICATION REQUIRE AN EPISODE ACTION PLAN (REFER TO GUIDELINES FOR EPISODE ACTION PLANS)?
 YES NO

26. LIST AND IDENTIFY ALL FORMS, EXHIBITS, AND OTHER INFORMATION SUBMITTED AS PART OF THIS APPLICATION. INCLUDE THE PAGE NUMBERS OF EACH ITEM (ATTACH ADDITIONAL SHEETS IF NECESSARY):

197-FEE	Pages 1-2	
APC Form 200	Pages 3-4	
APC Form 220	Pages 5-7	
APC Form 260	Pages 8-13	
Exhibit 260-1	Page 14	
ProAct cut sheet	Page 15	
Figure 1	Page 16	
Figure 2	Page 17	
		TOTAL NUMBER OF PAGES <u>17</u>

STATE OF ILLINOIS
 ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF AIR POLLUTION CONTROL
 1021 NORTH GRAND AVENUE, EAST
 SPRINGFIELD, ILLINOIS 62702

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* DATA AND INFORMATION PROCESS EMISSION SOURCE	
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* THIS INFORMATION FORM IS TO BE COMPLETED FOR AN EMISSION SOURCE OTHER THAN A FUEL COMBUSTION EMISSION SOURCE OR AN INCINERATOR. A FUEL COMBUSTION EMISSION SOURCE IS A FURNACE, BOILER, OR SIMILAR EQUIPMENT USED PRIMARILY FOR PRODUCING HEAT OR POWER BY INDIRECT HEAT TRANSFER. AN INCINERATOR IS AN APPARATUS IN WHICH REFUSE IS BURNED.

1. NAME OF PLANT OWNER: Shell Oil Products US	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF EMISSION SOURCE: corner of Chaffer St. & 8th St.	4. CITY OF EMISSION SOURCE: Roxana

GENERAL INFORMATION		
5. NAME OF PROCESS: Soil Vapor Extraction System	6. NAME OF EMISSION SOURCE EQUIPMENT: Internal Combustion Engine	
7. EMISSION SOURCE EQUIPMENT MANUFACTURER: Proact Services Corporation	8. MODEL NUMBER: ICE 100	9. SERIAL NUMBER:
10. FLOW DIAGRAM DESIGNATION(S) OF EMISSION SOURCE: Internal Combustion Engine Exhaust		
11. IDENTITY(S) OF ANY SIMILAR SOURCE(S) AT THE PLANT OR PREMISES NOT COVERED BY THE FORM (IF THE SOURCE IS COVERED BY ANOTHER APPLICATION, IDENTIFY THE APPLICATION):		
12. AVERAGE OPERATING TIME OF EMISSION SOURCE: 16 HRS/DAY 5 DAYS/WK 8 WKS/YR	13. MAXIMUM OPERATING TIME OF EMISSION SOURCE: 24 HRS/DAY 5 DAYS/WK 8 WKS/YR	
14. PERCENT OF ANNUAL THROUGHPUT: DEC-FEB 0% MAR-MAY 100% JUN-AUG 0% SEPT-NOV 0%		

INSTRUCTIONS
1. COMPLETE THE ABOVE IDENTIFICATION AND GENERAL INFORMATION SECTION.
2. COMPLETE THE RAW MATERIAL, PRODUCT, WASTE MATERIAL, AND FUEL USAGE SECTIONS FOR THE PARTICULAR SOURCE EQUIPMENT. COMPOSITIONS OF MATERIALS MUST BE SUFFICIENTLY DETAILED TO ALLOW DETERMINATION OF THE NATURE AND QUANTITY OF POTENTIAL EMISSIONS. IN PARTICULAR, THE COMPOSITION OF PAINTS, INKS, ETC., AND ANY SOLVENTS MUST BE FULLY DETAILED.
3. EMISSION AND EXHAUST POINT INFORMATION MUST BE COMPLETED, UNLESS EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.
4. OPERATION TIME AND CERTAIN OTHER ITEMS REQUIRE BOTH AVERAGE AND MAXIMUM VALUES
5. FOR GENERAL INFORMATION REFER TO "GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS," APC-201.

DEFINITIONS
AVERAGE - THE VALUE THAT SUMMARIZES OR REPRESENTS THE GENERAL CONDITION OF THE EMISSION SOURCE, OR THE GENERAL STATE OF PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY: AVERAGE OPERATING TIME - ACTUAL TOTAL HOURS OF OPERATION FOR THE PRECEDING TWELVE MONTH PERIOD. AVERAGE RATE - ACTUAL TOTAL QUANTITY OF "MATERIAL" FOR THE PRECEDING TWELVE MONTH PERIOD, DIVIDED BY THE AVERAGE OPERATING TIME. AVERAGE OPERATION - OPERATION TYPICAL OF THE PRECEDING TWELVE MONTH PERIOD, AS REPRESENTED BY AVERAGE OPERATING TIME AND AVERAGE RATES.
MAXIMUM - THE GREATEST VALUE ATTAINABLE OR ATTAINED FOR THE EMISSION SOURCE, OR THE PERIOD OF GREATEST OR UTMOST PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY: MAXIMUM OPERATING TIME - GREATEST EXPECTED TOTAL HOURS OF OPERATIONS FOR ANY TWELVE MONTH PERIOD. MAXIMUM RATE - GREATEST QUANTITY OF "MATERIAL" EXPECTED PER ANY ONE HOUR OF OPERATION. MAXIMUM OPERATION - GREATEST EXPECTED OPERATION, AS REPRESENTED BY MAXIMUM OPERATING TIME AND MAXIMUM RATES.

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

RAW MATERIAL INFORMATION		
NAME OF RAW MATERIAL	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
20a. Contaminated soil vapor at 50, 75, 90 cfm	b. LB/HR	c. LB/HR
21a.	b. LB/HR	c. LB/HR
22a.	b. LB/HR	c. LB/HR
23a.	b. LB/HR	c. LB/HR
24a.	b. LB/HR	c. LB/HR

PRODUCT INFORMATION		
NAME OF PRODUCT	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
30a. Treated soil vapor	b. LB/HR	c. LB/HR
31a.	b. LB/HR	c. LB/HR
32a.	b. LB/HR	c. LB/HR
33a.	b. LB/HR	c. LB/HR
34a.	b. LB/HR	c. LB/HR

WASTE MATERIAL INFORMATION		
NAME OF WASTE MATERIAL	AVERAGE RATE PER IDENTICAL SOURCE	MAXIMUM RATE PER IDENTICAL SOURCE
40a. None	b. LB/HR	c. LB/HR
41a.	b. LB/HR	c. LB/HR
42a.	b. LB/HR	c. LB/HR
43a.	b. LB/HR	c. LB/HR
44a.	b. LB/HR	c. LB/HR

*FUEL USAGE INFORMATION		
FUEL USED	TYPE	HEAT CONTENT
50a. NATURAL GAS <input type="checkbox"/>	b. -----	c. 1000 BTU/SCF
OTHER GAS <input type="checkbox"/>		BTU/SCF
OIL <input type="checkbox"/>		BTU/GAL
COAL <input type="checkbox"/>		BTU/LB
OTHER <input type="checkbox"/>		BTU/LB
d. AVERAGE FIRING RATE PER IDENTICAL SOURCE: BTU/HR		e. MAXIMUM FIRING RATE PER IDENTICAL SOURCE: BTU/HR

*THIS SECTION IS TO BE COMPLETED FOR ANY FUEL USED DIRECTLY IN THE PROCESS EMISSION SOURCE, E. G. GAS IN A DRYER, OR COAL IN A MELT FURNACE.

*EMISSION INFORMATION				
51. NUMBER OF IDENTICAL SOURCES (DESCRIBE AS REQUIRED):				
AVERAGE OPERATION				
CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE	
PARTICULATE MATTER	52a.	GR/SCF	b.	LB/HR
CARBON MONOXIDE	53a.	PPM (VOL)	b.	LB/HR
NITROGEN OXIDES	54a.	PPM (VOL)	b.	LB/HR
ORGANIC MATERIAL	55a.	PPM (VOL)	b.	LB/HR
SULFUR DIOXIDE	56a.	PPM (VOL)	b.	LB/HR
**OTHER (SPECIFY)	57a.	PPM (VOL)	b.	0.42 LB/HR
c. HAPS (see APC form 260)				
MAXIMUM OPERATION				
CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL SOURCE		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE	
PARTICULATE MATTER	58a.	GR/SCF	b.	LB/HR
CARBON MONOXIDE	59a.	PPM (VOL)	b.	LB/HR
NITROGEN OXIDES	60a.	PPM (VOL)	b.	LB/HR
ORGANIC MATERIAL	61a.	PPM (VOL)	b.	LB/HR
SULFUR DIOXIDE	62a.	PPM (VOL)	b.	LB/HR
**OTHER (SPECIFY)	63a.	PPM (VOL)	b.	0.76 LB/HR
c. HAPS (see APC form 260)				

*ITEMS 52 THROUGH 63 NEED NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.

**"OTHER" CONTAMINANT SHOULD BE USED FOR AN AIR CONTAMINANT NOT SPECIFICALLY NAMED ABOVE. POSSIBLE OTHER CONTAMINANTS ARE ASBESTOS, BERYLLIUM, MERCURY, VINYL CHLORIDE, LEAD, ETC.

***EXHAUST POINT INFORMATION			
64. FLOW DIAGRAM DESIGNATION(S) OF EXHAUST POINT: Internal Combustion Engine Exhaust			
65. DESCRIPTION OF EXHAUST POINT (LOCATION IN RELATION TO BUILDINGS, DIRECTION, HOODING, ETC.): 2" galvanized steel air stack from top of enclosure			
66. EXIT HEIGHT ABOVE GRADE:	14ft.	67. EXIT DIAMETER:	2in.
68. GREATEST HEIGHT OF NEARBY BUILDINGS:	N/A	69. EXIT DISTANCE FROM NEAREST PLANT BOUNDARY:	<100ft.
AVERAGE OPERATION		MAXIMUM OPERATION	
70. EXIT GAS TEMPERATURE:	770 °F	72. EXIT GAS TEMPERATURE:	770 °F
71. GAS FLOW RATE THROUGH EACH EXIT:	80 ACFM	73. GAS FLOW RATE THROUGH EACH EXIT:	80 ACFM

***THIS SECTION SHOULD NOT BE COMPLETED IF EMISSIONS ARE EXHAUSTED THROUGH AIR POLLUTION CONTROL EQUIPMENT.

STATE OF ILLINOIS
 ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF AIR POLLUTION CONTROL
 1021 NORTH GRAND AVENUE, EAST
 SPRINGFIELD, ILLINOIS 62702

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* DATA AND INFORMATION AIR POLLUTION CONTROL EQUIPMENT	
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* THIS INFORMATION FORM IS TO BE COMPLETED FOR AN EMISSION SOURCE OTHER THAN A FUEL COMBUSTION EMISSION SOURCE OR AN INCINERATOR. A FUEL COMBUSTION EMISSION SOURCE IS A FURNACE, BOILER, OR SIMILAR EQUIPMENT USED PRIMARILY FOR PRODUCING HEAT OR POWER BY INDIRECT HEAT TRANSFER. AN INCINERATOR IS AN APPARATUS IN WHICH REFUSE IS BURNED.

1. NAME OF OWNER: Shell Oil Products US	2. NAME OF CORPORATE DIVISION OR PLANT (IF DIFFERENT FROM OWNER):
3. STREET ADDRESS OF CONTROL EQUIPMENT: corner of Chaffer St. and 8th St.	4. CITY OF CONTROL EQUIPMENT Roxana
5. NAME OF CONTROL EQUIPMENT OR CONTROL SYSTEM: Soil Vapor Extraction/Treatment System with Internal Combustion Engine	

INSTRUCTIONS

1. COMPLETE THE ABOVE IDENTIFICATION SECTION.
2. COMPLETE THE APPROPRIATE SECTION FOR THE UNIT OF CONTROL EQUIPMENT, OR THE APPROPRIATE SECTIONS FOR THE CONTROL SYSTEM. BE CERTAIN THAT THE ARRANGEMENT OF VARIOUS UNITS IN A CONTROL SYSTEM IS MADE CLEAR IN THE PROCESS FLOW DIAGRAM.
3. COMPLETE PAGE 6 OF THIS FORM, EMISSION INFORMATION AND EXHAUST POINT INFORMATION.
4. EFFICIENCY VALUES SHOULD BE SUPPORTED WITH A DETAILED EXPLANATION OF THE METHOD OF CALCULATION, THE MANNER OF ESTIMATION, OR THE SOURCE OF INFORMATION. REFERENCE TO THIS FORM ANY RELEVANT INFORMATION OR EXPLANATION INCLUDED IN THIS PERMIT APPLICATION.
5. EFFICIENCY VALUES AND CERTAIN OTHER ITEMS OF INFORMATION ARE TO BE GIVEN FOR AVERAGE AND MAXIMUM OPERATION OR THE SOURCE EQUIPMENT. FOR EXAMPLE, "MAXIMUM EFFICIENCY" IS THE EFFICIENCY OF THE CONTROL EQUIPMENT WHEN THE SOURCE IS AT MAXIMUM OPERATION, AND "AVERAGE FLOW RATE" IS THE FLOW RATE INTO THE CONTROL EQUIPMENT WHEN THE SOURCE IS AT AVERAGE OPERATION.
6. FOR GENERAL INFORMATION REFER TO "GENERAL INSTRUCTIONS FOR PERMIT APPLICATIONS," APC-201.

DEFINITIONS

AVERAGE - THE VALUE THAT SUMMARIZES OR REPRESENTS THE GENERAL CONDITION OF THE EMISSION SOURCE, OR THE GENERAL STATE OF PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
 AVERAGE OPERATION - OPERATION TYPICAL OF THE PRECEDING TWELVE MONTH PERIOD, AS REPRESENTED BY AVERAGE OPERATING TIME AND AVERAGE RATES.

MAXIMUM - THE GREATEST VALUE ATTAINABLE OR ATTAINED FOR THE EMISSION SOURCE, OR THE PERIOD OF GREATEST OR UTMOST PRODUCTION OF THE EMISSION SOURCE. SPECIFICALLY:
 MAXIMUM OPERATION - GREATEST EXPECTED OPERATION, AS REPRESENTED BY MAXIMUM OPERATING TIME AND MAXIMUM RATES.

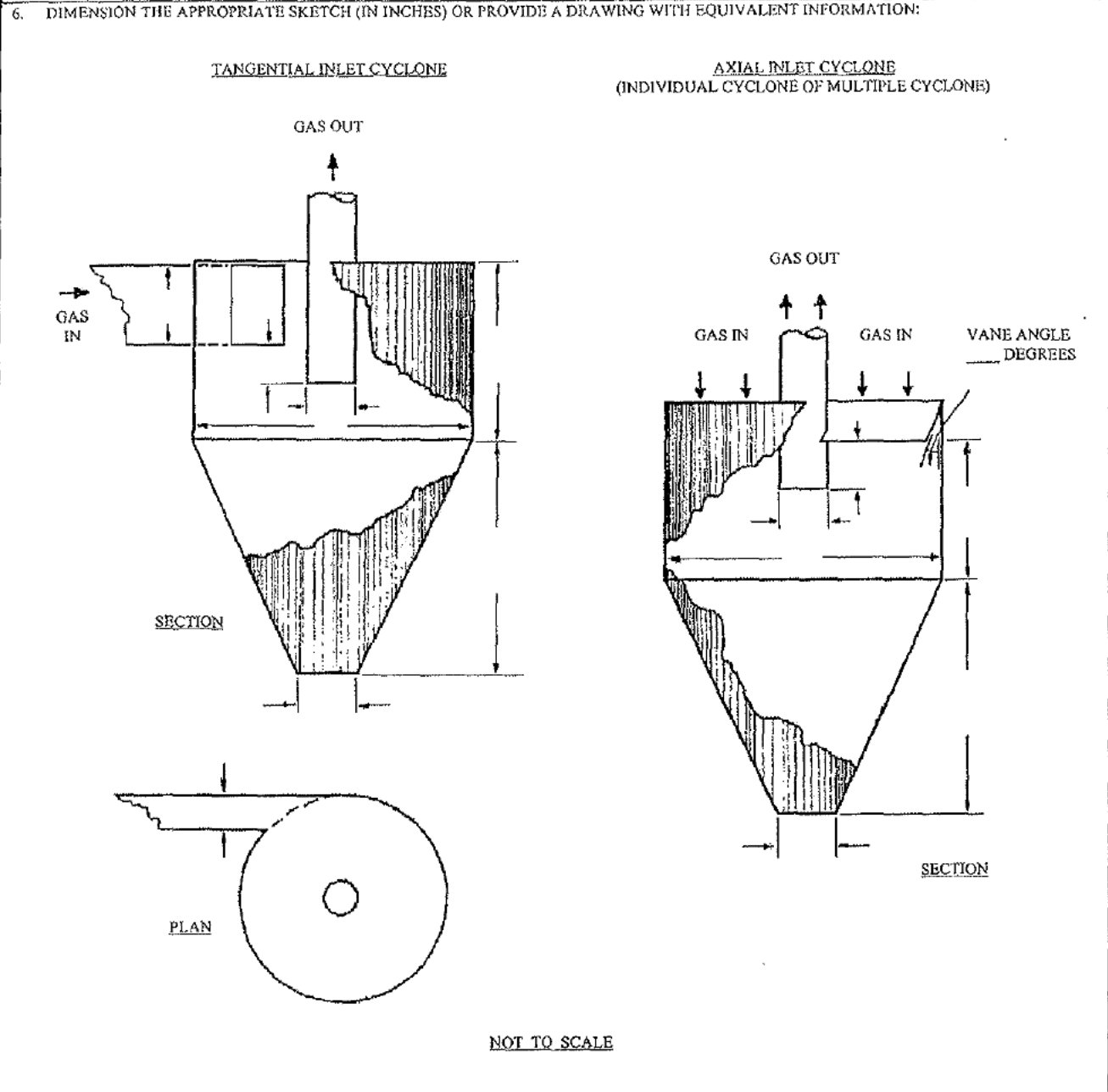
This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

ADSORPTION UNIT	
1. FLOW DIAGRAM DESIGNATION(S) OF ADSORPTION UNIT:	
2. MANUFACTURER:	3. MODEL NAME AND NUMBER:
4. ADSORBENT: <input type="checkbox"/> ACTIVATED CHARCOAL: TYPE _____ <input type="checkbox"/> OTHER: SPECIFY _____	
5. ADSORBATE(S):	
6. NUMBER OF BEDS PER UNIT:	7. WEIGHT OF ADSORBENT PER BED: _____ LB
8. DIMENSIONS OF BED: THICKNESS _____ IN, SURFACE AREA _____ SQUARE IN	
9. INLET GAS TEMPERATURE: _____ °F	9. PRESSURE DROP ACROSS UNIT: _____ INCH H ₂ O GAUGE
11. TYPE OF REGENERATION: <input type="checkbox"/> REPLACEMENT <input type="checkbox"/> STEAM <input type="checkbox"/> OTHER: SPECIFY _____	
12. METHOD OF REGENERATION: <input type="checkbox"/> ALTERNATE USE OF _____ ENTIRE UNITS <input type="checkbox"/> ALTERNATE USE OF _____ BEDS IN A SINGLE UNIT <input type="checkbox"/> SOURCE SHUT DOWN <input type="checkbox"/> OTHER: DESCRIBE _____	
AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
13. TIME ON LINE BEFORE REGENERATION: _____ MIN/BED	15. TIME ON LINE BEFORE REGENERATION: _____ MIN/BED
14. EFFICIENCY OF ABSORBER (SEE INSTRUCTION 4): _____ %	16. EFFICIENCY OF ABSORBER (SEE INSTRUCTION 4): _____ %

AFTERBURNER	
1. FLOW DIAGRAM DESIGNATION(S) OF AFTERBURNER:	
2. MANUFACTURER:	3. MODEL NAME AND NUMBER:
4. COMBUSTION CHAMBER DIMENSIONS: LENGTH _____ IN, CROSS-SECTIONAL AREA _____ SQUARE IN	
5. INLET GAS TEMPERATURE: _____ °F	7. FUEL: <input type="checkbox"/> GAS <input type="checkbox"/> OIL: SULFUR _____ WT%
6. OPERATING TEMPERATURE OF COMBUSTION CHAMBER: _____ °F	8. BURNERS PER AFTERBURNER: _____ @ _____ BTU/HR EACH
9. CATALYST USED: <input type="checkbox"/> NO <input type="checkbox"/> YES: DESCRIBE CATALYST _____	
10. HEAT EXCHANGER USED: <input type="checkbox"/> NO <input type="checkbox"/> YES: DESCRIBE HEAT EXCHANGER _____	
AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
11. GAS FLOW RATE: _____ SCFM	13. GAS FLOW RATE: _____ SCFM
12. EFFICIENCY OF AFTERBURNER (SEE INSTRUCTION 4): _____ %	14. EFFICIENCY OF AFTERBURNER (SEE INSTRUCTION 4): _____ %

CYCLONE

1. FLOW DIAGRAM DESIGNATION(S) OF CYCLONE:	
2. MANUFACTURER:	3. MODEL:
4. TYPE OF CYCLONE: <input type="checkbox"/> SIMPLE <input type="checkbox"/> MULTIPLE	5. NUMBER OF CYCLONES IN EACH MULTIPLE CYCLONE:



AVERAGE OPERATION OF SOURCE		MAXIMUM OPERATION OF SOURCE	
7. GAS FLOW RATE:	SCFM	9. GAS FLOW RATE:	SCFM
8. EFFICIENCY OF CYCLONE (SEE INSTRUCTION 4):	%	10. EFFICIENCY OF CYCLONE (SEE INSTRUCTION 4):	%

CONDENSER			
1. FLOW DIAGRAM DESIGNATION(S) OF CONDENSER:			
2. MANUFACTURER:		3. MODEL NAME AND NUMBER:	4. HEAT EXCHANGE AREA: FT ²
AVERAGE OPERATION OF SOURCE		MAXIMUM OPERATION OF SOURCE	
5. COOLANT FLOW RATE PER CONDENSER: WATER _____ GPM AIR _____ SCFM OTHER: TYPE _____, FLOW RATE _____		10. COOLANT FLOW RATE PER CONDENSER: WATER _____ GPM AIR _____ SCFM OTHER: TYPE _____, FLOW RATE _____	
6. GAS FLOW RATE: SCFM		11. GAS FLOW RATE: SCFM	
7. COOLANT TEMPERATURE: INLET _____ °F OUTLET _____ °F	8. GAS TEMPERATURE: INLET _____ °F OUTLET _____ °F	12. COOLANT TEMPERATURE: INLET _____ °F OUTLET _____ °F	13. GAS TEMPERATURE: INLET _____ °F OUTLET _____ °F
9. EFFICIENCY OF CONDENSER (SEE INSTRUCTION 4): %		14. EFFICIENCY OF CONDENSER (SEE INSTRUCTION 4): %	

*ELECTRICAL PRECIPITATOR			
1. FLOW DIAGRAM DESIGNATION(S) OF ELECTRICAL PRECIPITATOR:			
2. MANUFACTURER:		3. MODEL NAME AND NUMBER:	
4. COLLECTING ELECTRODE AREA PER CONTROL DEVICE: FT ²			
AVERAGE OPERATION OF SOURCE		MAXIMUM OPERATION OF SOURCE	
5. GAS FLOW RATE: SCFM		7. GAS FLOW RATE: SCFM	
6. EFFICIENCY OF ELECTRICAL PRECIPITATOR(SEE INSTRUCTION 4): %		8. EFFICIENCY OF ELECTRICAL PRECIPITATOR(SEE INSTRUCTION 4): %	
SUBMIT THE MANUFACTURER'S SPECIFICATIONS FOR THE ELECTRICAL PRECIPITATOR. REFERENCE THE INFORMATION TO THIS FORM.			

*ELECTRICAL PRECIPITATORS VARY GREATLY IN THEIR DESIGN AND IN THEIR COMPLEXITY. THE ITEMS IN THIS SECTION PROVIDE A MINIMUM AMOUNT OF INFORMATION. THE APPLICANT MUST, HOWEVER, SUBMIT WITH THIS APPLICATION THE MANUFACTURER'S SPECIFICATIONS, INCLUDING ANY DRAWINGS, TECHNICAL DOCUMENTS, ETC. IF THE INFORMATION PROVIDED BY THE MANUFACTURER'S SPECIFICATIONS IS INSUFFICIENT FOR FULL AND ACCURATE ANALYSIS, THE AGENCY WILL REQUEST SPECIFIC ADDITIONAL INFORMATION.

FILTER UNIT			
1. FLOW DIAGRAM DESIGNATION(S) OF FILTER UNIT:			
2. MANUFACTURER:		3. MODEL NAME AND NUMBER:	
4. FILTERING MATERIAL:		5. FILTERING AREA: FT ²	
6. CLEANING METHOD: <input type="checkbox"/> SHAKER <input type="checkbox"/> REVERSE AIR <input type="checkbox"/> PULSE AIR <input type="checkbox"/> PULSE JET <input type="checkbox"/> OTHER: SPECIFY _____			
7. GAS COOLING METHOD: <input type="checkbox"/> DUCT WORK: LENGTH _____ FT., DIAM _____ IN. <input type="checkbox"/> BLEED-IN AIR <input type="checkbox"/> WATER SPRAY <input type="checkbox"/> OTHER: SPECIFY _____			
AVERAGE OPERATION OF SOURCE		MAXIMUM OPERATION OF SOURCE	
8. GAS FLOW RATE (FROM SOURCE): SCFM		12. GAS FLOW RATE (FROM SOURCE): SCFM	
9. GAS COOLING FLOW RATE: BLEED-IN AIR _____ SCFM, WATER SPRAY _____ GPM		13. GAS COOLING FLOW RATE: BLEED-IN AIR _____ SCFM, WATER SPRAY _____ GPM	
10. INLET GAS CONDITION: TEMPERATURE _____ °F DEWPOINT _____ °F		14. INLET GAS CONDITION: TEMPERATURE _____ °F DEWPOINT _____ °F	
11. EFFICIENCY OF FILTER UNIT (SEE INSTRUCTION 4): %		15. EFFICIENCY OF FILTER UNIT (SEE INSTRUCTION 4): %	

SCRUBBER	
1. FLOW DIAGRAM DESIGNATION(S) OF SCRUBBER:	
2. MANUFACTURER:	3. MODEL NAME AND NUMBER:
4. TYPE OF SCRUBBER: <input type="checkbox"/> HIGH ENERGY: GAS STEAM PRESSURE DROP _____ INCH H ₂ O <input type="checkbox"/> PACKED: PACKING TYPE _____, PACKING SIZE _____, PACKING HEIGHT _____ IN. <input type="checkbox"/> SPRAY: NUMBER OF NOZZLES _____, NOZZLE PRESSURE _____ PSIG <input type="checkbox"/> OTHER: SPECIFY _____ ATTACH DESCRIPTION AND SKETCH WITH DIMENSIONS.	
5. TYPE OF FLOW: <input type="checkbox"/> COCURRENT <input type="checkbox"/> COUNTERCURRENT <input type="checkbox"/> CROSSFLOW	
6. SCRUBBER GEOMETRY: LENGTH IN DIRECTION OF GAS FLOW _____ IN., CROSS-SECTIONAL AREA _____ SQUARE IN.	
7. CHEMICAL COMPOSITION OF SCRUBBANT:	
AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
8. SCRUBBANT FLOW RATE: GPM	12. SCRUBBANT FLOW RATE: GPM
9. GAS FLOW RATE: SCFM	13. GAS FLOW RATE: SCFM
10. INLET GAS TEMPERATURE: °F	14. INLET GAS TEMPERATURE: °F
11. EFFICIENCY OF SCRUBBER (SEE INSTRUCTION 4): _____% PARTICULATE _____% GASEOUS	15. EFFICIENCY OF SCRUBBER (SEE INSTRUCTION 4): _____% PARTICULATE _____% GASEOUS

OTHER TYPE OF CONTROL EQUIPMENT	
1. FLOW DIAGRAM DESIGNATION(S) OF "OTHER TYPE" OF CONTROL EQUIPMENT:	
2. GENERIC NAME OF "OTHER" EQUIPMENT:	3. MANUFACTURER:
	4. MODEL NAME AND NUMBER:
5. DESCRIPTION AND SKETCH, WITH DIMENSIONS AND FLOW RATES, OF "OTHER" EQUIPMENT:	
AVERAGE OPERATION OF SOURCE	MAXIMUM OPERATION OF SOURCE
6. FLOW RATES: _____% GPM _____ 50 SCFM	8. FLOW RATES: _____% GPM _____ 90 SCFM
7. EFFICIENCY OF "OTHER" EQUIPMENT (SEE INSTRUCTION 4): 96-99%	9. EFFICIENCY OF "OTHER" EQUIPMENT (SEE INSTRUCTION 4): 96-99%

EMISSION INFORMATION				
I. NUMBER OF IDENTICAL CONTROL UNITS OR CONTROL SYSTEMS (DESCRIBE AS REQUIRED):				
AVERAGE OPERATION				
CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL CONTROL UNITS OR CONTROL SYSTEM		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE	
PARTICULATE MATTER	2a.	GR/SCF	b.	LB/HR
CARBON MONOXIDE	3a.	PPM (VOL)	b.	LB/HR
NITROGEN OXIDES	4a.	PPM (VOL)	b.	LB/HR
ORGANIC MATERIAL	5a.	PPM (VOL)	b.	LB/HR
SULFUR DIOXIDE	6a.	PPM (VOL)	b.	LB/HR
**OTHER (SPECIFY)	7a.	PPM (VOL)	b.	0.42 LB/HR
c. HAPS (see Exhibit 260-1)				
MAXIMUM OPERATION				
CONTAMINANT	CONCENTRATION OR EMISSION RATE PER IDENTICAL CONTROL UNITS OR CONTROL SYSTEM		METHOD USED TO DETERMINE CONCENTRATION OR EMISSION RATE	
PARTICULATE MATTER	8a.	GR/SCF	b.	LB/HR
CARBON MONOXIDE	9a.	PPM (VOL)	b.	LB/HR
NITROGEN OXIDES	10a.	PPM (VOL)	b.	LB/HR
ORGANIC MATERIAL	11a.	PPM (VOL)	b.	LB/HR
SULFUR DIOXIDE	12a.	PPM (VOL)	b.	LB/HR
**OTHER (SPECIFY)	13a.	PPM (VOL)	b.	0.76 LB/HR
c. HAPS (see Exhibit 260-1)				

***"OTHER" CONTAMINANT SHOULD BE USED FOR AN AIR CONTAMINANT NOT SPECIFICALLY NAMED ABOVE. POSSIBLE OTHER CONTAMINANTS ARE ASBESTOS, BERYLLIUM, MERCURY, VINYL CHLORIDE, LEAD, ETC.

EXHAUST POINT INFORMATION			
1. FLOW DIAGRAM DESIGNATION(S) OF EXHAUST POINT: Internal Combustion Engine Exhaust			
2. DESCRIPTION OF EXHAUST POINT (LOCATION IN RELATION TO BUILDINGS, DIRECTION, HOODING, ETC.): 2" galvanized steel air stack from top of enclosure			
3. EXIT HEIGHT ABOVE GRADE: 14ft.		4. EXIT DIAMETER: 2in.	
5. GREATEST HEIGHT OF NEARBY BUILDINGS: N/A		6. EXIT DISTANCE FROM NEAREST PLANT BOUNDARY: <100ft.	
AVERAGE OPERATION		MAXIMUM OPERATION	
7. EXIT GAS TEMPERATURE: 770 °F		9. EXIT GAS TEMPERATURE: 770 °F	
8. GAS FLOW RATE THROUGH EACH EXIT: 80 ACFM		10. GAS FLOW RATE THROUGH EACH EXIT: 80 ACFM	

Exhibit 260-1

SVE Pilot Test System Description and Emission Calculations

Shell Oil Products US will be conducting a pilot test at the Roxana site as shown in Figure 1. Two extraction wells will be used to extract soil vapor using an extraction/treatment system consisting of an internal combustion engine (ICE), a knockout tank, and water pump and storage as shown in Figure 1 and the attached cut sheet. The motor for the ICE will be used to develop the vacuum pressure necessary to extract and convey the soil vapor to a knockout tank, where the soil vapor and condensate water will be separated. The vapors will be conveyed by vacuum to the ICE unit for destruction of hydrocarbon constituents. The condensate water will be conveyed by a water pump to a holding tank for subsequent transport and treatment/discharge.

The pilot test will be conducted on up to two extraction wells; one near VMP-4 and the other near VMP-13 at the POTW, as shown on Figure 2. For the purposes of this application and the mass removal calculations, it has been assumed that the pilot test will be completed on both wells. Each extraction well will be operated at different vapor flow rates for several weeks and will be subject to the data collected and field discretion during the pilot test. During operation of each extraction well, the ICE will extract vapor at three test rates: 50, 75, and 90 cubic feet per minute (cfm). At 50 cfm approximately two pore volumes will be removed per day from the subsurface.

An ICE unit will be used throughout each pilot test to combust volatiles in the extracted vapor. The engine's hydrocarbon destruction efficiency is estimated at 96 percent. The maximum rated hydrocarbon loading to the engine is 250 pounds per day. Based on the anticipated destruction efficiency and the maximum loading rate, the maximum controlled hydrocarbon mass emission rate is 0.76 pounds per hour (lb/hr) as shown in Table 1 below.

Table 1: Calculation of HAPS Emissions

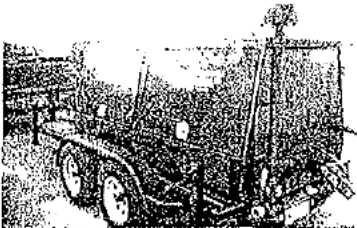
Avg HAPS (mg/m ³)	Volume flow rate (cfm)	HAPS mass flow rate (kg/day)	HAPS mass flow rate (lb/day)	Efficiency	emission rate (lb/day)	emission rate (lb/hr)
56500	50	115.21	254.02	0.96	10.16	0.423
56500	75	172.81	381.03	0.96	15.24	0.635
56500	90	207.37	457.23	0.96	18.29	0.762



8 Cylinder

Internal Combustion Engine (ICE)
Propane or Natural Gas

Environmental Treatment Specialists



General Specifications: 100 SCFM @20" Hg Air treatment by engine
8 SCFM @100 PSI (option)
3 GPM auto water dump system (option)

Trailer: 6ft wide x 24 ft long x 6 ft height
7,500 pound double axle wheel trailer

Main Equipment: 4.6 Liter 8 cylinder Ford engine
Flame Arrestor
2-catalytic converters
Knock out tank w/ particulate filter
Air compressor (option)
Auto water dump system (option)
Vacuum & Pressure gauges, sample ports

Trailer Specifications: System is mounted and enclosed in a custom trailer

Control Panel: PLC (Phoenix 1,000 Controller)
On/Off switch all components
Low oil, High temp shut down
Well valve control system
Interlock connections

Inlet Hose Connection: 1 - Male camlock 2" inlet fittings (10 ft hose w/system)

Outlet Hose Connection: 2" air stack from top of enclosure (14 ft. high)

Power Requirements: Propane or Natural Gas connection

ProAct Services Corporation:

Corp Office: 231-843-2711

Gulf Coast: 210-882-6467

or 713-202-6351

Midwest Office: 231-342-1116

East Coast Office: 203-262-1200

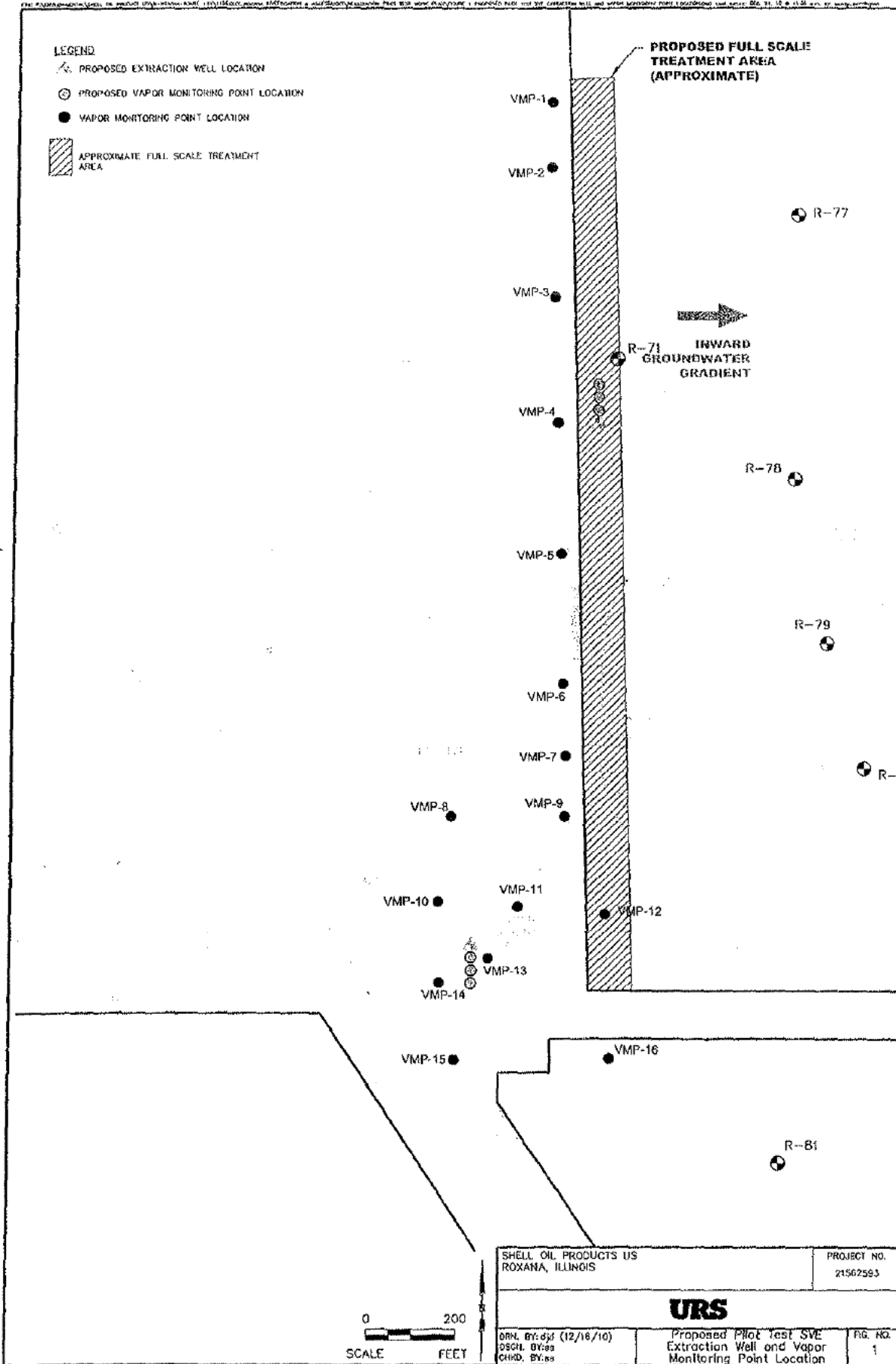
www.proact-usa.com

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LEGEND

- ▲ PROPOSED EXTRACTION WELL LOCATION
- ⊙ PROPOSED VAPOR MONITORING POINT LOCATION
- VAPOR MONITORING POINT LOCATION
- ▨ APPROXIMATE FULL SCALE TREATMENT AREA

PROPOSED FULL SCALE TREATMENT AREA (APPROXIMATE)



SHELL OIL PRODUCTS US ROXANA, ILLINOIS		PROJECT NO. 21562593
URS		
DRN, BY: djs (12/16/10) DSCH, BY: ss CHKD, BY: ss	Proposed Pilot Test SVE Extraction Well and Vapor Monitoring Point Location	FIG. NO. 1

0 200
SCALE FEET

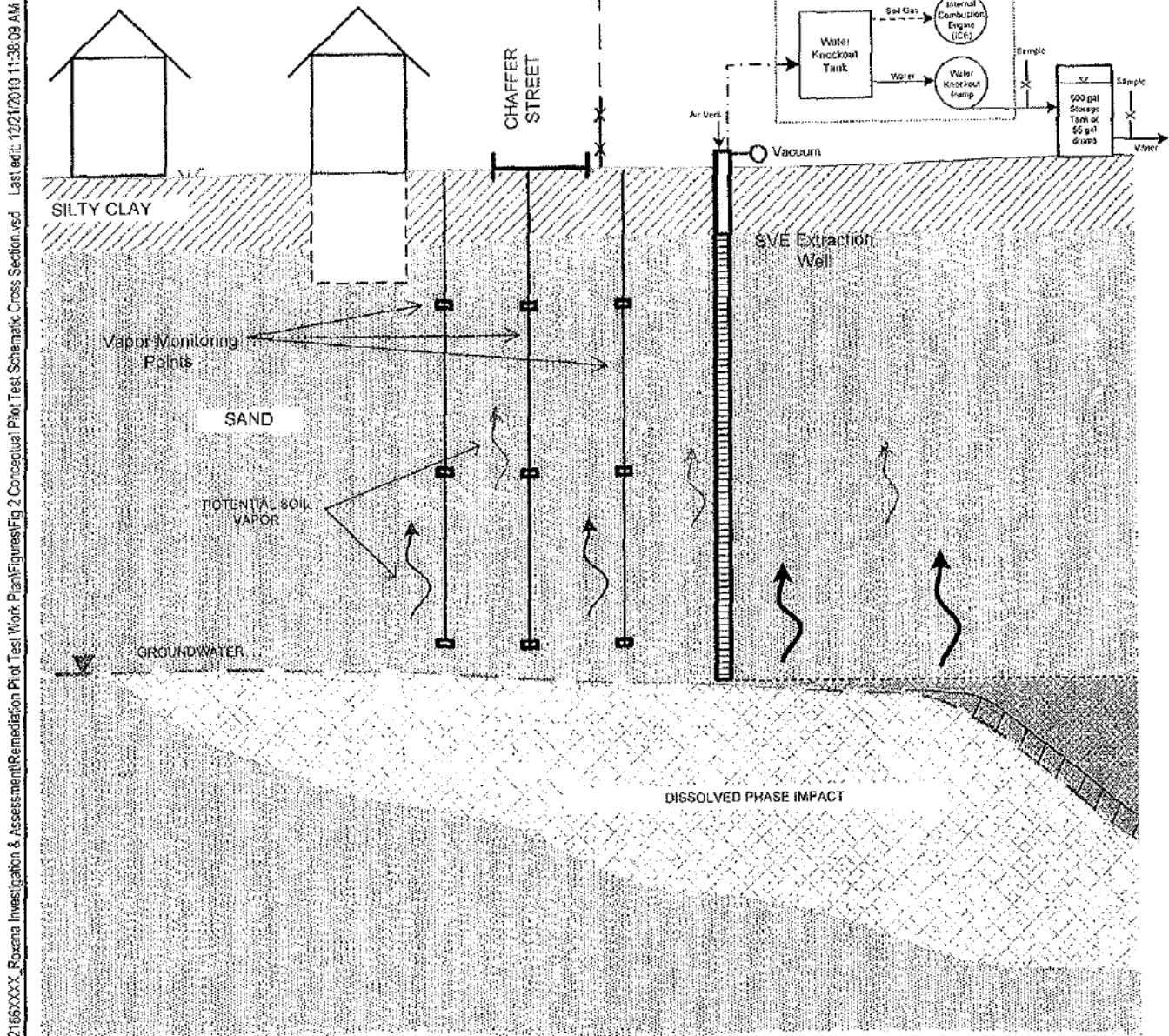
VILLAGE OF ROXANA

WOOD RIVER REFINERY

WEST

EAST

PROPOSED FULL SCALE TREATMENT AREA (APPROXIMATE)



P:\Environmental\Shell Oil Product, USB, Roxana, Route 11\2162\XXX, Roxana Investigation & Assessment\Remediation Pilot Test Work Plan\Figures\Fig 2 Conceptual Pilot Test Schematic Cross Section, vsd Last edit: 12/21/2010 11:38:09 AM

NOTES:

NOT TO SCALE

SHELL OIL PRODUCTS US ROXANA, ILLINOIS		PROJECT NO. 21562593
URS		
DRN. BY: mpm 12/21/10 DSGN. BY: sjs CHKD. BY: b3	Conceptual Pilot Test Schematic Cross Section	FIG. NO. 2