

Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

November 9, 2007

MR MATT BOWMAN  
PRESIDENT  
CES ENVIRONMENTAL SERVICES  
4904 GRIGGS RD  
HOUSTON TX 77021

Permit by Rule Registration Number: 83191  
Location/City/County: 4904 Griggs Road, Houston, Harris County  
Project Description/Unit: Methylene Chloride Recovery from Tank Trailers  
Regulated Entity Number: RN100693282  
Customer Reference Number: CN600618946  
New or Existing Site: Existing  
Affected Permit (if applicable): None  
Renewal Date (if applicable): None

CES Environmental Services, Inc. has certified the emissions associated with the Methylene Chloride recovery from tank trailers under Title 30 Texas Administrative Code §§ 106.261 and 106.262. For rule information see [www.tceq.state.tx.us/permitting/air/nav/numerical\\_index.html](http://www.tceq.state.tx.us/permitting/air/nav/numerical_index.html).

No planned MSS emissions have been represented or reviewed for this registration and none will be authorized by this PBR.

The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements. This certification is taken under the authority delegated by the Executive Director of the TCEQ. If you have questions, please contact Mr. Jonathan Wilmoth, P.E. at (512) 239-0567.

Sincerely,

Certified Project Emissions:

A handwritten signature in black ink, appearing to read "Anne M. Inman".

Anne M. Inman, P.E., Manager  
Rule Registrations Section  
Air Permits Division

VOCs	0.29	tpy
HAP Methylene Chloride (included in VOCs)	0.28	tpy

cc: Bureau Chief of Air Quality Control, Health and Human Services Department, City of Houston, Houston  
Director, Pollution Control Department, Harris County Public Health and Environmental Services, Pasadena  
Air Section Manager, Region 12 - Houston

Project Number: 133605

**TECHNICAL REVIEW: AIR PERMIT BY RULE**

<b>Permit No.:</b>	83191	<b>Company Name:</b>	CES Environmental Services, Inc.	<b>APD Reviewer:</b>	Mr. Jonathan Wilmoth, P.E.
<b>Project No.:</b>	133605	<b>Unit Name:</b>	Methylene Chloride Recovery from Tank Trailers	<b>PBR No(s):</b>	106.261 and 106.262

GENERAL INFORMATION			
<b>Regulated Entity No.:</b>	RN100693282	<b>Project Type:</b>	Permit by Rule Application
<b>Customer Reference No.:</b>	CN600618946	<b>Date Received by TCEQ:</b>	October 23, 2007
<b>Account No.:</b>	see Technical Summary section	<b>Date Received by Reviewer:</b>	October 26, 2007
<b>City/County:</b>	Houston, Harris County	<b>Physical Location:</b>	4904 Griggs Road

CONTACT INFORMATION			
<b>Responsible Official/ Primary Contact Name and Title:</b>	Mr. Matt Bowman President	<b>Phone No.:</b> <b>Fax No.:</b>	(713) 676-1460 (713) 676-1676
<b>Technical Contact/ Consultant Name and Title:</b>	Mr. Philip B. Evans Director Technical Services	<b>Phone No.:</b> <b>Fax No.:</b>	(281) 446-7070 (281) 446-3348
		<b>Email:</b>	mbowman@cesenvironmental.com pevans@wcmgroup.com

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there affected NSR or Title V permits for the project?		X	There are no NSR permits in the NSR IMS for this site. The company certifies that an air federal operating permit is not required for this site.
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?		X	The company certifies that maximum emissions from all facilities at the site are less than 25 tpy of any air contaminant.
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	
Does NOx Cap and Trade apply to this registration?		X	The company does not represent any increases in NOx emissions under this registration.
Is the facility in compliance with all other applicable rules and regulations?	X		

DESCRIBE OVERALL PROCESS AT THE SITE
The CES Environmental Services site is a tank container cleaning facility.

DESCRIBE PROJECT AND INVOLVED PROCESS
<p>The company has submitted a registration for PBRs 106.261 and 106.262 for authorization of the operation of a methylene chloride recovery process at the site.</p> <p><u>Step 1, Methylene Chloride Transloading:</u></p> <p>Methylene chloride (C<sub>2</sub>Cl<sub>2</sub>) and water enter the facility in a truck tank (tank trailers) and are allowed to phase separate. The C<sub>2</sub>Cl<sub>2</sub> phase is then decanted to an interface vessel (C<sub>2</sub>Cl<sub>2</sub> is heavier than water and settles to bottom, water is on top) and transferred to another truck tank (product trailer). Emissions from the truck tanks and interface vessel are vented to a tote vessel containing diesel oil which acts as a scrubbing solution and then through an activated carbon canister to remove any residual C<sub>2</sub>Cl<sub>2</sub> vapor.</p> <p>After the decanting and transfer process is complete, the liquid remaining in the hose is gravity drained into the interface vessel, and a very small amount of air is used to clear the liquid in the line leading from the pump on the interface vessel into the C<sub>2</sub>Cl<sub>2</sub> truck tank. The truck tank containing mostly water with some residual C<sub>2</sub>Cl<sub>2</sub> is then moved to another area of the site where additional processing is performed.</p> <p><u>Step 2, Water Processing:</u></p> <p>The water and any remaining C<sub>2</sub>Cl<sub>2</sub> in the truck tank are pumped into a 10,000 gallon distillation tank. The distillation tank is then heated to approximately 120 °F to remove C<sub>2</sub>Cl<sub>2</sub> from the water. The remaining water is tested to ensure removal of the C<sub>2</sub>Cl<sub>2</sub> and then sent to wastewater treatment. The vapor phase from the distillation process containing C<sub>2</sub>Cl<sub>2</sub> and any evaporated water passes through a condenser where it is cooled to approximately 70 °F. The condensed liquid is collected in a 250-gallon tote "accumulator vessel." Emissions of any uncondensed vapor from the accumulator vessel are routed to a diesel scrubber and then to activated carbon drums before being vented to the atmosphere. The material collected in the accumulator vessel is then transferred into the interface vessel from the transloading step of the process for phase separation and transfer into the product trailer.</p>

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES
<p>The company has submitted a PI-7-CERT with supporting information. The company certifies that at the start of the process, throughputs are 800 gal/hr and 450,000 gal/yr. Based on company calculations, throughputs for the following steps of the process differ due to the nature of the overall process.</p> <p>Methylene chloride is not a highly reactive VOC (HRVOC).</p> <p>The company has indicated to the reviewer that this registration 83191 and registration 75375 belong under account number HG-1270-B (RN10417076). The reviewer informed the project coordinator for the RR Section and requested that the information be forwarded to APIRT if the project coordinator has no issues. The company listed HG-1270-B on the PI-7-CERT in the registration but also listed RN100693282 on the PI-7-CERT. The reviewer did not delay processing of this registration for this item.</p> <p>There are only several PBR registration projects for RN100693282 and RN10417076 in the NSR IMS.</p> <p>The reviewer was unable to determine total emissions at the RN100693282 and RN10417076 sites based on available information in GroupWise.</p>

### TECHNICAL REVIEW: AIR PERMIT BY RULE

<b>Permit No.:</b>	83191	<b>Company Name:</b>	CES Environmental Services, Inc.	<b>APD Reviewer:</b>	Mr. Jonathan Wilmoth, P.E.
<b>Project No.:</b>	133605	<b>Unit Name:</b>	Methylene Chloride Recovery from Tank Trailers	<b>PBR No(s):</b>	106.261 and 106.262

The company did not address MSS in this registration project.

**Highlighted 106.261 Requirements as Represented by the Company**

- The distance to the nearest off-site receptor is >100 feet.
- Other permits by rule and standard permits do not apply to these facilities.
- Total new or increased emissions, including fugitives, are less than or equal to 6.0 lb/hr and 10 tpy for refinery petroleum fractions. See table below.
- Threshold limit values greater than 200 mg/m<sup>3</sup> is not applicable to this registration.
- Chemicals not listed or referenced in 106.262 is not applicable to this registration.
- There will be no changes to or additions of any air pollution abatement equipment.
- Visible emissions, except uncombined water, will not exceed 5% opacity in any six-minute period.

**Highlighted 106.262 Requirements as Represented by the Company**

- The distance to the nearest off-site receptor is >100 feet.
- The facilities are not authorized under another PBR or a standard permit.
- There will be no changes to or additions of any air pollution abatement equipment.
- Emissions will not exceed the calculated E value, using the equation  $E = L/K$ ; see table below.
- 106.262(a)(4) does not apply to this registration.
- Visible emissions, except uncombined water, will not exceed 5% opacity in any six-minute period.

#### COMMUNICATION LOG

Date	Time	Name/Company	Subject of Communication
10/30/2007	3:10 PM	Mr. Philip Evans / The WCM Group, Inc.	The reviewer left a detailed message and requested please return call.
10/31/2007	about 9:00 AM	Mr. Philip Evans / The WCM Group, Inc.	Mr. Evans called the reviewer. Mr. Evans said that this registration and registration 75375 belong under account number HG-1270-B. Mr. Evans said that no standard permits apply to this site and that no standard permits have been claimed for this site. Mr. Evans addressed 106.262 requirements that had not been addressed in the registration. Mr. Evans said no NSPS, MACT, or NESHAPs standards apply to this registration. Mr. Evans said that the existing controls in this registration are dedicated to this registration and to odor control for wastewater. Mr. Evans said the controls can handle the loading demands of all the waste gas streams vented to the controls:
10/31/2007	10:05 AM	Mr. Philip Evans / The WCM Group, Inc.	Mr. Evans called the reviewer. Mr. Evans said that waste (spent) diesel is sent off-site for disposal. Mr. Evans said that he would e-mail more detailed emission calculations for emissions from the hose that connects the water and remaining C2Cl2 under Step 2., Water Processing with the distillation tank.
10/31/2007	10:19 AM	Mr. Philip Evans / The WCM Group, Inc.	The reviewer received the e-mail from Mr. Evans. According to the e-mail, spent diesel will not be processed at the site, and spent diesel will be shipped off-site in drums for disposal. The e-mail included updated emission calculations for the hose that connects the water and remaining C2Cl2 under Step 2., Water Processing with the distillation tank.

#### PBR Emission Limits

Chemical	PBR Claimed	L, mg/m <sup>3</sup>	Emission Limit (E = L/K) lb/hr	Emission Limit tpy	Actual Emissions lb/hr	Actual Emissions tpy
<b>for Transloading</b>						
methylene chloride	106.262(a)(2)	26	0.077	0.336	0.054	0.214
diesel (refinery petroleum fractions)	106.261(a)(2)	NA	6	10	0.008	0.002
<b>for Water Processing</b>						
methylene chloride	106.262(a)(2)	26	0.130	0.569	0.040	0.071
diesel (refinery petroleum fractions)	106.261(a)(2)	NA	6	10	0.036	0.002

**TECHNICAL REVIEW: AIR PERMIT BY RULE**

<b>Permit No.:</b>	83191	<b>Company Name:</b>	CES Environmental Services, Inc.	<b>APD Reviewer:</b>	Mr. Jonathan Wilmoth, P.E.
<b>Project No.:</b>	133605	<b>Unit Name:</b>	Methylene Chloride Recovery from Tank Trailers	<b>PBR No(s).:</b>	106.261 and 106.262

ESTIMATED EMISSIONS													
EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NOx		CO		PM <sub>10</sub>		SO <sub>2</sub>		HAPs	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
no EPNs assigned / emissions from Transloading		0.06	0.22									0.05	0.21
no EPNs assigned / emissions from Water Processing		0.08	0.07									0.04	0.07
<b>TOTAL EMISSIONS (TPY):</b>			0.29										0.28
<b>MAXIMUM OPERATING SCHEDULE:</b>		Hours/Day		Days/Week		Weeks/Year		Hours/Year		8760			

SITE REVIEW / DISTANCE LIMIT	Yes	No	Description/Outcome	Date	Reviewed by
Site Review Required?		X		11/07/2007	Mr. Jonathan Wilmoth, P.E.
PBR Distance Limits Met?	X		Distance to nearest property line: 100 feet. Distance to nearest off-property structure: 125 feet. Distance to nearest off-site receptor: 125 feet for Transloading, 200 feet for Water Processing.	11/07/2007	Mr. Jonathan Wilmoth, P.E.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
<b>SIGNATURE:</b>			
<b>PRINTED NAME:</b>	Mr. Jonathan Wilmoth, P.E.	Ms. Nancy Akintan	Jon Edwards, P.E.
<b>DATE:</b>	11/07/2007	11/08/07	11/09/07

BASIS OF PROJECT POINTS	POINTS
Base Points: 106.261	1.5
Project Complexity Description and Points:	
Additional PBRs	0.5
GroupWise search and review of previous TRVs, deficiencies, phone calls, and additional review	1.0
Technical Reviewer Project Points Assessment:	3.0
Final Reviewer Project Points Confirmation:	3.00