



FINAL DECISION OF ISSUANCE NO. 0041

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I. GENERAL INFORMATION

- a. ERC Owner/Percent Ownership: Gaviota Terminal Company Partnership/Shell Pipeline Company
- b. Primary Contact Name: Mr. Gilbert Rea
Primary Contact Company: Shell Pipeline Company
- c. ERC Application Date: May, 23, 2005
- d. ERC Application Completeness Date: June 6, 2005
- e. ERC Stationary Source Name: Gaviota Transportation Center (GTC)
ERC Stationary Source Number: 5008
- f. ERC Facility Name: Gaviota Transportation Center (GTC)
ERC Facility Number: 4007
- g. ERC Source: ATC Permit Required. ATC/PTO Number: _____
 PTO Canceled. PTO Number: PTO 6408
 PTO Modification Required. PTO Mod No: _____
 Exempt. Cite: _____
- h. ERC Zone: South Zone
- i. ERC Source Type: Stationary

II. BACKGROUND

This ERC application is for the creation of NO_x, ROC, CO, SO_x, and PM/PM₁₀ ERCs due to the shutdown of the Gaviota Transportation Center. Equipment to be shutdown includes a thermal incinerator, a backup flare, and fugitive hydrocarbon components. The operating permits for the facility will be cancelled prior to the issuance of the emission reduction credit certificate for this DOI.

III. EMISSION REDUCTION CREDIT QUALIFICATION

a. Total DOI ERCs Approved:

NOx = 0.179 tpq (0.717 tpy)
ROC = 0.696 tpq (2.784 tpy)
CO = 0.267 tpq (1.068 tpy)
SOx = 0.013 tpq (0.051 tpy)
PM10 = 0.011 tpq (0.046 tpy)

b. Number of Emission Elements: 3

c. Emission Element Data

c.1 Emission Element Name: Thermal Incinerator

- EE/DOI Number: 01/0041

- Emission Element Description: A control device used to reduce ROC emissions associated with vapors generated by the crude oil storage tanks.

- Undiscounted ERC Baseline (1): The three year emissions baseline is based on CEMS data maintained by the owner/operator.

NOx = 0.177 tpq (0.706 tpy)
ROC = 0.047 tpq (0.189 tpy)
CO = 0.067 tpq (0.267 tpy)
SOx = 0.010 tpq (0.041 tpy)
PM10 = 0.012 tpq (0.048 tpy)

- Technical Uncertainty Factor Used? Yes No

- Technical Uncertainty Factor Description: n/a

- Undiscounted ERC Baseline (2) - TUF Adjusted

NOx = 0.177 tpq (0.706 tpy)
ROC = 0.047 tpq (0.189 tpy)
CO = 0.067 tpq (0.267 tpy)
SOx = 0.010 tpq (0.041 tpy)
PM10 = 0.012 tpq (0.048 tpy)

- ERC Due To: Emission Controls:
 Shutdown
 Reduction in Throughput
 Other:

- For Shutdowns/Reduction in Throughput

- BACT Discounted
- 20 Percent Minimum Discount

- Amount of Shutdown/Reduction in Throughput Adjustment

NO_x = 0.035 tpq (0.141 tpy)
ROC = 0.009 tpq (0.038 tpy)
CO = 0.013 tpq (0.053 tpy)
SO_x = 0.002 tpq (0.008 tpy)
PM₁₀ = 0.002 tpq (0.010 tpy)

- RACT/SIP Discounted Yes No

- RACT/SIP Applicable Rules: Rule 359

- Amount of RACT/SIP Discount: The baseline already includes implementation of Rule 359 requirements as well as previous NSR and NSPS permit requirements.

- Discounted Baseline (4) - RACT/SIP Adjusted

NO_x = 0.141 tpq (0.565 tpy)
ROC = 0.038 tpq (0.151 tpy)
CO = 0.053 tpq (0.213 tpy)
SO_x = 0.008 tpq (0.033 tpy)
PM₁₀ = 0.010 tpq (0.039 tpy)

- Special ERC Restrictions? Yes No

- ERC Termination Date: none (renewal required by May 2010 if not used)

- Are There Emission Element-Specific Conditions? Yes No

- Listing of Emission Element-Specific Conditions:

(1) Disposal of Thermal Incinerator. Shell Pipeline Company shall permanently remove the Thermal Incinerator from service by physically disconnecting the incinerator from any fuel gas and process lines, be made inoperable and be removed from its foundation. Shell Pipeline Company shall:

- a. Ensure that the incinerator is destroyed. Provide signed documentation that the incinerator has been destroyed. Such documentation shall include the incinerator manufacturer, model, ID#, serial number, method of destruction, company and person who performed the work and a photograph of the incinerator showing the work done.

- Attachments Yes No

- Attachment Name(s):

- Attachment 1 (*ERC Calculations*)

c.2

Emission Element Name: Backup Flare

- EE/DOI Number: 02/0041

- Emission Element Description: An emergency device used in place of the Thermal Incinerator during breakdown conditions when waste gas volumes exceed the design limits of the Thermal Incinerator, or during incinerator maintenance.

- Undiscounted ERC Baseline (1): The three year emissions baseline is based on CEMS data maintained by the owner/operator.

NOx = 0.047 tpq (0.190 tpy)
ROC = 0.024 tpq (0.097 tpy)
CO = 0.267 tpq (1.068 tpy)
SOx = 0.006 tpq (0.022 tpy)
PM10 = 0.002 tpq (0.009 tpy)

- Technical Uncertainty Factor Used? Yes No

- Technical Uncertainty Factor Description: n/a

- Undiscounted ERC Baseline (2) - TUF Adjusted

NOx = 0.047 tpq (0.190 tpy)
ROC = 0.024 tpq (0.097 tpy)
CO = 0.267 tpq (1.068 tpy)
SOx = 0.006 tpq (0.022 tpy)
PM10 = 0.002 tpq (0.009 tpy)

- ERC Due To: Emission Controls:
 Shutdown
 Reduction in Throughput
 Other:

- For Shutdowns/Reduction in Throughput

BACT Discounted
 20 Percent Minimum Discount

- Amount of Shutdown/Reduction in Throughput Adjustment

NOx = 0.009 tpq (0.038 tpy)
ROC = 0.005 tpq (0.019 tpy)
CO = 0.053 tpq (0.214 tpy)
SOx = 0.001 tpq (0.004 tpy)
PM10 = 0.000 tpq (0.002 tpy)

- RACT/SIP Discounted Yes No

- RACT/SIP Applicable Rules: Rule 359
- Amount of RACT/SIP Discount: The baseline already includes implementation of Rule 359 requirements as well as previous NSR and NSPS permit requirements.

- Discounted Baseline (4) - RACT/SIP Adjusted

NO _x	=	0.038 tpq	(0.152 tpy)
ROC	=	0.019 tpq	(0.077 tpy)
CO	=	0.214 tpq	(0.854 tpy)
SO _x	=	0.004 tpq	(0.018 tpy)
PM ₁₀	=	0.002 tpq	(0.007 tpy)

- Special ERC Restrictions? Yes No
- ERC Termination Date: none (renewal required by May 2010 if not used)
- Are There Emission Element-Specific Conditions? Yes No

- Listing of Emission Element-Specific Conditions:

(1) Disposal of Backup Flare. Shell Pipeline Company shall permanently remove the Backup Flare from service by physically disconnecting the flare from any fuel gas and process lines, be made inoperable and be removed from it's foundation. Shell Pipeline Company shall:

- a. Ensure that the flare is destroyed. Provide signed documentation that the flare has been destroyed. Such documentation shall include the flare manufacturer, model, ID#, serial number, method of destruction, company and person who performed the work and a photograph of the flare showing the work done.

- Attachments Yes No

- Attachment Name(s):

- Attachment 1 (*ERC Calculations*)

c.3 Emission Element Name: Fugitive Hydrocarbon components in propane, light liquid, gas, and oil service at GTC

- EE/DOI Number: 03/0041

- Emission Element Description: 359 valves and 2,235 flange/connections, 5 relief valves, and 11 pump seals in hydrocarbon service.¹

- Undiscounted ERC Baseline (1): The three year emissions baseline is 1.278 tpq. This baseline accounts for the implementation of APCD Rule 331 fugitive inspection and maintenance requirements.

$$\text{ROC} = 1.278 \text{ tpq} \quad (5.110 \text{ tpy})$$

- Technical Uncertainty Factor Used? Yes No

- Technical Uncertainty Factor Description: n/a

- Undiscounted ERC Baseline (2) - TUF Adjusted

$$\text{ROC} = 1.278 \text{ tpq} \quad (5.110 \text{ tpy})$$

- ERC Due To: Emission Controls:
 Shutdown (BACT is I&M at 90% control)
 Reduction in Throughput
 Other:

- For Shutdowns/Reduction in Throughput

BACT Discounted (BACT is an enhanced I&M Program meeting 90% overall control (Ref: PGD 15))
 20 Percent Minimum Discount

- Amount of Shutdown/Reduction in Throughput Adjustment

$$\text{ROC} = 0.639 \text{ tpq} \quad (2.555 \text{ tpy})$$

- RACT/SIP Discounted Yes No

- RACT/SIP Applicable Rules: Rule 331

- Amount of RACT/SIP Discount: The baseline already includes implementation of Rule 331 requirements as well as previous NSR and NSPS permit requirements. No additional adjustments are needed.

- Discounted Baseline (4) - RACT/SIP Adjusted

¹ Actual emissions are assumed to equal potential emissions using the component-leakpath calculation methodology as documented in APCD P&P 6100.061.

ROC = 0.639 tpq (2.555 tpy)

- Special ERC Restrictions? [] Yes [x] No
- ERC Termination Date: none (renewal required by May 2010 if not used)
- Are There Emission Element-Specific Conditions? [x] Yes [] No
- Listing of Emission Element-Specific Conditions:

(1) Restriction of ERC Use – ERC Value Recalculation: The ERCs subject to this Certificate are subject to re-assessment and, as such, the value of this Certificate may change. At the time of ERC Certificate usage, the fugitive hydrocarbon emission calculation methodology (emission factors, control efficiencies) used to calculate the value of the ERCs shall be reevaluated based on current APCD-approved methods. Based on this re-assessment, the APCD may revise the value of this ERC Certificate accordingly. These ERCs may only be used to offset fugitive hydrocarbon emissions using similar calculation models.

- Attachments [x] Yes [] No

- Attachment Name(s):
 - Attachment 1 (*ERC Calculations*)

d. Evaluation Criteria Summary: This application was submitted pursuant to the criteria listed in Rule 806. The ERCs meet the basic qualification criteria of being surplus, quantifiable, permanent and enforceable.

Surplus – In order for the ERCs to be valid, they must be surplus to the APCD’s Clean Air Plan. The control of fugitive emissions from petroleum industry facilities with pipeline valves and flanges are subject to APCD Rule 331 as identified in the CAP. In order for the fugitive emissions to be surplus to the CAP, the BACT level shutdown discount has been applied. CEMS monitoring has demonstrated that Thermal Incinerator and Backup Flare comply with Rule 359 requirements, thus any further reductions are considered surplus. As such, all reductions are considered surplus to the Plan.

Quantifiable – Attachment 1 shows the APCD approved ERC calculations for emission elements 1, 2, and 3. The proposed ERCs are considered quantifiable. The component-leakpath method is used (per APCD P&P 6100.061) for the fugitive components. With this method, actual emissions are assumed to be the same as potential emissions. NO_x, SO_x, CO, ROC, and PM₁₀ emissions data are available from the CEMS monitoring system for both combustion units. The DOI, has been conditioned such that the fugitive component ERCs must be adjusted at the time of use based on the current APCD approved emission factors such that future emission liabilities are offset using the most accurate emission factors in use at that time. Further, the use of the fugitive component ERCs has been restricted for use as offsets against emission liabilities that are also categorized as fugitive hydrocarbons.

Permanent – Shutdowns are typically considered permanent. GTCs' operating permit has been cancelled, a requirement prior to the issuance of the ERC Certificate.

Enforceable – The APCD shall inspect the facility to ensure the equipment has been removed from service.

- e. Recommendation: Based on the ERC application and attachment contained within the DOI, the approval of the ERCs is recommended.

_____	_____	_____	_____
Evaluator	Date	Reviewer	Date

AIR POLLUTION CONTROL OFFICER

DATE

Attachments:

1. ERC Calculations

Final Decision of Issuance No. 0041

Attachment 1 – ERC Calculations

Table - 1 Emission Element 3: Derivation of Fugitive Component Count in Gas/Lt Liquid, and Oil Service at GTC Used for ERCs

**Decision of Issuance No. 0041
Fugitive Hydrocarbon ERC Calculations**

Attachment: 1.0
Company: Gaviota Terminal Company
Facility: Gaviota Transportation Center

Component Type and Service	Number of clp ^(c)	Emission Factors			Uncontrolled			ROC Emissions		ERC Potential ^(d)			
		THC-EF ^(a)	ROC/THC ^(b)	ROC-EF	ROC Emissions			Rule 331		20% SD		BACT	
		lb/day-clp	Ratio	lb/day-clp	lb/day	tons/qtr	tons/year	lb/day	tons/qtr	lb/day	tons/qtr	lb/day	tons/qtr
Propane Service													
Valves Accessible	31	1.058	0.38	0.402	12.463	0.569	2.275	2.493	0.114	1.994	0.091	1.246	0.057
Flanges Accessible	302	0.058	0.43	0.025	7.532	0.344	1.375	1.506	0.069	1.205	0.055	0.753	0.034
Relief Valves	3	9.947	0.07	0.696	2.089	0.095	0.381	0.418	0.019	0.334	0.015	0.209	0.010
Light Liquid Service													
Valves Accessible	3	1.058	0.38	0.402	1.206	0.055	0.220	0.241	0.011	0.193	0.009	0.121	0.006
Flanges Accessible	23	0.058	0.43	0.025	0.574	0.026	0.105	0.115	0.005	0.092	0.004	0.057	0.003
Pump Seals	1	3.300	0.79	2.607	2.607	0.119	0.476	0.521	0.024	0.417	0.019	0.261	0.012
Gas Service													
Valves Accessible	147	0.635	0.38	0.241	35.460	1.618	6.471	7.092	0.324	5.674	0.259	3.546	0.162
Valves Inaccessible	2	0.635	0.38	0.241	0.482	0.022	0.088	0.096	0.004	0.077	0.004	0.048	0.002
Flanges Accessible	757	0.035	0.43	0.015	11.328	0.517	2.067	2.266	0.103	1.812	0.083	1.133	0.052
Flanges Inaccessible	12	0.035	0.43	0.015	0.180	0.008	0.033	0.036	0.002	0.029	0.001	0.018	0.001
Relief Valves to Atmosphere	2	5.968	0.89	5.312	10.623	0.485	1.939	2.125	0.097	1.700	0.078	1.062	0.048
Oil Service													
Valves Accessible	176	0.431	0.33	0.142	25.009	1.141	4.564	5.002	0.228	4.001	0.183	2.501	0.114
Flanges Accessible	1,141	0.069	0.33	0.023	26.131	1.192	4.769	5.226	0.238	4.181	0.191	2.613	0.119
Pump Seals Single Seal	10	1.308	0.33	0.432	4.316	0.197	0.788	0.863	0.039	0.691	0.032	0.432	0.020
TOTAL:	2,610				140.001	6.388	25.550	28.000	1.278	22.400	1.022	14.000	0.639

Notes:

(a) The emission factors for components in gas service have been multiplied by a factor of 0.6 to reflect that 40% of the waste gas is N₂, O₂, and CO₂ (i.e. non-hydrocarbon) consistent with the GTC permit application.

(b) ROC/THC ratio for all components is based on APCD P&P 6100.061.096.

(c) The number of component-leakpaths is based on the minimum number of components for each component type which have been in continuous service for the period from 2002 through 2005.

(d) The ERC Potential due to equipment shutdown is discounted by the greater of the following: 20% of permitted emissions or by the difference between the permitted emissions (for fugitive hydrocarbon components) and the application of BACT. In this case, 90% control required for BACT Fugitive Hydrocarbon Components resulted in a greater emission discount.

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Attachment 1 – ERC Calculations

Table - 2 Emission Element Totals for DOI 0041

Decision of Issuance No. 0041						
Emission Reduction Calculations for Shutdown of Gaviota Transportation Center						
Attachment:	1.0					
Company:	Gaviota Terminal Company					
Facility:	Gaviota Transportation Center					
CEMS Baseline Emissions	Emissions					
	NOx	ROC	CO	SOx	PM10	
Thermal Incinerator						
	Tons Per Quarter (TPQ)	0.177	0.047	0.067	0.010	0.012
	Tons Per Year (TPY)	0.706	0.189	0.267	0.041	0.048
Backup Flare						
	Tons Per Quarter (TPQ)	0.047	0.024	0.267	0.006	0.002
	Tons Per Year (TPY)	0.190	0.097	1.068	0.022	0.009
20% Shutdown Discount						
	ERC's (TPQ)	0.179	0.057	0.267	0.013	0.011
	ERC's (TPY)	0.717	0.229	1.068	0.051	0.046
Fugitives						
	Tons Per Quarter (TPQ)		1.278			
	Tons Per Year (TPY)		5.110			
Fugitives BACT Discount (90% Control)						
	ERC's (TPQ)		0.639			
	ERC's (TPY)		2.555			
Total ERCs Approved						
	ERC's (TPQ)	0.179	0.696	0.267	0.013	0.011
	ERC's (TPY)	0.717	2.784	1.068	0.051	0.046
<u>Notes:</u>						
(a) Baseline data taken from CEM reports for the incinerator and flare, from 2002 - 2005						
(b) Baseline data for fugitives was based on the minimum number of components that have been in service for the past three years (2002 - 2005), per component type.						