San Joaquin Valley
Unified Air Pollution Control District
Southern Regional Office * 2700 M St., Suite 275 * Bakersfield, CA 93301

COPY

Emission Reduction Credit Certificate
S-0263-2

Issued To: CHEVRON U.S.A. PRODUCTION COMPANY
July 14, 1994

Location of Reduction: Cymric Oil Field
Section 7-T30S-R22E
Western Kern County Oil Fields

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
3,233 lbs.	0 lbs.	3,511 lbs.	5,000 lbs.

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Unit
[X] Other: Convert to gas-firing and add fgr to steam generators S-1128-4, -5 & -27.

David L. Crow, APCO

Seyed Sadredin
Director of Permit Services

7/14/94
Date

San Joaquin Valley
Unified Air Pollution Control District

Southern Regional Office * 2700 M St., Suite 275 * Bakersfield, CA 93301

Emission Reduction Credit Certificate
S-0264-2

Issued To: CHEVRON U.S.A. PRODUCTION COMPANY
July 14, 1994

Split into S-0892-2 & S-0893-2 11-25-98 SVT

Location of Reduction: Cymric Oil Field
Section 16-T30S-R22E
Western Kern County Oil Fields

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1,937 lbs.	2,508 lbs.	1,682 lbs.	2,136 lbs.

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Unit
[X] Other: Convert steam generator S-1128-28 to gas-firing only and add fgr.

David L. Crow, APCO

Seyed Sadredin
Director of Permit Services

7/14/94
Date

PROOF OF PUBLICATION

State of California ~ss
County of Kern ~

I am a citizen of the United States and a resident of the County aforesaid: I am over the age of 18 years, and not a party to or interested in the above entitled matter. I am the assistant principal clerk of the printer of The Bakersfield Californian, a newspaper of general circulation, printed and published daily in the City of Bakersfield, county of Kern, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Kern, State of California, under date of February 5, 1952, Case Number 57610; that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

JULY 17

all in the year 1994

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Carolyn Moore
Signature

Dated at Bakersfield, Ca
July 18,1994

CAROLYN MOORE

NOTICE OF FINAL ACTION

AD NO. 18638

NOTICE OF FINAL ACTION ON PROPOSED STATIONARY SOURCE EMISSION REDUCTION CREDITS (ERC)

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a final decision to

1. Approve emission reduction credits not exceeding. 112 tons/year of NOx (oxides of nitrogen), resulting from the addition of air pollution control equipment to various steam generators located in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

2. Deny emission reduction credits (Volatile Organic Compounds), resulting from the addition of air pollution control equipment to various cyclic wells located in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

The District's finalized analysis of Project 930509, public comments, and ERC certificates are available for inspection at the Region office with engineer Mr. Michael Buss, located at 2700 "M" Street, Suite 275, Bakersfield, CA. 93301, (805) 861-3682.

July 17, 1994 (18638)

RECEIVED
JUL 19 1994
SAN JOAQUIN VALLEY UNIFIED
APCD—SOUTHERN REGION

PROOF OF PUBLICATION

NOTICE OF FINAL ACTION ON PROPOSED
STATIONARY SOURCE EMISSION REDUCTION CREDITS (ERC)

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a final decision to

1. approve emission reduction credits not exceeding, 112 tons/year of NOx (oxides of nitrogen), resulting from the addition of air pollution control equipment to various steam generators located in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

2. deny emission reduction credits (Volatile Organic Compounds), resulting from the addition of air pollution control equipment to various cyclic wells located in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

The District's finalized analysis of project 930509, public comments, and ERC certificates are available for inspection at the Region office with engineer Mr. Michael Buss, located at 2700 "M" Street, Suite 275, Bakersfield, CA 93301, (805) 861-3682.

ACCOUNT #: 1SAN51

PROOF of Story '#30329' Requested by 75KATHLEEN (9F202) on 5/26/94 14:35:23

Ad # #30329 Ad type C Basket BAD CREDIT Desk CREDIT
Entered By 75KATHLEEN On 5/26/94 at 14:35 For 10ELAINE
Account 16AN51 Class 520 Dis Sales 10 Ins Sales 10
Name EY A.P.C.D. SAN JOAQUIN VALL Phone (805) 8613682
Addr STE 275 GB/PO CHEVRON USA
City BAKERSFIELD State CA Zip 93301
Ad Start 6/01/94 Times 1 Stop 6/01/94 Rate L1
Run Days/Dates 1
51 Billing lines 4.23 Inches
Total $59.16 Adcost 59.16

Remarks:

LN#	INPUT TEXT
1	(STYL)pu,lgl(ql)
2	(A2)REQUEST FOR PUBLIC(qc)
3	COMMENT ON PROPOSED(qc)
4	STATIONARY SOURCE(qc)
5	EMISSION REDUCTION(qc)
6	CREDITS (ERC)(qc)
7	(A1)Pursuant to Rule 2301 of the San
8	Joaquin Valley Unified Air Pollu-
9	tion Control District Rules and
10	Regulations, the Air Pollution
11	Control Officer has made a pre-
12	liminary decision to(ql)
13	1. approve emission reduction
14	credits not exceeding, 112
15	tons/year of NOx (oxides of nitro-
16	gen), resulting from the addition
17	of air pollution control equipment
18	to various steam generators in the
19	Heavy Oil Western Stationary
20	source located in Western Kern
21	County by Chevron U.S.A. Produc-
22	tion Company.(ql)
23	2. deny emission reduction credits
24	(Volatile Organic Compounds), re-
25	sulting from the addition of air
26	pollution control equipment to
27	various cyclic wells in the Heavy
28	Oil Western Stationary Source lo-
29	cated in Western Kern County by
30	Chevron U.S.A. Production Com-
31	pany.(ql)
32	(ql)
33	Public comments regarding the
34	expected air quality impact of this
35	project will be received by the
36	District for a period of thirty (30)
37	days after publication of this no-
38	tice and will receive due consider-
39	ation before final action is taken.
40	District contact person for project
41	#S-205-2/930509 is Mr. Michael
42	Buss of Permit Services.(ql)
43	The application for emission re-
44	duction credits, support docu-
45	ments and the District's air
46	quality impact analysis for pro-
47	ject S-205-2/930509 is available for
48	inspection at the District's office
49	located at 2700 ''M'' Street, Suite
50	275, Bakersfield, Ca. 93301, (805)
51	861-3682.(ql)
52	June 1, 1994 (30329)(ep)

BAKERSFIELD CALIFORNIAN
LEGAL DESK

REQUEST FOR PUBLIC COMMENT ON PROPOSED STATIONARY SOURCE EMISSION REDUCTION CREDITS (ERC)

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a preliminary decision to

1. approve emission reduction credits not exceeding, 112 tons/year of NOx (oxides of nitrogen), resulting from the addition of air pollution control equipment to various steam generators in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

2. deny emission reduction credits (Volatile Organic Compounds), resulting from the addition of air pollution control equipment to various cyclic wells in the Heavy Oil Western Stationary Source located in Western Kern County by Chevron U.S.A. Production Company.

Public comments regarding the expected air quality impact of this project will be received by the District for a period of thirty (30) days after publication of this notice and will receive due consideration before final action is taken. District contact person for project #S-205-2/930509 is Mr. Michael Buss of Permit Services.

The application for emission reduction credits, support documents and the District's air quality impact analysis for project S-205-2/930509 is available for inspection at the District's office located at 2700 "M" Street, Suite 275, Bakersfield, Ca. 93301, (805) 861-3682.

ACCOUNT #: 1SAN51

TELEPHONE CONVERSATION: DATE: August 16, 1994 TIME: _____

with: Larrs Rydel Title: ARB project review engineer

Telephone Number: 916-327-7215

Company: CARB

APCD Representative: Michael Buss Title: AQE Senior

Subject: Chevron ERC S-205-2, HOW, Project 930509, Facility 1128

SUMMARY OF CONVERSATION:

Fuel use restrictions. Not needed. The calculation of emissions was based on a change in control efficiency. The addition of controls is what the ~~credit~~ credit is based on — not relevant to historical fuel use. (or future use)

#/day = SLC limit.

TELEPHONE CONVERSATION: DATE: Aug 15, 1994 TIME: 3:30

with: Larrs Rydel Title: Project review engineer

Telephone Number: 916-327-7215

Company: Ca. Air Resources Board (CARB)

APCD Representative: Michael Buss Title: AQE Senior

Subject: Chevron ERC project 930509 (S-0205-2) 1128 HOU

SUMMARY OF CONVERSATION:

CARB has questions about 0#/day emissions and fuel use restrictions.

Told Larrs I would pull the file from file room and (If I can get to it behind all the junk) call him back tomorrow morning after I have had a chance to look project over.

TELEPHONE CONVERSATION: DATE: Aug 5, 1994 TIME: 1:00

with: David Mallory Title: Project reviews

Telephone Number: 916-327-0376

Company: ARB

APCD Representative: Michael Buss Title: AQE Senior

Subject: Chevron ERC project 930509

SUMMARY OF CONVERSATION:

ARB received final notice. However they did not receive preliminary notice & copy of engineering review.

Made copy of letter, preliminary notice and engineering review. Sent Fed X to David Mallory (from Bakersfield).

TELEPHONE CONVERSATION: DATE: June 14, 1994 TIME: 1:30

with: David Mallory Title: _____

Telephone Number: 1-916-327-0376/ (FAX 445-5023)

Company: California Air Resources Board

APCD Representative: Michael Buss Title: AQE Senior

Subject: ERC project under review, CHEVRON U.S.A., project number 930509

SUMMARY OF CONVERSATION:

Mr. Mallory requested three items.

1. Copy of original analysis.
2. Copy of source test results.
3. Copy of oil fired permits.

Sent copy of analysis 900605 (Mesfins' project which added the controls), source tests conducted 5/15/91, and copy of permits with oil fired conditions.

MEMORANDUM SJVUAPCD
Southern Region

To: Seyed Sadredin
Director Permit Services

Date: 6/29/94

From: Tom Goff
Manager Permit Services - So. Region

Subject: Meeting to Discuss Response to Chevron Comments on Preliminary Decision to Deny VOC Credits - Project 930509

The following meeting clarifies Chevrons position as to why they feel their requested credits are bankable. We recommend that the District response letter be sent as drafted because facilitating Chevrons comments would require rule revision or policy interpretation of Rule 2301.

On 6/29/94 Mike Buss and Lance Ericksen of Permit Services met with Kelly Skeels and Dan Jernigan of Chevron.

The Chevron representatives stated that through their reading of the banking rule and recollections of rule development workshops they understood they would be able to bank reductions that were committed to Authorities to Construct if the ATCs were surrendered or expired.

They indicated that in their understanding of section 4.3 whenever an ATC issued after January 1, 1988 is surrendered any reductions that otherwise qualify for banking can be banked upon application.

The VOC credits Chevron requested occurred before January 1, 1988 however, they felt that the provisions of 4.3 override the timeliness section of 4.2 and the provisions for when reductions occur.

It was discussed that there are special provisions for reductions that occurred before January 1, 1988 in section 4.1 of Rule 2301. Chevron recognized their reductions occurred before this date and indicated they would be willing to have the requested VOC reductions subject to these provisions.

Alternately Chevron indicated that if it is necessary to revise the rule so that their credits can be banked they are willing to request the final decision be put on hold.

MEETING NOTES

Date: 6/28/94
Time: 9:00 AM

With: Dan Jernigan & Kelly Skeels Title: _____

Company : Chevron USA Phone: _____

APCD Representatives: Mike Buss & Lance Ericksen Title _____

Subject of Conversation: Meeting to Discuss Response to Chevron Comments on Preliminary Decision to Deny VOC Credits - Project 930509

Summary of Conversation:

The Chevron representatives stated that through their reading of the banking rule and recollections of rule development workshops they understood they would be able to bank reductions that were committed to Authorities to Construct if the ATCs were surrendered or expired.

They indicated that in their understanding of section 4.3 whenever an ATC issued after January 1, 1988 is surrendered any reductions that otherwise qualify for banking can be banked upon application.

The VOC credits Chevron requested occurred before January 1, 1988 however, they felt that the provisions of 4.3 override the timeliness section of 4.2 and the provisions for when reductions occur.

It was discussed that there are special provisions for reductions that occurred before January 1, 1988 in section 4.1 of Rule 2301. Chevron recognized their reductions occurred before this date and indicated they would be willing to have the requested VOC reductions subject to these provisions.

Alternately Chevron indicated that if it is necessary to revise the rule so that their credits can be banked they are willing to request the final decision be put on hold.

Inter-Office Memorandum

TO: Tom Goff
Michael Buss

FROM: Seyed Sadredin
Director of Permit Services

DATE: December 14, 1993

RE: Chevron's Request for ERC's for reductions previously used to obtain ATCs

The purpose of this memorandum is to respond to your request for guidance on the above matter.

Section 4.3 of Rule 2301 allow for banking of offsets previously used in obtaining a an ATC if such ATC is not implemented. There is no time limit imposed for filing an application for such credits. The inherent reasoning for this provisions is an assumption that the old credits used as offsets had met the applicable requirements at the time and the question at hand is only whether they (ERCs) would be used to obtain a permit or they will be placed in the bank.

For contemporaneous projects, Rule 2201 allows for credits to be used as offsets without having to bank such credits first (The old NSR rules did not prohibit this). Therefore, it is possible that the permitting action which used the old reductions was not strictly a netting action. Section 4.3 of Rule 2301 is not applicable if it can be shown that the now unimplemented ATC was granted entirely based on netting of permitted emissions. On the other hand, the portion of the "cumulative net emissions change" that represents a reduction in actual emissions should qualify for banking under section 4.3 of Rule 2301. ERC application for the reduction in actual emissions that were used in obtaining the ATC should be allowed. If the project included other ATCs that have been implemented, then we must ensure that no part of these reductions were used for other ATCs.

As for the question of when the reductions occurred, the District's interpretation is that the reductions are made when the ATCs authorizing such reductions are implemented. If the reductions were the result of a shutdown of a permitted emissions unit, the date of reduction is the earlier of the date permits were surrendered, or the date equipment fell into inoperable conditions. (Refer to District policy on this matter.)

If you have any further questions, please call me.

San Joaquin Valley Unified APCD
Permit Services Division

TO: Seyed Sadredin
District Manager of Permit Services

FROM: T. GOFF

DATE: 10 DEC 93

RE:
- [ ] Intent to Deny ATC/PTO
- [ ] Deny ATC/PTO
- [ ] Preliminary Public Notice (NSR)
- [ ] Final Public Notice (NSR)
- [X] Other 2 pages TOTAL

The following supporting documents are attached: REQUEST FOR GUIDANCE ON CHEVRON'S PENDING REQUEST FOR ERC'S FROM SURRENDER OF UN-IMPLEMENTED ATC'S AND RULE 2301 4.3

Remarks/Recommendations: REVIEW & CONCUR. ADVISE MRO OF YOUR DECISION BEFORE 15 DEC 93.

THANKS.

RESPONSE

TO: _____

FROM: Seyed Sadredin
District Manager of Permit Services

DATE: _____

OFFICE MEMORANDUM

San Joaquin Valley Unified APCD, So. Region

TO: Seyed Sadredin, Permit Services Director DATE: Dec 10, 1993

FROM: Michael Buss/Tom Goff Telephone No: 641

SUBJECT: Guidance on interpretation of section 4.3 of Rule 2301, credit for surrender of an unimplemented ATC/PTO which relied on the cumulative net emissions change as a basis of approval.

Chevron has made application for emission reduction credit for surrender of ATC's for which netting was originally used for approval. The negative NSR balance was used to "net out" on the project. They contend the application is timely under section 4.3 of Rule 2301.

Rule 2301 section 4.3 uses the word "offsets" rather than the more general "emissions reductions" in describing what is allowed to be banked when surrendering unimplemented ATC's.

Rule 2301 "offset" definition reads "the use of an ERC..."

Rule 2301 "ERC" definition includes " ...as available for use as tradeoffs or offsets..."

Conclusion:

The NSR rule in effect when the now-to-be-surrendered ATC's were issued used the term "offsets" when referring to emissions reductions from a separate stationary source and emissions reductions from unpermitted equipment. It used the term "tradeoffs" only when referring to interpollutant mitigation. The requirement for "offsets" was triggered based on the magnitude of the "cumulative net emissions change". Reductions made at a stationary source could not be used as "offsets" at that stationary source - they were part of the "cumulative net emissions change". Netting out was used as the basis of approval of the ATC's - not "offsets". Therefore Chevron may not bank reductions associated with the surrender of these ATC's under section 4.3.

The startup and source testing of the reductions identified, occurred just prior to September 19, 1991. However, because Section 5.1 requires application be made within 180 days of the time the reduction occurs, the application is not timely.

Chevrons request for credit is unapproveable under the previous assumptions. Do you concur ? Please comment.

Chevron wants us to find the reduction did not "occur" until now (with surrender of the unimplemented ATC's). Chevron also feels that the original "netting out" is the same as an "offset" for purposes of applying section 4.3

We will be meeting with Chevron December 15, 1993 to discuss their application w/r to a preliminary decision.

Chevron U.S.A. Production Company
P.O. Box 1392, Bakersfield, CA 93302

June 9, 1993

W. A. Brommelsiek
Manager–Environmental, Safety, Fire & Health
Western Business Unit

VOC ERCs FOR 10 GENERATOR ATCs THAT WERE CANCELED
APCD Project #930509

Mr. Thomas Goff
San Joaquin Valley Unified APCD
2700 "M" Street, Suite 275
Bakersfield, CA 93301

Attention: Mr. Michael Buss

Gentlemen:

Chevron is requesting further review of the VOC ERCs that are associated with APCD Project # 930509. The District holds that these emissions are not eligible for credits because the application was not filed prior to the June 17, 1993 deadline (as required under Rule 2301 Sec. 4.1.2.4 and Sec. 5.5). Therefore, the application is untimely and unapproveable. Chevron holds that the application was filed in a timely manner and meets the intent of the rule, therefore the ERCs should be approved.

These offsets were tied up in ATCs at the time of the June 17, 1993 date. Therefore, Section 4.3 is the applicable section of the rule.

> A stationary source which provides offsets for increase in permitted emissions pursuant to Rule 2201 (New and Modified Stationary Source Review Rule) and has been issued an Authority to Construct since January 1, 1988 may apply to bank such offsets pursuant to section 4.2 if the Authority to Construct is voluntarily surrendered, expires or is canceled or if the Permit to Operate resulting from such Authority to Construct is voluntarily modified, surrendered or is revoked.

The ATCs were issued on September 12, 1991, after January 1, 1988, and the ATCs were voluntarily surrendered in August of 1993. There is no mention of the June 17, 1993 deadline in Section 4.3. Therefore, even though the June 17, 1993 deadline was past, Under Section 4.3, Chevron can file pursuant to Section 4.2. The subsections of Section 4.2 are listed below along with Chevron's position.

4.2.1 The emission reductions are real, surplus, permanent, quantifiable, and enforceable;

In order for the reductions to be used as offsets, they had to meet this criteria.

4.2.2 AERs are calculated in accordance with the calculation procedures of Rule 2201 (New and Modified Stationary Source Review Rule) and comply with the definition of AERs of Rule 2201 (New and Modified Stationary Source Review Rule). Adjustment to the Community Bank shall be made at the time the reduction are quantified pursuant to Rule 2201 (New and Modified Stationary Source Review Rule).

The AERs were calculated in accordance with Rule 2201.

Rule 2201 Sec. 6.5.3 Actual Emission Reductions Due to Installation of a Control Device or Due to Implementation of More Efficient Process or Material.

$$AER = (HAE \times CE)$$

No adjustment was made for the community bank. The original application was not subject to the Community Bank because the reductions occurred prior to the establishment of the Community Bank. However, because the Community Banking requirement of Sec. 4.2.2, is not time dependent, it can still be met, therefore these reductions are subject to the Community Bank Allowance, (39.9 lb/day x .10 = 3.99 lb/day or 359.10, 1st Qtr; 363.09, 2nd Qtr; 367.08 3rd and 4th Qtrs; for the Community Bank.)

4.2.3 An application for ERC has been filed no later than 180 days after the emission reductions occurred.

These reductions have a long history. They were added to Chevron's profile when they originally occurred. The profiles subsequently zeroed because an amended version of KCAPCD Rule 210.1 was adopted. The offsets were then reestablished and subsequently used as offset to acquired ATCs. The ATCs were surrendered and an ERC application was filed. The purpose of Sec. 4.2.3 is to process ERCs in a timely manner. The ERC application was submitted at the same time the ATCs were canceled. Chevron could not legally file for the ERCs prior to this. Rule 2301 Sec 4.1.2.2 prevented Chevron from filing for the ERCs at an earlier date.

4.1.2.2 the reductions have not been used for the approval of an Authority to Construct or used as offsets;

Therefore, the application was timely because the ERC application was filed as soon as legally possible under Rule 2301.

4.2.4 For non-permitted emission units, emissions must have been included in the 1987 emissions inventory and the source creating ERCs shall apply for and acquire a Permit to Operate subject to enforceable permit conditions which ensures that the emission reductions will be provided in accordance with the provisions of this rule, and shall continue for the reasonably expected life of the proposed source.

Section 4.2.4 is not applicable to this project.

Based on the above, Chevron feels that the application for the VOC ERCs was timely and does meet the intent of Rule 2301. We look forward to hearing from you. Please contact Mr. Dan Jernigan at (805) 633-4452 concerning this application as Mr. Skeels will be on vacation until June 27. After that date you can contact Mr. Skeels at (805) 633-4458.

Sincerely,
K. P. Skeels for/
W. A. Brommelsiek

San Joaquin Valley
Unified Air Pollution Control District

July 14, 1994

W. A. Brommelsiek
ESF & H Manager
Chevron U.S.A. Production Company
P. O. Box 1392
Bakersfield, CA 93302

Re: **Application #** S-205-1 **Project #** 930509
Project Description: VOC Emission Reduction Credit Banking Certificates for Pre-1988 Cyclic Well Controls.

Dear Mr. Brommelsiek:

The District has received Chevron's letter, dated June 9, 1994 commenting on the District's preliminary decision for the above referenced ERC project. The District has made a preliminary decision to approve NOx emissions and deny VOC emissions. Chevron has stated they object to the District's decision to deny VOC credit. The District's preliminary decision to deny VOC emissions is based on the application not being timely.

Chevron has made the following comments:

1. Chevrons application is timely.
2. The application could be processed under section 4.3 of Rule 2301.
3. The application meets the "intent" of Rule 2301.

District response to item 1:

These pre-1988 VOC reductions (resulting from adding controls to cyclic wells in 1983) are not eligible for credit pursuant to Rule 2301 sections 4.1.2.4 and 5.5. Application for pre-1988 reduction credit must have been made by June 17, 1993. Chevron's application was received August 3, 1993 which was after the June 17, 1993 deadline. Therefore, the application is not timely and cannot be approved.

District response to item 2:

Section 4.3 states an applicant may apply for credit pursuant to section 4.2. Section 4.2. applies only to reductions occurring after September 19, 1991. If 4.3 was meant to include pre-1988 reductions it would have referred to section 4.1. (pre-1991 reductions).

David L. Crow
Executive Director/Air Pollution Control Officer

Northern Region
Central Region
Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

Section 4.1.2 and 4.1.3 address items pertinent to pre-1988 reductions (such as addition to the 1987 inventory, accounting for emissions in the 1991 AQAP, etc.). In addition, section 4.1.4 states "Under no circumstances shall any emission reductions occurring before September 19, 1991, other than as described in sections 4.1.1 or 4.1.2 be eligible for emissions credit banking certificates."

These reductions occurred in the early 1980's, prior to September 19, 1991. Therefore, only sections 4.1.2 or 4.1.3 can be applied to this application. Section 4.3. does not authorize pre-1988 reductions banking, only post September 19, 1991 reductions pursuant to section 4.2.

Thus the requested VOC credits do not qualify for banking under section 4.3.

District response to item 3:

Rule 2301, section 4.1.2.4 provided a period for banking of pre-1988 emission reductions. The period ended June 17, 1993. This application falls outside the period for application submittal provided by the Rule.

If the intent of Rule 2301 is to allow banking of pre-1988 credits at any time, these special provisions would be unnecessary. If the intent of Rule 2301 is to allow banking of credit upon termination of unimplemented Authority to Construct permits, regardless of the date the reduction occurred, section 4.3 would have referred to section 4.1 rather than 4.2.

Thank you for your comments. Should you have any questions please telephone Mr. Michael Buss of Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

MRB/sa
Enclosures
Certified Mail # P 849 303 442
c: Tom Goff, Manager of Permit Services - Southern Region

San Joaquin Valley
Unified Air Pollution Control District

July 14, 1994

Raymond Menebroker, Chief
Stationary Source Division
Project Assessment Branch
California Air Resources Board
P. O. BOX 2815
Sacramento, CA 95814-2815

Re: **Application #** S-205-2, S-262-2, S-263-2, S-264-2 **Project #** 930509
Project Description: Emission Reduction Credit Banking Certificates From Adding Controls to Steam Generators.

Dear Mr. Menebroker:

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a final decision to approve the above-referenced project (and deny VOC credit requested for cyclic well controls).

The District's finalized analysis of Project # 930509, public comments, and copies of ERC's issued are available at the Southern Region office, located at 2700 "M" street, Suite 275, Bakersfield, CA 93301, with engineer Michael Buss (805) 861-3682.

Please find enclosed copies of the Emission Reduction Certificates, and a copy of the Notice of Final Action.

Sincerely,

Seyed Sadredin
Director of Permit Services

MB/sa
Enclosures
c: Thomas Goff, Manager of Permit Services - Southern Region

David L. Crow
Executive Director/Air Pollution Control Officer

Northern Region

Central Region

Southern Region
2700 "M" Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

San Joaquin Valley
Unified Air Pollution Control District

July 14, 1994

Matt Haber, Chief
U.S. E.P.A. - Region IX
New Source Section
75 Hawthorne Street
San Francisco, CA 94105

Re: **Application #** S-205-2, S-262-2, S-263-2, S-264-2 **Project #** 930509
Project Description: Emission Reduction Credit Banking Certificates From Adding Controls to Steam Generators.

Dear Mr. Haber:

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a final decision to approve the above-referenced project (and deny VOC credit requested for cyclic well controls).

The District's finalized analysis of Project # 930509, public comments, and copies of ERC's issued are available at the Southern Region office, located at 2700 "M" street, Suite # 275, Bakersfield, CA 93301, with engineer Michael Buss.

Please find enclosed copies of the Emission Reduction Certificates, and a copy of the Notice of Final Action.

Thank you for your cooperation in this matter. Should you have any questions please telephone Mr. Michael Buss of Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

MB/sa
Enclosures
c: Thomas Goff, Manager of Permit Services - Southern Region

David L. Crow
Executive Director/Air Pollution Control Officer

Northern Region

Central Region

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

San Joaquin Valley
Unified Air Pollution Control District

July 14, 1994

W. A. Brommelsiek
ESF & H Manager
Chevron U.S.A. Production Company
P. O. BOX 1392
Bakersfield, California 93302

Re: **Application #** S-205-2, S-262-2, S-263-2, S-264-2 **Project #** 930509
Project Description: Emission Reduction Credit Banking Certificates From Adding Controls to Steam Generators.

Dear Mr. Brommelsiek:

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a final decision to approve the NOx reductions and deny the VOC emissions, from the above-referenced project.

Please find enclosed Emission Reduction Certificates, and a copy of the Notice of Final Action to be published in three days of the date of this letter.

The District's finalized analysis of Project # 930509, public comments, and copies of ERC's issued are available at the Southern Region office with engineer Mr. Michael Buss, located at 2700 "M" street, Suite 275, Bakersfield, CA 93301, (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

MRB/sa
Enclosures
Certified Mail # P 849 303 442
c: Thomas Goff, Manager of Permit Services - Southern Region

David L. Crow
Executive Director/Air Pollution Control Officer

Northern Region | Central Region | Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

San Joaquin Valley
Unified Air Pollution Control District

COPY

May 24, 1994

W.A. Brommelsiek
ESF&H Manager
Chevron U.S.A. Production Company
Post Office Box 1392
Bakersfield, California 93302

Re: **Application #** S-205-1, S-205-2, S-262-2, S-263-2, S-264-2 (Project 930509)
Project Description: Emission Reduction Credit Banking Certificates from adding controls to steam generators.

Dear Mr. Brommelsiek:

Enclosed for your review and comment is the analysis of Chevron U.S.A. Production Company's request for emission reduction credits (ERC's) for the above described operations at various locations located in Western Kern County Heavy Oil Production Fields located West of Bakersfield.

Also enclosed is a copy of the preliminary public notice to be published on approximately three days from date of this letter. This will start the 30-day public comment period.

Please submit your written comments on our analysis and draft documents as soon as possible to provide ample time for our review and consideration.

Thank you for your cooperation in this matter. Should you have any questions please telephone Mr. Michael Buss of the Permit Services at (805) 861-3682.

Sincerely,

Seyed Sedredin
Director of Permit Services

SS: mrb
c: Thomas Goff-Permit Services Manager/Southern Region
Enclosures

San Joaquin Valley
Unified Air Pollution Control District

May 24, 1994

Mr. Raymond Menebroker, Chief
California Air Resources Board
Project Review Branch - Stationary Source Division
2020 L Street
Sacramento, CA 95814

Re: **Application #** S-205-1, S-205-2, S-262-2, S-263-2, S-264-2 (Project 930509)
Project Description: Emission Reduction Credit Banking Certificates from adding controls to steam generators.

Dear Mr. Menebroker:

Enclosed for your review and comment is the analysis of Chevron U.S.A. Production Company's request for emission reduction credits (ERC's) for the above described operations at various locations located in Western Kern County Heavy Oil Production Fields located West of Bakersfield.

Also enclosed is a copy of the preliminary public notice to be published on approximately three days from date of this letter. This will start the 30-day public comment period.

Please submit your written comments on our analysis and draft documents as soon as possible to provide ample time for our review and consideration.

Thank you for your cooperation in this matter. Should you have any questions please telephone Mr. Michael Buss of the Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

SS: mrb
c: Thomas Goff-Permit Services Manager/Southern Region
Enclosures

San Joaquin Valley
Unified Air Pollution Control District

May 24, 1994

Mr. Matt Haber, Chief
U.S. E.P.A. - Region IX
New Source Section
75 Hawthorne St.
San Francisco, CA 94105

Re: **Application #** S-205-1, S-205-2, S-262-2, S-263-2, S-264-2 (Project 930509)
Project Description: Emission Reduction Credit Banking Certificates from adding controls to steam generators.

Dear Mr. Haber:

Enclosed for your review and comment is the analysis of Chevron U.S.A. Production Company's request for emission reduction credits (ERC's) emission reduction credits (ERC's) for the above described operations at various locations located in Western Kern County Heavy Oil Production Fields located West of Bakersfield.

Also enclosed is a copy of the preliminary public notice to be published on approximately three days from date of this letter. This will start the 30-day public comment period.

Please submit your written comments on our analysis and draft documents as soon as possible to provide ample time for our review and consideration.

Thank you for your cooperation in this matter. Should you have any questions please telephone Mr. Michael Buss of the Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

SS: gau
c: Thomas Goff
Enclosures

San Joaquin Valley
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301
Phone: (805) 861-3682 FAX: (805) 861-2060

FAX TRANSMITTAL SHEET

Date: June 27, 1994

From: Michael Buss

To: W.A. Brommelsiek (Name) Chevron (Company)

Fax No.: 633-4423

Total Pages (including cover page): 3

Comments: Draft response to Chevron comments on District preliminary decision to deny pre 1988 VOC credits from control of cyclic wells. ERC project 930509. CHEVRON U.S.A.

See attached District draft letter. Please let me know if you would like to meet and discuss Districts preliminary decision to deny VOC credit. Public notice period ends July 1, 1994.

MESSAGE CONFIRMATION

DATE:06/27/94 TIME:15:20

ID:S. JOAQUIN V.U.

DATE	TIME	TX-TIME	DISTANT STATION ID	MODE	PAGES	RESULT
06/27	15:17	03'06"	8053956585	G3-S	003	OK

San Joaquin Valley
Unified Air Pollution Control District

June 27, 1994

PRELIMINARY DRAFT

W.A. Brommelsiek
ESF&H Manager
Chevron U.S.A. Production Company
Post Office Box 1392
Bakersfield, California 93302

Re: **Application #** S-205-1 (Project 930509)
Project Description: VOC Emission Reduction Credit Banking Certificates for pre-1988 cyclic well controls.

Dear Mr. Brommelsiek:

The District has received Chevron's letter, dated 6/9/94, commenting on the District's preliminary decision for the above referenced ERC project. The District has made a preliminary decision to approve NOx emissions and deny VOC emissions. Chevron has stated they object to the District's decision to deny VOC credit. The District preliminary decision to deny VOC emissions is based on the application not being timely.

Chevron has made the following comments;

1. Chevrons application is timely.
2. The application could be processed under section 4.3 of Rule 2301.
3. The application meets the "intent" of Rule 2301.

District response to item 1:

These pre-1988 VOC reductions (resulting from adding controls to cyclic wells in 1983) are not eligible for credit pursuant to Rule 2301 sections 4.1.2.4 and 5.5. Application for pre-1988 reduction credit must have been made by June 17, 1993. Chevron's application was received August 3, 1993 which is after the 6/17/93 deadline. Therefore the application is not timely and cannot be approved.

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-8652

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

District response to item 2:

Section 4.3 states an applicant may apply for credit pursuant to section 4.2. Section 4.2. applies only to reductions occurring after September 19, 1991. If 4.3 was meant to include pre-1988 reductions it would have referred to section 4.1. (pre-1991 reductions). Section 4.1.2 and 4.1.3 address items pertinent to pre-1988 reductions (such as addition to the 1987 inventory, accounting for emissions in the 1991 AQAP, etc.). In addition, section 4.1.4 states "Under no circumstances shall any emission reductions occurring before September 19, 1991, other than as described in sections 4.1.1 or 4.1.2 be eligible for emissions credit banking certificates."

These reductions occurred in the early 1980's, prior to September 19, 1991. Therefore only sections 4.1.2 or 4.1.3 can be applied to this application. Section 4.3. does not authorize pre-'88 reductions banking, only post 9/19/91 reductions pursuant to section 4.2.

Thus the requested VOC credits do not qualify for banking under section 4.3.

District response to item 3:

Rule 2301, section 4.1.2.4 provided a period for banking of pre-1988 emission reductions. The period ended June 17, 1993. This application falls outside the period for application submittal provided by the Rule.

If the intent of Rule 2301 is to allow banking of pre-1988 credits at any time, these special provisions would be unnecessary. If the intent of Rule 2301 is to allow banking of credit upon termination of unimplemented Authority to Construct permits, regardless of the date the reduction occurred, section 4.3 would have referred to section 4.1 rather than 4.2.

Thank you for your comments. Should you have any questions please telephone Mr. Michael Buss of the Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

mrb

San Joaquin Valley
Unified Air Pollution Control District

FAX Transmittal Sheet

Southern Region
2700 "M" Street, Suite 275
Bakersfield, CA 93301
Voice: (805) 861-3682
FAX: (805) 861-2060

Date: Dec 10, 1993

From: Michael Buss

To: Doris Lambertz (Name) Chevron (Company)

Total Pages (including cover page): 3 Fax No.: 633-4423

Comments: Copy of letter coming your way. Confirming also meeting Wed Dec 15th with myself & Lance is set up.
— mkb

San Joaquin Valley
Unified Air Pollution Control District

Certified Mail

December 9, 1993

Ms. Doris Lambertz
Environmental Engineer
Chevron U.S.A. Production Company
Post Office Box 1392
Bakersfield, California 93302

Re: **Application** # ERC project number 1128-930509.

Project Description: Emission Reduction Credit Application for conversion to natural gas firing of 11 steam generators.

Dear Ms. Lambertz:

Your application for Emission Reduction Credit Certificates for the above-referenced project was deemed complete. Further review of the project revealed it does not appear to be eligible for ERC banking.

Rule 2301 (amended 12/17/92) Sections 4.1.1 and 5.0 describe timeline requirements to apply for ERC's occurring before September 19, 1991. These reductions occurred when the ATC's requiring gas firing only were implemented. According to District records the ATC's were implemented between May and August 15th 1991.

Section 5.1 states " Except for reductions covered under Section 4.1.2, ERC Certificate applications for reductions shall be submitted within 180 days after the reductions occurs." The ERC application was not received within 180 days of the implementation date and was not timely pursuant to Rule 2301. Therefore, reductions do not qualify for ERC credit.

Additionally in the application Chevron proposed to obtain credit from controlling cyclic wells (pre 1988 reductions). No VOC credit is available because this request is also not timely. To obtain credit for pre-1988 reductions ARCO would have to have made application prior to June 17, 1993 (application submitted August 3, 1993).

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

MESSAGE CONFIRMATION

DATE:12 10 93 TIME:08:56

ID:S. JOAQUIN U.S.

DATE	TIME	TX-TIME	DISTANT STATION ID	MODE	PAGES	RESULT
12 10	08:54	02'24"	3053956505	G3-S	007	OK

San Joaquin Valley
Unified Air Pollution Control District

September 2, 1993

Ms. Doris Lambertz
Environmental Engineer
Chevron U.S.A. Production Company
P.O. Box 1392
Bakersfield, Ca. 93302

Re: **Application #** ERC project number 1128-930509
Project Description: ERC's for 10 surrendered Steam Generator ATC's originally approved with tradeoffs.

Dear Ms. Lambertz:

Your application for Emission Reduction Credit, for tradeoffs recognized in the approval of 10 steam generators S-1128-286 through 295, has been received by the Air Pollution Control District and has been reviewed for completeness.

Based on this preliminary review, the application appears to be complete. However, during the processing of this application, the District may request additional information to clarify, correct or otherwise supplement the information on file.

In response, please refer to the above application number, and send to the attention of Mr. Michael Buss.

Thank you for your cooperation. Should you have any questions, please telephone Mr. Thomas Goff of Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

Thomas E. Goff, P.E.
Permit Services Manager - Southern Region
mrb

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
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(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-3745

After you review this issue we would like to meet with you to discuss this conclusion prior to making our preliminary decision. If you have any questions or to schedule a meeting, please contact Mr. Michael Buss of Permit Services at (805) 861-3682.

Sincerely,

SEYED SADREDIN
Director of Permit Services

cc: Thomas Goff
mrb

Chevron U.S.A. Production Company
P.O. Box 1392, Bakersfield, CA 93302

W. A. Brommelsiek
Manager–Environmental, Safety, Fire & Health
Western Business Unit

August 2, 1993

Cancellation of Authorities to Construct and Request for Banking Certificates: ATC'S #S-1128-0286-00 through #S-1128-0295-00

Mr. David L. Crow
San Joaquin Valley Unified APCD
2700 "M" Street, Suite 275
Bakersfield, CA 93301

Attention: Mr. Thomas Goff

Gentlemen:

We request that Authorities to Construct (ATC's) #S-1128-0286-00 through 0295-00, for ten natural gas-fired steam generators, be cancelled, and that banking certificates be issued for the offsets associated with these ATC's. A discussion of the eligibility of the offsets for banking, copies of the ATC's to be cancelled, and a check in the amount of $650.00 to cover filing fees are attached. Please contact Ms. Doris Lambertz at (805) 633-4453 if you have any questions or need further information.

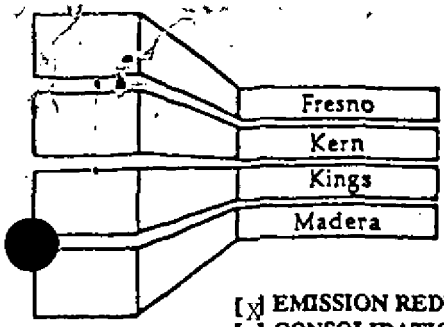
FAX- 4450

Sincerely,

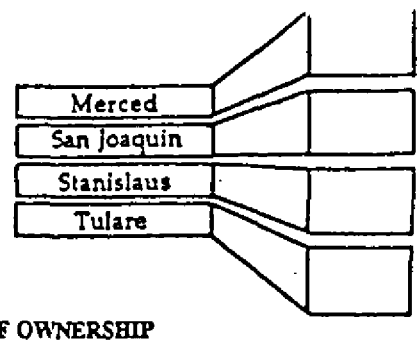
D.A. Lambertz for

W. A. Brommelsiek

Attachments



San Joaquin Valley Unified Air Pollution Control District



APPLICATION FOR:

[X] EMISSION REDUCTION CREDIT (ERC)
[ ] CONSOLIDATION OF ERC CERTIFICATES
[ ] ERC WITHDRAWL
[ ] ERC TRANSFER OF OWNERSHIP

1. ERC TO BE ISSUED TO:
Chevron U.S.A. Production Company

2. MAILING ADDRESS:
Street/P.O. Box: P.O. Box 1392
City: Bakersfield State: CA Zip Code: 9330

3. LOCATION OF REDUCTION:
Street: Western Fields (S2/T11N/R24W,(1) S26/T32S/R23E,(1)
City: S16/T30S/R22E,(1) S36/T29S/R21E(2))

4. DATE OF REDUCTION: (1) May - August, 1991
(2) prior to 1983

5. PERMIT NO(S): see attachments **EXISTING ERC NO(S):**

6. METHOD RESULTING IN EMISSION REDUCTION:
[ ] SHUTDOWN [X] RETROFIT [ ] PROCESS CHANGE [ ] OTHER
DESCRIPTION:
Emission reductions previously dedicated to ATC's S-1128-0286 to 0295:
NOx reductions result from control of 11 existing steam generators, VOC reductions result from pre-1983 installation of casing collection systems. (Use additional sheets if necessary)

7. REQUESTED ERCs (In Pounds Per Calendar Quarter):

	VOC	NOx	CO	PM10	SOx	OTHER
1ST QUARTER	3,591.00	53,746.74				
2ND QUARTER	3,630.90	54,343.92				
3RD QUARTER	3,670.80	54,941.11				
4TH QUARTER	3,670.80	54,941.11				

8. SIGNATURE OF APPLICANT: DA Lambeth for

TYPE OR PRINT TITLE OF APPLICANT: ESF&H Manager

9. TYPE OR PRINT NAME OF APPLICANT: W. A. Brommelsiek

DATE: 08/02/93

TELEPHONE NO: (805) 633-4453

FOR APCD USE ONLY:

RECEIVED
DATE STAMP
AUG 3 1993
SAN JOAQUIN VALLEY UNIFIED APCD—SOUTHERN REGION

FILING FEE RECEIVED: $ 650.00
DATE PAID: 8-3-93 # 510
PROJECT NO.: 930509 manual (ERC)

ATTACHMENT 2

DISCUSSION

Discussion of Eligibility for Banking

Authorities to Construct (ATC's) for ten flue gas recirculated (FGR) steam generators were issued by the District in September of 1991 (Attachment 3). Due to a decrease in Chevron's projected steam requirements, we will not be installing these generators. We are, therefore, requesting that the ATC's be cancelled.

The emission reductions used to offset potential emissions from the ten new steam generators were generated by three separate projects which were initiated and completed between January 1, 1988 and September 19, 1991 (Tables 1 and 2). Additionally, some of Chevron's pre-1988 reestablished VOC emission reduction credits (ERC's) were used as offsets for the generators. As discussed below, emission reductions from these projects are eligible for banking under District Rule 2301.

TABLE 1: Equipment Providing Offsets for ATC's #S-1128-0286 to 295 (lb/day)

Project #/ Location	Permit Number	PM-10	SO2	SO4	VOC	CO	NOx
900605/2F #1	4008070	-	-	-	-	-	-23.10
900605/2F #2	4008071	-13.42	-17.35	-1.16	-	-	-102.16
900605/2F #3	4008072	-19.84	-27.13	-4.36	-	-	-95.49
900605/2F #4	4008073	-	-	-	-	-	-22.19
900605/2F #5	4008074	-18.48	-7.41	-6.91	-	-	-93.91
900615/26C	4008175	-	-	-	-	-	-54.42
900615/26C	4008176	-	-	-	-	-	-31.01
900716/16Z#1	4008032	-17.97	-19.13	-5.98	-	-	-73.13
900716/16Z#2	4008034	-12.18	-13.70	-3.12	-	-	-56.23
900716/16Z#3	4008083	-12.27	-13.99	-3.29	-	-	-50.37
900716/16Z#4	4008084	-12.50	-13.84	-3.20	-	-	-61.53
920255/36W	4008317	-	-	-	-39.90	-	-
TOTAL	11	-106.65	-112.55	-28.02	-39.90	-	-663.54

TABLE 2: Western Source Cumulative Net Change Profiles from Page 7 of Chevron Generator ATC Application (4/1/91)

PROFILE	CUMULATIVE NET CHANGE PROFILES (LB/D)					
	PM-10	SO_2	SO_4	ROG	CO	NO_X
3/29/90	0.00	-749.62	164.71	47.50	>550	0.00
PN 900605	-51.73	-51.89	-12.43	----	----	-336.85
PN 900615	----	----	----	----	----	-85.43
PN 900716	-54.92	-60.66	-15.59	----	----	-241.26
PN 920255 1980 ERCs	----	----	----	-2726.48	----	----
1Y-CC-1	----	----	----	153.75	----	----
36W-#1,#2	----	----	----	135.30	----	----
ADJUSTED	-106.65	-1672.45	136.69	-2389.93	>550	-663.54
PROJECT	71.25	29.93	0.86	39.90	228	618.45
POST-PROJ	0.00	-1529.97	137.55	-2350.03	>778	0.00
BANK CERT	-35.40	-112.55	N/A	N/A	N/A	- 45.09

Reestablished VOC ERC's (SJVUAPCD #920255)

The 39.9 lb/day of VOC emission reduction credits utilized in offsetting ATC's #S-1128-0286 to 0295 are part of a group of pre-1988 ERC's which has been reviewed by the District under Project #920255. The 30-day public comment period for the project is currently in progress (Attachment 4). If Project #920255 is approved, the 39.9 lb/day VOC will be eligible for banking under Section 4.3 of Rule 2301.

Page 11 of the District's report discusses 531.18 lb/day VOC of "deficit offsets" used by Chevron for various projects. The 531.18 lb/day includes the 39.9 lb/day dedicated to the ten steam generators. Based on the allocation discussed in the District's report, 59.02 lb/day were contributed by each of nine locations where actual emission reductions occurred. The VOC's previously dedicated to ATC's S-1128-0286 to 0295 should be credited to Section 36, Township 29S, Range 21E, one of the nine locations originally generating the ERC's.

TABLE 3: VOC Emission Reduction Credits Available for Banking (lb/quarter)

Project Number	*Location*	*1st Quarter*	*2nd Quarter*	*3rd Quarter*	*4th Quarter*
920255	*36/29/21*	*3,591.00*	*3,630.90*	*3,670.80*	*3,670.80*

Generator Gas-Firing/FGR Controls (KCAPCD Project #900605, 900615, 900716)

Three groups of generators were retrofit with flue gas recirculation (FGR) controls, and/or dedicated to gas-firing only to create offsets for the ten generators. The ATC's for FGR and gas-firing controls were implemented following source testing in May, June and August of 1991 for the 2F, 26C and 16Z generators, respectively. The reductions occurred between January of 1988 and September of 1991, and are eligible for banking under Rule 2301, as described below.

PM-10, SO2 and SO4

The District has issued certificates for all eligible PM-10 and SO2 credits generated by Project #900605 and #900716. No banking certificates are being requested for these pollutants, nor for the small quantity of SO4 offsets (.86 lb/day) previously dedicated to ATC's #S-1128-0286 to 0295. The remaining SO4 offsets are not eligible for banking because Chevron's SO4 profile is positive.

NOx

The 663.54 lb/day NOx generated by Projects #900605, #900615 and #900716, were used to offset 618.45 lb/day of potential NOx associated with ATC's #S-1128-0286 to 295. No request has previously been made to bank the incremental 45.09 lb/day of actual NOx reductions. The full 663.45 lb/day, less 10% for the Community Bank, are eligible for banking under Sections 4.1 and 4.3 of Rule 2301. We request that a banking certificate be issued for NOx reductions in the amounts shown below.

TABLE 4: NOx Emission Reduction Credits Available for Banking (lb/quarter)

Project Number	*Permit Numbers*	*1st Quarter*	*2nd Quarter*	*3rd Quarter*	*4th Quarter*
900605 / Sec.2F	*4008070-74*	*30,316.50*	*30,653.35*	*30,990.20*	*30,990.20*
900615 / Sec.26C	*4008175-76*	*7,688.70*	*7,774.13*	*7,859.56*	*7,859.56*
900716 / Sec.16Z	*4008032-33 4008083-84*	*21,713.40*	*21,954.66*	*22,195.92*	*22,195.92*
Total	*11*	*59,718.60*	*60,382.14*	*61,045.68*	*61,045.68*
-10% (Rule 2302)	-	*(5,971.86)*	*(6,038.21)*	*(6,104.57)*	*(6,104.57)*
Banking Certificate	-	*53,746.74*	*54,343.92*	*54,941.11*	*54,941.11*

~597 lb/day

ATTACHMENT 3

ATC'S #S-1128-0286 to 0295

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008591 S-1128-0286-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

In the event an AUTHORITY TO CONSTRUCT is reissued to a new owner, any emissions increase assigned to this equipment during initial New Source Review Process remains with the initial bearer of this document.

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED FOR:

62.5 MMBTU/hr Gas-Fired, Flue Gas Recirculated (FGR) Steam Generator.

(See attached sheets for equipment description and conditions)

S	T	R	Location:	Start-up Inspection Date:
1	30S	21E	McKittrick Field	

Upon completion of construction and/or installation, please telephone the Manager of Engineering. This document serves as a TEMPORARY Permit to Operate only as provided by Rule 201 of the District's Rules and Regulations. For issuance of a Permit to Operate, Rule 208 requires that the equipment authorized by this AUTHORITY TO CONSTRUCT be installed and operated in accordance with the conditions of approval. Changes to these conditions must be made by application and must be approved before such changes are made. This document does not authorize the emission of air contaminants in excess of New Source Review limits (Rule 210.1) or Regulation IV emission limits. Emission testing requirements set forth in this document must be satisfied before a Permit to Operate can be granted.

Validation Signature:

Manager of Engineering

4008591
Continued

EQUIPMENT DESCRIPTION: 62.5 MMBTU/hr Gas-Fired, Flue Gas Recirculated (FGR) Steam Generator, including the following equipment and design specifications:

A. Struthers Thermo-Flood, Model OH50-ND-16XAM, 62.5 MMBTU/hr maximum input gas-fired steam generator, equipped with Automatic Oxygen Trim Control Device,

B. North American, Model 4131G-LNX-FGR, burner,

C. Flue Gas Recirculation System, including convection section hood, 24 in. blower inlet air ducting, and 12 in. FGR line.

CONDITIONAL APPROVAL:

Pursuant to Rule 209, "conditional approval" is hereby granted. Please be aware that all conditions of approval remain in effect for life of project unless modifications are approved by District.

DESIGN CONDITIONS:

1. Steam generator shall be equipped with operational fuel gas flowmeter. (Rule 210.1)

2. Exhaust stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA test methods. (Rule 108.1)

OPERATIONAL CONDITIONS:

a. Unit shall be fired only with pipeline quality gas with maximum sulfur content of 0.75 gr/100 dscf. (Rule 209)

b. Gas combusted in steam generator shall not exceed 62,500 scfh without prior District approval. (Rule 210.1)

c. Steam generator fire box, convection section and flue gas ductwork shall be gas-tight. (Rule 209)

d. During normal operation, flue gas recirculation system damper shall be in the open position at all times when the steam generator is firing. (Rule 209)

e. All wells responding to steam from this generator shall be connected to approved casing control system. (Rules 210.1 & 411.1)

f. Operation shall not result in odors detectable at or beyond property boundary. (Rule 419)

g. No emission shall cause injury, detriment, nuisance, or annoyance or endanger the comfort, repose, health or safety of any persons or have a natural tendency to cause injury or damage to business or property. (CH&SC 41700)

4008591
Continued

EMISSION SAMPLING LIMITS:

Particulates (PM_{10}):	0.30	lbm/hr	(Rule 210.1)
Sulfur Compounds:	0.13	lbm/hr	(of SO_2) (Rule 210.1)
	0.00	lbm/hr	(of SO_4) (Rule 210.1)
Total Sulfur:	0.001	lbm/MMBtu	(Rule 210.1-BACT req.)
Oxides of Nitrogen:	2.55	lbm/hr	(as NO_2) (Rule 210.1)
	0.043	lbm/MMBTU	(as NO_2) (Rule 210.1-BACT req.)
Hydrocarbons:	0.17	lbm/hr	(Rule 210.1)
Carbon Monoxide:	0.95	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENTS:

Compliance with all NO_2 and CO emission sampling limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment. Compliance with sulfur compound emission sampling limits shall be demonstrated by fuel gas analysis within 60 days after startup of this equipment. Annual compliance testing shall occur within 60 days prior to permit anniversary date in accordance with District policy E-1801. Official test results and field data shall be submitted within 30 days after collection. (Rule 108.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

STATIONARY SOURCE CURTAILMENT PLANS AND TRAFFIC ABATEMENT PLANS:

Facilities expected to emit 100 tons per year or more of carbon monoxide, hydrocarbons, PM-10 or oxides of nitrogen shall comply with KCAPCD Rule 613.

RULE 210.1 (NSR) ANALYSIS VALIDATION:

Maximum daily emission rate of each air contaminant from this emissions unit shall not exceed the following daily emission limitations:

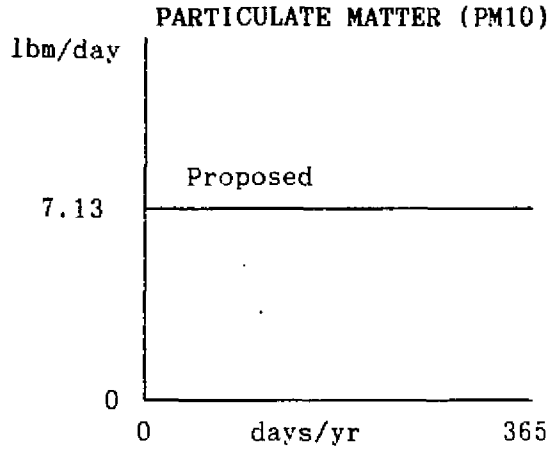
Particulates (PM_{10}):	7.13	lbm/day	(Rule 210.1)
Sulfur Compounds:	2.99	lbm/day	(of SO_2) (Rule 210.1)
	0.09	lbm/day	(of SO_4) (Rule 210.1)
Oxides of Nitrogen:	61.28	lbm/day	(as NO_2) (Rule 210.1)
Hydrocarbons:	3.99	lbm/day	(Rule 210.1)
Carbon Monoxide:	22.80	lbm/day	(Rule 210.1)

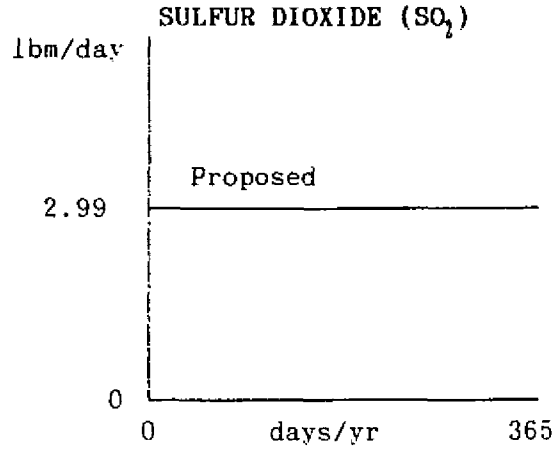
Compliance with these emission limits shall be verified by source operator (with fuel consumption data, operational data, etc.) on daily basis (maximum daily emission rate) and written documentation made readily available to District for period of three years.

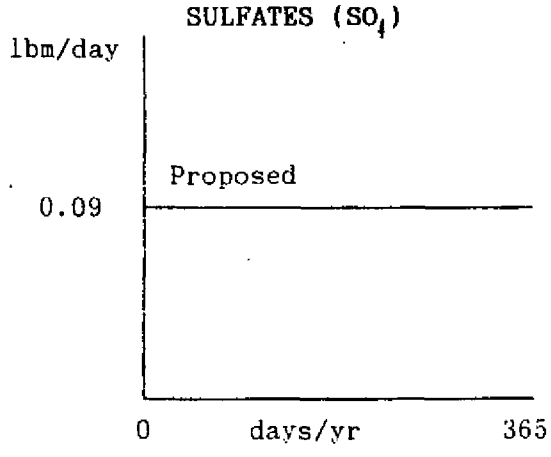
RULE 210.1 (NSR) DAILY EMISSIONS LIMITATIONS: (See attached)

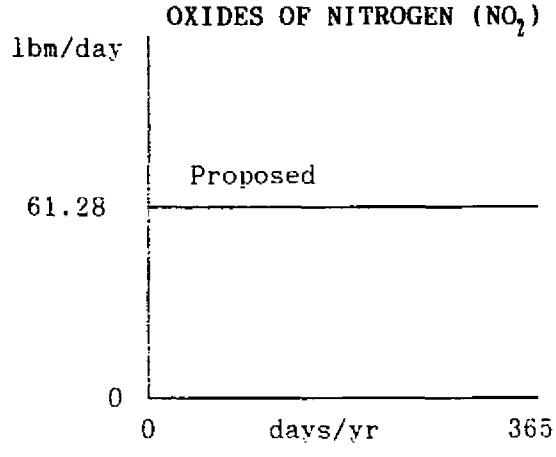
4008591
Continued

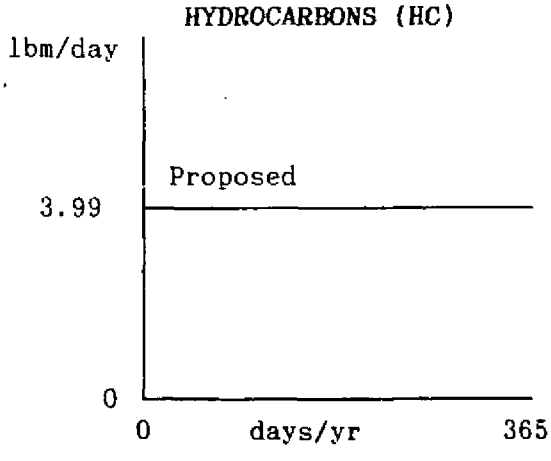
DAILY EMISSIONS LIMITATIONS

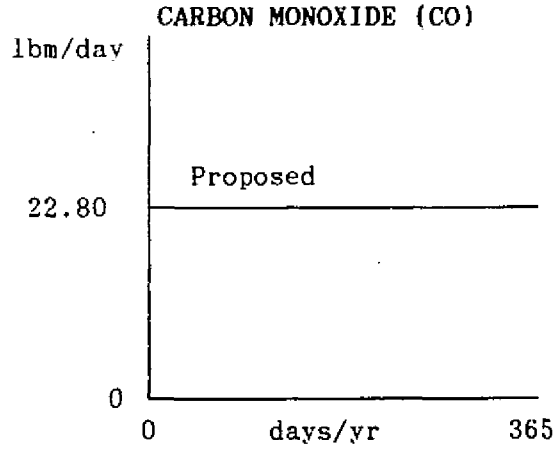












KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008592 S-1128-0287-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

In the event an AUTHORITY TO CONSTRUCT is reissued to a new owner, any emissions increase assigned to this equipment during initial New Source Review Process remains with the initial bearer of this document.

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED FOR:

62.5 MMBTU/hr Gas-Fired, Flue Gas Recirculated (FGR) Steam Generator.

(See attached sheets for equipment description and conditions)

S	T	R	Location:	Start-up Inspection Date:
7	30S	22E	McKittrick Field	

Upon completion of construction and/or installation, please telephone the Manager of Engineering. This document serves as a TEMPORARY Permit to Operate only as provided by Rule 201 of the District's Rules and Regulations. For issuance of a Permit to Operate, Rule 208 requires that the equipment authorized by this AUTHORITY TO CONSTRUCT be installed and operated in accordance with the conditions of approval. Changes to these conditions must be made by application and must be approved before such changes are made. This document does not authorize the emission of air contaminants in excess of New Source Review limits (Rule 210.1) or Regulation IV emission limits. Emission testing requirements set forth in this document must be satisfied before a Permit to Operate can be granted.

Validation Signature:

Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008593 S-1128-0286-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

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Validation Signature:

Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008594 S-1120-0289-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

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(See attached sheets for equipment description and conditions)

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Validation Signature:

Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008595 S-1120-0290-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

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Validation Signature:

for Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008596 S-1126-0291-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

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Validation Signature:

Lance Erickson

Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008597 S-1129-0292-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

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CHEVRON U.S.A., INC.

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(See attached sheets for equipment description and conditions)

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Validation Signature:

for Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008598 S-1128-0293-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

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Validation Signature:

Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008599 S-1120-0294-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

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(See attached sheets for equipment description and conditions)

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Validation Signature:

for Manager of Engineering

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

AUTHORITY TO CONSTRUCT

2700 "M" Street, Suite 275
Bakersfield, CA 93301
(805) 861-3682

William J. Roddy
Air Pollution Control Officer

ISSUE DATE:	September 12, 1991	APPLICATION NO.	4008600 S-1120-0295-00
EXPIRATION DATE:	September 12, 1993	DATE:	April 11, 1991

AUTHORITY TO CONSTRUCT IS HEREBY GRANTED TO:

CHEVRON U.S.A., INC.

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Validation Signature:

Manager of Engineering

ATTACHMENT 4

SJVUAPCD REPORT ON PROJECT #920255

San Joaquin Valley
Unified Air Pollution Control District

June 30, 1993

30 DAY NOTICE STARTED 7/4

Mr. W.A. Brommelsiek
Manager of ESF&H
Chevron U.S.A.
Post Office Box 1392
Bakersfield, California 93302

Re: **Project #: 920255**
Application #'s: S-0037-1 through '0038-1 and S-0056-1 through '0068-1
Project Description: VOC Emission Reduction Credits for Installation of Casing Collection Systems Installed Prior to April 25, 1983.

Dear Mr. Brommelsiek:

Enclosed for your review and comment is the analysis of Chevron U.S.A.'s request for VOC emission reduction credits for installation of casing collection systems in the western and central stationary sources in Kern County.

Also enclosed is a copy of the preliminary public notice to be published on approximately three days from date of this letter. This will start the 30-day public comment period.

Please submit your written comments on our analysis and draft documents as soon as possible to provide ample time for our review and consideration.
Thank you for your cooperation in this matter. Should you have any questions please telephone Mr. Robert Rinaldi of the Permit Services at (805) 861-3682.

Sincerely,

Seyed Sadredin
Director of Permit Services

SS:rr
c: Thomas Goff-Permit Services Manager/Southern Region
Enclosures

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-6652

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 861-3682 • Fax (805) 861-2060

REQUEST FOR PUBLIC COMMENT ON PROPOSED STATIONARY SOURCE EMISSION REDUCTION CREDITS (ERC)

Pursuant to Rule 2301 of the San Joaquin Valley Unified Air Pollution Control District Rules and Regulations, the Air Pollution Control Officer has made a preliminary decision to approve emission reduction credits not to exceed 713,958 lbm/qtr of VOC (volatile organic compounds) resulting from installation of well vent casing collection systems installed prior to April 25, 1983 in the western and central oil field stationary sources in Kern County.

Public comments regarding the expected air quality impact of this project will be received by the District for a period of thirty (30) days after publication of this notice and will receive due consideration before final action is taken. District contact person for project 920255 is Mr. Robert Rinaldi of Permit Services.

The application for emission reduction credits, support documents and the District's air quality impact analysis for project 4008-921117 are available for inspection at the District's office located at 2700 "M" Street, Suite 275, Bakersfield, Ca. 93301, (805) 861-3682.

ERC APPLICATION REVIEW

Project # 920255

Applicant:

Chevron U.S.A. Inc.
P.O. Box 1392
Bakersfield, CA 93302

ERC to be issued to:

Chevron U.S.A. Inc.
P.O. Box 1392
Bakersfield, CA 93302

Contact: Kelly Skeels
(805) 633-4458

ERC Application #'s

UD#:	S-0037-1,	S-0038-1,
	S-0064-1,	S-0056-1,
	S-0065-1,	S-0057-1,
	S-0066-1,	S-0058-1,
	S-0067-1,	S-0059-1,
	S-0068-1,	S-0060-1,
		S-0061-1,
		S-0062-1,
		S-0063-1,

Date Deemed Complete: 12/11/92

Project Evaluation by: Robert Rinaldi, AQE II
Started 02/10/93
Finished 05/11/93
Reviewed by: ____ Date:____

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

I. *SUMMARY:*

The following emission reductions have been found to qualify for banking:

ERC certificate quantities (quarterly basis)

A. Central Stationary Source

1. ERC# S-0037-1

	VOC (lb/qtr)
1st Quarter	88349
2nd Quarter	89330
3rd Quarter	90312
4th Quarter	90312

2. ERC# S-0064-1

	VOC (lb/qtr)
1st Quarter	20579
2nd Quarter	20808
3rd Quarter	21037
4th Quarter	21037

3. ERC# S-0065-1

	VOC (lb/qtr)
1st Quarter	160962
2nd Quarter	162751
3rd Quarter	164539
4th Quarter	164539

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

4. ERC# S-0066-1

	VOC (lb/qtr)
1st Quarter	119814
2nd Quarter	121146
3rd Quarter	122477
4th Quarter	122477

5. ERC# S-0067-1

	VOC (lb/qtr)
1st Quarter	85928
2nd Quarter	86882
3rd Quarter	87837
4th Quarter	87837

6. ERC# S-0068-1

	VOC (lb/qtr)
1st Quarter	38728
2nd Quarter	39158
3rd Quarter	39589
4th Quarter	39589

Total Central Stationary Source

	VOC (lb/qtr)
1st Quarter	514360
2nd Quarter	520075
3rd Quarter	525790
4th Quarter	525790

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

B. Western Stationary Source

1. ERC# S-0038-1

	VOC (lb/qtr)
1st Quarter	18392
2nd Quarter	18597
3rd Quarter	18801
4th Quarter	18801

2. ERC# S-0056-1

	VOC (lb/qtr)
1st Quarter	19774
2nd Quarter	19994
3rd Quarter	20213
4th Quarter	20213

3. ERC# S-0057-1

	VOC (lb/qtr)
1st Quarter	30622
2nd Quarter	30962
3rd Quarter	31302
4th Quarter	31302

4. ERC# S-0058-1

	VOC (lb/qtr)
1st Quarter	22486
2nd Quarter	22735
3rd Quarter	22985
4th Quarter	22985

5. ERC# S-0059-1

	VOC (lb/qtr)
1st Quarter	69944
2nd Quarter	70722
3rd Quarter	71499
4th Quarter	71499

6. ERC# S-0060-1

	VOC (lb/qtr)
1st Quarter	974
2nd Quarter	985
3rd Quarter	995
4th Quarter	995

7. ERC# S-0061-1

	VOC (lb/qtr)
1st Quarter	9604
2nd Quarter	9711
3rd Quarter	9817
4th Quarter	9817

8. ERC# S-0062-1

	VOC (lb/qtr)
1st Quarter	3974
2nd Quarter	4019
3rd Quarter	4063
4th Quarter	4063

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

9. ERC# S-0063-1

	VOC (lb/qtr)
1st Quarter	21807
2nd Quarter	22049
3rd Quarter	22292
4th Quarter	22292

Total Western Stationary Source

	VOC (lb/qtr)
1st Quarter	197577
2nd Quarter	199772
3rd Quarter	201968
4th Quarter	201968

II. APPLICABLE RULES:

Rule 220.1 - New Source Review (Adopted 9/19/91, revised 3/11/92)

Rule 230.1 - Emission Reduction Credit Banking (3/11/92)

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

III. LOCATION:

A. Locations in the Central Stationary Source are as follows:

Permit#(s)	ERC UD#	ERC AS400#	Location
4008302B 4008303B	S-0037-1	(4008302/501)	Sec. 09 T29S/R28E
4008329B 4008330B 4008331A	S-0064-1	(4008302/502)	Sec. 32 T28S/R28E
4008305A 4008306B 4008308B 4008310B 4008311A 4008333A	S-0065-1	(4008302/503)	Sec. 03 T29S/R28E
4008313B 4008315A 4008316B	S-0066-1	(4008302/504)	Sec. 5 T29S/R28E
4008322B 4008323A	S-0067-1	(4008302/505)	Sec. 04 T29S/R28E
4008325A 4008327A	S-0068-1	(4008302/506)	Sec. 31 T28S/R28E

B. Locations in the Western Stationary Source are as follows:

Permit#	ERC UD#	ERC AS400#	Location
4008317	S-0038-1	(4008317/501)	Sec. 36 T29S/R21E
4008318	S-0056-1	(4008317/502)	Sec. 16 T30S/R22E
4008319B	S-0057-1	(4008317/503)	Sec. 26 T32S/R23E
4008350	S-0058-1	(4008317/504)	Sec. 31 T29S/R22E
4008343B	S-0059-1	(4008317/505)	Sec. 25 T32S/R23E
4008345A	S-0060-1	(4008317/506)	Sec. 26 T32S/R23E
4008346A	S-0061-1	(4008317/507)	Sec. 01 T11N/R24W
4008347A	S-0062-1	(4008317/508)	Sec. 02 T11N/R24W
4008349A	S-0063-1	(4008317/509)	Sec. 15 T31S/R22E

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

IV. METHOD OF GENERATING REDUCTIONS:

In January of 1980 Chevron submitted and received approval for a plan to comply with KCAPCD Rule 411.1 which required 93% VOC control of steam drive well casing gas by 1982. Chevron's plan called for 99% control. The 6% difference between the 93% required and the 99% actual was credited by the APCD to Chevron's cumulative profile. This amounted to 6434.53 lb/day VOC credits for the Central Source and 3570.62 lb/day VOC credits for the Western Source. These numbers were based on an emission factor of 250 lb VOC/day/well.

In June of 1987 the KCAPCD adopted a revised Rule 210.1. One effect of this rule change was that facilities had negative emission profile credits set to zero.

The KCAPCD rule provided for reestablishment of reductions that were zeroed provided it was demonstrated the reductions were real, quantifiable, enforceable, permanent and had not been used to offset any subsequent projects.

In October of 1990 Chevron submitted a report requesting that 5,715.11 lb/day VOC for the Central Source and 2,726.48 lb/day VOC for the Western Source be reestablished. These numbers were based on emission factors of 224.12 lb/day Central and 125.55 lb/day Western. These emission factors were derived from actual source test information and the District reestablished the Western Source offsets, a portion of which were used to offset a proposed project (4008591 to '600 - New Steam Generators)

ATC# 4008591-600, project number 910411, reestablishes 2,726.48 lb VOC/day in the Western Stationary Source as real, actual, permanent, quantifiable, and enforceable (engineering evaluation is in the appendix, page 1a through 1vv). Although Chevron submitted a similar study with project 910411 for the Central Stationary Source, emission reductions were not reestablished as no project was proposed which required the reductions.

This evaluation will verify the amount of emission reductions (Western and Central) that were used to offset subsequent projects and validate previous analysis performed for the Western Stationary Source and Central Stationary Source reductions as real, quantifiable, permanent and enforceable.

V. CALCULATIONS:

A. Central Stationary Source, ERC# S-0037-01, S-0064-1 to S-0068-1

1. Quantity of offsets reestablished from reductions in Central Stationary Source.

In 1980 the APCD based emission credits on an average uncontrolled emission factor of 250 lb/day/well. The variability of the lb/day/well measured at each individual site shows the need to use a common emission factor for an accurate comparison. A weighted emission factor was calculated by dividing the total number of wells in service on the sources tested by the total lb/day emissions from the sources tested. The weighted emission factor for the Central sources was found to be 224.12 lb/day VOC; lower than the 250 lb/day used in the 1980 emission profiles. Using the weighted emission factor, multiplied by the excess control efficiency of 6 percent, multiplied by the number of wells in service, yields the quantity of emission credits available based on actual source test data. This amount is shown below in column titled "Credits Based on weighted E.F". The credits originally recognized by the District are shown in the column titled "APCD Credits". The applicant has requested the lower of these amounts be banked. The requested amount to be banked is shown in the column titled "Requested to be Banked".

ATC #	# Wells	Credits Based on Weighted E.F.	APCD Credits	Request to be Banked
4008302B	25	336.18	374.40	336.18
4008303B	48	645.47	715.00	645.47
4008305B	13	174.81	195.00	174.81
4008306B	26	349.63	390.00	349.63
4008308B	34	457.20	510.00	457.00
4008310B	15	201.71	208.80	201.71
4008311A	28	376.52	418.90	376.52
4008313B	58	779.94	877.50	779.94
4008315A	13	174.81	222.00	174.81
4008316B	28	376.52	463.50	376.52
4008322B	31	416.86	460.30	416.86
4008323A	40	537.89	598.00	537.89
4008325A	29	389.97	432.50	389.97
4008327A	3	40.34	45.00	40.34
4008329B	6	80.68	85.00	80.68
4008330B	4	53.79	40.40	40.40
4008331A	8	107.58	131.40	107.58
4008333A	17	228.60	255.00	228.60
Total		5862.97	5781.40	5715.11

See "**COMPLIANCE** Rule 220.1 Actual Emission Reduction Requirements:" below for a sample verification of calculations reported in applicants submittal.

2. Subsequent projects using emission reductions.

The reestablishment test in appendix, page 3 through 24 shows Chevron may claim all proposed reductions as surplus.

3. Remaining reductions eligible for Emission Reduction Credits

Rule 2201 requires that AER's be quantified in lbs/quarter. Previous emission reduction calculations used a daily emission factor derived from source test data (See "**COMPLIANCE** Rule 220.1 Actual Emission Reduction Requirements:" below for a sample verification of calculations reported in applicants submittal). This type of emission source (well vent casing collection system) operates at the same rate each day. Therefore the quarterly ERC may be determined by multiplying the daily reduction by the number of days in each calendar quarter.

See **Summary** section above for a breakdown of these emissions reductions by location converted to quarterly value.

4. Community Bank Adjustment

These reductions occurred prior to establishment of the community bank therefore will not be discounted by 10% for community bank funding.

B. Western Stationary Source, ERC# S-0038-01, S-0056-1 to S-0063-1

1. Quantity of offsets reestablished from reductions in Western Stationary Source.

ATC# 4008591-600, project number 910411, reestablished 2,726.48 lb VOC/day in the Western Stationary Source as real, actual, permanent, quantifiable, and enforceable. (engineering evaluation is in the appendix, pages 1a through 1vv)

2. Subsequent projects using reestablished emission reductions

From the reestablishment test in appendix pages 25 through 47, project # 910606 would have exceeded the 150 #/day trigger for offsets in the Rule at that time. Therefore the emissions increase from this project in excess of 150 lb/day is not surplus. The reestablishment test shows Chevron exceeded the 150 lb/day trigger by 531.18 lb/day.

The applicant concurs with this finding (see Chevron letter dated May 7, 1993 in appendix, pages 137 to 169) and has requested the deficit offsets be evenly subtracted from all ERC locations in the Western Stationary Source. Each location was discounted by:

$$\frac{531.18 \text{ lb/day}}{9 \text{ locations}} = 59.02 \text{ lb/day}$$

3. Remaining reductions eligible for Emission Reduction Credits

ERC's are quantified in lbs/quarter. Previous emission reduction calculations used a daily emission factor derived from source test data. This type of emission source, well vent casing collection system operates at the same rate each day. Therefore the quarterly ERC may be determined by multiplying the daily reduction by the number of days in each calendar quarter.

See **Summary** section above for a breakdown of these emissions reductions by location converted to quarterly value.

4. Community Bank Adjustment

These reductions occurred prior to establishment of the community bank therefore will not be discounted by 10% for community bank funding.

VI. COMPLIANCE:

A. Rule 220.1 Actual Emission Reduction Requirements:

Chevron U.S.A. submitted a report in October of 1990 titled "Reestablish VOC Offsets for Central and Western Sources" The report contains source test data and addresses District requirements to show emission reductions are real, permanent, quantifiable, surplus, and enforceable. The report was submitted to satisfy mitigation requirements for installation of 10 new steam generators.

Due to the large volume of data in this report only random reductions were verified, the rest were assumed to be correct. The original documents are contained in the file for ATC's 4008591-600, project # 910411 "support documents" titled "Reestablish VOC Offsets for Central and Western Sources".

ERC#'s: S-0037-1 through S-0038-1 and S-0056-1 through S-0068-1

The following is a random row of data from calculation summary listed in table 3-1 (table in appendix, pg 48) found in Chevron's report.

APCD # 4008	Chevron ID	Test Date	Uncontrolled Total HC lb/d	Uncontrolled Lb/day Per well	# of wells	Lb/day offsets @ 99% Eff. Weighted Emis Fact	Lb/day offsets @ 99% Eff. Actual Src tst	Lb/day offsets @ 99% Eff. APCD crdts	Lb/day offsets @ 99% Eff. Restab crdts
305B	CC-9-3	7/80	33.65	62.12	13	174.81	48.46	195	174.81

1. Verification of APCD # and that ATC was implemented

ATC# 4008305B appears in the stationary source cumulative net change as a reduction, all proposed ATC #'s were verified as being recognized reductions in the cumulative net change table. (see page from APCD generated NSR balance in appendix, pages 50 to 96, pertinent ATC's are underlined). The computer permit tracking system shows that initial compliance for this ATC was established and a Permit to Operate was granted. The computer system (printouts are in appendix, pages 97 to 112) indicates all other proposed reductions and corresponding ATC's except 4008327A, '329B, and '330B were implemented & issued permits. Kelly Skeels of Chevron submitted a letter dated April 30, 1993 explaining why the alphas A, B, & B for these PTOs were not implemented. The District issued PTO's with out alphas including requirements for vapor recovery (PTO's and letter are in correspondence part of the file). It appears this was an administrative error by the District. These PTO's should be issued with the proper alpha. The District records for these PTO's will be corrected to reflect the actual permit alphas.

2. Verification of Chevron I.D. #

Chevron U.S.A. submitted a report in October of 1990 titled "Reestablish VOC Offsets for Central and Western Sources". The "Test Permits" section for the Central source was used to verify Chevron I.D.#'s matched District permitted # of wells.

3. Verification of Test date

The test date for ATC# 4008305B was confirmed in the "Summary" part of Chevron's source test report (see appendix page 49). It will be assumed the rest of the dates are accurate.

4. Verification of Total HC lb/day (From source test summary in appendix, page 49)

$$\frac{(33.64 + 0.029) + (33.63 + 0.0046)}{2} = 33.65$$

This value agrees with the value listed in table 3-1. It will be assumed that the rest of the lb/day values are accurate.

5. Verification of lb/day per well

For ATC# 4008305B:

$$\frac{(33.63 + .0046) * 24 \text{ hr/day}}{13 \text{ wells}} = 62.12 \text{ lb/day}$$

This value agrees with the value listed in table 3-1. It will be assumed that the rest of the lb/day per well values are accurate.

6. Verification of # of wells

The status records for referenced PTO#'s were retrieved from the computer permit tracking system and in all cases the number of wells claimed for emission reductions were less than or equal to the quantity permitted. Therefore the # of wells Chevron is requesting reductions is an accurate and conservative number.

7. Verification of Weighted Emission Factor

Weighted Average =

$$\frac{\text{Summation of (Uncontrolled LB/DAY Per Well x \# of wells)}}{\text{Summation of \# of wells}} =$$

$$\frac{(97716.32)^{****}}{436} = 224.12 \text{ \#/well/day}$$

**** See page 48A in appendix for calculation of this value

This value agrees with Chevron's calculated value and is more conservative than the District's factor of 250 #/well/day

8. Verification of Credits Based on Weighted E.F.

Credits Based on Weighted Emission Factor =

$$\text{\# of wells} \times 224.1 \times \frac{(99\% - 93\%)}{100}$$

For PTO# 4008305B

13 X 224.1 x 0.06 = 174.8 lb/day

This value agrees with the value listed in table 3-1. It will be assumed that the rest of the weighted emission

factors are accurate.

9. Verification of offsets generated from actual source test

$$\text{lb/day per well} \times \#\text{ of wells} \times \frac{(99\% - 93\%)}{100}$$

62.12 x 13 x.06 = 48.5 lb/day

This value agrees with the value listed in table 3-1. It will be assumed that the rest of the actual source test information is accurate. This calculation seems to be for informational proposes only, as the applicant is proposing to calculate emission reductions using the conservative weighted emission factor (above). The sum of the "weighted emission factors" (table 3-1 in appendix) are the same as the sum of the "actual source test" data even though weighted emission factors and actual source test data values vary for isolated permits. This verifies the accuracy of the weighted emission factor.

10. Verification of APCD credits

$$\#\text{ of wells} \times 250 \times \frac{(99\% - 93\%)}{100} =$$

13 x 250 x .06 = 195 lb/day

This value agrees with the value listed in table 3-1. It will be assumed that the rest of the originally approved APCD credits are correct.

11. Verification of Reestablished Credits

The applicant is proposing to use the actual weighted emission factor to calculate reductions. In all cases this value is lower than the 250 lb/day/well used in the original calculations.

B. Rule 230.1 Emission Reduction Credit Eligibility Requirements:

For emission reductions to qualify for ERC certificates, reductions must be:

1. **REAL, ie. actually occurred and not transferred to another emission unit(s).**
The credits requested are real as Chevron is currently incinerating all casing head gas from the casing gas collection systems in district approved steam generators and source tests indicate HC emission limits are not being exceeded. Permits to Operate have been granted for all Authorities to Construct.

2. **SURPLUS, ie. not required or encumbered by any laws, rules, regulations, or already used as offsets.**

If the summation (excluding the reduction in question) of the emission rate changes (since 9/12/79) never at any point equals or exceeds the applicable trigger for BACT or offsets (+150 lb/day prior 7/1/91 and 0 lb/day from 7/1/91 to 9/18/91). The selected emission reduction is surplus provided that it was proposed before any rule would have required the reduction.

The summation explained above was performed on the cumulative net change table for the Western and Central Stationary Sources (see "Reestablishment tests for HC" in appendix, pages 3 to 48). No trigger levels were exceeded in the central source. In the western source emission increase proposed in ATC #'s 4224001A - 4224014A (deemed complete 5/2/91) and ATC #'S 4008317J, 4008352G, and 4008835 (deemed complete 9/5/91) exceeded the 150# trigger level by 531.18 lb/day. This amount was subtracted from the proposed reductions to be banked as not surplus (see **CALCULATIONS** section above).

Therefore emission reductions are surplus.

3. **PERMANENT, ie. can be enforced by permit conditions.**

The credits requested are permanent as maintenance of controls has been made condition of the permits to operate.

4. **QUANTIFIABLE, ie. source test data, fuel consumption or process weight information, recognized emission factors, or other data approved by the Control Officer is available to accurately determine the emissions during the baseline period.**

The credits requested are quantifiable based on source tests performed on emission units.

5. **ENFORCEABLE, ie. can be enforced by applicable permit conditions.**

Same discussion as "permanent" above. The emission reduction is enforceable.

6. **TIMELY,**

Pursuant to "Eligibility of Emission Reductions" requirements for recognizing reductions in the banking rule adopted September 19, 1991 (rule in appendix, pages 127 to 132), subsection IV.A.2.a states that applications requesting ERC's for emission reductions prior to January 1, 1988 must be submitted within 180 days of date of rule adoption (i.e. by March 16, 1993). Chevron submitted an application March 16, 1992.

This establishes compliance with timeliness requirements in Rule 230.1 (adopted September 19, 1991). The application was deemed complete

prior to adoption of the December 17, 1992 revision of the banking rule. Therefore it will not be subject to Rule's 2301 discounting or mitigation measures in the amended rule.

7. **INCLUDED in or have been added to the 1987 emissions inventory,**

District planning staff will be notified of these reductions upon issuance for inclusion in AQAP updates (copy of memo to planning department in appendix pages 170 to 176)

VII. RECOMMENDATION:

A. Because these emissions reductions can be validated as Actual Emission Reductions, and have been calculated in accordance with the requirements of Rules 2201 and 2301, they qualify for an ERC banking certificate and may be used in accordance with the requirements of Rule 2201.

B. The proposed emissions reductions are real, surplus, permanent, quantifiable and enforceable.

C. Application requested a 90 day extension to resolve some discrepancies in original submittal and to decide (and review) what to do about the findings from the reestablishment test. The emission increase proposed in ATC #'s 4224001A - 4224014A (deemed complete 5/2/91) and ATC #'S 4008317J, 4008352G, and 4008835 (deemed complete 9/5/91) exceeded the 150# trigger level by 531.18 lb/day. This increase was subtracted from the proposed reductions to be banked (shown in **CALCULATIONS** section above).

D. After the appropriate public comment period, issue ERC Banking Certificates in the quantities shown in the **Summary** section, above.

APPENDIX

4,1.4

4,3

not 4,6

Otherwise not satisfy other criteria.

Actual emissions reductions.

San Joaquin Valley Unified APCD
Permit Services Division
Applications for Authority to Construct or Emission Reduction Credits
Breakdown of Processing Time

Company Name: Chevron USA

Facility Id: 1128 Project Number: 930509

Project Description: ERC

Code	Date	Time Spent	Initials
04	Aug 19, 93	1.0	MRB
04/06	Sept 2, 93	2.0	MRB
06/13	Oct 28, 93	1.0	MRB
13	Oct 29, 93	1.0	MRB
12	Nov 10, 93	1.0	MRB
12	Nov 16	1.0	MRB
19	Dec 6	2.0	MRB
20	April 12	1.0	MRB
TOTAL		11	MRB

Activity Code List
01- Pre-Application Meeting (phone)
02- Pre-Application Meeting (in person)
03- Application Log-in
04- Preliminary Review
05- Defficiency Letter
06- Verbal/telephone request for information
07- Billing
08- Completeness Letter
09- Post Application Meetings
10- BACT Determination
11- Emissions Calculations
12- Compliance Determination
13- Project Description, Flow Digram, Equipment Listing
14- Risk Assessment
15- CEQA Review
16- Draft Conditions
17- Prepare ATC
18- Prepare ERC
19- Prepare Preliminary Notice
20- Prepare Final Notice
99- Reworking of Engineering Evaluation

TOTAL BILLING HOURS	11

No additional fees due.

PROCESSING TIME

PROJECT CODES			HOURS	DATE	FACILITY	
930509	2	1	4.0	08/19/93	1128	8421
930509	2	1	4.0	09/02/93	1128	8421
930509	4	1	1.0	10/28/93	1128	8421
930509	6	1	1.0	10/29/93	1128	8421
930509	4	1	2.0	11/10/93	1128	8421
930509	4	1	1.0	11/16/93	1128	8421
930509	4	1	2.5	11/17/93	1128	8421
930509	4	2	4.0	12/06/93	1128	8421
930509	4	1	0.5	01/05/94	1128	8421
930509	4	1	1.0	01/11/94	1128	8421
930509	4	1	1.5	01/10/94	1128	8421
*** Total ***						
			22.5		12408	

Additional hours represent in-house non-billable rework hrs. — mine.

NEW ERC FILE REQUEST FORM

Processor Initials: MRB Today's Date: 4/12/94

Company Name: CHEVRON USA PRODUCTION CO.

Project #: 930509 Original Project #: 930509

ERC Number(s): S-0205-2, S-0262-2, S-0263-2, S-0264-2

Original Facility Number: S- 1128 Year ERC Issued: 94

Description: CONVERT 11 S.G's TO GAS-FIRING ONLY

Location: HOW S T R

OI = 7/14/94

OA = 8/1/91

PROJECT ROUTING FORM

PROJECT NUMBER: 930509 FACILITY ID: 1128 PERMIT NOs: ERC Project

APPLICANT NAME: Chevron USA Production Company

PREMISE ADDRESS: Western Heavy Oil SS

PRELIMINARY REVIEW	ENGR	DATE	SUPR	DATE
A. Application Deemed Incomplete				
B. Application Deemed Complete [ ] Awaiting CB Offsets	MRB	9/2/93	JE	9/3/93
C. Application Pending Denial Letter Request Mtg	MRB	12/8/93		
D. Application Denied				

ENGINEERING EVALUATION	INIT	DATE
E. Engineering Evaluation Complete 4/12/94	MRB	
F. Supervising Engineer Approval	JE	4/16/94
G. Compliance Division Approval [ ] Not Required		
H. Permit Services Manager Approval		13 MAY 94

Director Review: [ ] Not Required [X] Required

Emission Reductions Occurring after 1/1/88 but before 9/19/91.

NG & FGR on S.G.'s

CLERICAL STAFF: Perform tasks as indicated below. Initial and date when completed.

[ ] PRELIMINARY REVIEW
- [ ] _____ Mail Incompleteness Letter to the Applicant.
- [ ] _____ Mail Completeness Letter to the Applicant.
- [ ] _____ Mail Intent to Deny Letter to the Applicant (Certified Mail).
- [ ] _____ Mail Denial Letter to the Applicant (Certified Mail).

[ ] PROJECTS NOT REQUIRING PUBLIC NOTIFICATION

[ ] PRELIMINARY DISPOSITION:
- [ ] _____ Mail Imminent Denial Letter to the Applicant (Certified Mail).

[ ] FINAL DISPOSITION:
- [ ] _____ Mail ATC(s) to Distribution.
- [ ] _____ Mail Denial Letter to the Applicant (Certified Mail).

[ ] PROJECTS REQUIRING PUBLIC NOTIFICATION

[ ] PRELIMINARY DECISION:
- [ ] _____ Deliver Ad to the Newspaper NOT LATER THAN _____
- [ ] _____ Mail copies of Cover Letter and Engineering Evaluation to Distribution.

[ ] FINAL DECISION:
- [ ] _____ Deliver Ad to the Newspaper NOT LATER THAN _____
- [ ] _____ Mail copies of Cover Letter and ATC(s) to Distribution.
- [ ] _____ Mail copies of Cover Letter to Distribution.

DISTRIBUTION

- [ ] _____ APPLICANT
- [ ] _____ ENGINEER
- [ ] _____ COMPLIANCE
- [ ] _____ PREMISE FILE
- [ ] _____ EPA - 75 Hawthorne St., San Francisco, CA 94105 -Attn: A-3-4
- [ ] _____ ARB - Stationary Source Division Chief, PO Box 2815, Sacramento, CA 95812
- [ ] _____ SJVUAPCD - 1999 Tuolumne St., Fresno, CA 93721 Attn: Seyed Sadredin

[ ] _____ BUILDING DEPT _____ [ ] _____ OTHER _____

[ ] _____ FIRE DEPT _____ [ ] _____ SCHOOL _____

DRAFT

Facility #: 1128

Project #: 930509

FINAL ENGINEERING PROJECT CHECKLIST

V — Application Review includes all items described in guidelines, all items appear in correct order, and all parts of analysis read logically.

V — Draft ~~Authorities to Construct~~ ERC's have been prepared.

V — Applicant has been notified by telephone of all conditions appearing in ATC but not proposed in application.

NA — NSPS/NESHAPS, BACT/LAER and/or NSR report has been prepared, with three copies of each.

NA — EPA Program 5 Objectives report has been prepared for all sources that "netted out" of NSR requirements or have major emissions sbut are minor sources due to permit conditions limiting hours of operation or production rate.

NA — Problems encountered summary sheet has been prepared which includes all items resulting in unnecessary expenditures of time (the time would not have been spent if the application had been correctly submitted, the data was all correct, no changes were made during processing).

V — All necessary draft Public Notices have been prepared, including projects within 1000 feet of a school.

NA — Emission summary sheets (one for whole project and one screen printout for each ATC) have been prepared including net emissions change for whole stationary source. NSPS status has been marked.

NR — "Summary of Emissions Testing Requirements" form has been prepared. Copy of requirements and ATC to to Compliance Technical Services upon issuance.

V — Project and Status records have been updated with any applicable dates, location, etc.

V — Project Routing form has been prepared.

Michael R Bess Engineer _____ Reviewing Engineer

POST REVIEW CHECKLIST

_____ ATC sent to compliance for review

_____ Copy of ERC has been photocopied for the Banking Registry.

Not fill reviewed — Necessary permits and analyses have been sent to District office for permitting Director's approval, comments, and signature.

V — File folder request forms have been prepared.

San Joaquin Valley
Unified Air Pollution Control District
Southern Regional Office * 2700 M St., Suite 275 * Bakersfield, CA 93301

COPY

Emission Reduction Credit Certificate
S-0205-2

Issued To: CHEVRON U.S.A. PRODUCTION COMPANY
July 14, 1994

Location of Reduction: TAFT Oil Field
Section 2-T11N-R24W
Western Kern County Oil Fields

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
45,681 lbs.	47,927 lbs.	46,196 lbs.	44,813 lbs.

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Unit.
[X] Other: Convert steam generators S-1128-15 through -19 to gas firing & add fgr.

David L. Crow, APCO

Seyed Sadredin
Director of Permit Services

7/14/94
Date

San Joaquin Valley
Unified Air Pollution Control District
Southern Regional Office * 2700 M St., Suite 275 * Bakersfield, CA 93301

COPY

Emission Reduction Credit Certificate
S-0262-2

Issued To: CHEVRON U.S.A. PRODUCTION COMPANY
July 14, 1994

Location of Reduction: Midway Sunset Oil Field
Section 26-T32S-R23E
Western Kern County Oil Fields

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
4,319 lbs.	5,348 lbs.	5,007 lbs.	4,447 lbs.

[ ] Conditions Attached

Method Of Reduction
[ ] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Unit.
[X] Other: Convert steam generators S-1128-57 & -58 to gas-firing and add fgr.

David L. Crow, APCO

Seyed Sadredin
Director of Permit Services

7/14/94
Date

ERC APPLICATION REVIEW

PROJECT 930509

Michael Buss
Apr 12, 1994

Facility Name: **CHEVRON U.S.A. PRODUCTION COMPANY**
Mailing Address: P.O. Box 1392 Facility #1128
Bakersfield, Ca. 93302

Application #:
S-0205-1 VOC from control (pre-1988) of cyclic wells (no credit available)
S-0205-2 NOx from NG & FGR to SG's, 2-11N-24W
S-0262-2 NOx from NG & FGR to SG's, 26-32S-23E
S-0263-2 NOx from NG & FGR to SG's, 16-30S-22E
S-0264-2 NOx from NG & FGR to SG's, 7-30S-22E

Appl received: 08/03/93
Deemed complete: 09/02/93

Contact Name: Doris Lambertz/ W.A. Brommelsiek
Phone: (805) 633-4453

Reviewed by: SAQE
Date: 9/16/94

HEAVY OIL WESTERN STATIONARY SOURCE

TABLE OF CONTENTS

I. SUMMARY: WESTERN HEAVY OIL PRODUCTION STATIONARY SOURCE.

A. VOC credit for control of cyclic wells:

Request for VOC credit from control of cyclic wells is not approveable.

VOC emissions credit was requested for pre-1988 reductions (control of cyclic wells). These reductions were included in the cumulative net change table for Chevrons Western Stationary Source prior to June 22, 1987.

These emissions are not eligible for credit. Pursuant to Rule 2301 section 4.1.1 and 5.5, any application for pre-1988 credit would have to have been filed prior to June 17, 1993. This application for VOC credit was not received until August of 1993 and is therefore untimely and unapproveable. No VOC credit is available for banking.

B. NOx credit for voluntary control of steam generators:

Chevron Oil has applied for NOx credit under section 4.1.1 of banking rule 2301 - " Emission reductions occurring after January 1, 1988 and prior to the date of adoption of this rule (9/19/91).

The NOx reduction was achieved by voluntary conversion to natural gas firing only and, for some units, addition of FGR.

The controls on the steam generators were installed and the startup inspections performed in May and August of 1991. The units passed all applicable source tests in the same time period. The District recognized these reductions as real, permanent, quantifiable and enforceable. At the time, the reductions (recognized by the District) achieved by these controls were used to authorize ATC's for 10 steam generator, which are now being relinquished. Therefore the reductions are now surplus (to the extent shown in section I.C following) and have not been used for approval of ATC's. The reductions are real (source testing completed), permanent (ATC's surrendered for unimplemented SG's), quantifiable (historical fuel use data used to calculate reduction), and enforceable (permit conditions require compliance).

Amount of creditable NOx reductions has been recalculated on a quarterly basis as required by current rules. The generators were located at four separate locations therefore four ERC banking certificates are to be issued.

I. SUMMARY (continued):

The following emission reduction credits have been found to qualify for banking:

ERC	Q1	Q2	Q3	Q4	Pollutant	Location
S-205-1	0	0	0	0	VOC	Cyclic wells
S-205-2	45,681	47,927	46,196	44,813	NOx	TAFT SG's
S-262-2	4,319	5,348	5,007	4,447	NOx	MIDWAY SUNSET SG's
S-263-2	1,937	2,508	1,682	2,136	NOx	CYMRIC sec 16 SG
S-264-2	3,233	0	3,511	5,000	NOx	CYMRIC sec 7 SG's

Note: Not all credits were found to be surplus. Therefore S-263-2 and 264-2 (above) have been reduced so as to not exceed total "surplus". See emission calculation section for details.

II. APPLICABLE RULES

Rule 2201 - (New and Modified Stationary Source Review) 10/21/93
Rule 2301 - ERC Banking Rule 12/17/92

* Note with regard to applicant proposed 10% deduction toward community bank: Community Bank Rule is no longer applicable under new NSR rule adopted 10/21/93, 10% will be applied towards "attainment" as required under the current Rule.

III. LOCATION OF REDUCTION:

The Authorities to Construct being surrendered have not been built, and therefore do not have locations. The location of permitted equipment used for reductions is shown below.

The reductions occurred on steam generators at four locations in the Western Heavy Oil Stationary Source. Because the reductions occurred at 4 different locations and were the result of three separate actions there will be four ERC certificates issued.

A. 11 steam generators which FGR and/or natural gas-firing added.

	ATC Number	UD # 1128-		Location Section	Township	Range
	4008070M	**15-16**	NG	2	11N	24W
	4008071M	**16-15**	NG/FGR	"	"	"
Taft	4008072M	**17-14**	NG/FGR	"	"	"
	4008073M	**18-15**	NG	"	"	"
	4008074M	**19-14**	NG/FGR	"	"	"
Mid Sun	4008175E	**57-06**	NG/FGR	26	32S	23E
	4008176E	**58-06**	NG/FGR	"	"	"
Cymric sec 7						
	4008032K	**4-12**	NG/FGR	7	30S	22E
	4008033I	**5-10**	NG/FGR	"	"	"
	4008083I	**27-10**	NG/FGR	"	"	"
Cymric sec 16						
	4008084I	**28-10**	NG/FGR	16	30S	22E

IV. METHOD OF GENERATING REDUCTIONS:

A. ATC's BEING SURRENDERED: (Surplus)

Chevron provided voluntary reductions in order to approve 10 new steam generator ATC's. By now surrendering the 10 ATC's the reductions are now surplus and available for banking credit.

Chevron has previously banked all other surplus reductions of NOx included in their cumulative net change. Therefore the surplus test will be limited to the amount made surplus by the surrender of the 10 ATC's. The ATC's surrendered are ten 62.5 MM Btu/hr steam generator permit numbers S-1128-286 through '295. With the surrender of these ATC's, the reductions providing approval are now surplus.

Amount surplus = 613 lb/day. 10 steam generators were authorized for 61.3 lb/day NOx each. 10 * 61.3 = 613 lb/day. Assuming 90 days/quarter 1, 91 days/quarter 2, and 92 days in each of quarter 3 & 4. Q1 = 55,170 lb/qtr NOx; Q2 = 55,783; Q3 & Q4 = 56,396 lb/qtr.

IV. METHOD OF GENERATING REDUCTIONS (continued):

B. Implemented ATC's providing reductions (now PTO's).

ATC modifications S-1128-15-16 and 18-15 voluntarily switched to natural gas-firing only. ATC modifications 16-15, 17-14, 19-14, 57-6, 58-6, 4-12, 5-10, 27-10 and 28-10 voluntarily switched to natural gas firing and added FGR. Copies of current PTO's included in appendix A.

Implemented Permits which brought about the reductions:

ATC	Project Number	UD S-1128-	Location	Startup	Source Tested	Current Enforceable Limit @ PTO	Source Tested
4008070M	900605	15-16	2-11N-24W	5/13/91	5/15/91	.08	Y
4008071M	900605	16-15	" " "	"	"	.043	Y
4008072M	900605	17-14	" " "	"	"	.043	Y
4008073M	900605	18-15	" " "	"	"	.08	Y
4008074M	900605	19-14	" " "	"	"	.043	Y
4008175E	900615	57-06	26-32S-23E	8/9/91		.052	Y
4008176E	900615	58-06	" " "	8/9/91		.052	Y
4008032K	900716	4-12	7-30S-22E	8/ 1/91	8/ 7/91	.044	Y
4008033I	900716	5-10	" " "	8/ 1/91	8/ 7/91	.044	Y
4008083I	900716	27-10	" " "	8/14/91	8/15/91	.044	Y
4008084I	900716	28-10	16-30S-22E	8/14/91	8/15/91	.044	Y

V. NOx EMISSION REDUCTIONS CALCULATIONS:

A. AER requirements: Actual Emissions Reductions (AER) are defined in 2201.3.2 as the reductions of actual emissions from an emissions unit selected for emission offsets or banking, from the baseline period. Actual emissions reductions shall be calculated pursuant to Section 6 (especially section 6.5) of 2201 and shall be real, enforceable, quantifiable, surplus, and permanent.

Actual Emission Reduction (AER) associated with this action is equal to the Historical Actual Emissions * Change in Control Efficiency. Additionally a 10% Air Quality Improvement Deduction must be subtracted before obtaining the bankable amount.

1. Fuel use data:

Baseline period: The projects approving natural gas firing & fgr were deemed complete in 1990. The baseline period (2201.3.7.1) is 2 years prior to the submission of a complete application. Data submitted was from June 1988 through 1990, which meets the criteria.

Historical fuel data was converted to monthly in appendix B. The spread sheets would not import into this Word Perfect document, therefore spreadsheets are shown in appendix B.

V. NOx EMISSION REDUCTIONS CALCULATIONS (continued):

2. Historical Actual Emissions: (HAE), used to calculate AER.

Determined using actual fuel use data for required baseline period & recognized emissions factors.

The HAE and AER (Actual Emission Reductions) for each action are shown in appendix C. The spreadsheets would not import and therefore are in the appendix as attachments.

Assumptions: Only NOx credit requested/calculated.

All SG's = 62.5 MMBtu/hr capacity.
Oil fired factor (from source test data, these units)
= 0.2 lb NOx per MMBtu.
6.191 MMBtu/Bbl.
1.24 lb NOx/Bbl of oil.
Gas-fired factor (recognized by the District for large gas-fired steam generators [1]). = 92 lb NOx per MMscf.
SLC plan currently reflects gas firing only.

HAE =
Q1 = [(Q_1 fuel x emission factor)+(Q_1 fuel x EF)]/2

Q1 = quarter 1 fuel usage (for two separate quarters of data). EF = emission factor.

Average quarterly emissions determined by calculating emissions for two quarters of fuel use data (i.e. 1st qtr) and then dividing by two.

Q2, Q3, Q4 = Qx, etc as above. Not to exceed maximum allowed by permit (throttle & use etc. See worksheet for further details.)

Fuel use data per month was converted to quarterly (appendix B) so calculations could be done on a quarterly basis. Original reductions were calculated on a daily basis as required by the rule at that time. Current NSR requires emissions be calculated on quarterly basis.

One calculated monthly data figure exceeded amount used for establishing the SLC (Midway Sunset 1128-58). The entry was adjusted pursuant to Rule 2201 section 6.2.1.4 to the amount used for establishing Chevrons SLC (see worksheet for corrected value entry).

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[1] Gas-fired factor for large steam generators taken from analysis 900716 page 7 (project which originally recognized the reductions).

V. NOx EMISSION REDUCTIONS CALCULATIONS (continued):

3. NOx Reductions calculated from fuel use data:

The table below demonstrates that amount of credit available (surplus) is less than the historical emissions. Therefore the amount of credit is limited to the amount which is surplus.

	Q1	Q2	Q3	Q4	
TAFT SG's	45,681	47,927	46,196	44,813	
MIDWAY SUNSET	4,319	5,348	5,007	4,447	
CYMRIC (sec 16)	1,937	2,680	1,682	2,136	calculated
Cymric (sec 7)	20,420	12,775	19,835	21,872	calculated
Total calculated:	72,357	68,730	72,720	73,268	
- Amt surplus & bankable	**55,170**	**55,783**	**56,396**	**56,396**	
Amt NOT bankable (not surplus):	17,187	12,947	16,324	16,872	

4. NOX CREDITABLE AER REDUCTIONS:

Note: surplus < calculated. Therefore S-263-2 and 264-2 reduced from the amount calculated for specific steam generators as shown.

	Q1	Q2	Q3	Q4	
Surplus available =	55,170	55,783	56,396	56,396	
less TAFT SG's **ERC # 205-2**	45,681	47,927	46,196	44,813	
Remaining surplus available	9,489	7,856	10,200	11,583	
less MID SUNSET **ERC # 262-2**	4,319	5,348	5,007	4,447	
Remaining surplus available	5,170	2,508	5,193	7,136	
less CYM sec 16 **ERC # 264-2**	1,937	NOTE 1:	1,682	2,136	
Remaining surplus available	3,233	0	3,511	5,000	
		See NOTE 2 below:			
Cymric sec 7 calculated	~~20,420~~	~~12,775~~	~~19,835~~	~~21,872~~	calculated
less CYM sec 7 **ERC # 263-2**	**3,233**	**0**	**3,511**	**5,000**	surplus
Remainder	0	0	0	0	

NOTE 1: Calculated is 2,680, however surplus = 2,508. Therefore AER = 2,508 and no 2nd quarter NOx credit left over after this action.

NOTE 2: Calculated > reductions qualifying as surplus. Only surplus amount is creditable. Therefore 263-2 is discounted, for all quarters, to surplus amount.

VIII. COMPLIANCE:

A. Compliance with Rule 2201, section 3.2:

Section 3.2 defines Actual Emission Reductions (AER) as "reduction of actual emissions from an emissions unit selected for emission offsets or banking, from the baseline period. Actual emissions reductions shall be calculated pursuant to section 6.0 & must meet criteria 3.2.1., 2., 3., and 4.

VIII. COMPLIANCE (continued):

1. Actual reductions shall be real, enforceable, quantifiable, and permanent.

   As shown in the calculations section of this analysis, these reductions resulted from addition of controls on existing emission units, therefore they are real. Addition of controls were described on revised permits issued to CHEVRON; therefore these reductions are enforceable. The Authorities to Construct representing increases in emissions have been surrendered; therefore the emission reductions will be permanent. As shown in emissions calculations section, the reductions are quantifiable.

2. Early implementation of BARCT:

   Pursuant to Rule 2301 definition of Actual Emission Reduction - adjustments shall be made based on Rules & Plans in effect at the time the ATC authorizing the reduction was deemed complete.

   These reductions occurred prior to adoption of the California Clean Air Act (January 30, 1992), therefore this subsection does not apply.

3. Actual reductions shall be in excess of any emission reduction which at the time the application for an Authority to Construct was deemed complete is required or encumbered by any laws, rules, regulations, agreements or orders.

   Per Rule 2301 section 3.1, reductions authorized by an Authority to Construct, this is as of the date the ATC was deemed complete. The reductions were not required by any rule or regulation in existence or being workshopped at the time the applications for Authority to Construct were deemed complete.

B. Compliance with Rule 2201, section 6.2.1., Definition of HAE:

The emissions reductions in question were generated by addition of controls to existing units. The resulting excess emission reductions were not required for compliance with any new or modified Rules or Regulations. These emissions reductions satisfy the definition of historical actual emissions and actual emission reductions (AER) in Rule 2201, Section 3.2. Therefore these reductions are creditable reductions and can be validated as ERC's if all other requirements of Rule 2201 and 2301 are satisfied.

C. Compliance with Rule 2201, Section 6.5., Calculation procedures for determining Actual Emissions Reductions (AER).

1. For shutdown of emissions units(6.5.2), AER = HAE.
2. For reduction from addition of control device/process (6.5.3),
   AER = (HAE x CE) for increases in control efficiency

As shown in calculations section of this review, the emissions reductions have been calculated in accordance with the requirements of Rule 2201. Therefore these emission reductions may be banked in accordance with the provisions of Rule 2301.

D. Compliance with Rule 2301, Section 4.1.1, Eligibility of reductions occurring after January 1, 1988 and prior to 9/19/91:

The conversion to natural gas firing, and for some units addition of FGR, was installed, started up & tested for compliance after 1/1/88 and before 9/19/91. Therefore section 4.1.1 applies.

The reductions must have been recognized by the District pursuant to a formal internal tracking mechanism or a banking rule. The District had recognized these reductions in the net cumulative change for the source when these reductions were used as tradeoffs for the ATC's now being surrendered. As discussed in item A and C of this section of the review, the reductions to be banked have now been calculated on a quarterly basis over the base line required by current rules.

1. Must comply with definition of AER.

   Rule 2301, section 4.1.1.1 states that an actual emission reduction for the purposes of this rule is an actual emission reduction. The reductions were actual emission reductions.

2. The reductions must be real, surplus, permanent, quantifiable, and enforceable.

   As previously discussed, these reductions are real, surplus, permanent, quantifiable and enforceable. With the surrender if the ATC's authorized by these reductions, the reductions have become surplus.

3. Reductions must not have been used for approval of ATC or used as offsets.

   The ATC's which used these reductions are being surrendered, therefore reductions now surplus to the extent shown in the calculations section.

D. Timeliness (Rule 2301 section 4.1.1 and 5.5) of application for credit:

1. VOC credit for control of cyclic wells:

   These controls were installed in 1983. No credit available as discussed in section I.A. These emissions are not eligible for credit. Pursuant to Rule 2301 section 4.1.2 and 5.5, any application for pre-1988 credit would have to have been filed prior to June 17, 1993. This application for VOC credit was not received until August of 1993 and is therefore untimely and unapproveable. No VOC credit is available for banking.

2. NOx credit for control of steam generators:

   Request for NOx credit is timely because application was made within 180 days from the time the ATC's, making the reduction surplus, were surrendered.

IX. RECOMMENDATION:

A. VOC credit:

Provide written notice to applicant, ARB and EPA of preliminary decision to deny emission reduction credit for pre-1988 reductions due to control of cyclic wells. Publish notice in the Bakersfield Californian listing applicant and a statement of results determined through initial assessment of the application.

After public notification period and response to comments made, deny Emission Reduction Credit Certificates.

B. NOx credit for control of steam generators:

Provide written notice to applicant, ARB and EPA of preliminary decision to approve emission reduction credits for the amount calculated in this review. Publish notice in the Bakersfield Californian listing applicant, quantity of emissions reductions and a statement of results determined through initial assessment of the application.

After public notification period and response to comments made, issue Emission Reduction Credit Certificates as follows:

ERC summary						
S-0205-2	Convert to ng firing, add fgr to three units. TAFT SG's.		Q1	Q2	Q3	Q4
		NOx	45,681	45,927	46,196	44,813
S-0262-2	Convert SG's to ng firing and add fgr. MidSun SG's.		Q1	Q2	Q3	Q4
		NOx	4,319	5,348	5,007	4,447
S-0263-2	Convert SG's to ng firing and add fgr. Cymric section 16.		Q1	Q2	Q3	Q4
		NOx	1,937	2,508	1,682	2,136
S-264-2	Convert SG's to ng firing and add fgr. Cymric section 7.		Q1	Q2	Q3	Q4
		NOx	3,233	0	3,511	5,000

X. BILLING INFORMATION:

According to Rule 3060 a nonrefundable filing fee of $650.00 is required for ERC application. Applicant has submitted the required fee. No additional fees due on this project. 11 chargeable hours spent on the project. An additional 11.5 hours were spent on rework and policy clarification. i.e. phone calls, discussions, memos back and forth, reworking analysis under different scenarios. Applicant is not responsible to pay for rework and internal policy clarification.

APPENDIX A

Copies of current PTO's.
SG's converted to gas firing & fgr.

The following are conditions for PTO number: S-1128-4-12

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43009-74 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, NOx (as NO2): 0.044 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.023 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 93%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Fuel gas sulfur content shall not exceed 0.004 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-5-10

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43005-74 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, NOx (as NO2): 0.044 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.023 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 93%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Fuel gas sulfur content shall not exceed 0.004 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-27-10

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43010-78 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.
3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".
4. Flue gas recirculation system shall be operational at all times.
5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.
6. Compliance testing shall be conducted annually as required by the District-approved plan.
7. Compliance source testing shall be conducted under conditions representative of normal operation.
8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.
9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.
10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.
11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.
12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.
13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, NOx (as NO2): 0.044 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.023 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 93%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Fuel gas sulfur content shall not exceed 0.004 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-28-10

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: *P.O. BOX 1392 , BAKERSFIELD, CA 93302*

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED STEAM GENERATOR #50 DIS# 43014-78 WITH SO2 SCRUBBER

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.
3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".
4. Flue gas recirculation system shall be operational at all times.
5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.
6. Compliance testing shall be conducted annually as required by the District-approved plan.
7. Compliance source testing shall be conducted under conditions representative of normal operation.
8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.
9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.
10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.
11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.
12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.
13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.068 lb/MMBtu, SOx (as SO2): 0.007 lb/MMBtu, NOx (as NO2): 0.044 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.023 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 93%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Fuel gas sulfur content shall not exceed 0.004 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-15-16

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR DIS# 43003-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.050 lb/MMBtu, SOx (as SO2): 0.105 lb/MMBtu, NOx (as NO2): 0.080 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 95%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 30.613 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.053 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-16-15

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-2 DIS# 43003-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.
3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".
4. Flue gas recirculation system shall be operational at all times.
5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.
6. Compliance testing shall be conducted annually as required by the District-approved plan.
7. Compliance source testing shall be conducted under conditions representative of normal operation.
8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.
9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.
10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.
11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.
12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.
13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.006 lb/MMBtu, NOx (as NO2): 0.043 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 95%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 18.949 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.003 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-17-14

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-3 DIS# 43004-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.006 lb/MMBtu, NOx (as NO2): 0.043 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 95%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 18.949 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.003 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-18-15

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.050 lb/MMBtu, SOx (as SO2): 0.105 lb/MMBtu, NOx (as NO2): 0.080 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 95%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 30.613 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.053 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-19-14

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-5 DIS# 43006-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.007 lb/MMBtu, SOx (as SO2): 0.006 lb/MMBtu, NOx (as NO2): 0.043 lb/MMBtu, VOC: 0.011 lb/MMBtu, and CO: 0.022 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 95%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 18.949 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.003 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-57-6

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-6 DIS# 43012-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".

4. Flue gas recirculation system shall be operational at all times.

5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.

6. Compliance testing shall be conducted annually as required by the District-approved plan.

7. Compliance source testing shall be conducted under conditions representative of normal operation.

8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.

9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.

10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.

11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.

12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.

13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.045 lb/MMBtu, SOx (as SO2): 0.087 lb/MMBtu, NOx (as NO2): 0.052 lb/MMBtu, VOC: 0.013 lb/MMBtu, and CO: 0.025 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 80%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 21.080 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.044 lb/MMBtu (as sulfur).

The following are conditions for PTO number: S-1128-58-6

PTO exp: 02/28/98

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A., INC.

LOCATION: HEAVY OIL WESTERN SOURCE,

MAILING ADDRESS: P.O. BOX 1392 , BAKERSFIELD, CA 93302

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR #50-7 DIS# 43013-81 WITH FGR

CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.
3. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained "leak free".
4. Flue gas recirculation system shall be operational at all times.
5. All wells producing from strata steamed by this unit shall be connected to a District-approved emissions control system, have District-approved closed casing vents or be District-approved uncontrolled cyclic wells.
6. Compliance testing shall be conducted annually as required by the District-approved plan.
7. Compliance source testing shall be conducted under conditions representative of normal operation.
8. Should source testing indicate an emission factor higher than that approved, the operator shall comply with Rule 1100 and, if necessary, submit an application for Authority to Construct to incorporate the higher emission factor into the SLC.
9. The permittee shall maintain records of fuel type, quantity, permitted emission factors and emissions for each unit for each day of operation, in the format approved by the District.
10. Records required by this permit shall be retained on site for a period of at least five years and shall be made readily available for District inspection upon request.
11. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District quarterly, if no SLC violations occurred in the previous six months.
12. Total daily emissions of each air contaminant, and total daily fuel used, for each unit subject to the SLC and for each day of the month, shall be submitted to the District monthly, if SLC violations occurred in the previous six months.
13. Reports of daily emissions and fuel usage, as required by this permit for units in the SLC, shall be submitted within 30 days after the end of the reporting period.

CONDITIONS CONTINUE ON NEXT PAGE

14. For units equipped with continuous emissions monitors (CEMs), CEM records shall be used in place of calculated emissions.

15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold.

16. If continuous operation oxygen analyzer/controller is utilized, excess O2 shall be maintained between 0.5% and 3.0%. If not utilized, excess air shall be maintained at no less than 15%.

17. Permittee shall submit compliance testing plan to the District prior to annual permit expiration date.

18. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure and permittee shall meet the requirements of Rule 1100 for CEM's.

19. Natural gas fired emission rates shall not exceed PM10: 0.045 lb/MMBtu, SOx (as SO2): 0.087 lb/MMBtu, NOx (as NO2): 0.052 lb/MMBtu, VOC: 0.013 lb/MMBtu, and CO: 0.025 lb/MMBtu.

20. For this emission unit the overall throttle and use factor used in the SLC plan is 80%.

21. Emission rates for all units subject to SLC shall not exceed PM10: 3,172.1 lb/day, SOx (as SO2): 9,432.2 lb/day, NOx (as NO2): 12,135.7 lb/day, VOC: 1,323.8 lb/day, and CO: 3,802.2 lb/day.

22. Vapor recovery gas emission rate shall not exceed SOx (as SO2): 21.080 lb/MMBtu.

23. Fuel gas sulfur content shall not exceed 0.044 lb/MMBtu (as sulfur).

APPENDIX B

Fuel use data for steam generators.

Chevron ERC project 930509

Historical fuel use.

Heavy Oil Western source.

Convert monthly data (project 900605) to quarterly.

TAFT Steam Generators

This worksheet converts monthly data (in project 900605) to quarterly data for use in emissions calculations for this ERC project.

		S-1128-15		S-1128-16		S-1128-17		S-1128-18		S-1128-19	
		4008070		4008071		4008072		4008073		4008074	
Qtr	Month (2 yrs)	oil bbl	gas Mscf	oil bbl	gas Mscf	oil bbl	gas Mscf	oil bbl	gas Mscf	oil bbl	gas Mscf
	Jan 1	3,906	0	5,723	0	4,465	0	4,344	0	4,736	0
	Jan 2	2,934	0	4,188	0	993	0	4,496	0	3,152	0
1	Feb 1	4,892	0	5,745	0	2,590	0	3,849	0	5,218	0
	Feb 2	4,554	0	3,340	0	5,049	0	297	0	1,431	0
	Mar 1	4,670	0	6,011	0	4,875	0	4,477	0	4,171	0
	Mar 2	1,709	0	4,204	0	2,000	0	2,816	0	3,569	0
Subtotal=		22,665	0	29,211	0	19,972	0	20,279	0	22,277	0
Subtotal/2 =		11,333	0	14,606	0	9,986	0	10,140	0	11,139	0
	Apr 1	4,461	0	2,528	0	4,628	0	1,259	0	4,882	0
	Apr 2	3,086	0	4,688	0	5,308	0	5,426	0	3,946	0
2	May 1	3,743	0	0	0	5,254	0	5,239	0	5,012	0
	May 2	4,072	0	4,589	0	5,082	0	4,619	0	4,845	0
	Jun 1	2,557	0	2,200	0	5,570	0	5,173	0	5,300	0
	Jun 2	2,846	0	3,499	0	2,406	0	4,371	0	3,865	0
Subtotal=		20,765	0	17,504	0	28,248	0	26,087	0	27,850	0
Subtotal/2 =		10,383	0	8,752	0	14,124	0	13,044	0	13,925	0
	Jul 1	55	0	5,864	0	4,730	0	5,331	0	5,217	0
	Jul 2	1,504	0	5,731	0	2,939	0	1,532	0	3,822	0
3	Aug 1	1,052	0	5,214	0	5,180	0	4,510	0	5,521	0
	Aug 2	4,845	0	2,932	0	4,745	0	181	0	3,321	0
	Sep 1	4,747	0	4,363	0	4,761	0	3,676	0	3,639	0
	Sep 2	3,278	0	5,639	0	5,250	0	0	0	3,118	0
Subtotal=		15,481	0	29,743	0	27,605	0	15,230	0	24,638	0
Subtotal/2 =		7,741	0	14,872	0	13,803	0	7,615	0	12,319	0
	Oct 1	5,283	0	1,648	0	5,187	0	5,714	0	4,935	0
	Oct 2	3,790	0	4,185	0	380	0	1,116	0	4,433	0
	Nov 1	4,615	0	4,866	0	4,896	0	4,250	0	4,774	0
4	Nov 2	4,117	0	4,931	0	5,201	0	227	0	227	0
	Dec 1	3,792	0	5,311	0	3,283	0	4,645	0	4,752	0
	Dec 2	1,095	1,028	4,805	0	3,410	0	3,529	0	2,846	0
Subtotal=		22,692	1,028	25,746	0	22,357	0	19,481	0	21,967	0
Subtotal/2 =		11,346	514	12,873	0	11,179	0	9,741	0	10,984	0

No month exceeds maximum throttle & use factor of 95%:

Max oil = 30 day/mo * 24 hr/day * 62.5mmbtu/hr * Bbl/6.2 mmbtu * 0.95 = 6,905 bbl/mo

Max gas = 30 day/mo * 24 hr/day * 62.5mmbtu/hr * scf/1050btu * 0.95 = 40,714 Mscf/mo

Quarterly historical fuel usage.

File HAE2_QTR.WQ1

Taft generators.

mrb

Chevron ERC project 930509
Heavy Oil Western source.

Historical fuel use.

Convert monthly data (project 900615) to quarterly.

Midway Sunset Steam Generators

(Section 26 of T32S-R23E)

This worksheet converts monthly data (in project 900615) to quarterly data for use in emissions calculations for this ERC project.

Generator S-1128-57 = Chevron gen 50-6
Generator S-1128-58 = Chevron gen 50-7

Qtr	Month (2 yrs)	S-1128-57 4008175 oil (bbl)	S-1128-57 4008175 gas Mscf	S-1128-58 4008176 oil (bbl)	S-1128-58 4008176 gas Mscf	
	Jan 1	0	19,796		17,254	1989
	Jan 2	0	33,217		6,240	1990
1	Feb 1	0	27,412		9,796	1989
	Feb 2	0	28,110		20,915	1990
	Mar 1	0	32,842		1,993	1989
	Mar 2	0	30,215		26,635	1990
Subtotal=		0	171,592	0	82,833	
Subtotal/2 =		0	85,796	0	41,417	
	Apr 1	0	20,010		8,814	1989
	Apr 2	0	30,631		27,827	1990
2	May 1	0	29,578		29,203	1988 (see Note 1)
	May 2	0	29,585		27,507	1989
	Jun 1	0	27,540		25,213	1988
	Jun 2	0	29,979		29,160	1989
Subtotal=		0	167,323	0	147,724	
Subtotal/2 =		0	83,662	0	73,862	
	Jul 1	0	30,086		26,545	1988
	Jul 2	0	30,132		29,979	1989
3	Aug 1	0	28,426		28,224	1988
	Aug 2	0	16,530		19,833	1989
	Sep 1	0	26,193		29,026	1988
	Sep 2	0	0		30,017	1989
Subtotal=		0	131,367	0	163,624	
Subtotal/2 =		0	65,684	0	81,812	
	Oct 1	0	22,298		27,706	1988
	Oct 2	0	29,538	*	34,286	1989
	Nov 1	0	20,358		15,937	1988
4	Nov 2	0	19,702		7,196	1989
	Dec 1	0	31,034		0	1988
	Dec 2	0	33,437		20,523	1989
Subtotal=		0	156,367	0	105,648	
Subtotal/2 =		0	78,184	0	52,824	

No month may exceed the maximum throttle & use factor of 80%.

Max Gas = 30 day/mo * 24 hr/day * 62.5 mmbtu/hr * scf/1050 btu * 0.80 = 34,286 MSCF/mo

- Therefore October '89 adjusted from 35,583 down to 34,286 Mscf/month.

Note 1: Data starts chronologically at this point.

Midway Sunset steam generator historical fuel use data.
File HAE3_QTR.WQ1

mrb

Chevron ERC project 930509

Heavy Oil Western source.

Historical fuel use.

Convert monthly data (project 900716) to quarterly.

Cymric Steam Generators

(Sections 7 & 16 of T30S-R22E)

This worksheet converts monthly data (in project 900716) to quarterly data for use in emissions calculations for this ERC project.

		S-1128-4		S-1128-5		S-1128-27		S-1128-28	
		4008032		4008033		4008083		4008084	
Qtr	Month (2 yrs)	oil bbl	gas Mscf	oil bbl	gas Mscf	oil bbl	gas Mscf	oil bbl	gas Mscf
	Jan 1	5,355	0	4,311	0	4,557	0	3,817	0
	Jan 2	0	28,048	0	17,247	0	15,995	0	17,963
1	Feb 1	5,461	0	3,803	0	3,937	0	3,949	0
	Feb 2	0	11,459	0	26,997	0	11,381	0	22,730
	Mar 1	4,671	11,598	3,285	7,197	3,423	6,044	3,451	7,416
	Mar 2	0	20,059	0	14,504	0	0	0	21,890
Subtotal=		15,487	71,164	11,399	65,945	11,917	33,420	11,217	69,999
Subtotal/2 =		7,744	35,582	5,700	32,973	5,959	16,710	5,609	35,000
	Apr 1	1,802	22,105	1,321	19,012	1,452	20,004	1,223	18,103
	Apr 2	0	9,267	0	18,107	0	4,795	0	26,682
2	May 1	0	33,902	0	29,752	0	30,073	0	29,064
	May 2	0	21,006	0	6,178	0	16,635	0	14,486
	Jun 1	3,877	2,818	3,025	2,021	2,038	10,150	3,407	1,736
	Jun 2	0	26,927	0	29,657	0	30,542	0	29,680
Subtotal=		5,679	116,025	4,346	104,727	3,490	112,199	4,630	119,751
Subtotal/2 =		2,840	58,013	2,173	52,364	1,745	56,100	2,315	59,876
	Jul 1	4,102	0	3,779	0	4,013	0	3,571	0
	Jul 2	0	16,205	0	23,994	0	28,139	0	12,481
3	Aug 1	5,284	0	4,238	0	3,920	0	3,649	0
	Aug 2	0	8,986	0	20,718	0	13,983	0	20,915
	Sep 1	4,770	3,126	3,617	2,619	3,645	2,164	3,763	2,439
	Sep 2	0	14,243	0	22,125	0	16,208	0	22,312
Subtotal=		14,156	42,560	11,634	69,456	11,578	60,494	10,983	58,147
Subtotal/2 =		7,078	21,280	5,817	34,728	5,789	30,247	5,492	29,074
	Oct 1	5,619	0	4,370	0	4,149	0	4,163	0
	Oct 2	0	7,676	0	21,100	0	27,471	0	22,368
	Nov 1	5,437	0	3,729	0	4,575	0	4,469	0
4	Nov 2	0	22,200	0	12,083	0	18,139	0	26,949
	Dec 1	5,729	0	4,325	0	4,804	0	4,627	0
	Dec 2	0	24,424	0	21,775	0	3,157	0	26,004
Subtotal=		16,785	54,300	12,424	54,958	13,528	48,767	13,259	75,321
Subtotal/2 =		8,393	27,150	6,212	27,479	6,764	24,384	6,630	37,661

Separate location

The generators are limited to 100% use, 93% throttle.

Therefore fuel use cannot be greater than:

Oil: 62.5 mmbtu/hr * 24 hr/day * 30 day/mo * bbl/6.2 mmbtu * 0.93 = 6,750 bbl/mo.

Gas: 62.5 * 10E3 * 24 * 30 * scf/1050 btu * 0.93 = 42,857 MSCF

File HAE1_QTR.WQ1

Cymric steam generators

mrb

APPENDIX C

Emissions calculations spreadsheets.

mrb
proj 930509

ERC S-0205-2, AER CALCULATIONS

(NOx)

S-1128-15, 16, 17, 18 & 19

Steam Generators 4008070, '71, '72, '73 & '74.
Calculation of HAE & AER (convert to gas-firing & add fgr)

TAFT Steam Generators

(Section 2 - Township11N - Range24W)

AER = HAE x delta CE. Note, 10% air quality improvement deduction required.
HAE = emission factor x fuel used. Oil = 1.24 lb NOx per Bbl. Gas = 92 lb NOx/mmscf.
delta CE = (EF original - EF new) / (EF original)
oil = previous source test value, 0.2 lb NOx/mmbtu.
gas only (PTO limit) = 0.08 lb/mmbtu
gas with fgr = permit limit = 0.043 lb/mmbtu
delta CE (oil to ng) = (0.2 - 0.08)/(0.2) = 0.60
delta CE (oil to ng w fgr) = (0.2 - 0.043)/(0.2) = 0.785

	S-1128-15		S-1128-16		S-1128-17		S-1128-18		S-1128-19		
	4008070		4008071		4008072		4008073		4008074		
Qtr	Oil	Gas	Oil	Gas	Oil	Gas	Oil	Gas	Oil	Gas	
	11,333	0	14,606	0	9,986	0	10,140	0	11,139	0	Fuel used (Bbl,Mscf)
	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	Em Factor
1	14,053	0	18,111	0	12,383	0	12,574	0	13,812	0	HAE (lb/Qtr)
	0.600	0.000	0.785	0.000	0.785	0.000	0.600	0.000	0.785	0.000	Delta CE
	8,432	0	14,217	0	9,720	0	7,544	0	10,843	0	AER (lb/Qtr)
Qtr 1 total =		50,756	lb/quarter NOx (All four sg's total)								
less 10%		5,076	lb/quarter NOx, AQID (Air Quality Improvement Deduction).								
Q1 AER =		**45,681**	**lb/quarter NOx**								
	10,383	0	8,752	0	14,124	0	13,044	0	13,925	0	Fuel used (Bbl,Mscf)
	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	Em Factor
2	12,875	0	10,852	0	17,514	0	16,175	0	17,267	0	HAE (lb/Qtr)
	0.600	0.000	0.785	0.000	0.785	0.000	0.600	0.000	0.785	0.000	Delta CE
	7,725	0	8,519	0	13,748	0	9,705	0	13,555	0	AER (lb/Qtr)
Qtr 2 total =		53,252	lb/quarter NOx (All four sg's total)								
less 10%		5,325	lb/quarter NOx, AQID (Air Quality Improvement Deduction).								
Q2 AER =		**47,927**	**lb/quarter NOx**								
	7,741	0	14,872	0	13,803	0	7,615	0	12,319	0	Fuel used (Bbl,Mscf)
	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	Em Factor
3	9,599	0	18,441	0	17,116	0	9,443	0	15,276	0	HAE (lb/Qtr)
	0.600	0.000	0.785	0.000	0.785	0.000	0.600	0.000	0.785	0.000	Delta CE
	5,759	0	14,476	0	13,436	0	5,666	0	11,991	0	AER (lb/Qtr)
Qtr 3 total =		51,328	lb/quarter NOx (All four sg's total)								
less 10%		5,133	lb/quarter NOx, AQID (Air Quality Improvement Deduction).								
Q3 AER =		**46,196**	**lb/quarter NOx**								
	11,346	514	12,873	0	11,179	0	9,741	0	10,984	0	Fuel used (Bbl,Mscf)
	1.240	0.080	1.240	0.000	1.240	0.000	1.240	0.000	1.240	0.000	Em Factor
4	14,069	41	15,963	0	13,862	0	12,079	0	13,620	0	HAE (lb/Qtr)
	0.600	0.000	0.785	0.000	0.785	0.000	0.600	0.000	0.785	0.000	Delta CE
	8,441	0	12,531	0	10,882	0	7,247	0	10,692	0	AER (lb/Qtr)
Qtr 4 total =		49,793	lb/quarter NOx (All four sg's total)								
less 10%		4,979	lb/quarter NOx, AQID (Air Quality Improvement Deduction).								
Q4 AER =		**44,813**	**lb/quarter NOx**								
	ng only		ng & fgr		ng & fgr		ng only		ng & fgr		

File TAFT_EM.wq1
Actual Emissions Reductions calculations for TAFT Steam Generators.
Five sg's converted to gas-firing, 3 units added fgr.

mrb

mrb
proj 930509

ERC S-0262-2, AER CALCULATIONS

S-1128-57 and '58.

Steam Generators 4008175 & '176.
Calculation of HAE & AER. Convert to gas-firing only & add fgr.

MIDWAY SUNSET Steam Generators

(Section 26 - Township 32S - Range 23E)

AER = HAE x delta CE. Note, 10% air quality improvement deduction required.
HAE = emission factor x fuel used. Uncontrolled Natural Gas = 92 lb NOx/mmscf.
delta CE = (EF original - EF new) / (EF original)
gas-fire only = 0.092 lb/Mscf @ 1050 btu/scf = 0.088 lb/mmbtu
gas-fire with fgr = permit limit = 0.052 lb/mmbtu
delta CE (gas-fire to gas-fire w fgr) = (0.088 - 0.052)/(0.088) = 0.41

	S-1128-57		S-1128-58		
	4008175		4008176		
Qtr	Oil	Gas	Oil	Gas	
	0	85,796	0	41,417	Fuel used (Mscf)
	0.0000	0.0920	0.0000	0.0920	Em Factor
1	0	7,893	0	3,810	HAE (lb/Qtr)
	0.000	0.410	0.000	0.410	Delta CE
	0	3,236	0	1,562	AER (lb/Qtr)
Qtr 1 total =		4,798	lb/quarter NOx		
less 10%		480	lb/quarter NOx, AQID (Air Qual Improvmt Deduct).		
Q1 AER =		**4,319**	**lb/quarter NOx**		
	0	83,662	0	73,862	Fuel used (Bbl,Mscf)
	0.0000	0.0920	0.0000	0.0920	Em Factor
2	0	7,697	0	6,795	HAE (lb/Qtr)
	0.000	0.410	0.000	0.410	Delta CE
	0	3,156	0	2,786	AER (lb/Qtr)
Qtr 2 total =		5,942	lb/quarter NOx (All four sg's total)		
less 10%		594	lb/quarter NOx, AQID (Air Qual Improvmt Deduct).		
Q2 AER =		**5,348**	**lb/quarter NOx**		
	0	65,684	0	81,812	Fuel used (Bbl,Mscf)
	0.0000	0.0920	0.0000	0.0920	Em Factor
3	0	6,043	0	7,527	HAE (lb/Qtr)
	0.000	0.410	0.000	0.410	Delta CE
	0	2,478	0	3,086	AER (lb/Qtr)
Qtr 3 total =		5,564	lb/quarter NOx (All four sg's total)		
less 10%		556	lb/quarter NOx, AQID (Air Qual Improvmt Deduct).		
Q3 AER =		**5,007**	**lb/quarter NOx**		
	0	78,184	0	52,824	Fuel used (Bbl,Mscf)
	0.0000	0.0920	0.0000	0.0920	Em Factor
4	0	7,193	0	4,860	HAE (lb/Qtr)
	0.000	0.410	0.000	0.410	Delta CE
	0	2,949	0	1,993	AER (lb/Qtr)
Qtr 4 total =		4,942	lb/quarter NOx (All four sg's total)		
less 10%		494	lb/quarter NOx, AQID (Air Qual Improvmt Deduct).		
Q4 AER =		**4,447**	**lb/quarter NOx**		

File MID_SUN.wq1
Actual Emissions Reductions calculations for Midway Sunset Steam Generators.
Convert to gas-fire only and add fgr.

mrb

mrb
proj 930509

ERC S-0264-2, AER CALCULATIONS

(NOx)

S-1128-28

Steam Generator 4008084
Calculation of HAE & AER. Convert to gas-fire only & add fgr.

Cymric Steam Generator

(Section 16 of T30S-R22E)

AER = HAE x delta CE. Note, a 10% air quality improvement deduction is required.
HAE = emission factor x fuel used. Oil = 1.24 lb NOx per Bbl. Gas = 92 lb NOx/mmscf.
delta CE = (EF original - EF new) / (EF original)
oil = previous source test value, 0.2 lb NOx/mmbtu.
gas (no fgr) = 0.092 lb/Mscf @ 1050 btu/scf = 0.088 lb/mmbtu
gas (with fgr) = permit limit = 0.044 lb/mmbtu
delta CE (oil to gas w fgr) = (0.2 - 0.044)/(0.2) = 0.78
delta CE (gas to gas w fgr) = (0.088 - 0.044)/(0.088) = 0.5

S-1128-28
4008084

Qtr		Oil	Gas	
		5,609	35,000	Fuel used (Bbl,Mscf)
		1.2400	0.0920	Em Factor
1		6,955	3,220	HAE (lb/Qtr)
		0.078	0.500	Delta CE
		543	1,610	AER (lb/Qtr)
Qtr 1 total =	2,153	lb/qtr NOx (One steam generator)		
less 10%	215	lb/qtr NOx, AQID (Air Qual Improvemt Deduction).		
Q1 AER =	**1,937**	**lb/quarter NOx**		
		2,315	59,876	Fuel used (Bbl,Mscf)
		1.2400	0.0920	Em Factor
2		2,871	5,509	HAE (lb/Qtr)
		0.078	0.500	Delta CE
		224	2,754	AER (lb/Qtr)
Qtr 2 total =	2,978	lb/qtr NOx (One steam generator)		
less 10%	298	lb/qtr NOx, AQID (Air Qual Improvemt Deduction).		
Q2 AER =	2,680	lb/quarter NOx, however surplus creditable (pg3)= **2,508 lb/qtr**		
		5,492	29,074	Fuel used (Bbl,Mscf)
		1.2400	0.0920	Em Factor
3		6,810	2,675	HAE (lb/Qtr)
		0.078	0.500	Delta CE
		531	1,337	AER (lb/Qtr)
Qtr 3 total =	1,869	lb/qtr NOx (One steam generator)		
less 10%	187	lb/qtr NOx, AQID (Air Qual Improvemt Deduction).		
Q3 AER =	**1,682**	**lb/quarter NOx**		
		6,630	37,661	Fuel used (Bbl,Mscf)
		1.2400	0.0920	Em Factor
4		8,221	3,465	HAE (lb/Qtr)
		0.078	0.500	Delta CE
		641	1,732	AER (lb/Qtr)
Qtr 4 total =	2,374	lb/qtr NOx (One steam generator)		
less 10%	237	lb/qtr NOx, AQID (Air Qual Improvemt Deduction).		
Q4 AER =	**2,136**	**lb/quarter NOx**		

2787
2787
2,508

File CYM2_EM.wq1
Actual Emissions Reductions calculations for Cymric Steam Generator section 16.

mrb
Second quarter AER > surplus, therefore the ERC adjusted to creditable amt = 2,508 lb/qtr.

See Pg 3 for surplus discussion.

mrb
proj 930509

3

ERC # S-026[illegible]-2, AER CALCULATIONS

(NOx)

S-1128-4, '5 & '27

Steam Generators 4008032, '33 & '83.
Calculation of HAE & AER. Convert to gas-firing & add fgr.

Cymric Steam Generators

(Section 7 of T30S-R22E)

AER = HAE x delta CE. Note, a 10% air quality improvement deduction required.
HAE = emission factor x fuel used. Oil = 1.24 lb NOx per Bbl. Gas = 92 lb NOx/mmscf.
delta CE = (EF original - EF new) / (EF original)
oil = previous source test value, 0.2 lb NOx/mmbtu, 1.24 lb/Bbl.
gas (no fgr) = 0.092 lb/Mscf @ 1050 btu/scf = 0.088 lb/mmbtu
gas (with fgr) = permit limit = 0.044 lb/mmbtu
delta CE (oil to gas-fire w fgr) = (0.2 - 0.044)/(0.2) = 0.78
delta CE (gas-fire to gas-fire w fgr) = (0.088 - 0.044)/(0.088) = 0.5

Qtr	S-1128-4 4008032 Oil	S-1128-4 4008032 Gas	S-1128-5 4008033 Oil	S-1128-5 4008033 Gas	S-1128-27 4008083 Oil	S-1128-27 4008083 Gas		
	7,744	35,582	5,700	32,973	5,959	16,710	Fuel used (Bbl,Mscf)	
	1.2400	0.0920	1.2400	0.0920	1.2400	0.0920	Em Factor	
1	9,603	3,274	7,068	3,034	7,389	1,537	HAE (lb/Qtr)	
	0.780	0.500	0.780	0.500	0.780	0.500	Delta CE	
	7,490	1,637	5,513	1,517	5,764	769	AER (lb/Qtr)	
Qtr 1 total =		22,689	lb/quarter NOx (All three sg's total)					3592
less 10%		2,269	lb/quarter NOx, AQID (Air Quality Improvement Deduction).					359
Q1 =	20,420	lb/quarter NOx calculated, however surplus creditable (pg 3) =				**3,233 lb/qtr**		3,233
	2,840	58,013	2,173	52,364	1,745	56,100	Fuel used (Bbl,Mscf)	
	1.2400	0.0920	1.2400	0.0920	1.2400	0.0920	Em Factor	
2	3,522	5,337	2,695	4,817	2,164	5,161	HAE (lb/Qtr)	
	0.780	0.500	0.780	0.500	0.780	0.500	Delta CE	
	2,747	2,669	2,102	2,409	1,688	2,581	AER (lb/Qtr)	
Qtr 2 total =		14,194	lb/quarter NOx (All three sg's total)					ø
less 10%		1,419	lb/quarter NOx, AQID (Air Quality Improvement Deduction).					ø
Q2 =	12,775	lb/quarter NOx calculated, however surplus creditable (pg 3) =				**0 lb/qtr**		ø
	7,078	21,260	5,817	34,728	5,789	30,247	Fuel used (Bbl,Mscf)	
	1.2400	0.0920	1.2400	0.0920	1.2400	0.0920	Em Factor	
3	8,777	1,958	7,213	3,195	7,178	2,783	HAE (lb/Qtr)	
	0.780	0.500	0.780	0.500	0.780	0.500	Delta CE	
	6,846	979	5,626	1,597	5,599	1,391	AER (lb/Qtr)	
Qtr 3 total =		22,039	lb/quarter NOx (All three sg's total)					3901
less 10%		2,204	lb/quarter NOx, AQID (Air Quality Improvement Deduction).					390
Q3	19,835	lb/quarter NOx calculated: however surplus creditable (pg 3) =				**3,511 lb/qtr**		3511
	8,393	27,150	6,212	27,479	6,764	24,384	Fuel used (Bbl,Mscf)	
	1.2400	0.0920	1.2400	0.0920	1.2400	0.0920	Em Factor	
4	10,407	2,498	7,703	2,528	8,387	2,243	HAE (lb/Qtr)	
	0.780	0.500	0.780	0.500	0.780	0.500	Delta CE	
	8,118	1,249	6,008	1,264	6,542	1,122	AER (lb/Qtr)	
Qtr 4 total =		24,303	lb/quarter NOx (All three sg's total)					5556
less 10%		2,430	lb/quarter NOx, AQID (Air Quality Improvement Deduction).					556
Q4 =	21,872	lb/quarter NOx calculated: however surplus creditable (pg 3)=				**5,000 lb/qtr**		5000

File CYM1_EM.wq1
Actual Emissions Reductions calculations for 3 Cymric SG's at 7-30S-22E.
Convert to gas-fire only and add fgr. Note: values discounted to "surplus" available.
mrb

See page 3 for discussion of surplus

COMPLIANCE TEST REVIEW

COMPANY - Chevron U.S.A., Inc. DATE 5/15/91

APCD NUMBER - ATC #4006071 M (#50-2)

EPA NUMBER - SJ 77-31, 32, 33, 39 *

REASON FOR TEST - INITIAL (✓) ANNUAL ( ) EPA ( ) - Under ATC '071 M.

SOURCE DESCRIPTION - 1-62.5 MMBTU/hr natural gas-fired unscrubbed steam generator equipped with flue gas recirculation.

TESTING COMPANY - Genesis Environmental Services APCD OBSERVER - Robert Johnson

Limits per ATC '071 M, Chevron's 7/27/90 Rule 424 Plan, ≠ Chevron's 2/16/90 Rule 425.1 Plan: ≠

KERN COUNTY COMPLIANCE

APPLICABLE RULES - 210.1, 407, 407.1, 407.2, 411.1, 422, 424, 426.1, 427

	RESULT	(LIMIT)	RESULT	(LIMIT)	RESULT	(LIMIT)
PM		(0.42) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO4		(0.30) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO2		(0.20) lb/hr		( ) lb/MMBTU		( ) ppm
TOTAL S		( ) lb/hr		(0.078) lb/MMBTU	Rule 424	( ) ppm
FUEL S		( ) %	0.06	(0.75) gr/100scf		( ) ppm
NOx	2.02	(2.71) lb/hr	0.0357	(0.14) lb/MMBTU	Rule 425.1	( ) ppm
HC(NMNE) 1/2		(0.67) lb/hr		( ) lb/MMBTU		( ) ppm
CO	N/D	(1.40) lb/hr		( ) lb/MMBTU		( ) ppm
		( ) lb/hr		( )		( )

≠ ATC '071 M's compliance testing requirements are interpreted as prescribing the following for the unit's initial test: NOx, CO, & fuel sulfur. Note: A fuel sulfur analysis is not required if the fuel is purchased from a PUC company.

Limits per EPA permit SJ 77-31, 32, 33, 39: * EPA COMPLIANCE

	TEST METHOD	TEST RESULT	PERMIT LIMIT
PARTICULATES			
SO2	CAST	N/A	0.145 lb/MMBTU
NOx	"	"	0.50 lb/MMBTU
FUEL SULFUR			

COMMENTS - * The EPA permit is an oil-fire based permit. The SO_2 and NOx source test requirements are judged, by the KCAPCD, as inapplicable to natural gas-fire operation. Also considered inapplicable is the permit's excess O_2 limitation of ≤ 3%.
Notes: 1) Norman Harris, Senior Air Quality Specialist, KCAPCD Compliance Technical Services, indicated, on 5/13/91, that ATC '071 M's reference to 95% throttle in association with the emission limits is to have no bearing on the source test. 2) The fact that ATC '071 M lacks the generator's Rule 424 and 425.1 limits is reported in 5/13/91 memo from Robert Johnson, KCAPCD Compliance Technical Services, to Creighton Smith, KCAPCD Compliance Evaluation.

SOURCE OPERATED AT MAXIMUM CAPACITY - YES (✓) NO ( )

IS ENFORCEMENT ACTION NECESSARY - YES ( ) NO (✓)

REASON FOR ENFORCEMENT ACTION -

COMPLIANCE TEST REVIEW

COMPANY - Chevron U.S.A., Inc. DATE 5/15/91

APCD NUMBER - ATC #4006022 M (#50-3)

EPA NUMBER - SJ 77-31, 32, 33, 39*

REASON FOR TEST - INITIAL (✓) ANNUAL ( ) EPA ( ) - Under ATC '072 M.

SOURCE DESCRIPTION - 1-62.5 MMBTU/hr natural gas-fired evaporative steam generator equipped with flue gas recirculation.

TESTING COMPANY - Genesis Environmental Services APCD OBSERVER - Robert Johnson

Limits per ATC '072 M, Chevron's 7/27/90 Rule 424 Plan, ≠ Chevron's 2/16/90 Rule 425.1 Plan: ≠

KERN COUNTY COMPLIANCE

APPLICABLE RULES - 210.1✓ 407, 407.1, 407.2, 411.1, 422, 424✓ 425.1✓ 427

	RESULT	(LIMIT)	RESULT	(LIMIT)	RESULT	(LIMIT)
PM		(0.42) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO4		(0.30) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO2		(0.20) lb/hr		( ) lb/MMBTU		( ) ppm
TOTAL S		( ) lb/hr		(0.078) lb/MMBTU - Rule 424		( ) ppm
FUEL S		( ) %	0.06	(0.75) gr/100scf		( ) ppm
NOx	2.21	(2.71) lb/hr	0.0375	(0.14) lb/MMBTU - Rule 425.1		( ) ppm
HC(NMNE) C_2		(0.67) lb/hr		( ) lb/MMBTU		( ) ppm
CO	N/D	(1.40) lb/hr		( ) lb/MMBTU		( ) ppm
		( ) lb/hr		( )		( )

≠ ATC '072 M's compliance testing requirements are interpreted as prescribing the following for the unit's initial test: NOx, CO, & fuel sulfur. Note: A fuel sulfur analysis is not required if the fuel is purchased from a PUC company.

* EPA COMPLIANCE

Limits per EPA permit SJ 77-31, 32, 33, 39:

	TEST METHOD	TEST RESULT	PERMIT LIMIT
PARTICULATES			
SO2	PUC GAS FIRED	N/A	0.145 lb/MMBTU
NOx	1.	N/A	0.50 lb/MMBTU
FUEL SULFUR			

COMMENTS - *The EPA permit is an oil-fire based permit. Its SO_2 and NOx source test requirements are judged by the KCAPCD, as inapplicable to natural gas-fire operation. Also considered inapplicable is the permit's excess O2 limitation of ≤ 3%.
Notes: 1) Norman Harris, Senior Air Quality Specialist, KCAPCD Compliance Technical Services, indicated, on 5/13/91, that ATC '072 M's reference to 95% throttle in association with the emission limits is to have no bearing on the source test. 2) The fact that ATC '072 M lacks the generator's Rule 424 and 425.1 limits is reported in 5/13/91 memo from Robert Johnson, KCAPCD Compliance Technical Services, to Creighton Smith, KCAPCD Compliance Evaluation.

SOURCE OPERATED AT MAXIMUM CAPACITY - YES ( ) NO ( )

IS ENFORCEMENT ACTION NECESSARY - YES ( ) NO (X)

REASON FOR ENFORCEMENT ACTION -

44

07 A'N.

REVIEWED BY DATE - 7-2-91

COMPLIANCE TEST REVIEW

COMPANY - Chevron U.S.A., Inc. DATE 5/16/91

APCD NUMBER - ATC #4006074 M (#50-5)

EPA NUMBER - SJ 77-31, 32, 33, 39 *

REASON FOR TEST - INITIAL (✓) ANNUAL ( ) EPA ( ) - Under ATC '074 M.

SOURCE DESCRIPTION - 1-62.5 MMBTU/hr natural gas-fired unscrubbed steam generator equipped with flue gas recirculation.

TESTING COMPANY - Genesis Environmental Services APCD OBSERVER - None

Limits per ATC '074 M, Chevron's 7/27/90 Rule 424 Plan, ‡ Chevron's 2/16/90 Rule 425.1 Plan: ‡

KERN COUNTY COMPLIANCE

APPLICABLE RULES - 210.1✓ 407. 407.1. 407.2. 411.1. 422. 424✓ 426.1✓ 427

	RESULT	(LIMIT)	RESULT	(LIMIT)	RESULT	(LIMIT)
PM		(0.42) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO4		(0.30) lb/hr		( ) lb/MMBTU		( ) gr/scf
SO2		(0.20) lb/hr		( ) lb/MMBTU		( ) ppm
TOTAL S		( ) lb/hr		(0.078) lb/MMBTU - Rule 424		( ) ppm
FUEL S		( ) %	0.06	(0.75) gr/100scf		( ) ppm
NOx	2.33	(2.71) lb/hr	0.0407	(0.14) lb/MMBTU - Rule 425.1		( ) ppm
HC(NMNE) >C2		(0.67) lb/hr		( ) lb/MMBTU		( ) ppm
CO	N/D	(1.40) lb/hr		( ) lb/MMBTU		( ) ppm
		( ) lb/hr		( )		( )

‡ ATC '074 M's compliance testing requirements are interpreted as prescribing the following for the unit's initial test: NOx, CO, & fuel sulfur. Note: A fuel sulfur analysis is not required if the fuel is purchased from a PUC company.

* EPA COMPLIANCE

Limits per EPA permit SJ 77-31, 32, 33, 39:

	TEST METHOD	TEST RESULT	PERMIT LIMIT
PARTICULATES			
SO2			0.145 lb/MMBTU
NOx			0.50 lb/MMBTU
FUEL SULFUR			

COMMENTS - *The EPA permit is an oil-fire based permit. The SO2 and NOx source test requirements are judged by the KCAPCD, as inapplicable to natural gas-fire operation. Also considered inapplicable is the permit's excess O2 limitation of ≤ 3%.
Notes: 1) Norman Harris, Senior Air Quality Specialist, KCAPCD Compliance Technical Services, indicated, on 5/13/91, that ATC '074 M's reference to 95% throttle in association with the emission limits is to have no bearing on the source test. 2) The fact that ATC '074 M locks the generator's Rule 424 and 425.1 limits is reported in 5/13/91 memo from Robert Sakuma, KCAPCD Compliance Technical Services, to Creighton Smith, KCAPCD Compliance Evaluation.

SOURCE OPERATED AT MAXIMUM CAPACITY - YES ( ) NO ( )

IS ENFORCEMENT ACTION NECESSARY - YES ( ) NO (X)

REASON FOR ENFORCEMENT ACTION -

CHEVRON USA Inc.
P.O. Box 1392
Bakersfield, CA 93002

Applicant : J.W. Ault
Division Manager
(805) 395-6500

Contact : Ms. Elizabeth Jackson
(805) 395-6536

Application #15 : 4008070M-074M
Project # : 900605

Project Proposal : Convert five steam generators to exclusively gas-fire and retro-fit three of the generators with a flue gas recirculation (FGR

Project location: Sec 2, T11N-R24W

Application Received Date: June 5, 1990

Project Evaluation by : Mesfin Woldehaimanot
AQE II

I Project Description:

Chevron USA, Inc. is requesting modification of five steam generators to relinquish the fuel oil fire use portion of the permits and retro-fitting the three generators with flue gas recirculation to fire on gas or liquid petroleum gas (LPG).

These modifications will result in NOx emission reductions for 4008070 and 073, and in PM, SO_4, SO_2 and NO_x emission reductions for 4008071, 072 and 074. Actual emission reductions will be calculated according to Section IV of Rule 210.1

II. APPLICABLE RULES AND REGULATIONS:

Applicability

(Place a check mark in space provided if Rule applies)

____ A. Rule 202 (exemptions) - section(s) providing exemption(s):
____ ____ ____ ____ ____

____ 50 lbm/day exemption loss cumulation triggered for:
____ PM_{10} ____ SO_4 ____ SO_2 ____ NO_2 ____ HC

____ B. Rule 205 (Cancellation of Applications)

✓ C. Rule 210.1 (New Source Review) - applicable section(s):
____ section I.O.2. (non-identical replacement)
____ section III.A.2 (compliance certification)
____ section III.B. (section V.A applies)
____ section III.C.1.2. (section V.B. applies)
____ section III.C.2. (hot spot analysis)
____ section III.D.1., 2. (section V.B. exemptions)
____ section V.A. (BACT) reductions expected
____ section V.B. (LAER)
____ section V.B. (modeling)
____ section V.B. (offsets)
____ section V.B.4. (offset ratios)
(non oil production ____ 1.3:1, ____ 2.1:1, or ____ 3.1:1)
(oil production ____ 1.1:1, ____ 1.3:1, or ____ 1.6:1)
____ section V.B.6. (non-standard offset)
____ section V.B.11. (interpollutant offsets)
____ section V.B.12. (small source siting allowance)
____ section VI.B. (permitting of previously permit-exempt equipment)
____ section VII.A. (review period extension)
____ section VII.B. (public notice)
____ section VIII. (subject to CEC review)

____ D. Rule 210.3 (emissions reduction banking)

✓ E. Rule 401 (visible emissions)

✓ F. Rule 404 (valley basin PM concentration)

____ G. Rule 404.1 (desert basin PM concentration)

____ H. Rule 405 (____ valley basin; ____ desert basin PM emission rate)

____ I. Rule 406 (Portland cement kiln PM emission rate)

✓ J. Rule 407 (sulfur compounds)

____ K. Rule 407.1 (disposal of solid and liquid waste)
___ section I. ___ section II. ___ section III. ___ section IV.

✓ L. Rule 407.2 (combustion contaminants)

II. APPLICABLE RULES AND REGULATIONS (Cont.):

_____ M. Rule 408 (valley basin SOx, NOx, and PM emission rates) (fuel burning equipment)
_____ exemption granted

_____ N. Rule 409 (desert basin SOx, NOx, and PM emission rates) (fuel burning equipment)

_____ O. Rule 410 (organic solvents)
_____ section I. _____ section II.
_____ section III. _____ section VIII. (exemption)

_____ P. Rule 410.2 (disposal and evaporation of solvents)

_____ Q. Rule 410.3 (degreasing operations)
_____ section II. _____ section III. _____ section IV. (exemption)

_____ R. Rule 410.4 (surface coating)
_____ section II. _____ section III. _____ section IV. (exemption)

_____ S. Rule 410.6 (perchloroethylene dry cleaning systems)
_____ section II. _____ section IV. (exemption)

_____ T. Rule 410.7 (graphic arts)
_____ section IV. _____ section VII. (exemption)

_____ U. Rule 411 (storage of petroleum distillates or light crude)
_____ section I.A.1. (welded tank/metallic shoe primary seal)
_____ section I.A.2. (welded tank/resilient toroid primary seal)
_____ section I.A.3. (riveted tank/metallic shoe primary seal)
_____ section I.A.4. (closure device equivalent to I.A.1.)
_____ section I.B. (fixed roof with internal floating roof)
_____ section I.C. (fixed roof with vapor control system)
_____ section III. (above ground gasoline storage tank vapor control requirements)
_____ section VIII (emergency standby exemption)
_____ vapor pressure exemption
_____ size exemption
_____ throughput exemption

_____ V. Rule 411.1 (steam drive wells)
_____ cyclic well exemption
_____ section IV.B. (wellhead temperature increase exemption)
_____ section IV.C. (pseudo-cyclic well exemption)

_____ W. Rule 412 (gasoline storage tanks)

_____ X. Rule 412.1 (refueling of motor vehicles)

_____ Y. Rule 413 (organic liquid loading)
_____ non-"VOC-liquid" exemption
_____ vapor pressure exemption
_____ throughput exemption

_____ Z. Rule 414 (wastewater separator)
_____ section II.
_____ section III. (exemptions)

(5)

II. APPLICABLE RULES AND REGULATIONS (Cont.):

_____ AA. Rule 414.1 (valves, pressure relief valves, and flanges) (refineries & chemical plants)
_____ sections II., III., IV., V., and VI.
_____ section VII. (exemption)

_____ BB. Rule 414.2 (vacuum producing devices or systems)

_____ CC. Rule 414.3 (refinery process unit turnaround)

_____ DD. Rule 414.5 (pump and compressor seals) (refineries)
_____ sections III., IV., V., and VI.
_____ section IX. (exemption)

_____ EE. Rule 414.6 (heavy oil test station)

_____ FF. Rule 414.7 (component inspection and maintenance requirements) (light oil, produced gas, gas plants)

_____ GG. Rule 415 (reduction of animal matter)

_____ HH. Rule 418 (incinerator burning)

_✓_ II. Rule 419 (nuisance)

_____ JJ. Rule 422 (New Source Performance Standards)
_____ subpart _____ - _____
_____ subpart _____ - _____

_____ KK. Rule 423 (National Emission Standards for Hazardous Air Pollutants)

_____ LL. Rule 424 (sulfur compounds from oil field steam generators)
_____ section II. (standards) _____ section IV. (averaging)
_____ section V. (exemption) _____ section VI. (exemption)
_____ size exemption _____ "non-existing" steam generator

_____ MM. Rule 425 (replaced 4/18/89 by Rule 425.1)

_____ NN. Rule 425.1 (oxides of nitrogen from oil field steam generators)
_____ section II. (standards) _____ section III. (alternate limits)

_____ OO. Rule 427 (I. C. engine emission standards, Central Kern County)

_____ PP. Rule 428 (Commercial Offsite Multiuser Hazardous Waste & Nonhazardous Waste Disposal Facilities)

_____ QQ. Rule 429 (Decorative and Hard Chrome Plating and Chromic Acid Anodizing)

_____ RR. Section 41700 of California Health & Safety Code (risk assessment)

_____ SS. Other applicable requirements:
CEQA (Y/N) _____
EPA Construction Moratorium (Y/N) _____

Memorandum GO-144

To _____ 19____

From _____

Subject _____ Our File _____

Your File _____

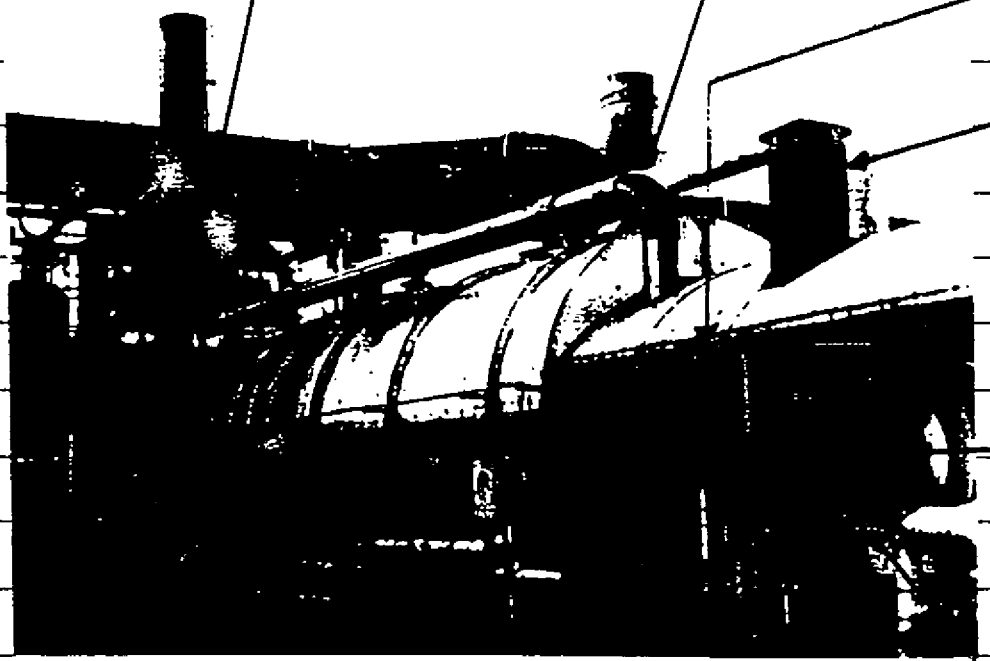


FIGURE 1: SIDE VIEW OF FGR SYSTEM ON NORTH AMERICAN STEAM GENERATOR #15 AT 25D COALINGA.

IV. EQUIPMENT LISTING:

(A) Five 62.5 MMBtu/hr steam generators 4008070, 071, 072, 073 and 074.
(B) Oxygen controller
(C) Lo-Nox burner
(D) North American 4131-G-LNX FGR System (on 4008071, 072 and 074)

V. Design Review of Air Pollution Control Equipment:

The flue gas recirculation (FGR) system introduces inert gases into the combustion process of steam generation, supressing the combustion temperature, thereby not allowing oxides of nitrogen to form. This process is accomplished by recirculating flue gasses produced by the combustion process into the steam generator blower inlet. Combustion gasses are combined with ambient air at this point. Three of the five steam generators will be modified with the addition of a 12" duct from the convection section hood to the blower inlet. The other two steam generators will be fired with fuel gas or liquid petroleum gas and will not be fitted with FGR.

VI. Calculation of Emission Rates:

(A) Current Emissions: (Actual)

The following fuel oil consumption data has been recorded for the period April 88 - March 90.

ATC #	24 Month Cum BBl
4008070	81603
4008071	102204
4008072	98182
4008073	81077
4008074	96732

Emissions are calculated as follows:

- NO_x (lbs/day) = [gas fire NO_x emission factor (lbs/MSCF) * 24 mo. cum. gas usage (MSCF)] + [oil fire NO_x emission factor (lbs/MMBtu) * 24 mo. cum. oil usage (BBl) * oil heating value (MMBtu/BBl)] / [2 (yr) * 365 (Days/yr.)].

- SO_2 (lbs/day) = [gas fire SO_2 emission factor (lbs/MSCF) * 24 mo. cum. gas usage (MSCF)] + [oil fire SO_2 emission factor (lbs/MMBtu) * 24 mo. cum. oil usage (BBl) * oil heating value (MMBtu/BBl)] / [2 (yr) * 365 (Days/yr)].

- PM (lbs/day) = [gas fire PM emission factor (lbs/MSCF) * 24 mo. cum. gas usage (MSCF)] + [oil fire PM emission factor (lb/MMBtu) * 24 mo. cum. oil usage (BBl) * oil heating value (MMBtu/BBl)] / [2 (yr) * 365 (days/yr)].

VI Calculation of Emissions: (continued)

(A) Current Emissions: (Actual) (continued)

Note that per applicant TSP * 99/100 = PM-10

Source Test Information:

ATC	PM	SO_4	SO_2	NO_x *	HC	CO
				lb/MMBtu		
4008070	No change	No change	No change	0.2845	No change	No change
071	0.0281	0.0092	0.0272	0.2878	No change	No change
072	0.0378	0.0138	0.0412	0.2848	No change	No change
073	No change	No change	No change	0.2946	No change	No change
074	0.0365	0.0174	0.0154	0.2995	No change	No change

* Use 0.2000 lb/MMBtu

The following current emissions (actual) are calculated: (less than what is authorized by ATC or PTO).

ATC #	PM-10	SO_4	SO_2	NO_x	HC *	CO *
4008070	~~72.14~~ 71.47 *	32.64 *	128.10 *	139.67	15.31 *	32.00 *
071	~~24.63~~ 24.39	8.06	23.84	175.30	15.31 *	32.00 *
072	~~31.84~~ 31.52	11.62	34.70	167.89	15.31 *	32.00 *
073	~~72.49~~ 71.47 *	32.64 *	128.10 *	138.66	15.31 *	32.00 *
074	~~30.32~~ 30.02	14.45	12.79	166.13	15.31 *	32.00 *
Total	~~237.17~~ 228.86	99.41	327.53	787.65	76.55	160.00

* Emissions remain unchanged per applicant (ie not based on source test and actual throughput)

PM-10 = 99% of TSP

VI Calculation of Emissions: (continued)

(B) Proposed Emissions:

for permit #4008071, 4008072 and 4008074

(1) Oxides of Nitrogen (NOx)
- (a) 2.57 lbm/hr
- (b) 61.79 lbm/day

(2) Oxides of Sulfur (SO_2 & SO_4)
- (a) 4.56 lbm/day (of SO_2)
- (b) 6.77 lbm/day (of SO_4)

(3) Particulate Matter (PM)
9.48 lbm/day 99% PM-10

(4) Hydrocarbons (HC) (no emissions change requested).
1 lbm/hr (same as existing limit on PTO).

(5) Carbon Monoxide (CO) (no emissions change requested)
2.08 lbm/hr (same as existing limit on PTO).

For Permit #'s 4008070 and 4008073
(These generators will burn vapor recovery and casing collection gas).

(1) Oxides of Nitrogen (NOx)
- (a) 4.75 lbm/hr
- (b) 114.00 lbm/day

(2) Oxides of Sulfur (SO_x) no emissions change requested
- (a) 8.34 lbm/hr (as SO_2) (same as existing limit on PTO)
- (b) 2.12 lbm/hr (as SO_4) (same as existing limit on PTO)

VI Calculation of Emissions: (Continued)

(B) Proposed Emissions: (Continued)

(3) Particulate Matter (PM) (no emissions change requested)
4.70 lbm/hr (same as existing limit on PTO)

(4) Hydrocarbons (HC) (no emissions change requested)
1 lbm/hr (same as existing limit on PTO)

(5) Carbon Monoxide (CO) (No emission change requested)
2.08 lbm/hr (same as existing limit on PTO).

ATC #	PM	SO_4	SO_2	NO_x	HC	CO
4008070	71.47	32.64	128.10	114.00	15.31	32.00
071	9.48	6.77	4.56	61.79	15.31	32.00
072	9.48	6.77	4.56	61.79	15.31	32.00
073	71.47	32.64	128.10	114.00	15.31	32.00
074	9.48	6.77	4.56	61.79	15.31	32.00
TOTAL	171.38	85.59	269.88	413.37	76.55	160.00

(C) Emission Rate Change:

ATC # 4008070	PM	SO_4	SO_2	NO_x	HC	CO
Proposed Em.	71.47	32.64	128.10	114.00	15.31	32.00
Current Em.	71.47	32.64	128.10	139.67	15.31	32.00
Em. Reduction	0	0	0	-25.67	0	0
less 10%	0	0	0	2.57	0	0
Net Em. Credit	0	0	0	-23.10	0	0

(D) Emission sampling limits will be calculated for 95% throttle and 100% use factors as specified by applicant. (See page 5 "Operating Schedule" of Application support material).

VI Calculation of Emissions: (Continued)

C. Emission Rate Change: (Continued)

ATC # 4008071	PM-10	SO_4	SO_2	NO_x	HC	CO
Proposed Em.	9.48	6.77	4.56	61.79	15.31	32.00
Current Em.	24.39	5.06	23.84	175.30	15.31	32.00
Em. Reduction	-14.91	-1.29	-19.28	-113.51	0	0
less 10%	1.49	0.13	1.93	11.35	0	0
Net Em. Credit	-13.42	-1.16	-17.35	-102.16	0	0

↳ 99% of TSP

ATC # 4003072	PM-10	SO_4	SO_2	NO_x	HC	CO
Proposed Em.	9.48	6.77	4.56	61.79	15.31	32.00
Current Em.	31.52	11.62	34.70	167.89	15.31	32.00
Em. Reduction	-22.04	-4.85	-30.14	-106.10	0	0
less 10%	2.20	0.49	3.01	10.61	0	0
Net Em. Credit	-19.84	-4.36	-27.13	-95.49	0	0

ATC # 4008073	PM-10	SO_4	SO_2	NO_x	HC	CO
Proposed Em.	71.47	32.64	128.10	114.00	15.31	32.00
Current Em.	71.47	32.64	128.10	138.66	15.31	32.00
Em. Reduction	0	0	0	-24.66	0	0
less 10%	0	0	0	2.47	0	0
Net Em. Credit	0	0	0	-22.19	0	0

VI Calculation of Emissions: (Continued)

(C) Emission Rate Change: (Continued)

ATC # 4003074	PM-10	SO_4	SO_2	NO_x	HC	CO
Proposed Em.	9.48	6.77	4.56	61.79	15.31	32.00
Current Em.	30.02	14.45	12.79	166.13	15.31	32.00
Em. Reduction	-20.54	-7.68	-8.23	-104.34	0	0
less 10%	2.05	0.77	0.82	10.43	0	0
Net Em. Credit	-18.49	-6.91	-7.41	-93.91	0	0

Summary of Emission Rate Changes: (After SSSA deduction)

ATC #	PM	SO_4	SO_2	NO_x	HC	CO
4008070	0	0	0	-23.10	0	0
4008071	-13.42	-1.16	-17.35	-102.16	0	0
4008072	-19.84	-4.36	-27.13	-95.49	0	0
4008073	0	0	0	-22.19	0	0
4008074	-13.49	-6.91	-7.41	-93.91	0	0
Total	-51.75	-12.43	-51.89	-336.85	0	0
SSSA	+5.74	+1.39	+5.76	+37.43	0	0

VII Preparation of Emission Profiles: (Simplified)

(A) Current Profile:

ATC #	PM-10	SO_4	SO_2	NO_x	HC	CO
4008070	71.47	32.64	128.10	139.67	15.31	32.00
071	24.39	8.06	23.84	175.30	15.31	32.00
072	31.52	11.62	34.70	167.89	15.31	32.00
073	71.47	32.64	128.10	138.66	15.31	32.00
074	30.02	14.45	12.79	166.13	15.31	32.00
TOTAL	228.86	99.41	327.53	787.65	76.55	160.00

(B) Adjustments Since 9/12/79: Western Heavy Oil S.S.

(See pages (15) – (31))

PM	SO_4	SO_2	NO_x	HC	CO
0	164.71	-749.62	0	89.78	3026.30

(C) Proposed Profile:

ATC #	PM	SO_4	SO_2	NO_x	HC	CO
4008070	71.47	32.64	128.10	114.00	15.31	32.00
071	9.48	6.77	4.56	61.79	15.31	32.00
072	9.48	6.77	4.56	61.79	15.31	32.00
073	71.47	32.64	128.10	114.00	15.31	32.00
074	9.48	6.77	4.56	61.79	15.31	32.00
Total	171.38	85.59	269.88	413.37	76.55	160.00

EMISSIONS PROFILES: All Emissions lbm/day

A. Current Profile = The sum of the authorized emission rates represented by Permits to Operate and Authorities to Construct

	PM10	SO4	SO2	NO2	HC	CO
Current Profile =	228.86	99.41	327.53	787.65	76.55	160.00

B. Adjusted Current Profile = (Current Profile) - (Sum of authorized emissions changes represented by Authorities to Construct issued after 9/2/92)

	PM10	SO4	SO2	NO2	HC	CO
Current Profile =	228.86	99.41	327.53	787.65	76.55	160.00
Sum of Changes =	0	164.71	-749.62	0	89.78	3026.30
A.C. Profile =	228.86	-65.30	1077.15	787.65	-13.23	-2866.30

C. Proposed Profile = The sum of the authorized emission rates represented by permits to Operate and Authorities to Construct after implementation of this project. (See pages (12) for a tabulation of these values).

	PM10	SO4	SO2	NO2	HC	CO
Proposed Prof. =	171.38	85.59	269.88	413.37	76.55	160.00

D. Project's Net Emission Change = (Proposed Profile pg (12) - Current Profile pg (14))

	PM10	SO4	SO2	NO2	HC	CO
Proposed Profile =	171.38	85.59	269.88	413.37	76.55	160.00
Current Profile =	228.86	99.41	327.53	787.65	76.55	160.00
Net Change =	-57.48	-13.82	-57.65	-374.28	0	0

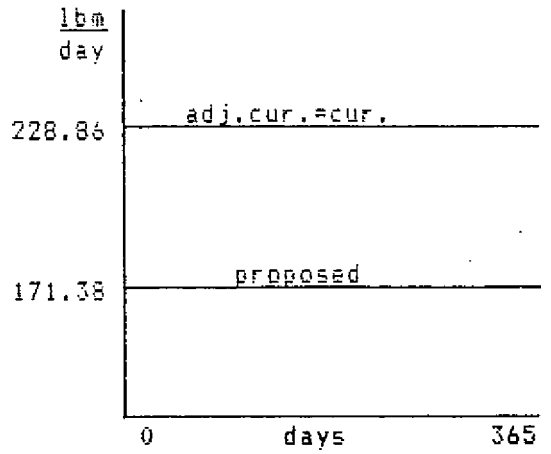
E. Cumulative Change = (Proposed Profile pg (14))+(SSSA Changes pg (13)) -(A.C. Profile pg (14A))

	PM10	SO4	SO2	NO2	HC	CO
Proposed Profile =	171.38	85.59	269.88	413.37	76.55	160.00
SSSA Changes =	5.74	1.39	5.76	37.43	0	0
A.C. Profile =	228.86	-65.30	1077.15	787.65	-13.23	-2866.30
Banking Cert.						
Cumulative Chg =	-51.74	152.29	-801.51	-336.85	89.78	3026.30

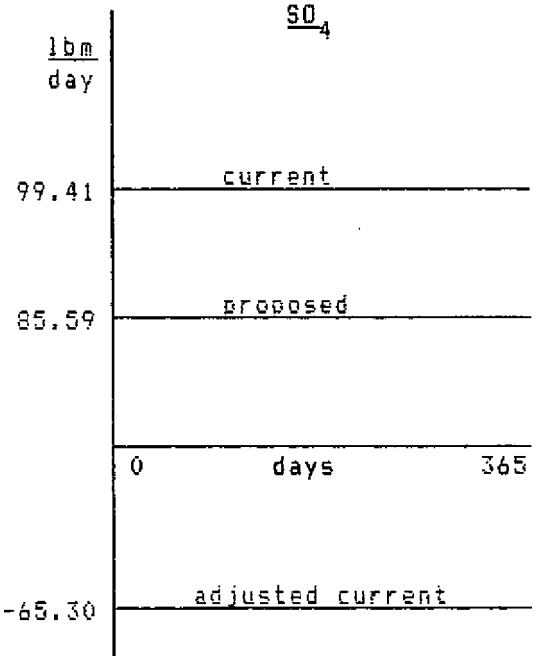
(14B)

Proposed Emissions
Simplified

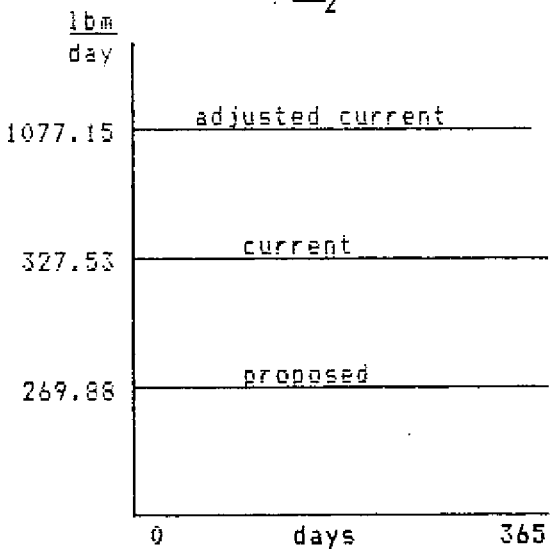
PM



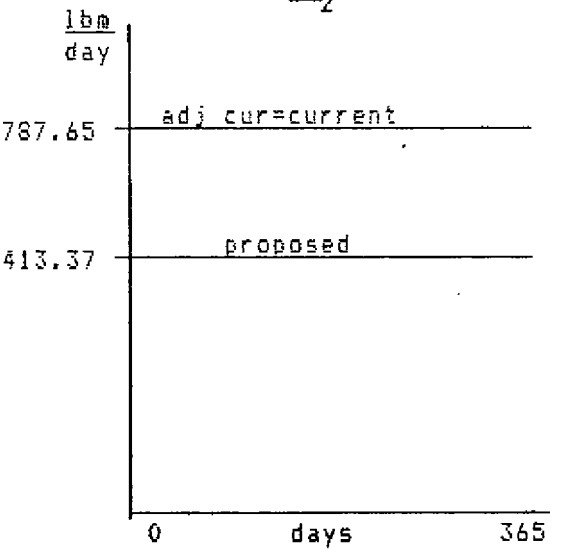
SO_4



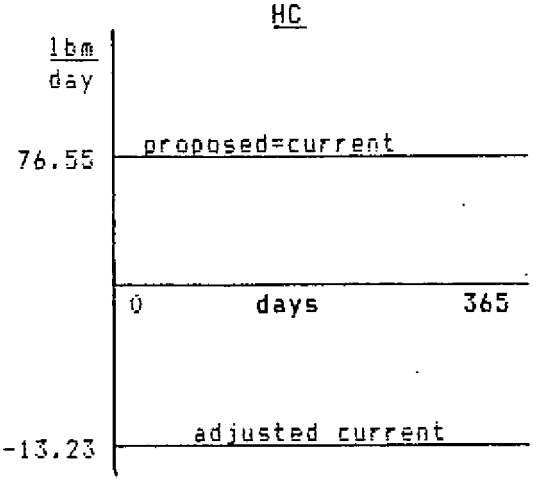
SO_2



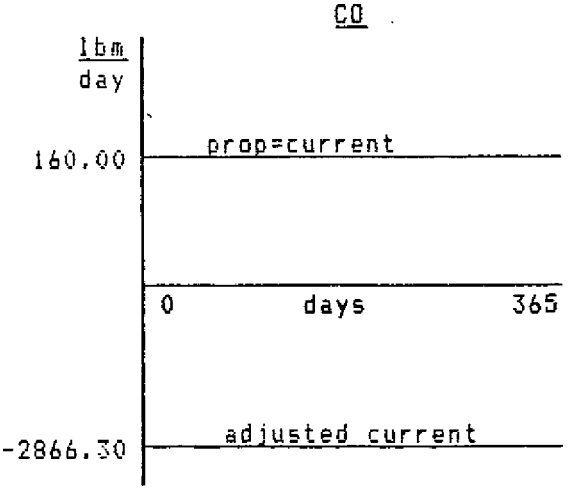
NO_2



HC



CO



VIII Conclusions:

Rule 210.1

Applicant has proposed emission reductions credits. Fuel oil consumption data for the period April 1988 to March 1990 has been submitted as most representative for the last five years. Emission factors less than what was gotten from source tests have been used in calculating current emission rates. Therefore actual emission reductions have been calculated per Rule 210.1 section IV.A.1

Rule 401 - Visible emissions

No visible emissions can be expected

Rule 404 - Valley basin PM Concentration

Steam generator fuel consumption

$$62.5 \times 10^6 \frac{Btu}{hr} \times \frac{1 scf}{1000 Btu} = 62500 \frac{scf}{hr}$$

at 20% excess air, 12.432 ft^3 of exhaust gas for every scf of fuel ga

$$\text{flue gas} = 62500 \frac{scf}{hr} \times 12.432 \frac{ft^3}{scf\ of\ fuel\ gas}$$

$$= 777000\ ft^3 \text{ exhaust gas/hr}$$

Steam generator PM-10 emission rate = 3.13 lb/hr (worst case value)

$$3.13 \frac{lb}{hr} \times 7000 \frac{gr}{lb} \times \frac{1}{777000 ft^3} = 0.028 \frac{gr}{scf} << 0.1 \frac{gr}{scf}$$

∴ Compliance with Rule 404 can be expected.

Rule 407 - Sulfur compounds

Proposed gas fuel is PUC type, therefore compliance can be expected with Rule 407 (SO_x < 2000 ppm as SO_2)

VIII Conclusions: (Continued)

Rule 407.2 - Fuel Burning Equipment - Combustion Contamina

< 0.1 gr/ft³ of gas @ 12% CO_2 at STP.

PM-10 concentration for Rule 404 was calculated to be 0.028 gr/scf, therefore it can be assumed [PM-10] gr/scf at 12% CO_2 will be less than 0.1 gr/scf.

Rule 408

Compliance is expected

Rule 419

Compliance can be expected

IX Recommendation:

Issue Authority to Construct #'s 400807OM-074M converting steam generators to exclusively gas-fire and to retrofit steam generator ATC #'s 400807'1M, '072M and '074M with flue gas recirculation; apply all appropriate conditions.

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA 93301
TELEPHONE: (805) 861-3682

PERMIT TO OPERATE

Number: 4008070(L)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC. (WEST-SIDE)

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator
Westinghouse/Hagan O2 Controller
Flue Gas Desulfurization Scrubber

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: This permit does not authorize the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: _____

For Period: 02-28-90 TO 02-28-91

CONDITIONAL APPROVAL:
Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

OPERATIONAL CONDITIONS:

1. Particulate emissions shall not exceed grain loading required as a condition of project (requiring installation of scrubber) approval.
2. Visible emissions shall be less than 20% opacity except for three minutes in any one hour.
3. Sulfur compounds emission rate shall not exceed that required as condition of the project approval. (Rule 210.1)
4. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer.
5. Fuel oil sulfur content shall not exceed 1.2% by weight.
6. Scrubber liquor pH shall be maintained between 6.0 and 7.5 and shall be continuously monitored.
7. Scrubber mist eliminator shall be properly cleaned and maintained.
8. Steam generator firebox convection section and all flue gas ductwork shall be gas-tight.
9. No less than 1/2 mile(s) of roadway shall be paved and maintained in good repair.
10. All production wells producing from strata steamed by this generator shall be served by casing vent vapor collection system.
11. Excess combustion air shall be maintained at approximately 10% unless continuous operation oxygen analyzer/controller is utilized.
12. Only dry gas shall be utilized as fuel when firing on natural gas.

13. "Injection of partially spent H2S scrubber caustic into steam generator flue gas scrubber liquor recirculation tank shall not result in changes to existing operation or emission limits." (Rule 210.1)
14. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 20 gpm/1000 acfm. (Rule 209)
15. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling (yearly).
16. Scrubber liquor shall be conditioned with an adequate amount of scale and foam inhibitor. (Rule 210.1)
17. Injection of partially spent caustic into steam generator flue gas scrubber fresh water makeup line shall not result in changes to existing operation or emission limits. (Rule 210.1)
18. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling. (yearly)
19. This Authority to Construct does not authorize any equipment or emission rate changes.
20. This Authority to Construct replaces #4008070(K). (Rule 210.1)

EMISSION SAMPLING LIMITS:

Particulates:	4.70	lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34	lbm/hr	(of SO2) (Rule 210.1)
	2.12	lbm/hr	(of SO4) (Rule 210.1)
	0.078	lbm/MM Btu	(as S) (Rule 210.1)
Oxides of Nitrogen:	18.75	lbm/hr	(as NO2) (Rule 210.1)
	0.30	lbm/MM Btu	(as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr	(Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENTS:

Compliance with emission limits for SO_2, SO_4, and PM_{10}, shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment and annually 60 days prior to permit anniversary date and official test results and field data submitted within 30 days thereafter. Sampling is not required of a correctly operating fuel gas or incineration system. (Rule 108.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

PERMIT TO OPERATE

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA. 93301
TELEPHONE: (805) 861-3682

Number: 4008071(L)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC. (WEST-SIDE)

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator
Westinghouse/Hagan O2 Controller
Flue Gas Desulfurization Scrubber

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: This permit does not authorize the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: _____

For Period: 02-28-90 TO 02-28-91

CONDITIONAL APPROVAL:
Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

OPERATIONAL CONDITIONS:

1. Particulate emissions shall not exceed grain loading required as a condition of project (requiring installation of scrubber) approval.
2. Visible emissions shall be less than 20% opacity except for three minutes in any one hour.
3. Sulfur compounds emission rate shall not exceed that required as condition of the project approval. (Rule 210.1)
4. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer.
5. Fuel oil sulfur content shall not exceed 1.2% by weight.
6. Scrubber liquor pH shall be maintained between 6.0 and 7.5 and shall be continuously monitored.
7. Scrubber mist eliminator shall be properly cleaned and maintained.
8. Steam generator firebox convection section and all flue gas ductwork shall be gas-tight.
9. No less than 1/2 mile(s) of roadway shall be paved and maintained in good repair.
10. All production wells producing from strata steamed by this generator shall be served by casing vent vapor collection system.
11. Excess combustion air shall be maintained at approximately 10% unless continuous operation oxygen analyzer/controller is utilized.
12. Only dry gas shall be utilized as fuel when firing on natural gas.

13. "Injection of partially spent H2S scrubber caustic into steam generator flue gas scrubber liquor recirculation tank shall not result in changes to existing operation or emission limits." (Rule 210.1)
14. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 20 gpm/1000 acfm. (Rule 209)
15. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling (yearly).
16. Scrubber liquor shall be conditioned with an adequate amount of scale and foam inhibitor. (Rule 210.1)
17. Injection of partially spent caustic into steam generator flue gas scrubber fresh water makeup line shall not result in changes to existing operation or emission limits. (Rule 210.1)
18. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling. (yearly)
19. This Authority to Construct does not authorize any equipment or emission rate changes.
20. This Authority to Construct replaces #4008070(K). (Rule 210.1)

EMISSION SAMPLING LIMITS:

Particulates:	4.70	lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34	lbm/hr	(of SO2) (Rule 210.1)
	2.12	lbm/hr	(of SO4) (Rule 210.1)
	0.078	lbm/MM Btu	(as S) (Rule 210.1)
Oxides of Nitrogen:	18.75	lbm/hr	(as NO2) (Rule 210.1)
	0.30	lbm/MM Btu	(as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr	(Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENTS:

Compliance with emission limits for SO_2, SO_4, and PM_{10}, shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment and annually 60 days prior to permit anniversary date and official test results and field data submitted within 30 days thereafter. Sampling is not required of a correctly operating fuel gas or incineration system. (Rule 108.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

PERMIT TO OPERATE

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA. 93301
TELEPHONE: (805) 861-3682

Number: 4008072(L)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC. (WEST-SIDE)

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator
North American Dual Fuel Burner Assembly
SO2 Scrubber

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: *This permit does not authorize* the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: _____

For Period: 02-28-90 TO 02-28-91

CONDITIONAL APPROVAL:

Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

OPERATIONAL CONDITIONS:

1. Particulate emissions shall not exceed grain loading required as a condition of project (requiring installation of scrubber) approval.
2. Visible emissions shall be less than 20% opacity except for three minutes in any one hour.
3. Sulfur compounds emission rate shall not exceed that required as condition of the project approval. (Rule 210.1)
4. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer.
5. Fuel oil sulfur content shall not exceed 1.20% by weight.
6. Scrubber liquor pH shall be maintained between 6.0 and 7.0 and shall be continuously monitored.
7. Scrubber mist eliminator shall be properly cleaned and maintained.
8. Steam generator firebox convection section and all flue gas ductwork shall be gas-tight.
9. No less than 1/2 mile(s) of roadway shall be paved and maintained in good repair.
10. All production wells producing from strata steamed by this generator shall be served by casing vent vapor collection system.
11. Excess combustion air shall be maintained at approximately 10% unless continuous operation oxygen analyzer/controller is utilized.
12. Only dry gas shall be utilized as fuel when firing on natural gas.

13. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 20 gpm/1000 acfm. (Rule 209)
14. Scrubber liquor shall be conditioned with an adequate amount of scale and foam inhibitor. (Rule 210.1)
15. "Injection of partially spent H2S scrubber caustic into steam generator flue gas scrubber liquor recirculation tank shall not result in changes to existing operation of emission limits." (Rule 210.1)
16. Injection of partially spent caustic into steam generator flue gas scrubber fresh water makeup line shall not result in changes to existing operation or emission limits. (Rule 210.1)
17. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling. (yearly)
18. This Authority to Construct does not authorize any equipment or emission rate changes.
19. This Authority to Construct replaces #4008072(K). (Rule 210.1)

EMISSION SAMPLING LIMITS:

Particulates:	4.70	lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34	lbm/hr	(of SO2) (Rule 210.1)
	2.12	lbm/hr	(of SO4) (Rule 210.1)
	0.078	lbm/MM Btu	(as S) (Rule 424)
Oxides of Nitrogen:	18.75	lbm/hr	(as NO2) (Rule 210.1)
	0.30	lbm/MM Btu	(as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr	(Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENTS:

Compliance with particulate matter, sulfur compounds and oxides of nitrogen emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment (4008167, '171, '174-'178) and annually 60 days prior to permit anniversary date and official test results and field data submitted within 30 days thereafter. (Rule 108.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

PERMIT TO OPERATE

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA. 93301
TELEPHONE: (805) 861-3682

Number: 4008073(K*)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC. (WEST-SIDE)

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W,

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: This permit does not authorize the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: _____

For Period: 02-28-90 TO 02-28-91

CONDITIONAL APPROVAL:
Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

EQUIPMENT DESCRIPTION: Struthers 62.5 MM Btu/hr, Scrubbed Steam Generator, including the following equipment:

a. Struthers steam generator,
b. North American 6131G dual fuel burner assembly,
c. Westinghouse/Hagan oxygen analyzer/controller assembly,
d. Flue gas desulfurization scrubber.

OPERATIONAL CONDITIONS:

1. Particulate emission shall not exceed that grain loading required as a condition of project (requiring installation of scrubber) approval.
2. Visible emissions shall be less than 20% opacity except for three minutes in any one hour.
3. Sulfur compounds emissions rate shall not exceed that required as condition of the project approval. (Rule 210.1)
4. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer.
5. Fuel oil sulfur content shall not exceed 1.2% by weight.
6. Scrubber liquor pH shall be maintained between 6.0 and 7.5 and shall be continuously monitored.
7. Scrubber mist eliminator shall be properly cleaned and maintained.
8. Steam generator firebox convection section and all flue gas ductwork shall be gas-tight.
9. No less than 1/2 mile(s) of roadway shall be paved and maintained in good repair.

10. All production wells producing from strata steamed by this generator shall be served by casing vent vapor collection system.
11. Excess combustion air shall be maintained at approximately 10% unless continuous operation oxygen analyzer/controller is utilized.
12. Only dry gas shall be utilized as fuel when firing on natural gas.

EMISSION SAMPLING LIMITS:

Particulates:	4.70	lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34	lbm/hr	(of SO2) (Rule 210.1)
	2.12	lbm/hr	(of SO4) (Rule 210.10
	0.078	lbm/MM Btu	(as S) (Rule 424)
Oxides of Nitrogen:	18.75	lbm/hr	(as NO2) (Rule 210.1)
	0.30	lbm/MM Btu	(as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr	(Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENT:

Compliance with particulates matter, sulfur compounds and oxides of nitrogen emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment (4008167, '171, '174-'178) and annually 60 days prior to permit anniversary date and official test results and field data submitted within 30 days thereafter. (Rule 108.1)

SPECIAL CONDITIONS:

Simultaneously with startup date of this equipment, Chevron USA, Inc. shall document that all offset requirements, Rule 424 and 425 excess control commitments have been fully and effectively implemented. (Rule 210.1)

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

PERMIT TO OPERATE

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA 93301
TELEPHONE: (805) 861-3682

Number: 4008073(L)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC.

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator
Westinghouse Hagan Oxygen Analyzer
Controller & Flue Gas Desulfurization
Scrubber

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: This permit does not authorize the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: _____

For Period: 02-28-89 TO 02-28-90

CONDITIONAL APPROVAL:

Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

OPERATIONAL CONDITIONS:

1. Fuel oil sulfur content shall not exceed 1.20% by weight without prior District approval. (Rule 210.1)
2. Scrubber recirculation liquor pH shall be maintained between 6.0 and 7.0. (Rule 209)
3. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 20 gpm/1000 acfm. (Rule 209)
4. Scrubber liquor shall be conditioned with an adequate amount of scale and foam inhibitor. (Rule 210.1)
5. Injection of partially spent caustic into steam generator flue gas scrubber fresh water makeup line shall not result in changes to existing operation or emission limits. (Rule 210.1)

EMISSION SAMPLING LIMITS:

Particulates:	4.70 lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34 lbm/hr	(of SO2) (Rule 210.1)
	2.12 lbm/hr	(of SO4) (Rule 210.1)

	0.078	lbm/MM Btu (as S) (Rule 424)
Oxides of Nitrogen:	18.75	lbm/hr (as NO2) (Rule 210.1)
	0.30	lbm/MM Btu (as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr (Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr (Rule 210.1)

COMPLIANCE TESTING REQUIREMENTS:

Compliance with all emission sampling limits for SO2, SO4, PM10 shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment and annually 60 days prior to permit anniversary date, and official test results and field data submitted within 30 days after collection. Sampling is not required of a correctly operating fuel gas or incineration system. (Rule 108.1)

SPECIAL CONDITIONS:

aa. Scrubber liquor blowdown shall be analyzed for chlorides and specific gravity at time of stack gas sampling. (yearly)
bb. This Permit to Operate does not authorize any equipment or emission rate changes.
cc. The Permit to Operate replaced 4008073I. (Rule 210.1)

STATE OF CALIFORNIA AIR TOXICS HOT SPOTS REQUIREMENTS:

Facility shall comply with California Health and Safety Code Sections 44300 through 44384. (Rule 208.1)

KERN COUNTY AIR POLLUTION CONTROL DISTRICT

PERMIT TO OPERATE

2700 "M" STREET, SUITE 275
BAKERSFIELD, CA. 93301
TELEPHONE: (805) 861-3682

Number: 4008074(K*)

PERMIT TO OPERATE IS HEREBY GRANTED TO: CHEVRON U.S.A., INC. (WEST-SIDE)

FOR EQUIPMENT LOCATED AT: Sec. 2, T11N, R24W,

EQUIPMENT OR PROCESS DESCRIPTION: Struthers Steam Generator

OPERATIONAL CONDITIONS LISTED BELOW.

THIS PERMIT BECOMES VOID UPON ANY CHANGE OF OWNERSHIP OR LOCATION, OR ANY ALTERATION.

NOTE: The permittee may be required to provide adequate sampling and testing facilities. Equipment modification requires a new permit.

REVOCABLE: This permit does not authorize the emission of air contaminants in excess of those allowed by the Rules and Regulations of the K.C.A.P.C.D.

WILLIAM J. RODDY
AIR POLLUTION CONTROL OFFICER

By: 

For Period: 02-28-90 TO 02-28-91

CONDITIONAL APPROVAL:
Compliance with all conditions of approval imposed by any applicable Authority to Construct is required for life of this equipment unless modified by application. Equipment authorized by this Permit to Operate shall comply in full with applicable Rule 210.1 requirements and Rule 424 and 425 plans filed with and approved by KCAPCD.

EQUIPMENT DESCRIPTION: Struthers 62.5 MM Btu/hr, Scrubbed Steam Generator, including the following equipment:

a. Struthers steam generator,
b. North American 6131G dual fuel burner assembly,
c. Westinghouse/Hagan oxygen analyzer/controller assembly,
d. Flue gas desulfurization scrubber.

OPERATIONAL CONDITIONS:

1. Particulate emission shall not exceed that grain loading required as a condition of project (requiring installation of scrubber) approval.
2. Visible emissions shall be less than 20% opacity except for three minutes in any one hour.
3. Sulfur compounds emissions rate shall not exceed that required as condition of the project approval. (Rule 210.1)
4. Fuel oil preheat and atomization equipment shall be operated and maintained as intended by manufacturer.
5. Fuel oil sulfur content shall not exceed 1.2% by weight.
6. Scrubber liquor pH shall be maintained between 6.0 and 7.5 and shall be continuously monitored.
7. Scrubber mist eliminator shall be properly cleaned and maintained.
8. Steam generator firebox convection section and all flue gas ductwork shall be gas-tight.
9. No less than 1/2 mile(s) of roadway shall be paved and maintained in good repair.

10. All production wells producing from strata steamed by this generator shall be served by casing vent vapor collection system.
11. Excess combustion air shall be maintained at approximately 10% unless continuous operation oxygen analyzer/controller is utilized.
12. Only dry gas shall be utilized as fuel when firing on natural gas.

EMISSION SAMPLING LIMITS:

Particulates:	4.70	lbm/hr	(Rule 210.1)
Sulfur Compounds:	8.34	lbm/hr	(of SO2) (Rule 210.1)
	2.12	lbm/hr	(of SO4) (Rule 210.10
	0.078	lbm/MM Btu	(as S) (Rule 424)
Oxides of Nitrogen:	18.75	lbm/hr	(as NO2) (Rule 210.1)
	0.30	lbm/MM Btu	(as NO2) (Rule 425)
Hydrocarbons:	1.00	lbm/hr	(Rule 210.1)
Carbon Monoxide:	2.08	lbm/hr	(Rule 210.1)

COMPLIANCE TESTING REQUIREMENT:

Compliance with particulates matter, sulfur compounds and oxides of nitrogen emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days after startup of this equipment (4008167, '171, '174-'178) and annually 60 days prior to permit anniversary date and official test results and field data submitted within 30 days thereafter. (Rule 108.1)

SPECIAL CONDITIONS:

Simultaneously with startup date of this equipment, Chevron USA, Inc. shall document that all offset requirements, Rule 424 and 425 excess control commitments have been fully and effectively implemented. (Rule 210.1)

80% throttle factor. 80% use factor = .64 = 64%

	EF Tn/use	#/day
Generator 1		
2		
3		
4		
5		

If done this way -

Fuel use, running

20 40 30%

64% throttle.

60%

ΔCE

- ef v
- ef v
- ef v

Should be fuel use restriction.

PE emit.

20%