



**MODIFICATION - 02 of
DECISION OF ISSUANCE No. 0006**

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I. GENERAL INFORMATION

- a. ERC Owner/Percent Ownership: Greka SMV Inc. / 100%
- b. Primary Contact Name: Mr. Ramzi Chaabane
Primary Contact Company: Greka Energy
- c. ERC Application Date: July 27, 1998 (original)
- d. ERC Application Completeness Date: August 14, 1998 (original)
- e. ERC Stationary Source Name: Cat Canyon
ERC Stationary Source Number: 02658
- f. ERC Facility Name: Bell Lease
ERC Facility Number: 03211
- g. ERC Source: ATC Permit Required. Number: 11003
 PTO Canceled. PTO Number: 10919
 PTO Modification Required. PTO Mod No: _____
 Statutorily Exempt. Cite: _____
- h. ERC Zone: North Zone
- i. ERC Source Type: Stationary

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II. BACKGROUND

The DOI modification changes the engine defined in the original DOI from the Waukesha F3521GSI to the Caterpillar G-342. The Caterpillar G-342 is a 225 bhp, rich-burn internal combustion engine equipped with Non-selective Catalytic Reduction (NSCR) and an air/fuel ratio controller. The Caterpillar G-342 must maintain the baseline PTE and mass emission reductions as the original DOI. Greka SMV made an initial attempt to replace the Waukesha F3521GSI with a Waukesha 6LRZ and obtained ATC/PTO 1919 on 10/10/2002. An application to modify DOI 006-01 was also submitted but was never finalized. Due to technical difficulties, Greka SMV was never able to make the Waukesha 6LRZ/compressor unit operate properly. The original ERC application was for the creation of NO_x, ROC and CO ERCs from the replacement of a 880 bhp lean burn compressor engine with a new 747 bhp rich burn compressor engine that is outfitted with a three-way catalytic converter and air/fuel ratio controller. The engine drives the #1 compressor (also replaced) at the Bell Compressor Plant located on the Bell Lease.

III. EMISSION REDUCTION CREDIT QUALIFICATION

- a. Total DOI ERCs Approved:
- | | | | | |
|-----------------|---|------|-----|-------------|
| NO _x | = | 2.27 | tpq | (9.09 tpy) |
| ROC | = | 9.39 | tpq | (37.55 tpy) |
| CO | = | 2.62 | tpq | (10.46 tpy) |
- b. Number of Emission Elements: 1
- c. Emission Element Data
- c.1 Emission Element Name: Clark HRA-8 Compressor Engine
- EE/DOI Number: 01/0006
 - Emission Element Description: Clark HRA-8 880 bhp natural gas fired compressor engine.
 - Undiscounted ERC Baseline (1): The three year emissions baseline is based on the use of source test data from 1996 and 1998 coupled with actual usage data compiled between July 1995 and July 1998.
- | | | | |
|-----------------|---|------|-----|
| NO _x | = | 2.27 | tpq |
| ROC | = | 9.39 | tpq |
| CO | = | 2.62 | tpq |
- Technical Uncertainty Factor Used? [] Yes [x] No
 - Technical Uncertainty Factor Description: n/a

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- Undiscounted ERC Baseline (2) - TUF Adjusted

NOx = 2.27 tpq
ROC = 9.39 tpq
CO = 2.62 tpq

- ERC Due To: Emission Controls
 Shutdown
 Reduction in Throughput
 Other: Replace the lean burn engine with a rich burn engine controlled by a three-way catalyst.

- For Shutdowns/Reduction in Throughput (n/a)

BACT Discounted
 20 Percent Minimum Discount

- Discounted ERC Baseline (3) - Shutdown/Reduction in Throughput Adjusted

NOx = 2.27 tpq
ROC = 9.39 tpq
CO = 2.62 tpq

- RACT/SIP Discounted Yes No: APCD Rule 333 currently applies to this lean burn engine. As such, the emissions are already “discounted” by RACT since the source test results used in the calculation complied with the lean burn requirements for NO_x, ROC and CO in Rule 333. Future revisions to Rule 333 may affect the value of these ERCs. Consistent with Rule 806, this will be determined at the time of ERC use.

- RACT/SIP Applicable Rules: 333

- Amount of RACT/SIP Discount (uncontrolled already reflects RACT)

NOx = 0.00 tpq
ROC = 0.00 tpq
CO = 0.00 tpq

- Discounted Baseline (4) - RACT/SIP Adjusted

NOx = 2.27 tpq
ROC = 9.39 tpq
CO = 2.62 tpq

- Special ERC Restrictions? Yes No n/a

- ERC Termination Date: October 2003 (if not renewed per Rule 806)

- Are There Emission Element-Specific Conditions? Yes No

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- Listing of Emission Element-Specific Conditions:
 - (1) ERCs - Shift in Load: To ensure that the NEI decrease and ERCs created by replacement of the #1 engine remain permanent and enforceable, Greka SMV shall not shift load from the #1 engine to either the #2 engine or the #3 engine by operating these engines beyond the existing 200 hour per year limit. Greka SMV may apply to increase the hours of operation of these two engines contingent upon the increased potential to emit being offset with ERCs from the Source Register. Furthermore, all natural gas compression at the Cat Canyon stationary source shall be performed with engine/compressor units that ensure the emission reductions remain permanent and enforceable for the life of the project.
 - (2) Disposition of the Clark HRA-8 Engine: To ensure that the NEI decrease and ERCs created by replacement of the #1 engine remain permanent and enforceable, Greka SMV shall ensure that the Clark HRA-8 compressor engine is permanently disabled to prevent any future use. This provision does not preclude Greka SMV from salvaging non-engine block components for subsequent use as replacement parts in existing engines. Greka SMV shall ensure that the engine is destroyed. Greka SMV shall provide signed documentation that the engine block has been destroyed and shall make available to the APCD or its agent access to verify that the block (Serial Number 25527) has been permanently disabled.
 - (3) Restriction on Concurrent Use of Engines: To ensure that the NEI decrease and ERCs created by replacement of the #1 engine remain permanent and enforceable, Greka SMV shall not operate the Waukesha F3521GSI and Caterpillar G-342 simultaneously. The operation of these two engines shall not exceed 8760 hours combined in a single year.
 - (4) ERC Amount: To ensure that the mass emission reductions created by the replacement of the Clark HRA-8 engine with the Waukesha F3521GSI remain permanent and enforceable, Greka SMV shall guarantee that the Caterpillar G-342 operates within the emission limitations of the Waukesha F3521GSI for NO_x, ROC, and CO.

- Attachments Yes No

- Attachment Name(s): Attachment 1 (NEI Calculation). Refer to DOI No. 0006 for the original 3 Year Baseline Calculation and NEI "D" Term Calculation attachments.

- 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. Greka SMV has first netted out their source-wide NEI for NO_x, ROC and CO. The resulting NEI values below zero have been applied for as ERCs in this application. Attachments 2 and 3 fully document this relationship. ATC 9975 and ATC Mod 9975-01 further documents the NEI "D" calculations

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Surplus - In order for the ERCs to be valid, they must be surplus to the APCD's Clean Air Plan. The source tested data indicates that Rule 333 requirements are in compliance. Further, the CAP does not identify, at this time, any additional requirements. Consistent with Rule 806, these ERCs will be evaluated against the rules in effect at the time of use.

Quantifiable - Attachment 1 provides the APCD approved ERC calculations. The baseline data was thoroughly reviewed against prior inventory submittals to ensure accuracy and Greka SMV was requested to make modifications based on the results of this analysis. The emission factors used were based on the average of two compliance tests – one in 1996 and the other in 1998.

Permanent – ATC 9975 was issued for the installation of the Waukesha F3521GSI. ATC/PTO 11003 is being issued for the operation of the Caterpillar G-342 in place of the Waukesha F3521GSI. The Caterpillar G-342 was originally permitted under ATC 9610. ATC/PTO 11003 contains federally-enforceable permit conditions to ensure that the emission reductions due to the installation of the Waukesha F35221GSI remain effective upon operation of the Caterpillar G-342. This DOI also is conditioned to require that the HRA-8 not be operated within the South Central Coast Air Basin. The Waukesha F3521GSI and the Caterpillar G-342 may not operate simultaneously, or operate more than 8760 hours/year combined.

Enforceable – ATC 9975, ATC/PTO 11003, and this DOI ensures that ERCs are enforceable.

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

Evaluator Date

Reviewer Date

Air Pollution Control Officer

Date _____

ATTACHMENTS