



DEPARTMENT OF THE ARMY  
CAMP STANLEY STORAGE ACTIVITY, MCAAP  
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

July 19, 2006

U-131-06

Ms. Abigail Power  
TCEQ, Region 13 Office  
14250 Judson Road  
San Antonio, TX 78233-4480

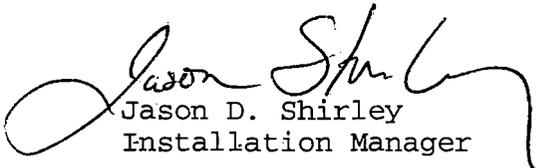
Subject: Permit By Rule Modification Addendum Notification for SWMU  
B-3, Camp Stanley Storage Activity, U.S. Army, Boerne,  
Texas

Dear Ms. Power:

Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, U.S. Army Field Support Command, Army Material Command, U.S. Army is submitting an addendum to the soil evaporation remedial efforts for SWMU B-3. The soil evaporation Permit-By-Rule (PBR) modification was submitted on June 12, 2006 and provided for worst-case emission estimates of Trichloroethene (TCE), which still met previous emission limitations of the original soil vapor extraction (SVE) PBR (PBR 32405). This addendum provides worst-case emission estimates for benzene (0.375 pounds per hour [lb/hr]) and adjusted TCE (0.325 lb/yr) estimates to continue to meet the original PBR volatile organic compound (VOC) emission limitations of 0.7 lb/hr and 3.2 tons per year (tons/yr). Worst-case contaminant concentrations for TCE and benzene used in estimating emissions for this PBR are >22,000 and >15,000 part per million (ppm), respectively. Actual contaminant concentrations for TCE and benzene within the waste piles are <3 ppm and <0.6 ppm, respectively. Therefore, actual emissions of TCE and/or benzene from the soil evaporation remedial effort on contaminated waste piles are expected to be significantly lower (negligible) than the emissions estimated for this PBR addendum.

Attached please find the estimated emissions, revised forms and checklists for the PBR addendum. If you have any questions, please contact Ms. Glaré Sanchez, CSSA Environmental Program Manager, at (210) 698-5208.

Sincerely,

  
Jason D. Shirley  
Installation Manager

Attachment

cc: Glaré Sanchez, Environmental Program Manager  
Camp Stanley Storage Activity  
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Boerne, TX 78015-4800

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**ADDENDUM TO SWMU B-3**  
**PERMIT BY RULE APPLICATION**  
**FOR BENZENE CONTAMINATION**

**Camp Stanley Storage Activity**

**Boerne, Texas**

**July 2006**

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## Attachments

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Trichloroethene calculations .....	2 pages
Benzene calculations .....	2 pages
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## DESCRIPTION

### Introduction

This addendum to the Solid Waste Management Unit (SWMU) B-3 remediation project Permit By Rule application for Camp Stanley Storage Activity (CSSA) addresses emissions due to benzene contamination that is newly detected in several recent soil samples as well as emissions from trichloroethylene contamination indicated previously.

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The soils and groundwater in proximity to SWMU B-3, which is a former landfill area, were contaminated with chlorinated volatile organic compounds (VOCs) as a result of undefined historical activities. Benzene has not been observed at the site prior to the recent soil sample analyses nor is there any specific knowledge of benzene use at the site.

### Background

Remediation of TCE/PCE contamination has previously been attempted at this site utilizing soil vapor extraction (SVE) techniques. Standard Exemption permit number 32405 was first approved in 1996 for a small SVE system that was installed to remediate the contaminated soil matrix. The system was modified in 1999 to allow a larger 18 well system since permeability of the wells in the soil matrix was poor. A Permit By Rule (PBR) application was submitted in March 2004 to implement a pilot SVE study for the same site to address residual contamination of the underlying bedrock. In May 2006, the SVE system was subsequently demolished so that the most contaminated portions of the former landfill could be excavated and disposed offsite. A modification was submitted in June 2006 to modify the remedial technique from SVE to soil evaporation for the excavated contaminated soils and this addendum is applicable to that proposed modification.

### Technical Approach

This project proposes to excavate contaminated soils from the SWMU and place the soil in one or two wastepiles (~ 200 cubic yards/wastepile) on the adjoining ground surface over an area for each pile of approximately six thousand square feet. To facilitate evaporation of the contaminants the soil for each pile will be placed in single 12-inch lifts. Samples will be collected and analyzed to determine effectiveness. The expected duration of evaporation is a few weeks over July or August 2006.

### Location

The location diagram as shown on Figure 1 of the attachments indicates the respective distances from the facility to the nearest property boundary and the nearest off-property receptor. The distance from SWMU B-3 to the nearest property boundary is 4200 feet. The distance from SWMU B-3 to the nearest off-property receptor is 4600 feet.

## EMISSION ESTIMATES DISCUSSION

### Estimated Emissions for Proposed Evaporation Technique

The maximum estimated chlorinated hydrocarbon emission rate from the March 2004 PBR application using soil vapor extraction as the remedial technique was estimated at 0.7 lb/hr (or approximately 3.2 tons per year).

The emissions rate for the evaporation technique was estimated using an EPA method as presented in the document Hazardous Waste Treatment, Storage, and Disposal Facilities, OAOPS, Air Emission Models (EPA 450/3-87-026). The calculations were performed using typical assumptions of the method's authors, local climate data, and both benzene and trichloroethene physical property data. Note: the EPA method assumes organic chemical contaminants are present as 2-phase liquids, which is an extremely conservative assumption.

Worst-case concentrations were selected for the contaminants to demonstrate that the proposed evaporation technique, assuming the EPA method and calculations are valid, would not result in exceedances of the allowable rates or even of the estimated emissions of the March 2004 PBR application, which were well below the allowable rates. See Emissions Summary in Table 1 and Calculations attached.

**Table 1  
 Emissions Summary**

Chemical Compound	CAS #	L mg/m <sup>3</sup>	E Exempt Emission Rate lb/hr	Calculated Emission Flux* g/cm <sup>2</sup> /s	Worst-case Calculated Emission Rates**		Allowable Emission Rates	
					lb/hr	tons/yr*	lb/hr	tons/yr
Benzene	71-43-2	3	0.375	4.07E-09	0.374	1.64	0.375	1.64
Trichloroethene	79-01-6	135	16.9	7.04E-09	0.324	1.42	6.000	5.00
<b>TOTAL EMISSIONS</b>					<b>0.7</b>	<b>3.1</b>	<b>6.375</b>	<b>6.6</b>

Notes:

1. Calculations assume evaporation 24 hours per day, 7 days per week and 52 weeks per year.
2. Distance to nearest receptor is > 3000 feet, therefore, a K value of 8 was used for all E=L/K calculations.
3. Concentrations assumed from calculations allowing worst-case emissions.

\* Based on method presented in EPA-450/3-87-026 Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF)-Air Emission Models.

\*\* Based on 3 wastepiles: one 6250 sq. ft. TCE pile and two BZ piles each 6250 sq. ft.

### Conclusions:

The emission rates are calculated for maximum contaminant concentrations of benzene (15,450 ppm) and trichloroethene (22,300 ppm) from wastepiles, using the method presented in EPA 450/3-87-026, and continue to meet the maximum rates allowed by the Rule, both on an hourly and an annual basis. Actual contaminant concentrations are <3ppm TCE and <0.6 ppm benzene as measured by waste characterization analytical results (i.e., U.S. EPA Method 1311 - TCLP). Therefore the actual emissions from the treatment of the wastepiles are expected to be negligible compared to the worst case emissions estimated for this PBR.

## Certification

This certification validates the calculations of the attached Permit By Rule notification proposed to modify the technique to remediate Solid Waste Management Unit B-3 at Camp Stanley Storage Activity in Boerne, Texas using soil evaporation instead of soil vapor extraction. After reviewing the method, the basis for each assumption, the design conditions, the physical property data and the emissions estimates, I attest that the assumptions, design conditions, physical property data and calculations are correct and in accordance with accepted engineering practices, and that the calculations were done accurately. I believe the results are proper and correct in predicting the probable emissions that will result from evaporation at the specified conditions assuming the 1987 EPA method is both valid and accurate.

I certify under the penalty of law that this document and all its attachments were prepared by me or were prepared under my direction, supervision or review. Based on my knowledge and inquiry of the person or persons who performed the associated tasks, or those persons directly responsible for gathering the information, the results submitted are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

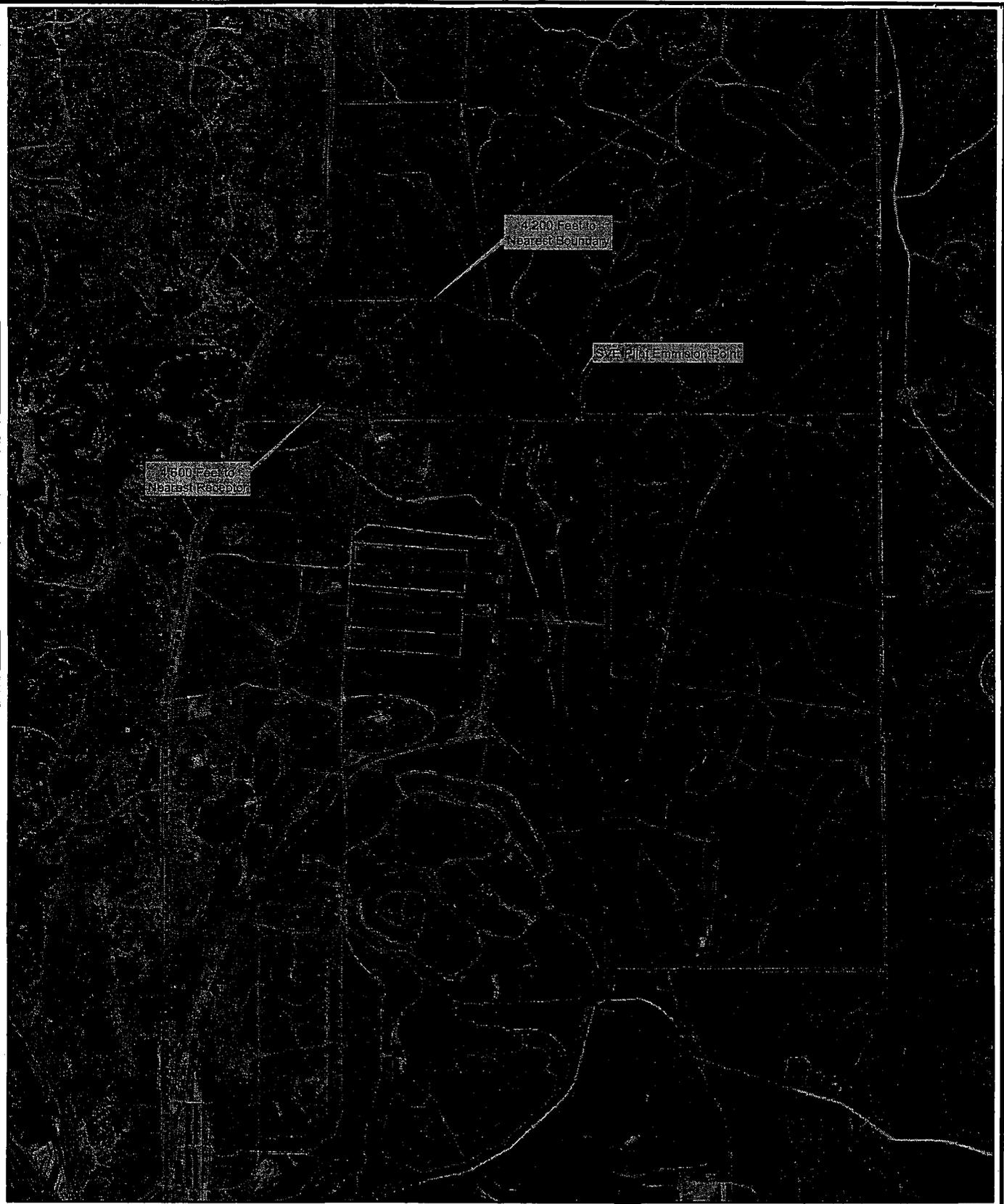


*Henry C. Dress*

July 18, 2006

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**LOCATION DIAGRAM**  
**FIGURE 1**



 CSSA Boundary

0 1,000 2,000 4,000 Feet

December, 2003

**Figure 1**

**SWMU B-3  
Location Diagram**

**PARSONS**

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**CALCULATIONS**  
**4 PAGE SPREADSHEET**



C:\Jobs\CSSA\T0006 B-3 Removal\Evaporation treatment\Benzene[B-3 BZ Emission Estimates.xls]Two-phase BZ

Assume benzene properties are worst case scenario:									
BZ D <sub>a</sub> Diffusivity in air = 0.088		cm <sup>2</sup> /s							
BZ Antoine Coefs. <sup>1</sup> A= 6.905		B= 1211		C= 220.8					
where Log <sub>10</sub> P= A-(B/(T+C))									
BZ vapor pres. at temp. T =		30 °C		119.2 mmHg		0.157 atm			
MW BZ		78.11 g/gmol							
L for BZ in this waste is based on				BZ liquid density of				0.879 g/cm <sup>3</sup>	
assumed waste liquid amount of				15,450 mg/kg				0.015 BZ	
assume balance of liquid waste is water								0.98 H <sub>2</sub> O	
Density of: Waste liquid		1.00 g/cm <sup>3</sup>		Excavated soil		75 lb/ft <sup>3</sup>		1.201 g/cm <sup>3</sup>	
Waste loading, L is = 0.015		x 1.201 g soil/cm <sup>3</sup>							
L = 0.019 g BZ/cm <sup>3</sup> contaminated soil									
C is weight fraction of BZ in organic (liquid) phase= 1.0									
Calculate emissions:									
Find D <sub>e</sub> = 0.003		Schmidt Sc <sub>g</sub> = μ <sub>a</sub>		where μ <sub>a</sub> is viscosity of air				1.81E-04 g/cm/s	
K <sub>eq</sub> = 0.007		Number		ρ <sub>a</sub> D <sub>a</sub> and ρ <sub>a</sub> is density of air				1.20E-03 g/cm <sup>3</sup>	
				Sc <sub>g</sub> = 1.71					
Check K <sub>eq</sub> D <sub>e</sub> t = 0.783		where t = 1 yr		3.15E+07 s					
i <sup>2</sup>									
Where K <sub>eq</sub> D <sub>e</sub> t ≤ 0.25		F <sub>1</sub> equation is valid				Where K <sub>eq</sub> D <sub>e</sub> t > 0.25		F <sub>2</sub> equation is valid	
i <sup>2</sup>									
K <sub>d</sub> = 6E-08 s <sup>-1</sup>						F <sub>2</sub> = 8/pi <sup>2</sup> [1-exp(-K <sub>d</sub> t)] + 0.1878			
F <sub>1</sub> = NA						F <sub>2</sub> = 0.881			
M <sub>o</sub> = 0.566 g/cm <sup>2</sup>						M <sub>o</sub> = 0.566 g/cm <sup>2</sup>			
Find instantaneous emission rate					Find instantaneous emission rate				
k <sub>G</sub> = 0.008 m/s		0.77 cm/s		k <sub>G</sub> = 0.008 m/s		0.77 cm/s			
Where K <sub>eq</sub> D <sub>e</sub> t < 0.213						Where K <sub>eq</sub> D <sub>e</sub> t ≥ 0.213		τ = 1.933	
i <sup>2</sup>									
E = NA g/cm <sup>2</sup> /s						E <sub>2</sub> = 4.07E-09 g/cm <sup>2</sup> /s			
For the proposed site area the emission rate would be emission flux E times area A									
E*A = ##### g/s		##### lb/hr		##### tpy		E <sub>2</sub> *A = 0.05 g/s		0.375 lb/hr 1.64 tpy	
Note 1: Method based on EPA 450/3-87-026 Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF)-Air Emission Models									
2: Physical property data taken from various EPA and commercial databases.									
NA- Not Applicable and ##### also indicates calculated value is Not Applicable									

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Emission fraction= $F_t$			
$F_t = 0.72 (K_d t)^{1/2}$		where $F_t$ is fraction of constituent emitted to atmosphere after time $t$	
$K_d = K_{eq} D_e (\pi)^2$		where $K_d$ is the volatilization constant for constituent, $s^{-1}$ ;	
$4l^2$		$l$ is depth of waste in pile, cm;	
$D_e$ is the effective diffusion coefficient of the constituent in solid waste, $cm^2/s$ ; and			
$K_{eq}$ is the ratio of gas-phase constituent to total constituent in solid waste.			
$K_{eq} = \frac{P^* MW_{org} \epsilon_a}{RT L}$		where $P^*$ is constituent vapor pressure, atm	
$MW$ is constituent molecular weight			
$R$ is gas constant, $82.05 \text{ atm cm}^3/\text{gmol K}$			
$T$ is temperature, degrees K			
$L$ is the waste loading, g organic liquid phase / $cm^3$ of solid material			
$D_e = D_a \epsilon_a^{3.33} / \epsilon_T^2$		where $D_a$ is the diffusion of constituent in air, $cm^2/s$ ;	
$\epsilon_a$ is the void fraction or air porosity of solid waste			
$\epsilon_T$ is the total porosity of solid waste			
$D_e$ is the effective diffusion coefficient of constituent in waste, $cm^2/s$			
Emission rate = $E$			
For $K_{eq} D_e t/l^2 < 0.213$			
$E = \frac{M_o}{l} \left[ \frac{1}{\epsilon_a/k_G K_{eq}} + \frac{[\pi t]/K_{eq} D_e}{1} \right]^{1/2}$			
For $K_{eq} D_e t/l^2 \geq 0.213$			
$E_2 = \frac{2M_o K_{eq} D_e}{l^2} \exp(-\tau)$			
where $\tau$ is dimensionless parameter for instantaneous emission rate expression			
$\tau = \frac{D_e K_{eq} \pi^2 t}{4l^2}$			
$M_o = l C$		where $M_o$ is the area loading of constituent, $g/cm^2$	
$C$ is the weight fraction of constituent in the organic phase			
$l$ is the depth of the wastepile, cm			
$k_G = 4.82 (10^{-3}) U^{0.78} Sc_G^{-0.67} d_e^{-0.11}$		where $d_e$ is effective diameter of area $(4A/\pi)^{1/2}$ , m	
$A$ is area of open wastepile, $m^2$			
Assume			
Surface area=	6250 $ft^2$ ,	5,806,440 $cm^2$	$d_e = 15 \text{ m}$
$l$ , Avg. depth=	12 inches	30 cm	
Temperature	Use San Antonio summertime daily average temperature of		86 °F    303.2 °K
U Windspeed	Use summertime daily average of San Antonio,		10 mph    4.47 m/s
$\epsilon_a$ Air porosity of waste	0.25	assumed as typical <sup>1</sup>	
$\epsilon_T$ Total porosity of waste	0.50	assumed as typical <sup>1</sup>	

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Assume trichloroethene properties are worst case scenario:													
TCE D <sub>a</sub> Diffusivity in air	0.079	cm/s <sup>2</sup>											
TCE Antoine Coefs. <sup>1</sup> A=	6.518	B=	1019	C=	192.7								
where Log <sub>10</sub> P=	A-(B/(T+C))												
TCE vapor pres. at temp. T =	30 °C	87.93	mmHg	0.116	atm								
MW TCE	131.4 g/gmol												
L for TCE in this waste is based on	TCE liquid density of				1.46	g/cm <sup>3</sup>							
assumed waste liquid amount of	22,300				mg/kg	0.022	TCE						
assume balance of liquid waste is water					0.98	H <sub>2</sub> O							
Density of: Waste liquid	1.01	g/cm <sup>3</sup>	Excavated soil	75	lb/ft <sup>3</sup>	1.201	g/cm <sup>3</sup>						
Waste loading, L is =	0.022	x	1.20	g soil/cm <sup>3</sup>									
	L = 0.027 g TCE/cm <sup>3</sup> contaminated soil												
C is weight fraction of TCE in organic (liquid) phase=	1.0												
Calculate emissions:													
Find D <sub>e</sub> =	0.0031	Schmidt	Sc <sub>g</sub> =	μ <sub>a</sub>	where μ <sub>a</sub> is viscosity of air	1.81E-04	g/cm/s						
K <sub>eq</sub> =	0.0057	Number	ρ <sub>a</sub> D <sub>a</sub>		and ρ <sub>a</sub> is density of air	1.20E-03	g/cm <sup>3</sup>						
			Sc <sub>g</sub> =	1.91									
Check K <sub>eq</sub> D <sub>e</sub> t =	0.605	where t =	1 yr	3.15E+07	s								
	i <sup>2</sup>												
Where K <sub>eq</sub> D <sub>e</sub> t ≤ 0.25	F <sub>t</sub> equation is valid			Where K <sub>eq</sub> D <sub>e</sub> t > 0.25	F <sub>2</sub> equation is valid								
	i <sup>2</sup>			If not result= NA		i <sup>2</sup>							
	If not result= NA				If not result= NA								
K <sub>d</sub> =	5E-08	s <sup>-1</sup>		F <sub>2</sub> =	8/pi <sup>2</sup> [1-exp(-K <sub>d</sub> t)] +0.1878								
F <sub>t</sub> =	NA												
F <sub>2</sub> =	0.816												
M <sub>o</sub> =	0.817	g/cm <sup>2</sup>		M <sub>o</sub> =	0.817 g/cm <sup>2</sup>								
Find instantaneous emission rate					Find instantaneous emission rate								
k <sub>G</sub> =	0.007	m/s	0.744	cm/s	k <sub>G</sub> =	0.007	m/s	0.744	cm/s				
Where K <sub>eq</sub> D <sub>e</sub> t < 0.213	E equation is valid			Where K <sub>eq</sub> D <sub>e</sub> t ≥ 0.213	E <sub>2</sub> equation is valid								
	i <sup>2</sup>			If not result= NA		i <sup>2</sup>							
	If not result= NA				If not result= NA								
E=	NA g/cm <sup>2</sup> /s				E <sub>2</sub> =	7.04E-09 g/cm <sup>2</sup> /s							
For the proposed site area the emissions would be rate times area													
E*A=	#####	g/s	#####	lb/hr	#####	tpy	E <sub>2</sub> *A=	0.04	g/s	0.325	lb/hr	1.42	tpy
Note 1: Method based on EPA 450/3-87-026 Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF)-Air Emission Models													
2: Physical property data taken from various EPA and commercial databases.													
NA - Not Applicable and ##### also indicates calculated value is Not Applicable													

**Exemption §106.262 Checklist**  
**(Previously Standard Exemption 118)**  
**Facilities (Emission and Distance Limitations)**

**This exemption requires registration with a PI-7 and submittal of supporting documentation within ten days of installation or modification of facilities.**

The following checklist has been developed to help you confirm that you meet the requirements of Exemption §106.262, previously Standard Exemption 118 (STDX 118). **Any "no" answers indicate that the claim of exemption may not meet all the requirements for the use of Exemption §106.262.** If you do not meet all the requirements, you may alter the project design/operation in such a way that all requirements of the exemption are met or obtain other authorization (i.e. construction permit, standard permit, etc.).

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>DESCRIPTION</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have you included a description of how this exemption claim meets the general rule for the use of standard exemptions? (A §106.4 checklist is available to satisfy this demonstration.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have you reviewed all other exemptions to ensure that none would have authorized the proposed construction or change had all requirements of the exemption been met?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If this claim is to qualify the use of other chemicals at a facility authorized by another exemption, are all the requirements of that specific exemption met? (Include a description of how that exemption's requirements are met.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is each emission source located at least 100 feet from any recreational area, residence, or other structure not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located? (Attach a scaled map.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all the chemicals that will be part of new or changed emissions at the facility appear in Table 262 or in the 1997 version of the list of Threshold Limit Values (TLV) published by the American Conference of Governmental Industrial Hygienists? (List the compounds and their L value from Table 262 or their TLV.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the calculated new or increased emissions, including fugitives, for each chemical less than or equal to 5 tons per year? (Attach calculations.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the calculated new or increased emissions, including fugitives, for each chemical less than or equal to "E" pounds per hour as determined using the formula in §106.262(3), or 6 pounds per hour, whichever is lower? (Attach both the "E" and emissions calculations for each compound.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a completed PI-7 been submitted?

Exemption §106.262 Checklist

Page 2

Are the following included with the PI-7 notification form:

- description of the project?
  - emission calculations?
  - data identifying specific chemical names (MSDS, CAS number, etc.)?
  - limit (L) values?
  - distance (D) values? and
  - description of control equipment, if any?
- 

- Are all the facilities in which the compounds listed in §106.262(e) are handled, located at least 300 feet from the nearest property line and 600 feet from the nearest off-property receptor? (Attach scaled map showing the effected facilities, the nearest fence lines, and receptors.)
- Are the total on-property quantities of each compound listed in §106.262(5) less than or equal to 500 pounds? (This requirement does not apply to permit authorizations.)
- Are all compounds listed in §106.262(5) handled only in unheated containers operated in compliance with U.S. Department of Transportation Regulations (49 CFR 171 through 178)?
- Are the containers containing chemicals listed in §106.262(5) not vented or opened directly to the atmosphere? (Attach descriptions as necessary.)
- For physical changes or modifications to existing facilities, does all air pollution abatement equipment remain unchanged (i.e. no change or addition is allowed)? (This requirement does not mean that new facilities may not have control equipment.)
- Will all visible emissions, except uncombined water, have opacity less than or equal to 5 percent in any five-minute period?

**TEXAS NATURAL RESOURCE CONSERVATION COMMISSION  
AIR PERMITS DIVISION**

**TITLE 30 TAC § 106.4 "QUICK-CHECK" APPLICABILITY CHECKLIST**

Company Name: Department of the Army, Camp Stanley Storage Activity  
 Checklist completed by: Henry Dress, PE Parsons Date: 7-18-2006  
 Facility Type: Soil Evaporation  
 Permit(s) by rule claimed: 30 TAC Chapter §106: 533 & 262  
 Project Description (including equipment, materials, and brief process description):  
The proposed addendum includes additional potential emissions of benzene from the treatment of the wastepiles.

List the maximum annual emission rates, in TONS PER YEAR (TPY), for this project:

CO <i>None</i>	NO <sub>x</sub> <i>None</i>	VOC <b>3.1</b>
PM <i>None</i>	SO <sub>2</sub> <i>None</i>	Other <i>None</i>

The following questions require a "Yes" or "No" answer to be indicated for this permit by rule claim:

**A. Title 30 TAC § 106.4(a)(5): Current Permit by Rule Requirements**

Yes  No  Have you checked to determine if this exempt project is being claimed under the current version of 30 TAC 106?

*If "Yes", continue to next question*

*If "No", please contact the TNRCC Air Permits Division for a copy of the current permit by rule to be claimed.*

**B. Title 30 TAC § 106.4(a)(7): Permit by rule prohibition check**

Yes  No  Are there any air permits under the same account containing permit conditions, which prohibit or restrict the use of permits by rule?

*If "No", continue to next question*

*If "Yes", permits by rule may not be used or their use must meet the restrictions of the permit.*

*A new permit or permit amendment may be required.*

*List permit number(s):* \_\_\_\_\_

**C. Title 30 TAC § 106.4(b): Circumvention check**

*Title 30 TAC § 106.4(b) states "No person shall circumvent by artificial limitations the requirements of §116.110 of this title (covering permitting)." Circumvention by artificial limitations may include but is not limited to:*

*A. dividing a complete project into separate segments to circumvent §106.4(a)(1) limits;*

*B. claiming feed or production rates below the physical capacity of the project's equipment in order to begin constructing facilities before a permit or permit amendment is approved for full scale operations, particularly when the unit will not be economically viable at less than permitted capacity;*

*C. claiming a limited chemical list in order to begin constructing facilities before a permit or permit amendment is approved for additional chemicals, particularly when the unit will not be economically viable until the additional chemicals are authorized.*

Yes  No  Does your project meet any of the criteria listed above?

*If "No", continue to next rule question*

*If "Yes", a permit by rule may not be claimed*

**D. Title 30 TAC § 106.4(c) and (d): Compliance with all Rules**

Yes  No  Will the facility comply with all rules and regulations of the TNRCC, the intent of the Texas Clean Air Act, and any local permitting or registration requirements?

*If "Yes", continue to next rule question*

*If "No", a permit by rule may not be claimed.*

**E. Title 30 TAC § 106.4(a)(1): Emission limits check**

Yes  No  The maximum emissions from all facilities at the site, including this permit by rule claim, are less than 25 tpy of any contaminant.

*If the answer to this questions is "Yes", no further review is needed to complete this checklist.*

*Forward all information needed to verify your permit by rule claim to the TNRCC.*

*If "No", this checklist cannot be used. Please complete the standard 30 TAC § 106.4 Applicability Checklist*

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**Exemption §106.533 Checklist  
(Previously Standard Exemption 68)**

**Contaminated Water and Soil Remediation Equipment**

**REGISTRATION IS REQUIRED BEFORE CONSTRUCTION OF FACILITIES COVERED BY THIS  
EXEMPTION MAY BEGIN**

The following checklist is designed to help you confirm that you meet Exemption §106.533, previously standard exemption 68 (STDX 68), requirements. **Any "no" answers indicate that the claim of exemption may not meet all requirements for the use of Exemption §106.533, previously standard exemption 68.** If you do not meet all the requirements, you may alter the project design/operation in such a way that all the requirements of the exemption are met or obtain a construction permit.

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>DESCRIPTION</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have you included a description of how this exemption claim meets the general rule for the use of exemptions (§106.4 checklist is available)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will the remediation be at the property where the contamination originally occurred or at a nearby property secondarily affected by the contamination?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the total emissions rate of petroleum hydrocarbons (except benzene) less than or equal to one (1) pound per hour? Attach calculations and supporting data such as soil/water contaminant concentrations.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do benzene emissions meet the emissions limits of §106.262, previously STDX 118(c)? Attach calculations, contaminant concentrations, and a scaled map showing the emission(s) point(s) and nearby off-property receptors.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do chemical emissions other than those from petroleum hydrocarbons meet the requirements of §106.262, previously STDX 118(b) and (c)? Attach calculations, contaminant concentrations, and a scaled map showing the emission(s) point(s).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will the handling, processing, and conditioning of contaminated and remediated soil be free of visible emissions (except for moisture)?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If you use abatement equipment to meet the exemption's emissions limits, does it completely satisfy one of the conditions stated in §106.533, previously STDX 68(e)(1)-(4)? Which one? ____Describe the abatement process in an attachment.