



OCT 29 2010

Guy Ruhland
Heck Cellars - Brandy
15401 Bear Mountain Winery
DiGiorgio, CA 93203

**Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: S-1075911**

Dear Mr. Ruhland:

Enclosed for your review and comment is the District's analysis of Heck Cellars - Brandy's application for Emission Reduction Credits (ERCs) resulting from installation of a VOC control system on an existing brandy aging operation, at DiGiorgio, CA. The quantity of ERCs proposed for banking is 40,000 lb/year of VOC.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Dennis Roberts of Permit Services at (559) 230-5919.

Sincerely,

David Warner
Director of Permit Services

DW:dr

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
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OCT 29 2010

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: S-1075911**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Heck Cellars - Brandy's application for Emission Reduction Credits (ERCs) resulting from installation of a VOC control system on an existing brandy aging operation, at DiGiorgio, CA. The quantity of ERCs proposed for banking is 40,000 lb/year of VOC.

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OCT 29 2010

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: S-1075911

Dear Mr. Rios:

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Bakersfield Californian
Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Heck Cellars - Brandy for installation of a VOC control system on an existing brandy aging operation, at DiGiorgio, CA. The quantity of ERCs proposed for banking is 40,000 lb/year of VOC.

The analysis of the regulatory basis for this proposed action, Project #S-1075911, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, REGION'S ADDRESS.**

San Joaquin Valley Air Pollution Control District
ERC Application Preliminary Review
VOC Controls on Brandy Aging

Facility Name:	Heck Cellars - Brandy	Date:	September 28, 2010
Mailing Address:	15401 Bear Mountain Winery Road, DiGiorgio, CA 93203	Engineer:	Dennis Roberts
Contact Person:	Guy Ruhland	Lead Engineer:	Martin Keast
Telephone:	(661) 854-6120		
Project #:	S-1075911		
Submitted:	July 31, 2006		
Deemed Complete:	September 17, 2010		

I. Summary:

The primary business of this facility is the production of wine and spirits. Heck Cellars - Brandy has installed a VOC control system on its brandy aging operation which became operational on July 1, 2007. A copy of the current PTO which reflects the installed control system is included in Appendix A. Although an application to bank a portion of the emission reductions as Emission Reduction Credits (ERCs) was submitted on December 28, 2007, review of the current permit indicates that the enforceable conditions which require operation of the control system were not permanent until July 1, 2010, which resulted in the District delaying consideration of the ERC banking action until after that date.

The total emission reduction achieved by the project currently resides in the facility's 3-year compliance plan for District Rule 4694, providing Certified Emission Reductions (CERs) pursuant to that rule. Since Section 6.1.7 of Rule 4694 specifies that ERCs cannot be used to satisfy the Required Annual Emission Reductions of that rule, any ERCs banked by this project will be deducted from the balance of CERs currently held by the facility.

II. Applicable Rules:

Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)
Rule 2301 Emission Reduction Credit Banking (12/17/92)

III. Location of Reduction:

The physical location of the equipment involved with this application is at 15401 Bear Mountain Winery Road in DiGiorgio, CA.

IV. Method of Generating Reductions:

The aging of brandy results in evaporative VOC emissions due to loss of ethanol from the oak barrels used. The emissions reduction is generated by modification of the existing brandy aging operation to age the brandy by placing the barrels in a Permanent Total Enclosure per the criteria of EPA Method 204, controlled by a 98% efficient regenerative thermal oxidizer system.

V. Calculations:

A. Assumptions and Emission Factors

Basis and Assumptions:

- One proof-gallon (PG) = One gallon brandy with 50% ethanol (100 proof) at 60 °F
- As shown below, EtOH content in one PG = 3.31 lb-EtOH/PG
 $1.00 \text{ PG} \times 0.50 \text{ gal EtOH/PG} \times 6.6097 \text{ lb-EtOH/gal EtOH} = 3.31 \text{ lb-EtOH/PG}$
- Per the current permit, annual emissions from the operation are limited to 46,108 lb-VOC per year and 81 lb-VOC per day (see Appendix A).
- The unit is equipped with two thermal oxidizers. The thermal oxidizers potentially both operate 8,760 hours per year. Combined firing capacity for the two units is 1.445 MMBtu/hr.

Emission Factors:

The VOC emission factor for combustion of natural gas in the two thermal oxidizers are listed in the table below.

Pollutant	Emission Factors	Source
VOC	0.0055	AP-42 (07/98) Table 1.4-2

B. Baseline Period Determination and Data

- The baseline period consists of two years immediately preceding the date of reduction, or at least two consecutive years within five years prior to the ERC application, if they are more representative of “normal source operation” (District Rule 2201, Section 3.8). For this project, the Baseline Period for evaluation of emission reductions is 2005-2006 (two years immediately preceding the date of reduction).
- Monthly inventory of brandy aging barrels in the aging operation for 2005-2006 is presented in Appendix B (per applicant records). Based on the records, quarterly averages for the Baseline Period are as follows:

Quarter	Warehouse Barrel Inventory	
	2005	2006
1	30,168	29,668
2	31,691	31,497
3	31,942	30,867
4	30,238	29,650

- Per the applicant's records, average annual ethanol loss (actual emissions) during the 2005-2006 were:

Year	Average Proof Gallons Ethanol Loss per Barrel Per Year	Average Proof Gallons Ethanol Loss per Barrel Per Quarter (calculated)
2005	4.26	1.07
2006	5.05	1.26

C. Historical Actual Emissions (HAE)

Historical Actual Emissions (HAE) are emissions having actually occurred and are calculated using process data and recognized emission factors, per Rule 2201, Section 3.21.

The HAE is calculated based on the average quarterly inventory of barrels held in the operation and the measured ethanol loss per barrel during the Baseline Period. The following table presents the loss in proof gallons from the uncontrolled aging operation during the Baseline Period:

Ethanol Losses During Baseline Period						
2005			2006			Baseline Period Average
Barrel Inventory	Quarterly Loss per Barrel PG/bbl	Quarterly Loss From Aging Operation PG	Barrel Inventory	Quarterly Loss per Barrel PG/bbl	Quarterly Loss From Aging Operation PG	Quarterly Loss From Aging Operation PG
30,168	1.07	32,280	29,668	1.26	37,382	34,831
31,691	1.07	33,909	31,497	1.26	39,686	36,798
31,942	1.07	34,178	30,867	1.26	38,892	36,535
30,238	1.07	32,355	29,650	1.26	37,359	34,857

The HAE is then calculated based on each proof gallon containing 3.31 lb-ethanol (VOC):

HAE						
Quarter	Quarterly PG Loss From Aging Operation PG		lb-VOC per PG		lb-VOC	Ton-VOC
1st Quarter	34,831	x	3.31	=	115,290	58
2nd Quarter	36,798	x	3.31	=	121,801	61
3rd Quarter	36,535	x	3.31	=	120,931	60
4th Quarter	34,857	x	3.31	=	115,376	58
Total	143,021				473,398	237

D. Adjustments to HAE

Pursuant to Section 3.22 of Rule 2201, Historical Actual Emissions must be discounted for any emissions reduction which is:

- required or encumbered by any laws, rules, regulations, agreements, orders, or
- attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.

Emissions Adjusted for Rule 4695 – Brandy Aging and Wine Aging Operations:

Rule 4695 was first noticed on January 29, 2007 in the draft 2007 ozone plan. Since the application for Authority to Construct for the emission reduction project was deemed complete on August 29, 2006, prior to the initial proposal of this rule, no adjustment is applicable pursuant to District Rule 2201, Section 3.2.2 .

Total Adjusted Historical Actual Emissions (HAE):

Since no adjustments of the HAE are applicable, the adjusted HAE is the same as the HAE:

Total Adjusted HAE		
Quarter	lb-VOC	Ton-VOC
1st Quarter	115,290	58
2nd Quarter	121,801	61
3rd Quarter	120,931	60
4th Quarter	115,376	58
Total	473,398	237

E. Actual Emissions Reductions (AER)

Per Rule 2201, Section 4.12, the Actual Emissions Reductions are: “the decrease of actual emissions, compared to the Baseline Period, from an emissions unit and selected for use as emission offsets or ERC banking”. Therefore, for this project, Actual Emission Reductions are the lesser of either HAE – PE2 or the requested amount of emissions for ERC banking.

HAE – PE2

PE2 for the brandy aging operation is the sum of the potential evaporative emissions from brandy aging plus the incremental emissions resulting from combustion of natural gas in the thermal oxidizers.

$$PE2 = PE2_{\text{evaporative}} + PE2_{\text{combustion}}$$

PE2_{evaporative} is based on the annual emission limit on the permit or,

$$PE2_{\text{evaporative}} = 46,108 \text{ lb-VOC/year (23.1 ton/yr) or } 7,452 \text{ lb-VOC/quarter (3.73 tons/qtr – based on maximum daily emissions of 81 lb and 92 days in a quarter)}$$

PE2_{combustion} is the sum of the potential NOx and VOC emissions from operation of both thermal oxidizers. The combined rating for the two thermal oxidizers is 1.445 MMBtu/hour. Since the oxidizers may operate up to 8,760 hours per year, the annual thermal rating is 8,760 x 1.445 = 12,658 MMBtu/year:

PE2 for Thermal Oxidizers						
Pollutant	Emission Factor lb/MMBtu	x	Annual Heat Input MMBtu	=	Annual Emissions lb	Quarterly Emissions lb (Annual Emissions/4)
VOC	0.0055	x	12,658	=	70	18

Therefore,

$$PE2 = PE2_{\text{evaporative}} + PE2_{\text{combustion}}$$

$$PE2 = 46,108 + 70 = 46,178 \text{ lb/year}$$

$$PE2 = 7,452 + 18 = 7,470 \text{ lb/quarter}$$

Then, HAE – PE2 is calculated in the following table:

HAE - PE2					
Quarter	HAE lb/qtr	-	PE2 lb/qtr	=	HAE - PE2 lb/qtr
1st	115,290	-	7,470	=	107,820
2nd	121,801	-	7,470	=	114,331
3rd	120,931	-	7,470	=	113,461
4th	115,376	-	7,470	=	107,906

AER is then determined in the following table as the lesser of HAE – PE2 or the requested banking amount:

AER Determination			
Quarter	HAE-PE2	Amount of Emissions Requested for ERC Banking	AER
1st	107,820	11,111	11,111
2nd	114,331	11,111	11,111
3rd	113,461	11,111	11,111
4th	107,906	11,111	11,111

F. Air Quality Improvement Deduction

The Air Quality Improvement Deduction (AQID) is 10% of the AER per Rule 2201, Sections 3.5 and 4.12.1, and is summarized as follows:

Air Quality Improvement Deduction (AQID)				
Pollutant	1 st Qtr. AQID (lb/qtr)	2 nd Qtr. AQID (lb/qtr)	3 rd Qtr. AQID (lb/qtr)	4 th Qtr. AQID (lb/qtr)
VOC	1,111	1,111	1,111	1,111

G. Bankable Emissions Reductions Credits

The bankable emissions reductions credits, presented in following table, are determined by subtraction of the Air Quality Improvement Deduction (discussed in Section V.F) from the AER.

Bankable Emissions Reductions Credits (ERCs)				
Pollutant	1st Qtr ERCs (lb/qtr)	2nd Qtr ERCs (lb/qtr)	3rd Qtr ERCs (lb/qtr)	4th Qtr ERCs (lb/qtr)
VOC	10,000	10,000	10,000	10,000

VI. Compliance:

To comply with the definition of Actual Emissions Reductions (Rule 2201, Section 3.2.1), the reductions must be:

A. Real

The emissions reductions were generated by the installation of a VOC control system on an existing brandy aging operation. The control system has been fully implemented and its performance and compliance with the permit confirmed by source testing. The emissions reductions were calculated from actual historic production barrel inventories and measured ethanol losses. Therefore, the allowed reductions are real.

B. Enforceable

The emission reductions reflect emission limits from the valid Permit to Operate for this unit. Therefore, the reductions are enforceable.

C. Quantifiable

Reduction amounts were calculated from historic inventories and measured barrel losses according to District Rule 2201. Therefore, the reductions are quantifiable.

D. Permanent

The emission unit continues to operate under a permanent Permit to Operate. The facility does not own any other facilities in the District to where the aging of brandy could be transferred. Therefore, emissions reductions in this project are permanent.

E. Surplus

To be considered surplus, Actual Emission Reductions shall be in excess, at the time the application for an Emission Reduction Credit or an Authority to Construct authorizing such reductions is deemed complete, of any emissions reduction which:

- Is required or encumbered by any laws, rules, regulations, agreements, orders, or

At the time that the application for the Authority to Construct for this emission reduction project was deemed complete, there were no laws, rules, regulations, agreements or orders pertaining to the reduction of emissions from brandy aging operations which were applicable to this unit.

- Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or

At the time that the application for the Authority to Construct for this emission reduction project was deemed complete, no control measure for brandy aging had been noticed, proposed or incorporated into a State Implementation Plan.

- Is proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.

At the time that the application for the Authority to Construct for this emission reduction project was deemed complete, no control measure for brandy aging had been proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.

Implementation of the emission reduction project for this brandy aging operation was voluntary and not required by any law, rule, agreement, or regulation. These ERCs are not needed for their current or proposed operations. Therefore, the reductions are surplus.

F. Not used for the Approval of an Authority to Construct or as Offsets

The emission reduction credits generated by the implementation of a VOC control system on the brandy aging operation were not used for the approval of any Authority to Construct or as offsets.

G. Timely submittal

Section 5.5 of Rule 2301 – Emissions Reduction Credit Banking (12/17/92) states that ERC certificate applications for reductions shall be submitted within 180 days after the emission reduction occurs. The ERC application was received on December 28, 2007. Initial operation of the VOC control system was July 1, 2007. Therefore, the application was submitted in a timely fashion.

VII. Recommendation:

I recommend based on the preceding analysis that Emission Reduction Credit Certificates be issued.

Pending a successful Public Noticing period, issue Emission Reduction Credit Certificate S-3442 to Heck Cellars-Brandy for the following applicable amounts (see Attachment C).

Summary of ERC Amounts	
	VOC
ERC Number	S-3442
1 st Quarter	10,000
2 nd Quarter	10,000
3 rd Quarter	10,000
4 th Quarter	10,000

List of Appendixes

- A: Permit to Operate
- B: Annual Records
- C: Draft ERC Certificate S-3442

Appendix A

Permits to Operate
S-381-10-2

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-381-10-2

EXPIRATION DATE: 12/31/2012

EQUIPMENT DESCRIPTION:

33,310 BARREL CAPACITY BRANDY STORAGE AND AGING OPERATION (BUILDINGS K & L) SERVED BY A 1.156 MMBTU/HR ADWEST TECHNOLOGIES MODEL RETOX 4.0 RTO95 PRIMARY REGENERATIVE THERMAL OXIDIZER (RTO) AND 0.289 MMBTU/HR ADWEST TECHNOLOGIES MODEL RETOX 1.0 RTO95 SECONDARY RTO

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
4. All brandy storage and aging operations at this facility shall only be performed in Buildings K and L. [District Rules 2201 and 4694]
5. On or before July 1, 2010, this facility may elect to discontinue use of the VOC control system by giving written notice to the District. Such notice shall be given no less than 30 days prior to the planned discontinuance of operation of the system. Upon such notice, the District will administratively revise the permit conditions as noted to allow operation without a VOC control device. [District Rule 2201]
6. Only PUC-regulated natural gas shall be used as supplemental fuel for the regenerative thermal oxidizers. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
7. The brandy storage enclosures and regenerative thermal oxidation system shall be maintained in proper operating condition at all times. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
8. The facility shall notify the District of any occurrence which constitutes a breakdown condition of the VOC control system pursuant to District Rule 1100. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District NSR Rule and District Rule 1100]
9. Manway access doors are defined as doors with a maximum opening of 21 square feet, intended solely for occasional personnel access to the warehouse for maintenance or monitoring activities. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
10. Non-manway access doors are defined as openings equipped with roll-up doors which are required to allow routine movement of brandy into and out of the warehouse or for warehouse access with wheeled and motorized maintenance equipment. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. All openings in the warehouse enclosures which may be opened during "normal operation" of the VOC control system and which do not qualify as manway access doors or non-manway access doors shall be considered to be Natural Draft Openings (NDO) for purposes of certification of the enclosure as a Permanent Total Enclosure pursuant to U.S. EPA Method 204. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
12. "Normal operation" is defined for each warehouse building enclosure as operation with the enclosure meeting the minimum requirements for a permanent total enclosure pursuant to EPA Method 204 (with the fan inlet pressure operating with a vacuum at or higher than the minimum allowed vacuum and all non-manway access doors closed) and the regenerative thermal oxidizer system fully operational with the combustion chamber temperature at or above 1400 degrees F. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
13. The facility shall be equipped with a continuous monitoring system to monitor, at a minimum, the status of the fan inlet pressure control, all non-manway access doors and the combustion chamber temperature of each in-service RTO. Actual hours of "normal operation" shall be continuously and automatically monitored and recorded for each warehouse building enclosure. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
14. Buildings K and L shall be certified and maintained as Permanent Total Enclosures (PTE) pursuant to U.S. EPA Method 204. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
15. Certification of Buildings K and L as Permanent Total Enclosures shall be performed by a District-approved independent certifying entity. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
16. Each manway access door shall be equipped with an automatic closure device to minimize the time that the door is open. Manway access doors shall be opened only as required for access to or exit from the enclosure, minimizing the duration of the opening, and shall not be propped open. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
17. Each non-manway access opening shall be equipped with a motor-actuated door and controls which will minimize the time the door remains open during access and exit and shall be integrated with the continuous monitoring system to record the time periods that the door is open. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rules 1080 and 2201]
18. The fan inlet pressure control point shall be equipped with a continuous pressure monitor integrated with the facility's continuous monitoring system to continuously record the actual fan inlet vacuum. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rules 1080 and 2201]
19. The measured vacuum at the fan inlet pressure control point shall not be less than the established minimum allowable vacuum during "normal operation". This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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20. Each month the facility shall demonstrate that control of the ID fan inlet pressure at or above the established minimum allowable vacuum is adequate to simultaneously maintain the qualification of all enclosures (Buildings K and L) as Permanent Total Enclosures pursuant to EPA Method 204 by manually measuring and recording facial velocity at the test port opening on each warehouse building enclosure and confirming a minimum facial velocity of 200 feet per minute at each port. If a velocity less than 200 feet per minute is determined, operating adjustments shall be made as required to increase the measured facial velocity to 200 feet per minute within 24 hours of the initial measurement. If the permittee is unable to demonstrate a minimum facial velocity of 200 feet per minute within 48 hours after initial measurement, permittee shall notify the APCO within 72 hours of the initial measurement. After 12 consecutive months of demonstrating the adequacy of the established minimum allowable vacuum, the monitoring frequency can be reduced to once per quarter per warehouse building enclosure. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
21. The induced draft fan and RTO serving the warehouse building enclosures shall be adequately sized to simultaneously maintain "normal operation" for all warehouse building enclosures during periods of maximum brandy loss from the storage and aging operation. This condition may be deleted from the permit on or before July 1, 2010 upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
22. At least one regenerative thermal oxidizer shall operate at all times. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
23. The minimum allowable vacuum at the fan inlet pressure control point, adequate to ensure maintenance of a continuous negative pressure on all warehouse storage enclosures as required to simultaneously qualify all enclosures as Permanent Total Enclosures pursuant to EPA Method 204, shall be demonstrated and recorded annually. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rules 1080 and 2201]
24. Each regenerative thermal oxidizer shall be equipped with a dedicated isolation damper to isolate it from the brandy warehouse when not in operation. The isolation damper shall not be opened unless the regenerative thermal oxidizer it serves is fully operational with a combustion chamber temperature not less than 1400 F. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
25. Each regenerative thermal oxidizer shall be equipped with an operational temperature gauge to indicate the temperature of the combustion chamber. A continuously recording device integrated with the facility's continuous monitoring system shall be utilized to indicate the combustion chamber temperature during operation. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rules 1080 and 2201]
26. Each regenerative thermal oxidizer shall operate with a combustion chamber temperature of not less than 1400 F when its isolation damper is open to the warehouse. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
27. The VOC destruction efficiency of each regenerative thermal oxidizer shall not be less than 98%. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
28. Routine scheduled maintenance which requires shutdown of the primary (larger) regenerative thermal oxidizer shall not be performed during the months of July, August, or September. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
29. Total annual evaporative emissions from brandy shall not exceed 46,108 lb-VOC/year. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

30. For any calendar year, total evaporative brandy VOC emissions shall be quantified by the sum of the evaporative brandy VOC emissions emitted to the atmosphere from each warehouse building enclosure. Evaporative losses from each warehouse building enclosure shall be calculated by the following formula: Evaporative Brandy VOC Emissions (tons/year-enclosure) = Uncontrolled Emissions (tons/year-enclosure) x Control Factor. Uncontrolled Emissions = the average enclosure inventory for the calendar year (bbls/enclosure) x the measured brandy loss per barrel for the calendar year in the enclosure (PG/bbl-year) x 3.31 lb-VOC/PG. The Control Factor for the calendar year = $(8,760 - 0.98 \times H) / 8,760$, where H is hours of "normal operation" for the enclosure (as defined in this permit) recorded for the calendar year. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
31. Combined VOC emissions from the exhaust of the regenerative thermal oxidizers shall not exceed 81.0 lb/day during "normal operation". This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
32. The emissions from the combustion of natural gas or LPG shall not exceed any of the following limits: 0.494 lb-NOx/MMBtu, 0.084 lb-CO/MMBtu, 0.0076 lb-PM10/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.00285 lb-SOx/MMBtu. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
34. The results of each source test shall be submitted to the District within 60 days thereafter. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 1081]
35. Each regenerative thermal oxidizer (RTO) shall be tested for compliance with VOC emissions limits and to demonstrate the destruction efficiency of the RTO at least once every 12 months. After an RTO has demonstrated compliance on two consecutive annual source tests, it shall be tested not less than once every thirty-six months. This condition may be deleted from the permit on or before July 1, 2010 upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rules 1081 and 2201]
36. VOC emissions for source test purposes shall be determined using US EPA Method 25 or Method 18 or BAAQMD ST-32, except when the outlet concentration must be below 50 ppmv in order to meet the standard, in which case US EPA Method 25a may be used. VOC emissions during the source test shall be calculated as the arithmetic average of three 30-consecutive-minute test runs. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
37. Daily and annual records of the hours of operation shall be kept, indicating the time and duration of all periods of outage for the VOC control system including maintenance. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
38. Records shall be kept of all maintenance activities requiring a shutdown of a regenerative thermal oxidizer, including the maintenance activity, time and date of shutdown of the regenerative thermal oxidizer, and the duration of the shutdown. This condition may be deleted from the permit on or before July 1, 2010, upon written notification to the District of intent to discontinue operation of the VOC control system. [District Rule 2201]
39. Records of all required monitoring including facial velocity measurements and annual evaporative VOC emissions shall be maintained. [District Rule 2201]
40. Daily and annual records of the number of barrels in each warehouse storage enclosure shall be kept. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
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41. Records of all barrel filling and dumping operations shall be kept, recording the proof gallons placed into storage, the proof gallons removed from storage, the proof gallons lost while in storage and the date of each action. Annual summaries of all filling and dumping operations shall be maintained to allow annual determination of total proof-gallons lost from each warehouse building enclosure. All gauging of distilled spirits shall be in accordance with the methods and procedures of the Gauging Manual of the Alcohol and Tobacco Tax and Trade Bureau, Department of the Treasury (27 CFR 30). [District Rule 2201]
42. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

Appendix B
Annual Records

HECK CELLARS BRANDY BARREL 2 YEAR LOSS SUMMARY (Project S-107591)

Year	Original Proof Gallons	PG Loss	Recovered PG	Loss %	# Brrls Dumped	Two Year Loss / Barrel	Loss Pg/Brrl/Yr
2005	*** 908,358	115,975	792,383	12.8%	13,606	8.52	4.26
2006	*** 767,667	116,393	651,274	15.2%	11,513	10.11	5.05
Two years 2005 - 2006:							
2 Yr Total	*** 1,676,025	232,368	1,443,657	13.9%	25,119	9.25	4.63
2 Yr Avg	*** 838,013	116,184	721,829	13.9%	12,560	9.25	4.63

Heck Cellars Numbers	Calculations consistent with Gallo Assumptions
4.63	Proof gallon loss per barrel per year:
30,726	Total estimated barrels stored per year (based upon 2005 & 2006 average barrels stored) :
142,261.4	= Total pg loss per year.
3.2900	Weight in pounds of ethanol per pg at 100 proof.
468,039.9	= Weight in pounds of ethanol per year.
2,000	Divide by 2,000 lbs/ton to convert to tons
234.02	Total weight in tons per year of brandy VOC
0.98	Estimated destruction efficiency.
0.95	Estimated capture efficiency.
0.97	Estimated downtime for maintenance.
212.0	Total weight in tons of VOC destroyed:

HECK CELLARS BRANDY BARREL MONTHLY BARREL INVENTORY

	2005	2006
JAN	29,048	29,398
FEB	30,638	28,918
MAR	31,088	30,688
APR	32,048	31,317
MAY	31,722	31,587
JUN	31,302	31,587
JUL	31,782	30,927
AUG	32,142	30,927
SEP	31,902	30,747
OCT	30,658	30,747
NOV	30,658	29,967
DEC	29,398	28,237
AVERAGE	31,032	30,421
TWO YR AVG		30,726

Appendix C

Draft ERC Certificate
S-3442

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate
S-3442-1

ISSUED TO: HECK CELLARS
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 15401 BEAR MOUNTAIN WINERY RD
DIGIORGIO, CA 93203-9743

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
10,000 lbs	10,000 lbs	10,000 lbs	10,000 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Installed a regenerative thermal oxidizer on brandy aging warehouse ATC S-381-10-1

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services