San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 04 2013

Daniel Belliveau
NohBell Corporation
12011 NE 1st St., Suite 308
Bellevue, WA 98005

RE: Notice of Final Action - Authority to Construct
Facility Number: N-1237
Project Number: N-1131615

Dear Mr. Belliveau:

The Air Pollution Control Officer has issued the Authority to Construct permits to E & J Gallo Winery for the installation of eight (8) 35,000 gallon wine storage tanks and twenty four (24) 56,000 gallon red and white wine fermentation tanks, at 18000 W River Rd, Livingston, CA.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on August 5, 2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 1, 2013. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in a detailed re-examination of Achieved in Practice BACT and revised BACT cost effectiveness analysis for the control technologies of condensation and absorption. These changes were minor and did not trigger additional public notification requirements, nor did they have any impact upon the Best Available Control Technology determination or on the amount of offsets required for project approval.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (559) 230-6000.

Sincerely,

David Warner
Director of Permit Services

DW:st

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
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 04 2013

Steven Colome
EcoPAS
5319 University Drive #430
Irvine, CA 92612

RE: Notice of Final Action - Authority to Construct
Facility Number: N-1237
Project Number: N-1131615

Dear Mr. Colome:

The Air Pollution Control Officer has issued the Authority to Construct permits to E & J Gallo Winery for the installation of eight (8) 35,000 gallon wine storage tanks and twenty four (24) 56,000 gallon red and white wine fermentation tanks, at 18000 W River Rd, Livingston, CA.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on August 5, 2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 1, 2013. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in a detailed re-examination of Achieved in Practice BACT and revised BACT cost effectiveness analysis for the control technologies of condensation and absorption. These changes were minor and did not trigger additional public notification requirements, nor did they have any impact upon the Best Available Control Technology determination or on the amount of offsets required for project approval.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (559) 230-6000.

Sincerely,

David Warner
Director of Permit Services

DW:st

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
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 861-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 0 4 2013

Dan Martin
E & J Gallo Winery
18000 W River Rd
Livingston, CA 95334

RE: Notice of Final Action - Authority to Construct
Facility Number: N-1237
Project Number: N-1131615

Dear Mr. Martin:

The Air Pollution Control Officer has issued the Authority to Construct permits to E & J Gallo Winery for the installation of eight (8) 35,000 gallon wine storage tanks and twenty four (24) 56,000 gallon red and white wine fermentation tanks, at 18000 W River Rd, Livingston, CA. Enclosed are the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permits was published on August 5, 2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 1, 2013. All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in a detailed re-examination of Achieved in Practice BACT and revised BACT cost effectiveness analysis for the control technologies of condensation and absorption. These changes were minor and did not trigger additional public notification requirements, nor did they have any impact upon the Best Available Control Technology determination or on the amount of offsets required for project approval.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

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
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (559) 230-6000.

Sincerely,

David Warner
Director of Permit Services

DW:st

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-662-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 319) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-662-0 : Oct 31 2013 2:03PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-663-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 320) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-663-0: Oct 31 2013 2:03PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-664-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 321) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of ~~Permit Services~~
N-1237-664-0 : Oct 31 2013 2:03PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-665-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 322) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-665-0 : Oct 31 2013 2:03PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-666-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 323) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-666-0 : Oct 31 2013 2:03PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-667-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 324) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-667-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-668-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 325) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-1237-668-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-669-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 326) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-1237-669-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-670-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 425), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-670-0 : Oct 31 2013 2:04PM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-671-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 426), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-671-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-672-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 427), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-672-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-673-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 428), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-673-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-674-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 429), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-674-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-675-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 430), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-675-0 : Oct 31 2013 2:04PM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-676-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 431), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-676-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-677-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 432), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-677-0: Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-678-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 433), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-678-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-679-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 434), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-679-0: Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-680-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 435), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-680-0 : Oct 30 2013 2:04PM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-681-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 436), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-681-0 : Oct 31 2013 2:04PM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-682-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 437), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-682-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-683-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 438), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-683-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-684-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 439), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

N-1237-684-0 : Oct 31 2013 2:04PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-685-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 440), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-685-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-686-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 441), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-686-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-687-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 442), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-688-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 443), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-688-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-689-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 444), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-689-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-690-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 445), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-690-0 : Oct 31 2013 2:05PM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-691-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 446), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-691-0: Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-692-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 447), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-692-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-693-0 **ISSUANCE DATE:** 10/31/2013

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 448), OR EQUIVALENT

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-693-0 : Oct 31 2013 2:05PM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Wine Storage and Fermentation Tanks

Facility Name:	E & J Gallo Winery	Date:	October 28, 2013
Mailing Address:	18000 W River Rd	Engineer:	Stanley Tom
	Livingston, CA 95334	Lead Engineer:	Joven Refuerzo
Contact Person:	Dan Martin		
Telephone:	(209) 394-6211		
Application #(s):	N-1237-662-0 through '693-0		
Project #:	N-1131615		
Deemed Complete:	June 6, 2013		

I. Proposal

E & J Gallo Winery has requested Authority to Construct (ATC) permits for the installation of eight (8) 35,000 gallon wine storage tanks and twenty four (24) 56,000 gallon red and white wine fermentation tanks.

E & J Gallo Winery has received their Title V Permit. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. E & J Gallo Winery must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC permits issued with this project.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4102	Nuisance (12/17/92)
Rule 4694	Wine Fermentation and Storage Tanks (12/15/05)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 18000 W River Rd in Livingston, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

E & J Gallo Winery produces both red and white table wines, as well as other specialty wine products, from the fermentation of grapes. During the "crush season," typically from late August to late November, both red and white grapes are received by truck and delivered to a crusher-stemmer which serves to crush the grapes and remove the stems. In the case of red wines, the resultant juice (termed "must" and containing the grape skins, pulp and seeds) is pumped to red wine fermentation tanks for fermentation, a batch process. The red wine fermentation tanks are specifically designed to ferment the must in contact with the skins and to allow the separation of the skins and seeds from the wine after fermentation. In the case of white wines, the must is sent to screens and presses for separation of grape skins and seeds prior to fermentation. After separation of the skins and seeds, the white must is transferred to a fermentation tank. White wine fermentation can be carried out in a tank without design provisions for solids separation since the skins and seeds have already been separated.

After transfer of the must (for red or white wine) to the fermentation tank, the must is inoculated with yeast which initiates the fermentation reactions. During fermentation, the yeast metabolizes the sugar in the grape juice, converting it to ethanol and carbon dioxide (CO_2) while releasing heat. Temperature is typically controlled by refrigeration, and is maintained at 45–65 °F for white wine fermentation and 70–95 °F for red wine fermentation. The sugar content of the fermentation mass is measured in °Brix (weight %) and is typically 22–26° for unfermented grape juice, dropping to 4° or less at the end of fermentation. Finished ethanol concentration is approximately 10 to 14 percent by volume. Batch fermentation requires 3-5 days per batch for red wine and 1-2 weeks per batch for white wine. VOCs are emitted during the fermentation process along with the CO_2. The VOCs consist primarily of ethanol along with small quantities of other fermentation byproducts.

Following the completion of fermentation, white wine is transferred directly to storage tanks. Red wine is first directed to the presses for separation of solids and then routed to the storage tanks. All tanks in the winery typically operate as two separate emissions units: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release the evolved CO_2 byproduct from the fermentation reaction; and (2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine. Post-fermentation operations such as cold stabilization, racking, and filtration are conducted in the tanks, resulting in a number of inter-tank transfers during the period between the end of fermentation and bottling or bulk shipment. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank transfers which are necessitated by the post fermentation operations.

V. Equipment Listing

Permit #	Equipment Description
N-1237-662-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 319) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-663-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 320) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-664-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 321) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-665-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 322) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-666-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 323) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-667-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 324) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-668-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 325) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-669-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 326) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-670-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 425), OR EQUIVALENT
N-1237-671-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 426), OR EQUIVALENT
N-1237-672-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 427), OR EQUIVALENT
N-1237-673-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 428), OR EQUIVALENT
N-1237-674-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 429), OR EQUIVALENT
N-1237-675-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 430), OR EQUIVALENT
N-1237-676-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 431), OR EQUIVALENT
N-1237-677-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 432), OR EQUIVALENT

N-1237-678-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 433), OR EQUIVALENT
N-1237-679-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 434), OR EQUIVALENT
N-1237-680-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 435), OR EQUIVALENT
N-1237-681-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 436), OR EQUIVALENT
N-1237-682-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 437), OR EQUIVALENT
N-1237-683-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 438), OR EQUIVALENT
N-1237-684-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 439), OR EQUIVALENT
N-1237-685-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 440), OR EQUIVALENT
N-1237-686-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 441), OR EQUIVALENT
N-1237-687-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 442), OR EQUIVALENT
N-1237-688-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 443), OR EQUIVALENT
N-1237-689-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 444), OR EQUIVALENT
N-1237-690-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 445), OR EQUIVALENT
N-1237-691-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 446), OR EQUIVALENT
N-1237-692-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 447), OR EQUIVALENT
N-1237-693-0	56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 448), OR EQUIVALENT

As per District policy APR 1035 Flexibility in Equipment Descriptions in ATCs, some flexibility in the final specifications of the equipment is requested. The proposed tanks in this project will be built on-site and most likely will contain slight variations in the tank dimensions which lead to slightly different tank capacities than proposed. These slight tank variations should not have a signficant effect on the tank emissions or tank operation. Therefore, the permit will specify the nominal tank dimensions and the source will submit to the District the measured tank capacity (known as the gauge volume) once the tank is constructed. The following sample condition will be listed on the permits to ensure compliance:

- The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]

VI. Emission Control Technology Evaluation

VOCs (ethanol) are emitted from wine storage tanks as a result of both working losses (which occur when the liquid level in the tank changes) and breathing losses (expansion and contraction effects due to temperature variations). The proposed pressure/vacuum valve limits these emissions by requiring the maximum amount of variation in tank pressure before allowing the tank to vent to the atmosphere or allowing air admission to the tank.

The temperature of the fermentation is controlled to maintain an average fermentation temperature not exceeding 95 °F which avoids higher temperatures that might be damaging to the yeast cells and reduces the potential for an out-of-control fermentation reaction in the tank. Temperature control serves to minimize VOC emissions relative to a tank without temperature control since the potential emissions increase with fermentation temperature.

VII. General Calculations

A. Assumptions

- All tanks will be classified as either red and white wine storage or red and white wine fermentation.

Storage (Permits N-1237-662-0 through '669-0)

- Typically, for enclosed tanks with refrigeration and/or insulation (or equivalent) and P/V valves, breathing losses from storage of wine are assumed to be negligible
- Post-project maximum storage tank liquid storage temperature = 81.0 °F (per FYI-295)
- Post-project annual average storage tank liquid storage temperature = 63.3 °F for all tanks (per FYI-295)
- Storage tank daily maximum ethanol content of stored wine is 23.9% (per applicant)
- Post-project storage tank annual average ethanol content of stored wine is 15% (per applicant)
-

- Post-project wine storage daily throughput = 35,000 gallons per day (per tank, per applicant)
- Project wine storage annual throughput = 175,000 gallons per year (per tank, per applicant)

Fermentation (Permits N-1237-670-0 through '693-0)

- Daily VOC fermentation emissions will be determined using a worst case of one tank turnover per day (per applicant)
- Post-project wine fermentation annual throughput (per tank) = 570,395 gallons per year
- Fermentation emissions will be based upon the worst case red wine emission factors

B. Emission Factors

Storage (Permits N-1237-662-0 through '669-0)

Tanks 4.0 will be used to calculate the emissions from the new storage tanks.

Fermentation (Permits N-1237-670-0 through '693-0)

Uncontrolled emissions factors are taken from District FYI-114, *VOC Emission Factors for Wine Fermentation and Storage Tanks.*

Wine Type	EF (lb-VOC/1,000 gallon of wine)		Source
	Daily	Annual	
White	1.62	2.5	FYI-114
Red	3.46	6.2	FYI-114

Since all the fermentation tanks can ferment either white or red wine, worst case emissions factors of red wine will be used to calculate the maximum daily and annual potential emissions.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units (fermentation and storage), PE1 = 0 (all pollutants) for the fermentation and storage operation in these tanks.

2. Post Project Potential to Emit (PE2)

Storage (Permits N-1237-662-0 through '669-0)

Two Tanks 4.0 runs have been performed one using a throughput of 35,000 gallons per day to calculate the daily post-project potential to emit by dividing the month of July emissions by the number of days in the month and one using 175,000 gallons/year to calculate the annual post-project potential to emit. See Appendix A for the Tanks 4.0 runs for each tank.

Permit Unit	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
N-1237-662-0	3.4	25
N-1237-663-0	3.4	25
N-1237-664-0	3.4	25
N-1237-665-0	3.4	25
N-1237-666-0	3.4	25
N-1237-667-0	3.4	25
N-1237-668-0	3.4	25
N-1237-669-0	3.4	25
Total	27.2	200

Fermentation (Permits N-1237-670-0 through '693-0)

For either red or white wine, the fermentation process takes longer than a day (3 to 5 days for red wine and 10 to 14 days for white wine). Therefore, a maximum of one turnover per day will be used to determine the potential daily emissions.

The potential daily and annual VOC emissions are determined using the red or white wine emissions factor, tank capacity, turnover rate, and the annual throughput as follows:

Daily PE2 = EF_{red} (lb-VOC/1,000 gal) x tank capacity (gal/tank) x turnover rate (# tank/day)
Annual PE2 = EF_{red} (lb-VOC/1,000 gal) x annual throughput (gal/year)

Permit Unit	Daily EF	Annual EF	Tank Capacity	Turnover Rate	Annual Throughput	Daily	Annual
	(lb-VOC/1,000 gal)		(gallon)	(tank/day)	(gal/year)	(lb/day)	(lb/year)
N-1237-670-0	3.46	6.2	56,000	1	570,395	193.8	3,536
N-1237-671-0			56,000		570,395	193.8	3,536
N-1237-672-0			56,000		570,395	193.8	3,536
N-1237-673-0			56,000		570,395	193.8	3,536
N-1237-674-0			56,000		570,395	193.8	3,536
N-1237-675-0			56,000		570,395	193.8	3,536
N-1237-676-0			56,000		570,395	193.8	3,536
N-1237-677-0			56,000		570,395	193.8	3,536

N-1237-678-0			56,000		570,395	193.8	3,536
N-1237-679-0			56,000		570,395	193.8	3,536
N-1237-680-0			56,000		570,395	193.8	3,536
N-1237-681-0			56,000		570,395	193.8	3,536
N-1237-682-0			56,000		570,395	193.8	3,536
N-1237-683-0			56,000		570,395	193.8	3,536
N-1237-684-0			56,000		570,395	193.8	3,536
N-1237-685-0			56,000		570,395	193.8	3,536
N-1237-686-0			56,000		570,395	193.8	3,536
N-1237-687-0			56,000		570,395	193.8	3,536
N-1237-688-0			56,000		570,395	193.8	3,536
N-1237-689-0			56,000		570,395	193.8	3,536
N-1237-690-0			56,000		570,395	193.8	3,536
N-1237-691-0			56,000		570,395	193.8	3,536
N-1237-692-0			56,000		570,395	193.8	3,536
N-1237-693-0			56,000		570,395	193.8	3,536
Total							84,864

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

Rule 2410 Major Source Determination

The following table summarizes the potential VOC emissions from previous permitting actions for this stationary source prior to the proposed project.

Project Number	Proposed Permitting Actions	PE (lb-VOC/year)
N-1072605	Applying for In-house PTOs for existing wine storage and fermentation tanks	470,985
N-1110129	Install 2 wine fermentation tanks	8,432
N-1110722	Convert 7 existing grape juice tanks to wine fermentation tanks	15,680
N-1113344	Install 104 wine storage and fermentation tanks	94,430
N-1113395	Install 3 wine storage and fermentation tanks	10,173
N-1113047	Install 2 distilled spirit tanks	188
N-1113864	Install an ethanol evaporator system	7,719
Total		**607,607**

As indicated above, the SSPE VOC emission before the proposal project is calculated to 607,607 pounds per year, equivalent to 303.8 tons per year.

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore, the following PSD Major Source threshold for VOC is applicable.

PSD Major Source Determination (tons/year)	
	VOC
Facility PE before Project Increase	303.8
PSD Major Source Thresholds	250
PSD Major Source?	**Yes**

As shown above, the facility is an existing Major Source for PSD for VOC. Therefore, the facility is an existing Major Source for PSD.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Since these are new emission units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	200 + 84,864 = 85,064	50,000	Yes

Since the project's PE2 surpasses the SB 288 Major Modification Thresholds for VOC, the Net Emissions Increase (NEI) will be compared to the SB 288 Major Modification thresholds in order to determine if this project constitutes an SB 288 Major Modification.

The NEI is the total of emission increases for every permit unit addressed in this project and is calculated as follows:

NEI = PE2 – BAE

Where: PE2 = the sum of all the PE2s for each permit unit in this project
BAE = for units that are fully offset, the BAE = the PE1 for every unit, otherwise, the BAE is the actual annual emissions averaged over the baseline period for every unit.

Since the units in this project are new, BAE = 0.

SB 288 Major Modification Calculation and Determination					
Pollutant	PE2 (lb/yr)	BAE (lb/yr)	NEI (lb/yr)	Thresholds (lb/yr)	SB 288 Major Modification?
VOC	85,064	0	85,064	50,000	Yes

As demonstrated in the preceding table, this project does constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not federal major modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significant Threshold (lb/year)	
Pollutant	Threshold (lb/year)
VOC	0

The Net Emissions Increases (NEI) for purposes of determination of a "Less-Than-Significant Emissions Increase" exclusion will be calculated below to determine if this project qualifies for such an exclusion.

Net Emission Increase for New Units (NEI_N)

Per 40 CFR 51.165 (a)(2)(ii)(D) for new emissions units in this project,

$NEI_N = PE2_N - BAE$

Since these are new units, BAE for these units is zero and,

$NEI_N = PE2_N$

where $PE2_N$ is the Post Project Potential to Emit for the new emissions units.

$NEI_N = PE2_N = 200 + 84{,}864$ lb-VOC/year = 85,064 lb-VOC/year

The NEI for this project is thus calculated as follows:

$NEI = NEI_N$
NEI = 200 + 84,864 lb-VOC/year = 85,064 lb-VOC/year

The NEI for this project will be greater than the federal Major Modification threshold of 0 lb-VOC/year. Therefore, this project does not qualify for a "Less-Than-Significant Emissions Increase" exclusion and is thus determined to be a Federal Major Modification for VOC.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to pollutants for which the District is in attainment or for unclasssified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Greenhouse gases (GHG): CO2, N2O, CH4, HFCs, PFCs, and SF6

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Significance of Project Emission Increase Determination

a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

CO2 Emissions from Fermentation

Basis

- Project total annual fermentation emissions = 84,864 lb-VOC/year
- Assume all wine produced is white wine (worst case)
- The VOC emission factor is 2.5 lb-VOC per 1,000 gallons of white wine fermented.
- Maximum practical ethanol content for wine fermentation is 15 volume percent (higher concentrations have a negative impact on yeast reproduction with death of the yeast occurring at around 18 vol %)
- Molecular weight of ethanol and CO2 are 46 and 44 lb/mole respectively.
- The fermentation reaction produces one mole of carbon dioxide for each mole of ethanol produced.
- Liquid density for ethanol is 6.61 lb/gal at 60 deg F.

Calculation

Maximum Annual Wine Production Based on 100% White Wine'= = 84,864 $\frac{\text{lb-VOC}}{\text{year}}$ ÷ 2.5 $\frac{\text{lb-VOC}}{\text{1000 gallons}}$

Maximum Annual Wine Production Based on 100% White Wine'= = 33,945,600 gallons per year

Maximum Annual Ethanol Production = 33,945,600 $\frac{\text{gal}}{\text{year}}$ x 15% ethanol x 6.61 $\frac{\text{lb-ethanol}}{\text{gallon}}$

Maximum Annual Ethanol Production = 33,657,062.4 lb-ethanol per year

Maximum Annual CO2 Production = 33,657,062.4 $\frac{\text{lb}}{\text{year}}$ x $\frac{\text{1 mole}}{\text{46 lb ethanol}}$ x $\frac{\text{1 mole CO2}}{\text{1 mole ethanol}}$ x $\frac{\text{44 lb CO2}}{\text{mole CO2}}$

Maximum Annual CO2 Production = 32,193,712 lb-CO2 per year

Maximum Annual CO2 Production = 16,097 ton-CO2 per year

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)						
	NO2	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units	0	0	0	0	0	16,097
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	N	N	N	N	N	N

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

N-1237-662-0 through '669-0

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	6	0	6

N-1237-670-0 through '693-0

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	884	0	884

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

The applicant is proposing to install eight new wine storage tanks and 24 new wine fermentation tanks with a PE greater than 2 lb/day for VOC. Thus BACT is triggered for VOC for these emissions units.

b. Relocation of emissions units – PE > 2 lb/day

There are no emissions units being relocated from one stationary source to another, hence BACT is not triggered under this category.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project; therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.8 above, this project does constitute a Federal Major Modification for VOC. Therefore BACT is triggered for VOC.

2. BACT Guideline

BACT Guideline 5.4.13, applies to the wine storage tanks. [Wine Storage Tanks] (Appendix C)

BACT Guideline 5.4.14, applies to the wine fermentation tanks. [Wine Fermentation Tanks] (Appendix B)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analyses (Appendix B and C), BACT has been satisfied with the following:

Storage

VOC: Insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature not exceeding 75 °F within 60 days of completion of fermentation.

Fermentation

VOC: Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 deg F.

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, offsets are triggered.

2. Quantity of Offsets Required

As discussed above, the facility is an existing Major Source for VOC and the SSPE2 is greater than the offset thresholds; therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE)

There are no increases in cargo carrier emissions due to this project. Therefore,

Storage

Offsets Required (lb/year) = Σ[PE2 – BE] x DOR

Offsets Required – Storage		
Permit Unit	Total Annual PE2 (lb-VOC/year)	Annual BE (lb-VOC/year)
N-1237-662-0	25	0
N-1237-663-0	25	0
N-1237-664-0	25	0
N-1237-665-0	25	0
N-1237-666-0	25	0
N-1237-667-0	25	0
N-1237-668-0	25	0
N-1237-669-0	25	0
Total	200	0

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly Offset Requirement – Each Tank				
Pollutant	1st Qtr (lb/qtr)	2nd Qtr (lb/qtr)	3rd Qtr (lb/qtr)	4th Qtr (lb/qtr)
VOC	6	6	6	7

Fermentation

These fermentation tanks are subject to the fermentation emission reduction requirements of Rule 4694 and are considered to be controlled sources subject to a 35% reduction in emissions. The facility is currently performing an annual demonstration that sufficient Certifed Emission Reductions (CER) are provided to meet the requirements of Rule 4694 Section 5.1. The CERs are achieved by controlling the emissions from brandy tanks and barrels at a brandy plant in Modesto via an air handling system and combustion in an RTO (regenerative thermal oxidizer). Both the

Fresno location and Livingston location have CERs assigned to each facility (generated from the control of the brandy plant) to cover the uncontrolled fermentation emissions at each facility. The annual compliance emissions report demonstrates the amount of CERs assigned to each facility is at least 35% of the uncontrolled fermentation emissions at each facility. As these tanks are subject to Rule 4694 and the facility is mitigating 35% of the uncontrolled fermentation emissions each year, requiring offsets for 100% of the fermentation emissions in this project would be requiring double mitigation. Therefore, the offsets required for the fermentation emissions in this project will be reduced by 35% and calculated as follows:

Offsets Required (lb/year) = Σ[PE2 – BE] x (1 – 0.35) x DOR

Offsets Required – Fermentation		
Permit Unit	Total Annual PE2 (lb-VOC/year)	Annual BE (lb-VOC/year)
N-1237-670-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-671-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-672-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-673-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-674-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-675-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-676-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-677-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-678-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-679-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-680-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-681-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-682-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-683-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-684-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-685-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-686-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-687-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-688-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-689-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-690-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-691-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-692-0	3,536 x (1 – 0.35) = 2,298	0
N-1237-693-0	3,536 x (1 – 0.35) = 2,298	0
Total	55,152	0

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly Offset Requirement – Each Tank				
Pollutant	1st Qtr (lb/qtr)	2nd Qtr (lb/qtr)	3rd Qtr (lb/qtr)	4th Qtr (lb/qtr)
VOC	574	574	575	575

Total

For all 32 tanks, the amount of offsets required is as follows:

Offsets Required (lb/year) = (200 + 55,152) lb-VOC/year x DOR
= 55,352 lb-VOC/year x DOR

The project is a Federal Major Modification and therefore the offset ratio for VOC is 1.5:1.

Assuming an offset ratio of 1.5:1, the amount of ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 55,352 lb-VOC/year x 1.5
= 83,028 lb-VOC/year

Offset Requirement – All 32 Tanks	
Permit	VOC (lb/year)
Total x DOR	83,028

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly Offset Requirement – All 32 Tanks				
Pollutant	1st Qtr (lb/qtr)	2nd Qtr (lb/qtr)	3rd Qtr (lb/qtr)	4th Qtr (lb/qtr)
VOC	20,757	20,757	20,757	20,757

The applicant has stated that the facility plans to use ERC certificates S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 to offset the increases in emissions associated with this project. The above certificate has available quarterly credits as follows:

Proposed VOC ERC Certificates				
ERC Certificate #	1st Qtr (lb/qtr)	2nd Qtr (lb/qtr)	3rd Qtr (lb/qtr)	4th Qtr (lb/qtr)
S-4025-1	44,473	44,472	44,465	44,397
S-4050-1	60,000	60,000	60,000	60,000
S-3808-1	8,098	8,041	8,086	8,086
S-3807-1	11,431	11,424	11,417	11,417
S-3805-1	18,000	18,000	18,000	18,000
C-1189-1	9,357	9,357	9,323	9,323
Total	151,359	151,294	151,291	151,223

As seen above, the facility has sufficient credits to fully offset the quarterly emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions

- ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

N-1237-662-0 through '669-0

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

N-1237-670-0 through '693-0

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7 and VII.C.8, this project does constitute a SB 288 and Federal Major Modification for VOC; therefore, public noticing for SB 288 and Federal Major Modification purposes is required.

b. PE > 100 lb/day

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
NO_X	0	100 lb/day	No
SO_X	0	100 lb/day	No
PM_{10}	0	100 lb/day	No
CO	0	100 lb/day	No
VOC	3.4 + 193.8 = 197.2	100 lb/day	Yes

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
VOC	> 20,000	> 20,000	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post

Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	Σ Project PE2 (lb/year)	Σ Project PE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	65,192	0	65,192	20,000 lb/year	Yes

As demonstrated above, the SSIPE is greater than 20,000 lb/year for VOC; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

As discussed above, public noticing is required for this project for PE greater than 100 lb/day for VOC, SB 288 and Federal Major Modification for VOC, and SSIPE greater than 20,000 lb/year for VOC. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB), US Environmental Protection Agency (US EPA), and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC permits for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions

N-1237-662-0 through '669-0

- The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694]
- The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]

N-1237-670-0 through '693-0

- The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201]
- The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb/day per 1000 gallons of tank capacity. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offsets, public notification and daily emission limit requirements of Rule 2201. Recordkeeping is also required for winery tanks pursuant to District Rule 4694, *Wine Fermentation and Storage Tanks*. The following conditions will be listed on the permits to ensure compliance:

N-1237-662-0 through '669-0

- The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
- Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]

N-1237-670-0 through '693-0

- For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average

fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694]

- The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine ethanol content and throughput rate for storage operations and VOC emission rate for fermentation operations (ethanol percentage by volume, gallons and lb-VOC per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. However, since this project involves only VOC and no ambient air quality standard exists for VOC, an AAQA is not required for this project.

G. Compliance Certification

Rule 2201 requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a Federal Major Modification and this project does constitute a Title I modification, therefore this requirement is applicable. The facility's compliance certification is included in Appendix D.

H. Alternative Siting Analysis

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

In addition to winery tanks, the operation of a winery requires a large number support equipment, services and structures such as raw material receiving stations, crushers, piping, filtering and refrigeration units, warehouses, laboratories, bottling and shipping facilities, and administration buildings.

Since the current project involves only a minimal increase in the winery's total tank volume and no change to any other facets of the operation, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or

construction of various support structures and facilities on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As demonstrated above, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed above, the facility has applied for a Certificate of Conformity (COC) (see Appendix E); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to wine fermentation and/or storage tank operations.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to wine fermentation and/or storage tank operations.

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of the proposed operations provided the equipment is well maintained. Therefore, the following condition will be listed on each permit to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Ethanol is not a HAP as defined by Section 44321 of the California Health and Safety Code. Therefore, there are no increases in HAP emissions associated with any emission units in this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

District Rule 4694 Wine Fermentation and Storage Tanks

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) from the fermentation and bulk storage of wine, or achieve equivalent reductions from alternative emission sources. This rule is applicable to all facilities with fermentation emissions in excess of 10 tons-VOC/year. The storage tank provisions of this rule apply to all tanks with capacity in excess of 5,000 gallons.

Section 5.1 requires the winery operator achieve Required Annual Emissions Reductions (RAER) equal to at least 35% of the winery's Baseline Fermentation Emissions (BFE). Per the definition of RAER in Section 3.25 of the Rule, the RAER may be achieved by any combination of Fermentation Emission Reductions (FER), Certified Emission Reductions (CER) or District Obtained Emission Reductions (DOER) as established in the facility's District-approved Rule 4694 Compliance Plan, due every three years on December 1st beginning in 2006. The facility has submitted the required plan to the District and is currently satisfying the required emission reductions in the form of Certified Emission Reductions.

The following condition listed on the facility-wide permit ensures compliance:

- A Three-Year Compliance Plan that demonstrates compliance with the requirements of Section 5.1 of District Rule 4694 (12/15/05) for each year of the applicable compliance period shall be submitted to the District by no later than December 1, 2006, and every three years thereafter on or before December 1. [District Rule 4694]

Section 5.2 places specific restrictions on wine storage tanks with 5,000 gallons or more in capacity when such tanks are not constructed of wood or concrete. Section 5.2.1 requires these tanks to be equipped and operated with a pressure-vacuum relief valve meeting all of the following requirements:

- The pressure-vacuum relief valve shall operate within 10% of the maximum allowable working pressure of the tank,
- The pressure-vacuum relief valve shall operate in accordance with the manufacturer's instructions, and
- The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings.
- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21.

The following conditions will be listed on the permits for stainless steel tanks ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.1:

- This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75° F. The following condition will be placed on the permits for stainless steel tanks ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.2:

- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]

Every three years, Section 6.1 and 6.2 require the facility to submit a Three-Year Compliance Plan and a Three-Year Compliance Plan Verification respectively. Section 6.3 requires that an Annual Compliance Plan Demonstration be submitted to the District no later than February 1 of each year to show compliance with the applicable requirements of the Rule. Section 6.4.3 requires that all monitoring be performed for any Certified Emission Reductions as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained.

The following conditions listed on the facility-wide permit ensure compliance:

- A Three-Year Compliance Plan that demonstrates compliance with the requirements of Section 5.1 of District Rule 4694 (12/15/05) for each year of the applicable compliance period shall be submitted to the District by no later than December 1, 2006, and every three years thereafter on or before December 1. [District Rule 4694]
- A Three-Year Compliance Plan Verification that demonstrates that the Three-Year Compliance Plan elements are in effect shall be submitted to the District by no later than July 1, 2007, and every three years thereafter on or before July 1. [District Rule 4694, 6.2]
- An Annual Compliance Plan Demonstration that shows compliance with the applicable requirements of this rule shall be submitted to the District by no later than February 1, 2008, and every year thereafter on or before February 1. [District Rule 4694]
- Operators using CER to mitigate fermentation emissions shall perform all monitoring and recordkeeping, as established in their approved Three-Year Compliance Plan, and shall maintain all records necessary to demonstrate compliance. [District Rule 4694]

Section 6.4.1 requires that records be kept for each fermentation batch. The following condition will be listed on the permits for each fermentation tank to ensure compliance:

- For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694]

Section 6.4.2 requires that weekly records be kept of wine volume and temperature in each storage tank. The following conditions will be listed on the permit for each storage tank to ensure compliance with the requirements of Section 6.4.2:

- The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]

Section 6.4.3 requires that all monitoring be performed for any Certified Emission Reductions as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained. The following condition listed on the facility-wide permit ensures compliance:

- Operators using CER to mitigate fermentation emissions shall perform all monitoring and recordkeeping, as established in their approved Three-Year Compliance Plan, and shall maintain all records necessary to demonstrate compliance. [District Rule 4694]

Section 6.4 requires that records required by this rule be maintained, retained on-site for a minimum of five years, and made available to the APCO upon request. The following conditions will be listed on all permits to ensure compliance:

- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694]

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The County of Merced (County) is the public agency having principal responsibility for approving the project. As such, the County served as the Lead Agency (CCR §15367). In approving the project, the Lead Agency prepared and adopted a Mitigated Negative Declaration. The Lead agency filed a Notice of Determination, stating that the environmental document was adopted pursuant to the provisions of CEQA and concluding that the project would not have a significant effect on the environment.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CCR §15381). As a Responsible Agency the District complies with CEQA by considering the environmental document prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project (CCR §15096).

The District has considered the Lead Agency's environmental document. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions will have a less than significant impact on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct permits N-1237-662-0 through '693-0 subject to the permit conditions on the attached draft Authority to Construct permits in Appendix F.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-1237-662-0	3020-05-C	35,000 gallons	$135
N-1237-663-0	3020-05-C	35,000 gallons	$135
N-1237-664-0	3020-05-C	35,000 gallons	$135
N-1237-665-0	3020-05-C	35,000 gallons	$135
N-1237-666-0	3020-05-C	35,000 gallons	$135
N-1237-667-0	3020-05-C	35,000 gallons	$135
N-1237-668-0	3020-05-C	35,000 gallons	$135
N-1237-669-0	3020-05-C	35,000 gallons	$135
N-1237-670-0	3020-05-D	56,000 gallons	$185
N-1237-671-0	3020-05-D	56,000 gallons	$185
N-1237-672-0	3020-05-D	56,000 gallons	$185
N-1237-673-0	3020-05-D	56,000 gallons	$185
N-1237-674-0	3020-05-D	56,000 gallons	$185
N-1237-675-0	3020-05-D	56,000 gallons	$185
N-1237-676-0	3020-05-D	56,000 gallons	$185
N-1237-677-0	3020-05-D	56,000 gallons	$185
N-1237-678-0	3020-05-D	56,000 gallons	$185
N-1237-679-0	3020-05-D	56,000 gallons	$185
N-1237-680-0	3020-05-D	56,000 gallons	$185
N-1237-681-0	3020-05-D	56,000 gallons	$185
N-1237-682-0	3020-05-D	56,000 gallons	$185
N-1237-683-0	3020-05-D	56,000 gallons	$185
N-1237-684-0	3020-05-D	56,000 gallons	$185
N-1237-685-0	3020-05-D	56,000 gallons	$185
N-1237-686-0	3020-05-D	56,000 gallons	$185
N-1237-687-0	3020-05-D	56,000 gallons	$185
N-1237-688-0	3020-05-D	56,000 gallons	$185
N-1237-689-0	3020-05-D	56,000 gallons	$185
N-1237-690-0	3020-05-D	56,000 gallons	$185
N-1237-691-0	3020-05-D	56,000 gallons	$185
N-1237-692-0	3020-05-D	56,000 gallons	$185
N-1237-693-0	3020-05-D	56,000 gallons	$185

XI. Appendices

A: Tanks 4.0 Calculations
B: BACT Guideline 5.4.14 and Top Down BACT Analysis
C: BACT Guideline 5.4.13 and Top Down BACT Analysis
D: Compliance Certification
E: Certificate of Conformity
F: Draft ATC Permits
G: Public Notice Comments and District Responses

Appendix A

Tanks 4.0 Calculations

Appendix A

Tanks 4.0 Calculations

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification		
User Identification	N-1237-662-0 Daily Emissions	
City	Livingston	
State	California	
Company	E & J Gallo Winery	
Type of Tank	Vertical Fixed Roof Tank	
Description	35,000 gallon stainless steel insulated wine storage tank	
Tank Dimensions		
Shell Height (ft)		16 00
Diameter (ft)		19 50
Liquid Height (ft)		15 00
Avg Liquid Height (ft)		15 00
Volume (gallons)		33,510 70
Turnovers		365 00
Net Throughput(gal/yr)		12,231,407 18
Is Tank Heated (y/n)	Y	
Paint Characteristics		
Shell Color/Shade	White/White	
Shell Condition	Good	
Roof Color/Shade	White/White	
Roof Condition	Good	
Roof Characteristics		
Type	Cone	
Height (ft)		1 00
Slope (ft/ft) (Cone Roof)		0 10
Breather Vent Settings		
Vacuum Settings (psig)		-0 03
Pressure Settings (psig)		0 03

Meterological Data used in Emissions Calculations Fresno, California (Avg Atmospheric Pressure = 14 56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-1237-662-0 Daily Emissions - Vertical Fixed Roof Tank
Livingston, California

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F) Avg	Min	Max	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg	Min	Max	Vapor Mol Weight	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculations
Wine 23 9 % Vol Alcohol	Jan	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Feb	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Mar	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Apr	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	May	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Jun	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Jul	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Aug	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Sep	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Oct	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Nov	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869
Wine 23 9 % Vol Alcohol	Dec	81 00	81 00	81 00	81 00	0 8500	0 8500	0 8500	30 3355			20 45	Option 1 VP70 = 58508 VP80 = 81869

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-1237-662-0 Daily Emissions - Vertical Fixed Roof Tank
Livingston, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Vapor Space Volume (cu ft)	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969
Vapor Density (lb/cu ft)	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044
Vapor Space Expansion Factor	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Vented Vapor Saturation Factor	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969
Tank Diameter (ft)	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000
Vapor Space Outage (ft)	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333
Tank Shell Height (ft)	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000
Average Liquid Height (ft)	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000
Roof Outage (ft)	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333
Roof Outage (Cone Roof)												
Roof Outage (ft)	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333
Roof Height (ft)	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
Roof Slope (ft/ft)	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000
Shell Radius (ft)	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500
Vapor Density												
Vapor Density (lb/cu ft)	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044	0 0044
Vapor Molecular Weight (lb/lb-mole)	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Daily Avg Liquid Surface Temp (deg R)	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700
Daily Average Ambient Temp (deg F)	45 7500	51 1000	55 0000	61 2000	68 9500	76 5500	81 8500	80 2500	74 4500	65 2000	53 6000	45 4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R))	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731
Liquid Bulk Temperature (deg R)	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700
Tank Paint Solar Absorptance (Shell)	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700
Tank Paint Solar Absorptance (Roof)	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700
Daily Total Solar Insulation Factor (Btu/sqft day)	668 1706	1,022 2439	1 488 6308	1,992 7729	2,390 9467	2 566 7143	2,551 4853	2 279 5850	1,860 7886	1 369 9719	851 5527	592 3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Daily Vapor Temperature Range (deg R)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Daily Vapor Pressure Range (psia)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Breather Vent Press Setting Range(psia)	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Daily Avg Liquid Surface Temp (deg R)	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700
Daily Min Liquid Surface Temp (deg R)	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700
Daily Max Liquid Surface Temp (deg R)	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700	540 6700
Daily Ambient Temp Range (deg R)	16 7000	21 2000	23 2000	27 8000	30 5000	32 3000	33 5000	32 9000	31 3000	29 0000	22 2000	16 6000

Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433	0 9433
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Vapor Space Outage (ft)	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333
Working Losses (lb)	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352
Vapor Molecular Weight (lb/lb-mole)	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355	30 3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500	0 8500
Net Throughput (gal/mo)	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310	1 019 283 9310
Annual Turnovers	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000	365 0000
Turnover Factor	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489	0 2489
Maximum Liquid Volume (gal)	33 510 7046	33,510 7046	33 510 7046	33 510 7046	33 510 7046	33,510 7046	33 510 7046	33 510 7046	33 510 7046	33,510 7046	33 510 7046	33 510 7046
Maximum Liquid Height (ft)	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000
Tank Diameter (ft)	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000
Working Loss Product Factor	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
Total Losses (lb)	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352	155 7352

$$\frac{155\ 7352}{31} = \frac{5\ 0237}{30\ 3355} \times \frac{30.3355 - 18.02}{46.02 - 18.02} \times 46\ 02$$

$$= 34 \frac{lb}{day}$$

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-1237-662-0 Daily Emissions - Vertical Fixed Roof Tank
Livingston, California

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23 9 % Vol Alcohol	1,868 82	0 00	1,868 82

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification		
User Identification	N-1237-662-0 Annual Emissions	
City	Livingston	
State	California	
Company	E & J Gallo Winery	
Type of Tank	Vertical Fixed Roof Tank	
Description	35,000 gallon stainless steel insulated wine storage tank	
Tank Dimensions		
Shell Height (ft)		16 00
Diameter (ft)		19 50
Liquid Height (ft)		15 00
Avg Liquid Height (ft)		15 00
Volume (gallons)		33,510 70
Turnovers		5 22
Net Throughput(gal/yr)		175,000 00
Is Tank Heated (y/n)	Y	
Paint Characteristics		
Shell Color/Shade	White/White	
Shell Condition	Good	
Roof Color/Shade	White/White	
Roof Condition	Good	
Roof Characteristics		
Type	Cone	
Height (ft)		1 00
Slope (ft/ft) (Cone Roof)		0 10
Breather Vent Settings		
Vacuum Settings (psig)		-0 03
Pressure Settings (psig)		0 03

Meterological Data used in Emissions Calculations Fresno, California (Avg Atmospheric Pressure = 14 56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-1237-662-0 Annual Emissions - Vertical Fixed Roof Tank
Livingston, California

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F) Avg	Min	Max	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg	Min	Max	Vapor Mol Weight	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculations
Wine 15 0 % Vol Alcohol	Jan	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Feb	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Mar	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Apr	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	May	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Jun	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Jul	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Aug	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Sep	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Oct	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Nov	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865
Wine 15 0 % Vol Alcohol	Dec	63 30	63 30	63 30	63 30	0 4058	0 4058	0 4058	27 1255			19 46	Option 1 VP60 = 35513 VP70 = 50865

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-1237-662-0 Annual Emissions - Vertical Fixed Roof Tank
Livingston, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Vapor Space Volume (cu ft)	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969
Vapor Density (lb/cu ft)	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020
Vapor Space Expansion Factor	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Vented Vapor Saturation Factor	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969	398 1969
Tank Diameter (ft)	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000
Vapor Space Outage (ft)	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333
Tank Shell Height (ft)	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000	16 0000
Average Liquid Height (ft)	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000
Roof Outage (ft)	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333
Roof Outage (Cone Roof)												
Roof Outage (ft)	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333	0 3333
Roof Height (ft)	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
Roof Slope (ft/ft)	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000	0 1000
Shell Radius (ft)	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500	9 7500
Vapor Density												
Vapor Density (lb/cu ft)	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020	0 0020
Vapor Molecular Weight (lb/lb-mole)	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Daily Avg Liquid Surface Temp (deg R)	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700
Daily Average Ambient Temp (deg F)	45 7500	51 1000	55 0000	61 2000	68 9500	76 5500	81 8500	80 2500	74 4500	65 2000	53 6000	45 4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R))	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731	10 731
Liquid Bulk Temperature (deg R)	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700
Tank Paint Solar Absorptance (Shell)	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700
Tank Paint Solar Absorptance (Roof)	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700	0 1700
Daily Total Solar Insulation Factor (Btu/sqft day)	668 1706	1 022 2439	1 488 6308	1 992 7729	2,390 9467	2 566 7143	2 551 4853	2,279 5850	1 860 7886	1,369 9719	851 5527	592 3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Daily Vapor Temperature Range (deg R)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Daily Vapor Pressure Range (psia)	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
Breather Vent Press Setting Range(psia)	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600	0 0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Daily Avg Liquid Surface Temp (deg R)	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700
Daily Min Liquid Surface Temp (deg R)	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700
Daily Max Liquid Surface Temp (deg R)	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700	522 9700
Daily Ambient Temp Range (deg R)	16 7000	21 2000	23 2000	27 8000	30 5000	32 3000	33 5000	32 9000	31 3000	29 0000	22 2000	16 6000

Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721	0 9721
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Vapor Space Outage (ft)	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333	1 3333
Working Losses (lb)	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220
Vapor Molecular Weight (lb/lb-mole)	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255	27 1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058	0 4058
Net Throughput (gal/mo)	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333	14 583 3333
Annual Turnovers	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222	5 2222
Turnover Factor	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
Maximum Liquid Volume (gal)	33 510 7046	33,510 7046	33 510 7046	33 510 7046	33,510 7046	33,510 7046	33 510 7046	33,510 7046	33 510 7046	33 510 7046	33 510 7046	33,510 7046
Maximum Liquid Height (ft)	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000	15 0000
Tank Diameter (ft)	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000	19 5000
Working Loss Product Factor	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000	1 0000
Total Losses (lb)	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220	3 8220

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-1237-662-0 Annual Emissions - Vertical Fixed Roof Tank
Livingston, California

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 15 0 % Vol Alcohol	45 86	0 00	45 86

$$\frac{45.86}{27\ 1255} \times \frac{27.1255 - 18.02}{46\ 02 - 18.02} \times 46.02$$

$$= 25\ \frac{lb}{year}$$

Appendix B

BACT Guideline 5.4.14 and Top Down BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.14*

Last Update 10/6/2009

Wine Fermentation Tank

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 deg F	1. Capture of VOCs and Thermal Oxidation or Equivalent (88% control) 2. Capture of VOCs and Carbon Adsorption or Equivalent (86% control) 3. Capture of VOCs and Absorption or Equivalent (81% control) 4. Capture of VOCs and Condensation or Equivalent (81% control)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Top Down BACT Analysis for Wine Fermentation VOC Emissions for Permit Units N-1237-670-0 through '693-0

Step 1 - Identify All Possible Control Technologies

The SJVUAPCD BACT Clearinghouse guideline 5.4.14, 3rd quarter 2013, identifies achieved in practice BACT for wine fermentation tanks as follows:

1) Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 deg F

The SJVUAPCD BACT Clearinghouse guideline 5.4.14, 3rd quarter 2013, identifies technologically feasible BACT for wine fermentation tanks as follows:

1) Capture of VOCs and thermal oxidation or equivalent (88% control)
2) Capture of VOCs and carbon adsorption or equivalent (86% control)
3) Capture of VOCs and absorption or equivalent (81% control)
4) Capture of VOCs and condensation or equivalent (81% control)

BACT guideline 5.4.14 (10/6/2009) lists both absoprtion (scrubber) and condensation systems as technologically feasible options for the control of VOC emission from wine fermentation operations. Since 2009, there has been substantial development of these two control technologies prompting a re-examination of the feasibility of these technologies in this project to determine if the technologies are considered Achieved in Practice for this class and category source. This Achieved in Practice analysis is presented in Attachment B of this evaluation.

While the control technologies of absorption and condensation are promising and have progressed significantly, the control technologies are not considered Achieved in Practice and will remain Technologically Feasible options. The Achieved in Practice determination for these control technologies will be re-examined in future projects as necessary.

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank by Control Effectiveness		
Rank	Control	Overall Capture and Control Efficiency(*)
1	Capture of VOCs and thermal or catalytic oxidation or equivalent	88%(**)
2	Capture of VOCs and carbon adsorption or equivalent	86%
3	Capture of VOCs and absorption or equivalent	81%
4	Capture of VOCs and condensation or equivalent	81%
5	Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 deg F	Baseline (Achieved-in-Practice)

(*) Capture efficiency (90%) x removal efficiency for control device.
(**) Following recent District practice, thermal and catalytic oxidation will be ranked together.

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for each control technology which is more effective than meeting the requirements of option 5 (achieved-in-practice BACT), as proposed by the facility.

Maximum Vapor Flow Rate

Based on the kinetic model provided by the facility, maximum CO2 production rate for each fermentation tank = 288.6 scfm.

Maximum Vapor Flow Rate = 288.6 scfm x 24 fermentation tanks = 6,926 scfm

The submitted kinetic model is based upon a maximum rate 46-hour red wine fermentation with a maximum tank charge of 80% of the nominal tank capacity of 56,000 gallons (44,800 gallons of must fermented). Since the planned operation of the proposed tanks (per E & J Gallo Winery) is the production of commercial premium wines with fermentation cycles of 5-8 days, the 46 hour fermentation basis with maximum fill is a very conservative upper limit of the expected flow rate.

Uncontrolled Fermentation Emissions

For purposes of cost effectiveness analysis, uncontrolled fermentation emissions will be calculated based on the uncontrolled emission factors without consideration of the 35% reduction per Rule 4694 as these are the actual uncontrolled emissions being sent to each control technology option.

Uncontrolled Fermentation PE = EF_{red} (lb-VOC/1000 gal) x annual throughput (gal/yr) x 24 tanks
= 6.2 lb-VOC/1000 gal x 570,395 gal/year x 24 tanks
= 3,536 lb-VOC/year x 24 tanks
= 84,864 lb-VOC/year

Capture of VOCs and condensation (> 81% collection & control)

EcoPAS Analysis

Equipment pricing for the refrigerated condenser option was obtained from EcoPAS which has developed technology of this type specific to the control of fermentation emissions. EcoPAS has submitted an analysis to control the 24 fermentation tanks in this project using four proprietary PAS control units. Each PAS unit is dedicated to a bay of six fermentation tanks. The units operate based on a small backpressure on the tanks and do not require induced draft fans. Chilled glycol/water is supplied from the winery central facility for condensing the ethanol vapor.

As seen below, EcoPAS has submitted a worst case model which assumes all fermentations are short cycle durations of 2-3 days. The fermentations are assumed to be staged in a manner to levelize the combined vapor flow and demonstrates that the full permitted annual capacity of the tanks would be achieved in 79 days of operation.

PAS Bay 1 of 4

One PAS Unit Servicing Six 56,000-gallon Fermentation Tanks--(no more than 8.125 tons EtOH permitted from these tanks)

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21	DAY 22	DAY 23	DAY 24
TANK 1	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty
TANK 2	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty
TANK 3	empty*	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty
TANK 4	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize
TANK 5	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize
TANK 6	empty	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8
Daily Brix Redux for 6-tanks combined	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33
GALLONS - Active Fermentation	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800
GALLONS - Cumulative Fermented	44,800	89,600	89,600	134,400	179,200	224,000	268,800	268,800	313,600	358,400	358,400	403,200	448,000	492,800	537,600	537,600	582,400	627,200	627,200	672,000	716,800	761,600	806,400	806,400
EtOH Emitted per day - POUNDS	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111
Cumulative EtOH Emitted - TONS	0.08	0.18	0.25	0.36	0.46	0.61	0.78	0.83	0.92	1.01	1.08	1.19	1.29	1.44	1.61	1.67	1.75	1.85	1.92	2.03	2.12	2.28	2.44	2.50

8-day total: 44,800 x 6 = 268,800-gallons

2,620,968-gal / 268,800-gal = 9.75 turns MAX

empty: Not in active fermentation. May be cold soak or post-fermentation storage. Actual active fermentations likely to extend beyond 2-3 days. This modeled condition is a reasonable worst-case scenario with short cycles of active fermentation.

PAS Bay 1 of 4

	DAY 25	DAY 26	DAY 27	DAY 28	DAY 29	DAY 30	DAY 31	DAY 32	DAY 33	DAY 34	DAY 35	DAY 36	DAY 37	DAY 38	DAY 39	DAY 40	DAY 41	DAY 42	DAY 43	DAY 44	DAY 45	DAY 46	DAY 47	DAY 48
TANK 1	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty
TANK 2	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty
TANK 3	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty
TANK 4	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize
TANK 5	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize
TANK 6	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8
Daily Brix Redux for 6-tanks combined	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33
GALLONS - Active Fermentation	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800
GALLONS - Cumulative Fermented	851,200	896,000	896,000	940,800	985,600	1,030,400	1,075,200	1,075,200	1,120,000	1,164,800	1,164,800	1,209,600	1,254,400	1,299,200	1,344,000	1,344,000	1,388,800	1,433,600	1,433,600	1,478,400	1,523,200	1,568,000	1,612,800	1,612,800
EtOH Emitted per day - POUNDS	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111
Cumulative EtOH Emitted - TONS	2.58	2.68	2.75	2.86	2.96	3.11	3.28	3.33	3.42	3.51	3.58	3.69	3.79	3.94	4.11	4.17	4.25	4.35	4.42	4.53	4.62	4.78	4.94	5.00

PAS Bay 1 of 4

	DAY 49	DAY 50	DAY 51	DAY 52	DAY 53	DAY 54	DAY 55	DAY 56	DAY 57	DAY 58	DAY 59	DAY 60	DAY 61	DAY 62	DAY 63	DAY 64	DAY 65	DAY 66	DAY 67	DAY 68	DAY 69	DAY 70	DAY 71	DAY 72
TANK 1	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty	12	8	sanitize	empty	empty	empty	empty	empty
TANK 2	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty	soak	6	10	4	sanitize	empty	empty	empty
TANK 3	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty
TANK 4	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize	empty	empty	load	soak	6	10	4	sanitize
TANK 5	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize
TANK 6	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8	sanitize	empty	empty	empty	load	soak	12	8
Daily Brix Redux for 6-tanks combined	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33	2.00	2.33	1.67	2.67	2.33	3.67	4.00	1.33
GALLONS - Active Fermentation	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800	44,800	89,600	44,800	89,600	89,600	89,600	134,400	44,800
GALLONS - Cumulative Fermented	1,657,600	1,702,400	1,702,400	1,747,200	1,792,000	1,836,800	1,881,600	1,881,600	1,926,400	1,971,200	1,971,200	2,016,000	2,060,800	2,105,600	2,150,400	2,150,400	2,195,200	2,240,000	2,240,000	2,284,800	2,329,600	2,374,400	2,419,200	2,419,200
EtOH Emitted per day - POUNDS	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111	167	194	139	222	194	306	333	111
Cumulative EtOH Emitted - TONS	5.08	5.18	5.25	5.36	5.46	5.61	5.78	5.83	5.92	6.01	6.08	6.19	6.29	6.44	6.61	6.67	6.75	6.85	6.92	7.03	7.12	7.28	7.44	7.50

PAS Bay 1 of 4

	DAY 73	DAY 74	DAY 75	DAY 76	DAY 77	DAY 78	DAY 79
TANK 1	12	8	sanitize	empty	empty	empty	empty
TANK 2	soak	6	10	4	sanitize	empty	empty
TANK 3	empty	load	soak	12	8	sanitize	empty
TANK 4	empty	empty	load	soak	6	10	4
TANK 5	empty	empty	empty	empty	empty	empty	empty
TANK 6	sanitize	empty	empty	empty	empty	empty	empty
Daily Brix Redux for 6-tanks combined	2.00	2.33	1.67	2.67	2.33	1.67	0.67
GALLONS - Active Fermentation	44,800	89,600	44,800	89,600	89,600	44,800	44,800
GALLONS - Cumulative Fermented	2,464,000	2,508,800	2,508,800	2,553,600	2,598,400	2,598,400	2,598,400
EtOH Emitted per day - POUNDS	167	194	139	222	194	139	56
Cumulative EtOH Emitted - TONS	7.58	7.68	7.75	7.86	7.96	8.03	8.06

Per EcoPAS, each PAS unit has a capacity adequate to control the vapor flow from the six dedicated fermentation tanks at a 90 percent capture efficiency as long as the fermentations are appropriately staged to prevent all the tanks from operating at peak fermentation simultaneously. Typically the actively fermenting tanks in each bay of six tanks and the PAS unit are connected with quick-disconnect hoses to a central stainless steel header.

Per EcoPAS, due to the high concentration ethanol collected by the PAS unit (80-100 proof), the unit is self-sterilizing and CIP is not normally required throughout the season. However, if required, the PAS unit and central header may be flushed with sterilizing chemicals through the hose connections. EcoPAS indicates a CIP system is not required.

An 80-100 proof liquor is produced from the unit and delivered to stainless steel drums. When filled, the drums are transferred and pumped into a holding tank for purposes of sale or internal use.

E & J Gallo Winery Analysis

Number of Control Devices

E & J Gallo Winery has indicated the tanks in this project are being designed for commercial premium wines so fermentation cycles are 5-8 days. However, depending on the wine type the fermentation period could be very aggressive and completed in 2-3 days.

E & J Gallo Winery has stated grapes may not arrive in the quantities planned and tanks may be filled in groups at one time causing them to reach peak fermentation at the same time with variations in the fill quantity and stacking of the fermenter. In addition, sometimes there are desires to ferment certain lots at different temperatures. Therefore, factors such as variability of how grapes are received and available for processing, weather conditions, wine type market demands, cooperage availability, mechanical issues, labor availability, are all important variables in determining tank utilization and can change on a per shift basis during the crush season.

E & J Gallo Winery has presented three sets of operating data from June-September 2013 demonstrating utilization of 24 red wine fermenters constructed in 2012. The third set of operating data (see letter dated September 26, 2013) demonstrated a maximum of 19 simultaneous fermentations in a 24 tank operation with a volume fill percentage ranging from 59-81% (average 67%). This data presents a higher utilization rate and average volume fill percentage than the set of operating data presented in the BACT analysis for the preliminary public notice evaluation (maximum of 18 simultaneous fermentations in a 24 tank operation with an average volume fill percentage of 49%). However, these units had not been field proven and had not experienced an entire operating season of use. Therefore, using this historical data should not be considered an all inclusive analysis for quantifying the number of control devices.

EcoPAS contends that four condensers are required to control the 24 fermentation tanks in this project. E & J Gallo Winery disagrees with this contention and has indicated a dedicated control device is required for each tank for the reasons presented above. However, E & J Gallo Winery

has provided a cost effectiveness analysis based on four condensers as quoted by the control technology company.

Control Efficiency

E & J Gallo Winery states the size of the proposed fermenters should be taken into consideration when reviewing source test data with the use of proper source teseting protocols and with control devices in operation throughout an entire harvest season. As there is not enough supporting evidence of a higher control efficiency, E & J Gallo Winery proposes the use of no greater than 81% control efficiency for this project for both condensation and water scrubbing control technologies.

Cost Effectiveness Analysis

E & J Gallo Winery states the fire code requires everything within a 25 foot radius from a control device to meet Class I, Division II Fire Code standards for explosivity. The facility has also stated the control devices themselves will need to be cleaned in the event of a foam over. These events are infrequent; however, a CIP system to protect and properly clean and sanitize the control devices must be factored into the analysis. The facility has indicated the condensers cannot be simply tied into the existing ammonia or glycol system as the current systems at the facility are fully utilized.

E & J Gallo Winery has indicated additional evaluation is required pertaining to the EcoPAS fermentation cycle model to determine if this scenario could be likely encountered in the field. As well, the facility states evaluation of safety issues associated with managing and moving high-proof alcohol collected in drums is required. Mobility of the condensers requires examination in a large industrial setting.

E & J Gallo Winery has performed a cost effectiveness analysis for both the condenser and scrubber control options (see Attachment C). The cost effectiveness analysis includes:

1) Design basis
2) Equipment costs
3) Installation costs
4) Number of units
5) Overall capital impacts

These considerations are presented for both the EcoPAS condenser and NohBell Corporation scrubber. The costs are on a per control device basis as well as represented on costs for the overall project. These bottom-up cost calculations were performed by a team of Professional Engineers with extensive experience in designing control devices for similar industial applications. The premise behind the design and corresponding costs is that the control devices must be:

1) Effective for large scale industrial winery operations
2) Emissions control efficiency of 81%

3) Meeting all safety code and fire protection regulations for handling high-proof alcohol
4) Be field proven to sustain aggressive operation throughout an entire harvest season

The calculated cost effectiveness result is summarized below and detailed calculations are provided in Attachment C.

Adjustment of Equipment Cost only to $7.2 million TCI = $33,937/ton
Adjustment of Installation Cost only to $4.3 million TCI = $20,268/ton
Adjustment of Number of Units only to $5.4 million TCI = $25,452/ton
Adjustment of all factors above to $17.6 million TCI = $82,956/ton

The provided comments shall not be all inclusive. The wine industry will be providing a thorough set of comments including updated equipment and cost construction data in the next several months.

District Analysis

Taking into consideration the information and comments provided by EcoPAS and E & J Gallo Winery, the District will analyze the EcoPAS system for cost effectiveness on the following basis.

Design Basis

- Although the EcoPAS units have not been demonstrated at the scale of operation as proposed by this project, the District will conservatively assume that the proposed equipment and equipment cost proposed by EcoPAS will meet the duty requirements for the project.
- The quoted efficiency of the EcoPAS system (90%) has been established based on limited small-scale pilot testing. Given that the unit operation has not been fully demonstrated at this time, the District will consider the average control efficiency of the unit to be only 81% for purposes of this project, consistent with the District's BACT Guideline for this class and category source.
- EcoPAS has provided site-specific installation costs for the proposed scope of supply (see Attachment C). The District will conservatively base the cost effectiveness analysis on these costs with the exception of the following adjustments:
- Engineering costs will be assumed to be 5% of total direct cost exclusive of city/county plan check costs. The District believes that this value reflects a typical minimum for any significant industrial project and believes that this is consistent with standard estimating and good engineering practice.
- The EcoPAS cost for Permits and Testing ($10,000) is considered adequate to cover building department costs only, including plan check and building permit fees. Due to the unsteady state operation of fermentation tanks, initial source testing is expected to be a significant technical operation with significant expense, conducted over the fermentation cycle rather than the typical three 30-minute steady state measurements. An additional cost of $15,000 per unit will be assumed for initial source testing.
- EcoPAS has estimated a cost of $98,100 to cover administrative cost and contingency for the project. The District's analysis will consider these items separately as "Owner's Cost" (administrative) and "Project Contingency".

- Owner's Cost: The District considers a value of $100,000 as a minimum value to cover the project management, internal engineering and operations planning required to implement a significant new process technology of this scale in a commercial winery.
- Project Contingency: Good engineering practice and accepted norms of the engineering industry, when applied to an conceptual estimate of this type, require a project contingency exceeding 20%. Contingencies less than 10% are only achieved when preliminary engineering has been completed (all major equipment fully specified and firm quotations received with approved piping and instrumentation diagrams, plot plans and equipment layouts) plus a preliminary design basis and/or preliminary design sketches with material take-off for all significant cost components of the project. Contingencies less than 5% are only applicable to projects for which all engineering is completed and approved for construction. Based on this discussion, the District will apply a conservative project contingency of 20% to the estimated capital investment for this project.
- E & J Gallo Winery has indicated that, consistent with their current plant and corporate operating philosophy, programable logic controls and data logging as well as integration with existing digital control systems will be required for any fermentation control system installed. The District has added an allowance of $10,000 per unit to cover the expected hardware and programming cost of this item.
- Operating labor is estimated based on 1 operator hour per day and 3 shifts per day per operating unit over a 90 day crush season and an hourly cost of $18.50 per hour.
- An allowance for annual maintenance cost was included as 1% of Total Capital Investment.
- The cost of a chiller system has been annualized and the annualized cost is estimated at $270 per ton of recovered ethanol based on approximately $85 per ton energy charge at $0.13/kWh and $100 per ton capital charge for the central chilled water facility (based on a District analysis of annualized costs for a 100 ton mechanical chiller).
- Annual source testing will be required. It is assumed that only one representative unit will require testing each year. An annual charge of $15,000 has been included.
- Recovered ethanol (assume 80 proof liquor for worst case scenario) is estimated at approximately 28,844 gallons per year (84,864 lb/year (uncontrolled fermentation emissions) x 0.90 x gal/6.62 lb ÷ 0.40). EcoPAS has indicated the value of the recovered ethanol is $25 per gallon as a 60 proof alcohol spirit. However, E & J Gallo Winery has indicated the highest value for this product would be $[redacted]* per gallon assuming the alcohol can be used for internal brandy production (which has not been demonstrated in practice to be true). This represents the facilities internal cost for distilling material alcohol and does not include additional processing. If the alcohol cannot be used internally, E & J Gallo Winery has indicated the product has no value outside the organization and would in fact incur a disposal cost resulting in a value less than $0 per gallon. E & J Gallo Winery has proposed to value the recovered alcohol at a conservative value of $[redacted]* per gallon until it can be proven in practice to have a greater value.

* E & J Gallo Winery has requested this value to be deemed confidential business information. The District has determined this request meets the requirements of District Rule 1030 and qualifies as confidential information. This value and all results calculated using this value will be redacted in this evaluation.

Capital Cost Refrigerated Condenser

Pricing for the EcoPAS units, each sized to handle the rated maximum flow stated by E & J Gallo Winery, was provided by EcoPAS.

As quoted by EcoPAS, based on supply of 4 PAS units each sized to control six (6) 56,000-gallon tanks, the price per condenser is estimated at $475,318 each. The estimated price includes shipping and California sales tax.

Capital Cost = $475,318

Total Capital Cost = $475,318 x 4 units
= $1,901,272

Condensation	
Cost Description	Cost ($)
Cost of Refrigerated Condenser system (4 PAS Units)	$1,901,272
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Condenser) See Above	$1,901,272
Instrumentation (included)	-
Sales Tax 8.225% (included)	-
Freight (included)	-
Purchased equipment cost	**$1,901,272**
Labor (per EcoPAS estimate)	$81,600
Installation Expense (per EcoPAS estimate)	$59,175
Subcontracts (per EcoPAS estimate)	$18,000
PLC/Programming	$40,000
Direct installation costs	**$198,775**
Total Direct Costs (TDC)	**$2,100,047**
Indirect Costs (IC)	
Engineering (5% of TDC)	$105,000
Permits (Building Department) (Allowance)	$10,000
Initial Source Testing (4 units x $15,000/unit)	$60,000
Owner's Cost (Allowance)	$100,000
Total Indirect Cost	**$275,000**
Subtotal Capital Investment (SCI)	**$2,375,047**
Project Contingency (20% of SCI)	$475,009
Total Capital Investment (TCI) (DC + IC + Contingency)	**$2,850,056**

Annualized Capital Costs

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.1627, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $2,850,056 x 0.1627 = $463,833

Annual Costs

Annual Costs			
Direct Annual Cost (DC)			
Operating Labor			
Operator	1 hr/shift x 3 shifts/day x 4 units x 90 days = 1,080 hr/year	$18.50/h	$19,980
Supervisor	15% of operator		$1,998
Maintenance			
Labor	1% of TCI		$28,500
Chiller (Glycol)			
	84,864 lb/year (uncontrolled fermentation emissions) x 0.81 ÷ 2000	$270/ton EtOH	$9,280
Utility			
Electricity		$0.102/kWh	$0
Total DC			$59,758
Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($19,980 + $1,998 + $28,500)	$30,287
Administrative	2% TCI		$57,001
Property Taxes	1% TCI		$28,500
Insurance	1% TCI		$28,500
Annual Source Test	One representative test/year @ $15,000		$15,000
Total IC			$159,288
Recovery Credits (RC)			
80 Proof Recovered	84,864 lb/year (uncontrolled fermentation emissions) x 0.81 x gal/6.62 lb ÷ 0.40	$[redacted]/gal 80 Proof EtOH	$[redacted]
Annual Cost (DC + IC – RC)			$[redacted]

Total Annual Cost = Condenser System + Annual Cost
= $463,833 + $[redacted]
= $[redacted] (with Recovery Credits)

Emission Reductions

EcoPAS has indicated the PAS unit is capable of achieving a capture and control efficiency of 90%. However, the District's current BACT Guideline identifies a combined capture and control efficiency of 81% for condensation technology. The capture and control efficiency of 81% will be used in this analysis as the value of 90% has yet to be shown to be feasible.

Annual Emission Reduction = Fermentation Emissions x 0.81
= 84,864 lb-VOC/year x 0.81
= 68,740 lb-VOC/year
= 34.4 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $[redacted]/year ÷ 34.4 tons-VOC/year
= $[redacted]/ton-VOC (with Recovery Credits)

Cost Effectiveness Based on E & J Gallo Winery Estimated Costs

For reference, cost effectiveness is also calculated using the estimated capital investment of $24 million dollars provided by E & J Gallo Winery.

Total Annual Cost = Condenser System
= $24,000,000 x 0.1627
= $3,905,889

Cost Effectiveness = $2,864,319/year ÷ 34.4 tons-VOC/year
= $113,643/ton-VOC

The analysis demonstrates that the annualized purchase cost of the refrigerated condenser system and annual costs alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by absorption (> 81% collection & control)

NohBell Corporation Analysis

Equipment pricing for the water scrubber control option was obtained from NohBell Corporation. NohBell Corporation has submitted an analysis to control the 24 fermentation tanks in this project using 18 proprietary mobile NoMoVo control units. One mobile NoMoVo unit is placed next to each actively fermenting tank. Each NoMoVo unit consists of a scrubber unit and a pump/refrigeration skid which serves to cool and circulate the scrubber solution. The units operate based on a small backpressure on the tanks and do not require induced draft fans.

Each unit has a capacity rating sufficient to accommodate the project stated maximum carbon dioxide vapor flow based on red wine fermentation. The proposed system is sized to allow simultaneous utilization of up to 18/24 = 75 percent of the tanks (18 NoMoVo units) under the worst case scenario that the maximum rate fermentation operates in two days. An additional 13th "swing" unit is provided to facilitate the operation. For managed lower vapor flow rate fermentations, the units may be coupled to multiple tanks for control of fermentation emission and tank utilization up to 100 percent is possible. A fermentation sequence was analyzed for six of the tanks which assumes all fermentations are short cycle durations of 2-3 days. The fermentations are staged in a manner to levelize the combined flow and demonstrates that the full permitted annual capacity of the tanks would be achieved in 79 days of operation.

Each NoVoMo unit is connected to the fermentation tank with a quick-disconnect hose. The scrubber liquid is transferred batch-wise to a holding tank when the concentration reaches ten percent and the scrubber holding tank is recharged with fresh water. Each batch is 35-50 gallons and is transferred to a mobile pony tank which is in turn pumped to a fixed storage tank for further use or truck shipment. The ten percent ethanol produced from each scrubber is suitable for delivery to an ethanol distillery for recovery as high-proof alcohol.

NohBell Corporation indicates that based on operating experience, CIP is not normally required throughout the season due to the concentration of ethanol collected in the NoVoMo unit (10%) and the acidity of the solution. However, if required, the NoMoVo unit may be flushed with sterilizing chemicals through the hose connections. NohBell Corporation has indicated a CIP system is not required.

E & J Gallo Winery Analysis

As previously mentioned, E & J Gallo Winery has provided three sets of operating data for an existing group of twenty-four fermentation tanks for purposes of characterizing the proposed operation and the potential requirements for control devices.

NohBell Corporation contends that eighteen scrubber units are required to control the 24 fermentation tanks in this project. E & J Gallo Winery disagrees with this contention and has indicated a dedicated control device is required for each tank for the reasons presented above.

However, E & J Gallo Winery has provided a cost effectiveness analysis based on thirteen scrubber units as quoted by the control technology company.

Control Efficiency

As explained above, E & J Gallo Winery proposes the use of no greater than 81% control efficiency for this project for the water scrubbing control technology.

Cost Effectiveness Analysis

E & J Gallo Winery states the fire code requires everything within a 25 foot radius from a control device to meet Class I, Division II Fire Code standards for explosivity. The facility has also stated the control devices themselves will need to be cleaned in the event of a foam over. These events are infrequent; however, a CIP system to protect and properly clean and sanitize the control devices must be factored into the analysis.

E & J Gallo Winery has performed a cost effectiveness analysis for both the condenser and scrubber control options (see Attachment C).

The calculated cost effectiveness result is summarized below and detailed calculations are provided in Attachment C.

Adjustment of Equipment Cost only to TCI of $5.3 million = $24,981/ton
Adjustment of Installation Cost only to TCI of $3.8 million = $17,911/ton
Adjustment of Number of Units only to TCI of $2.3 million = $18,841/ton
Adjustment of all factors above to TCI of $17.6 million = $70,911/ton

The provided comments shall not be all inclusive. The wine industry will be providing a thorough set of comments including updated equipment and cost construction data in the next several months.

District Analysis

Design Basis

- Although the NoMoVo units have not been demonstrated at the scale of operation as proposed by this project, the District will conservatively assume that the proposed equipment and equipment cost proposed by NohBell will meet the duty requirements for the project.
- The District will consider the average control efficiency of the unit to be 81% for purposes of this project, consistent with the District's BACT Guideline for this class and category.
- The EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001) is used for this analysis with modifications to account for project-specific conditions.
- Instrumentation allowance of $2,000 per NoMoVo unit has been included for a pressure transmitter and a temperature transmitter for monitoring pressure of the collection header and vent stream and temperature from the NoMoVo unit.
- Sales tax = 8.225% based on California location

- Foundations and supports: not required – unit is supported from either a tank or the pipe rack structure. Equipment price includes required attachments and clips.
- Since the units are mobile which are ready for operation upon delivery, Handling and Erection is taken to be 2% of Purchased Equipment Cost as an allowance for pre-commissioning.
- Piping is taken to be 1% of Purchased Equipment Cost based on the only requirements being Tee fittings for the tank discharge.
- Gallo has indicated that, consistent with their current plant and corporate operating philosophy, programable logic controls and data logging as well as integration with existing digital control systems will be required for any fermentation control system installed. The district has added an allowance of $10,000 per unit to cover the expected hardware and programming cost of this item.
- Insulation and painting are not required.
- Recovered ethanol storage tank = $40,000 (installed)
- Due to the unsteady state operation of fermentation tanks, initial source testing is expected to be a significant technical operation with significant expense, conducted over the fermentation cycle rather than the typical three 30-minute steady state measurements. An additional cost of $15,000 per unit will be assumed for initial source testing.
- Engineering costs will be assumed to be 5% of total direct cost exclusive of city/county plan check costs. The District believes that this value reflects a typical minimum for any significant industrial project and believes that this is consistent with standard estimating and good engineering practice.
- An allowance of $10,000 will be added to cover plan check and building permit fees.
- Owner's Cost: The District considers a value of $100,000 as a minimum value to cover the project management, internal engineering and operations planning required to implement a significant new process technology of this scale in a commercial winery.
- Project Contingency: Good engineering practice and accepted norms of the engineering industry, when applied to an conceptual estimate of this type, require a project contingency exceeding 20%. Contingencies less than 10% are only achieved when preliminary engineering has been completed (all major equipment fully specified and firm quotations received, approved piping and instrumentation diagrams, plot plans and equipment layouts) plus a preliminary design basis and/or preliminary design sketches with material take-off for all significant cost components of the project. Contingencies less than 5% are only applicable to projects for which all engineering is completed and approved for construction. Based on this discussion, the District will apply a conservative project contingency of 20% to the estimated capital investment for this project.
- Operating labor is estimated based on 2 operator hours per day per operating unit over a 90 day crush season and an hourly cost of $18.50 per hour.
- An allowance for annual maintenance cost was included as 1% of Total Capital Investment.
- Connected electrical load for each unit is 2.5 horsepower which is assumed to operate continuously for 90 days.
- Electric power cost = $0.102/kWh (see regenerative thermal oxidizer Top Down BACT Analysis section below)
- Captured ethanol is recovered as a 10% solution suitable for disposal to an ethanol distillery at a cost of $0.08 per gallon.

- Annual source testing will be required. It is assumed that only one representative unit will require testing each year. An annual charge of $15,000 has been included.

Capital Cost Scrubber

Pricing for the NoMoVo units, each sized to handle the rated maximum flow stated by E & J Gallo Winery, was provided by NohBell Corporation:

NoMoVo v4.0-18 Reactor Units = $60,000 each
NoMoVo v2.0 Portable Pumping Skids = $7,500 each
Total = $60,000 + $7,500 = $67,500

Total Adjusted Capital Cost = $67,500 x 18 units
= $1,215,000

Scrubber	
Cost Description	Cost ($)
Refrigerated Scrubber System (18 NoVoMo Units)	$1,215,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Scrubber System) See Above	$1,215,000
Instrumentation ($2,000 per unit)	$40,000
Sales Tax 8.225%	$99,934
Freight (included)	-
Purchased equipment cost	**$1,354,934**
Foundations & supports (not required)	-
Handling & erection 2%	$27,099
Electrical 1%	$13,549
Piping 1%	$13,549
Painting (not required)	-
Insulation (not required)	-
PLC & Programming	180,000
Recovered Ethanol Storage Tank (installed)	$40,000
Direct installation costs	**$274,197**
Total Direct Costs (TDC)	**$1,629,131**
Indirect Costs (IC)	
Engineering (5% of TDC)	$81,457
Construction and field expenses (2% of TDC)	$32,583
Permits (Building Department) (Allowance)	$10,000
Contractor fees (2% of TDC)	$32,583
Start-up (1% of TDC)	$16,291

Source Testing (18 units x $15,000/unit)	$270,000
Owner's Cost (Allowance)	$100,000
Total Indirect Costs	**$542,914**
Subtotal Capital Investment (SCI)	**2,172,045**
Project Contingency (20% of SCI)	$434,409
Total Capital Investment (TCI) (DC + IC)	**$2,606,454**

Annualized Capital Costs

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.1627, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $2,606,454 x 0.1627 = $424,188

Wastewater Disposal Costs

Additionally, the water scrubber will generate ethanol-laden wastewater containing 34.4 tons-ethanol annually (84,864 lb/year (uncontrolled fermentation emissions) x 0.81 ÷ 2000). Assuming a 10% solution, approximately 103,837 gallons of waste water (34.4 ton-ethanol x 2000 lb/ton x gal/6.62 lb ÷ 0.10) will be generated annually. Per NohBell Corporation, an allowance of $0.08 per gallon is applied for disposal costs.

Annual disposal costs = 103,837 gallons x $0.08/gallon = $8,307

Annual Costs

Annual Costs			
Direct Annual Cost (DC)			
Operating Labor			
Operator	2 hr/day x 18 units x 90 days = 3,240 hr/year	$18.50/h	$59,940
Supervisor	15% of operator		$8,991
Maintenance			
Labor	1% of TCI		$26,065
Wastewater Disposal			
	10% Solution = 103,455 gal	$0.08/gal	$8,307
Utility			
Electricity	18 units x 2.5 hp x 0.746 kW/hp x 2,160 hr/yr = 72,511 kWh/yr	$0.102/kWh	$7,396
Total DC			$101,022

Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($59,940 + $8,991 + $26,065)	$56,998
Administrative	2% TCI		$52,129
Property Taxes	1% TCI		$26,065
Insurance	1% TCI		$26,065
Annual Source Test	One representative test/year @ $15,000		$15,000
Total IC			$176,257
Annual Cost (DC + IC)			**$277,279**

Total Annual Cost = Scrubber System + Annual Cost
= $424,188 + $277,279
= $701,467

Emission Reductions

The District's BACT Guideline identifies an overall collection and control efficiency of 81% for absorption systems.

Annual Emission Reduction = Fermentation Emissions x 0.81
= 84,864 lb-VOC/year x 0.81
= 68,740 lb-VOC/year
= 34.4 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $701,467/year ÷ 34.4 tons-VOC/year
= $20,409/ton-VOC

Cost Effectiveness Based on E & J Gallo Winery Estimated Costs

For reference, cost effectiveness is also calculated using the estimated capital investment of $17.4 million dollars provided by E & J Gallo Winery.

Total Annual Cost = Scrubber System
= $17,400,000 x 0.1627
= $2,831,770

Cost Effectiveness = $2,831,770/year ÷ 34.4 tons-VOC/year
= $82,391/ton-VOC

The analysis demonstrates that the annualized purchase cost of the water scrubber and annual costs alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by carbon adsorption (> 86% collection and control)

Collection System Capital Investment (based on ductwork)

A potential common feature of all thermal or catalytic oxidation/carbon adsorption options when configured as a large single control device controlling many tanks is that they require installation of a collection system for delivering the VOCs from the tanks to the common control device. Therefore, the requirements and cost of such a collection system will be considered separately.

Collection system to consist of:

- The collection system consists of stainless steel place ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting twenty-four tanks to a common manifold system which ducts the combined vent to the common control device. The cost of dampers and isolation valving, installed in the ductwork, will be included in the cost estimate.
- A minimum duct size is established at six inches diameter at each tank to provide adequate strength for spanning between supports. The main header is twelve inches diameter to handle the potential for simultaneous venting. The main header duct size of twelve inches may be insufficient for red wine fermentation but will be utilized as a worst case scenario.

Capital Cost Ductwork

Connection from tank to main duct = 24 tanks x 25 feet x $61.30/foot = $36,780
Main duct for fermenters = $190,365
Redundant main duct for fermenters = $190,365
Unit installed cost for 6 inch butterfly valve = $2,125/valve x 24 valves x 2 systems = $102,000
Unit installed cost one foot removable spool = $500/tank x 24 tanks x 2 systems = $24,000
Knockout drums = $46,300
Duct support allowance = $4,000/tank x 24 tanks = $96,000
Pipe support allowance 90 foot pipe bridge = $90,000

Total = $36,780 + $190,365 + $190,365 + $102,000 + $24,000 + $46,300 + $96,000 + $90,000
= $775,810

Instrumentation and electrical (grounding and dampers) may be required but will be excluded as a worst case scenario (based on comments provided by the emission control device vendors).

Ductwork	
Cost Description	Cost ($)
Duct Estimate (See Duct Sizing Attachment A)	$775,810
Adjusting factor from 2005 dollars to 2013 dollars (2.75% inflation/year)	1.22
Inflation adjusted duct cost	$946,488
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Ductwork) See Above	$946,488
Instrumentation (not required)	-
Sales Tax 3%	$28,395
Freight 5%	$47,324
Purchased equipment cost	**$1,022,207**
Foundations & supports 8%	$81,777
Handling & erection 14%	$143,109
Electrical 4% (not required)	-
Piping 2% (not required)	-
Painting 1% (not required)	-
Insulation 1% (not required)	-
Direct installation costs	**$224,886**
Total Direct Costs	**$1,247,093**
Indirect Costs (IC)	
Engineering 10%	$102,221
Construction and field expenses 5%	$51,110
Contractor fees 10%	$102,221
Start-up 2%	$20,444
Performance test 1%	$10,222
Contingencies 3%	$30,666
Total Indirect Costs	**$316,884**
Total Capital Investment (TCI) (DC + IC)	**$1,563,977**

Capital Cost Clean-In-Place (CIP) System

A ducting system on a tank farm must have this system to maintain sanitation and quality of the product. The cost of operation of the CIP system has not been estimated. Operation of a CIP system, using typical cleaning agents, will raise disposal and wastewater treatment costs. Most likely, these costs will be significant.

Clean-In-Place (CIP) System	
Cost Description	Cost ($)
Current cost of CIP system	$200,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (CIP System) See Above	$200,000
Instrumentation 10%	$20,000
Sales Tax 3%	$6,000
Freight 5%	$10,000
Purchased equipment cost	**$236,000**
Foundations & supports 8%	$18,880
Handling & erection 14%	$33,040
Electrical 4%	$9,440
Piping 2%	$4,720
Painting 1%	$2,360
Insulation 1%	$2,360
Direct installation costs	**$70,800**
Total Direct Costs	**$306,800**
Indirect Costs (IC)	
Engineering 10%	$23,600
Construction and field expenses 5%	$11,800
Contractor fees 10%	$23,600
Start-up 2%	$4,720
Performance test 1%	$2,360
Contingencies 3%	$7,080
Total Indirect Costs	**$73,160**
Total Capital Investment (TCI) (DC + IC)	**$379,960**

Annualized Capital Costs

Two CIP systems are required for a redundant ducting system.

Total capital costs = Ductwork + CIP System (x 2)
= $1,563,977 + $379,960 + $379,960
= $2,323,897

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.163 per District policy, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $2,323,897 x 0.163 = $378,204

Carbon Adsorption

Water scrubber (750 cfm) capital cost = $108,500 (per 2003 budgetary pricing obtained by Sonoma Technologies)

The Carbon Containment hardware is about equal to the scrubber hardware. A tank is needed for the steam regenerated carbon bed. It is likely two beds will be needed to be able to be on line with one bed while the other is being regenerated.

The carbon bed operated with steam to regenerate the bed produces a water alcohol mixture. The waste stream or disposal costs have not been analyzed in this project.

Carbon Capital Cost

Annual Emission Reduction = Fermentation Emissions x 0.86
= 84,864 lb-VOC/year x 0.86
= 72,983 lb-VOC/year
= 36.5 tons-VOC/year

Assume a working bed capacity of 20% for carbon (weight of vapor per weight of carbon)

Carbon required = 36.5 tons-VOC/year x 2000 lb/ton x 1/0.20
= 364,915 lb carbon

Carbon capital cost = $1.00/lb = $1.00/lb x 364,915 lb carbon = $364,915

Carbon Adsorption	
Cost Description	Cost ($)
Carbon Adsorption cost (taken from Scrubber cost above 2003 dollars)	$108,500
Adjusting factor from 2003 dollars to 2013 dollars (2.75% inflation/year)	1.275
Inflation adjusted Carbon Adsorption cost	$138,338
Gas flow rate scfm	6,926

Size adjusted Carbon Adsorption cost [138,338 x $(6{,}926 \div 750)^{0.6}$]	$525,042
Water alcohol tank cost	$40,000
Size adjusted Carbon Adsorption + water alcohol tank cost	$565,042
Carbon Capital Cost (see above)	$364,915
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Carbon Adsorption System + Carbon) See Above	$929,957
Instrumentation 10%	$92,996
Sales Tax 3%	$27,899
Freight 5%	$46,498
Purchased equipment cost	**$1,097,350**
Foundations & supports 8%	$87,788
Handling & erection 14%	$153,629
Electrical 4%	$43,894
Piping 2%	$21,947
Painting 1%	$10,974
Insulation 1%	$10,974
Direct installation costs	**$329,206**
Total Direct Costs	**$1,426,556**
Indirect Costs (IC)	
Engineering 10%	$109,735
Construction and field expenses 5%	$54,868
Contractor fees 10%	$109,735
Start-up 2%	$21,947
Performance test 1%	$10,974
Contingencies 3%	$32,921
Total Indirect Costs	**$340,180**
Total Capital Investment (TCI) (DC + IC)	**$1,766,736**

Annualized Capital Costs

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.163 per District policy, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $1,766,736 x 0.163 = $287,528

Total Annual Cost

Total Annual Cost = Carbon Adsorption System + Ductwork + CIP System
= $287,528 + $378,204
= $665,732

Emission Reductions

Annual Emission Reduction = Fermentation Emissions x 0.86
= 84,864 lb-VOC/year x 0.86
= 72,983 lb-VOC/year
= 36.5 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $665,732/year ÷ 36.5 tons-VOC/year
= $18,243/ton-VOC

The analysis demonstrates that the annualized purchase cost of the carbon adsorption system and collection system ductwork and CIP equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by thermal or catalytic oxidation (> 88% collection & control)

The balanced chemical equation for combustion of ethanol is shown below.

$C_2H_5OH + 3O_2 \rightarrow 3H_2O + 2CO_2$

The RTO would be connected by ducts to the tanks themselves. If the tanks were to overfill and send liquid down the duct, damage to the RTO could occur. The presence of significant liquid in the knock out drum would cause a shut down of the RTO until the issue could be corrected. The ducting costs include a knock out drum allowance.

Thermal or Catalytic Oxidation	
Cost Description	Cost ($)
5,700 cfm Regenerative Thermal Oxidizer cost (2005 dollars)	$279,000
Adjusting factor from 2005 dollars to 2013 dollars (2.75% inflation/year)	1.22
Inflation adjusted Regenerative Thermal Oxidizer cost	$340,380
Gas flow rate scfm	6,926
Size adjusted Regenerative Thermal Oxidizer cost [340,380 x (6,926 ÷ 5,700)$^{0.6}$]	$382,586
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Regenerative Thermal Oxidizer System) See Above	$382,586
Instrumentation 10%	$38,259
Sales Tax 3%	$11,478
Freight 5%	$19,129
Purchased equipment cost	**$451,452**
Foundations & supports 8%	$36,116
Handling & erection 14%	$63,203
Electrical 4%	$18,058
Piping 2%	$9,029
Painting 1%	$4,515
Insulation 1%	$4,515
Direct installation costs	**$135,436**
Total Direct Costs	**$586,888**
Indirect Costs (IC)	
Engineering 10%	$45,145
Construction and field expenses 5%	$22,573

Contractor fees 10%	$45,145
Start-up 2%	$9,029
Performance test 1%	$4,515
Contingencies 3%	$13,544
Total Indirect Costs	**$139,951**
Total Capital Investment (TCI) (DC + IC)	**$726,839**

Annualized Capital Costs

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.163 per District policy, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $726,839 x 0.163 = $118,290

Operation and Maintenance Costs

The Direct annual costs include labor (operating, supervisory, and maintenance), maintenance materials, electricity, and fuel.

Heat of Combustion for waste gas stream -dh(c):

heat of combustion -dHc = 20276 Btu/lb
Daily VOC emissions rate = 193.8 lb/day
Blower flow rate = 6,926 scfm
= 9,973,440 ft^3/day

-dh(c) = 193.8 lb/day x 20276 Btu/lb / 9,973,440 ft^3/day
= 0.394 Btu/ft^3

Assuming the waste gas is principally air, with a molecular weight of 28.97 and a corresponding density of 0.0739 lb/scf, the heat of combustion per pound of incoming waste gas is:

-dh(c) = 0.394 Btu/ft^3 / 0.0739 lb/ft^3
= 5.33 Btu/lb

Fuel Flow Requirement

$$Q(fuel) = \frac{Pw*Qw*\{Cp*[1.1Tf-Tw-0.1Tr]-[-dh(c)]\}}{P(ef) * [-dh(m) - 1.1\ Cp * (Tf - Tr)]}$$

Where
Pw = 0.0739 lb/ft^3
Cp = 0.255 Btu/lb-°F
Qw = 6,926 scfm
-dh(m) = 21,502 Btu/lb for methane
Tr = 77°F assume ambient conditions
P(ef) = 0.0408 lb/ft^3 m, methane at 77°F, 1 atm
Tf = 1600°F
Tw = 1150°F
-dh(c) = 5.33 Btu/lb

$$Q = \frac{0.0739*6926*\{0.255*[1.1*1600-1150-0.1*77]-5.33\}}{0.0408*[21502 - 1.1*0.255*(1600 - 77)]}$$

$$= 75,882.33/859.9 = 88.25 \text{ ft}^3/\text{min}$$

Fuel Costs

The cost for natural gas shall be based upon the average price of natural gas sold to "Commercial Consumers" in California for the years 2011 and 2012.[1]

2012 = $8.28/thousand ft^3 total monthly average
2011 = $7.13/thousand ft^3 total monthly average
Average for two years = $7.705/thousand ft^3 total monthly average

Fuel Cost = 88.25 cfm x 1440 min/day x 365 day/year x $7.705/1000 ft^3
= $357,390/year

Electricity Requirement

$$\text{Power}_{fan} = \frac{1.17*10^{-4}\ Qw*\ \Delta P}{\epsilon}$$

Where
ΔP = Pressure drop Across system = 4 in. H_2O
ϵ = Efficiency for fan and motor = 0.6
Qw = 6,926 scfm

$$\text{Power}_{fan} = \frac{1.17*10^{-4}*6{,}926\ \text{cfm}*\ 4\ \text{in. } H_2O}{0.60}$$

$$= 5.40 \text{ kW}$$

[1] Energy Information Administration/Natural Gas; Average Price of Natural Gas Sold to Commercial Consumers by State, 2011 - 2012

Electricity Costs

Average cost of electricity to commercial users in California [2]:
2012 = $0.1023
2011 = $0.1012
AVG = $0.102

Electricity Cost = 5.40 kW x 24 hours/day x 365 days/year x $0.102/kWh = $4,825/year

Total Utility Costs

Annual Cost (Data from: Annual Costs for Thermal and Catalytic Incinerators, Table 3.10 – OAQPS Control Cost Manual, Fourth Edition)

Annual Cost			
Operator	0.5 h/shift	$18.5/h x 0.5 h x 365 days/yr	$3,376
Supervisor	15% of operator		$506
Maintenance			
Labor	0.5 h/shift	$18.5/h x 0.5 h x 365 days/yr	$3,376
Material	100% of labor		$3,376
Utility			
Natural Gas			$357,390
Electricity			$4,825
Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($3,376 + $506 + $3,376)	$4,355
Administrative Charge	2% TCI		$14,537
Property Taxes	1% TCI		$7,268
Insurance	1% TCI		$7,268
Total Annual Cost			**$406,277**

Total Annual Cost

Total Annual Cost = Regenerative Thermal Oxidizer System + Ductwork + CIP System + Annual Cost
= $118,290 + $378,204 + $406,277
= $902,771

Emission Reductions

Annual Emission Reduction = Fermentation Emissions x 0.88
= 84,864 lb-VOC/year x 0.88
= 74,680 lb-VOC/year
= 37.3 tons-VOC/year

[2] Energy Information Administration/Electric Power; Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, 2011 - 2012

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $902,771/year ÷ 37.3 tons-VOC/year
= $24,177/ton-VOC

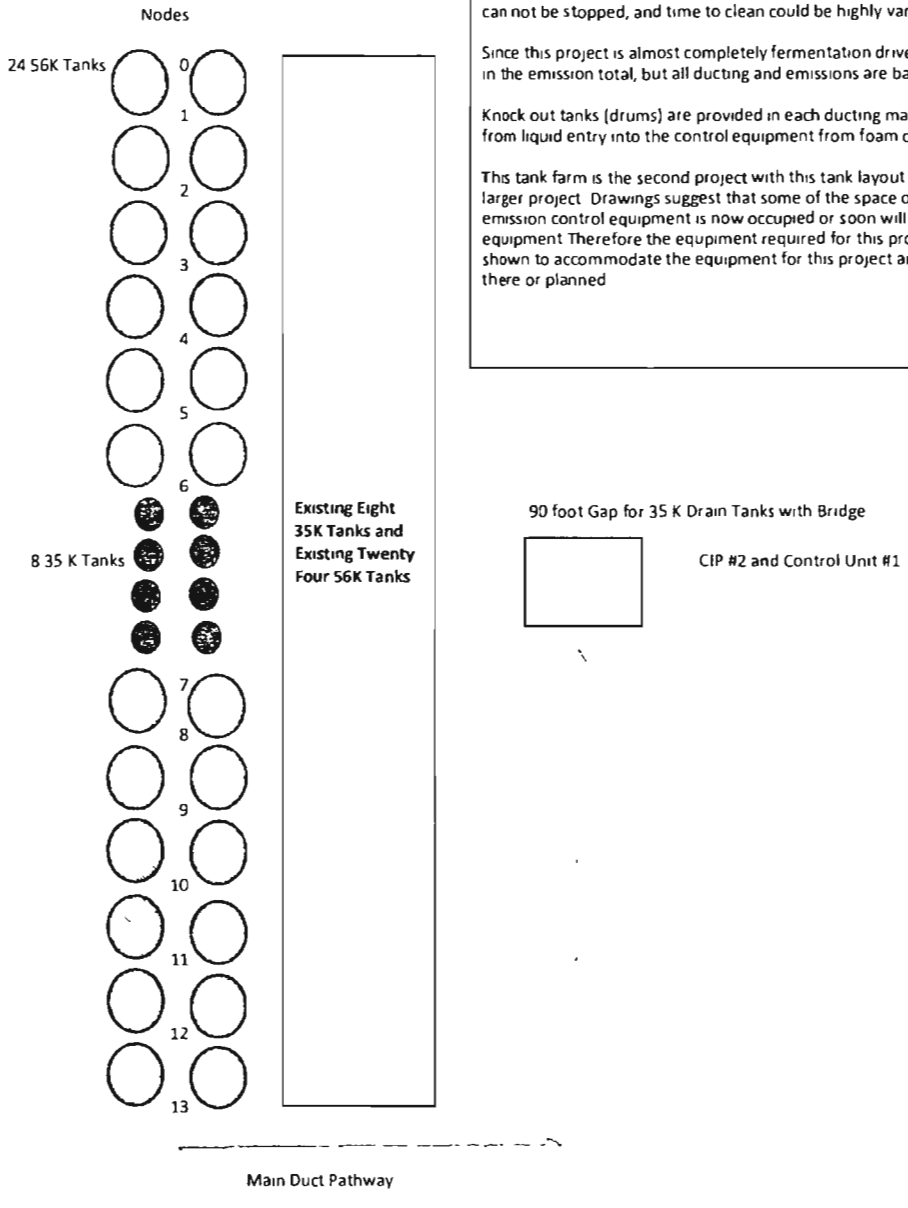
The analysis demonstrates that the annualized purchase cost of the regenerative thermal oxidizer system, collection system ductwork and CIP equipment, and annual costs alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Step 5 – Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility have been shown to not be cost effective. The facility has proposed Option 1, temperature-controlled open top tank with maximum average fermentation temperature of 95 deg F. These BACT requirements will be placed on the permits as enforceable conditions.

Attachment A

Duct Sizing Analysis



A redundant main duct for 56K fermenters is included This provides the capabilities of cleaning the main duct without venting the tanks The tanks would be switched to the second main duct while the cleaning the first main duct This is required since fermentation can not be stopped, and time to clean could be highly variable depending on dirt load

Since this project is almost completely fermentation driven, storage emission are considered in the emission total, but all ducting and emissions are based on red fermentation

Knock out tanks (drums) are provided in each ducting main to protect the control device from liquid entry into the control equipment from foam overs, or over filling

This tank farm is the second project with this tank layout The first layout was a part of a larger project Drawings suggest that some of the space orginally alocated for CIP and emission control equipment is now occupied or soon will be by other tanks and other equipment Therefore the equipment required for this project needed to be located as shown to accommodate the equipment for this project and other new construction either there or planned

	Tank Farm Nominal Size	Beginning Node	Ending Node	Length Between Nodes	From Tank to Main Duct Length Feet	Design Duct Velocity from Eichleay Feet/Second	Fementation CFM at maximum CO2 rate from kinetic model (80 Deg F)	Duct size from tank to main diameter inches	Nominal Duct Size diameter in inches	Number of Tanks feeding Ending Node	Number of Tanks to connect	Total feet	Cost Per Foot from Eichleay	Cost	Comments
All 35K and 56K tanks connection ducst to the main duct															Conections From Tank to
Note The 35K only have a connection duct to the main duct A separate storage main duct is not provided	N/A	N/A	N/A	N/A	25	40	289	4 70	6 00		32	800	$61 00	$48 800	Main Duct
	56 000	0	1	25	0	40	577	6 64	8 00	2		25	$103 00	$2 575	
	56 000	1	2	25	0	40	1 154	9 39	10 00	4		25	$144 00	$3 600	
	56 000	2	3	25	0	40	1 732	11 50	12 00	6		25	$144 00	$3 600	
	56,000	3	4	25	0	40	2 309	13 28	14 00	8		75	$174 00	$4 350	
	56 000	5	6	25	0	40	2 886	14 85	16 00	10		25	$204 00	$5 100	
															Gap in Tank
	56 000	6	7	90	0	40	3 463	16 27	18 00	12		90	$251 00	$22,590	Farm
	56 000	8	9	25	0	40	4,040	17 57	18 00	14		25	$251 00	$6,275	
	56 000	9	10	25	0	40	4 618	18 78	20 00	16		25	$309 00	$7 725	
	56 000	10	11	25	0	40	5 195	19 92	20 00	18		25	$309 00	$7 725	
	56,000	11	12	25	0	40	5 772	21 00	22 00	20		25	$309 00	$7 725	
	56 000	12	13	25	0	40	6 349	22 02	24 00	22		25	$397 00	$9 925	
	56 000	13	End at CIP	50	0	40	6 926	23 00	24 00	24		275	$397 00	$109 175	
													Sum	$190,365	

Connection duct to Main Duct	$48 800	
Redundant Main Duct for CIP on Fermenters Only	$190 365	
Knock drums (7000 gallons) for foam overs on fermenters	$46 300	Eichleay
Ducting Isloation Components for all tanks with redundant main (X2)	$168 000	Previous Work

The main process pipe ways have not been completely designed but some modification is anticipated to support the large ducts

An allowance of $4000 dollars per tank has been added to the estimate for duct support structure	$128,000
Allowance 90 Pipe bridge for 90 foot gap in 56K tank farm	$90 000

This is for (24) 56K (8) 35K and (2) 68K Tanks

Ducting Cost	$643,830
Support Allowance	$218 000
Total	$861 830

Attachment B

Achieved in Practice Analysis

Achieved-in Practice Analysis for Utilization of Water Scrubbing or Condensation Technology for Control of VOC Emissions from Wine Fermentation

SJVAPCD's BACT Guideline 5.4.14 (10/6/2009) currently identifies both condensation and water scrubbing (absorption) technologies as Technologically Feasible for control of VOC emissions from wine fermentation. However, since 2009, there has been substantial development of both technologies by EcoPAS (condensation) and Nohbell Corporation (water scrubbing), prompting a re-examination of these technologies as a part of the BACT analysis for District project N-1131615 (E & J Gallo Winery) to determine if these technologies would currently qualify as Achieved-in-Practice (AIP) BACT as a result of the on-going development and demonstration programs.

Process Characterization

Wine fermentation is a non-steady state batch process which is primarily conducted during the production period between August and November at wineries in the San Joaquin Valley (SJV). After transfer of must (crushed grapes and/or grape juice) to the fermentation tank, the contents is inoculated with yeast which initiates the fermentation reactions. During fermentation, the yeast metabolizes the sugar in the grape juice, converting it to ethanol and carbon dioxide plus releasing heat. Reaction rates are highly variable during the course of a fermentation as well as between different fermentaion batches, depending upon the control temperature of the fermentation, specific grape characteristics, amount and type of yeast employed and the potential presence of wild yeasts in the grapes. The sugar content of the fermentation mass is measured in °Brix (weight %) and is typically 16-26° for unfermented grape juice, dropping to 4° or less for the end of fermentation. Typical finished ethanol concentration is approximately 10 to 14 percent by volume.

In the SJV, red fermentations are routinely performed in outdoor tanks with capacities ranging from 50,000 to 200,000 gallons. Generally, batch fermentation requires 3-5 days per batch for red wine. However, in the SJV, short, high-rate fermentations of 3 days or less are not uncommon since the wine making operations are often directed towards brandy production or low cost wine. These short fermentations result in significantly high peak vent gas rates when compared to the longer fermentations typical of the production of premium quality wines. Also, large commercial wineries in the SJV are characterized by a high rate of tank utilization during certain parts of the crush season (i.e., active fermentations may be in progress in a high percentage of the available tanks at any given time).

Ethanol is the primary VOC produced during wine fermentation. The vent stream from a fermentation tank is primarily CO_2 with equilibrium concentrations of ethanol and H_2O which depend primarily on the temperature and ethanol concentration of the liquid in the tank. As a result of the non-steady state batch

operation, both the flow rate of the vent stream and the uncontrolled emission rate of ethanol from a fermentation tank are highly variable with time. In addition, wine fermentations occasionally become unstable resulting in a "foam-over" of the tank contents (similar to the results of shaking an open carbonated beverage). Other characteristics for the process must include consideration of the food-grade product status of wine and its status as a consumer product whose consumer acceptance is heavily influenced by style issues.

Criteria for an Achieved-in-Practice Control System

Per District Policy APR-1305 (BACT Policy), in order for a control technology to be deemed as having been Achieved-in-Practice, the following conditions must be met:

A. The rating and capacity for the unit where the control was achieved must be approximately the same as that for the proposed unit.

B. The type of business (i.e. class of source) where the emissions units are utilized must be the same.

C. The availability of resources (i.e. fuel, water) necessary for the control technology must be approximately the same.

Based on this criteria and the process characterization given above, a general criteria for determining AIP status for a fermentation emission control system is determined to be:

1. Continuous operation over at least a complete crush season with the following elements confirmed for a full operating season
2. Commercial-scale operation at a commercial winery (typically 50,000 gallon red wine fermenter minimum for SJV)
3. Operation with high-rate, short cycle red wine fermentations which are common practice in SJV.
4. Demonstrated control efficiency without impact on wine quality or style characteristics
5. Demonstrated capability to successfully control multiple tanks with a single control device where this is a proposed element of the control technology without cross contamination of wine batches
6. Demonstrated operation which meets industry standards for sanitation

Technology Status for Condensation Control Systems

The condensation-based system developed by EcoPAS has been operationally demonstrated to a limited extent as a pilot plant operation in a commercial winery on tanks with capacities up to 10,000 gallons. Per EcoPAS, ethanol recovery from the process vent during these test runs has been consistently in excess of

90% with some operations exceeding 96% recovery. A benefit of the technology is that the ethanol is recovered at a concentration typical of a spirit and thus potentially has significant byproduct value. While the EcoPAS system is a significant breakthrough for condensation technology and appears to be ready for commercial application, the unit has not been demonstrated at full commercial scale or over the course of a full operating season. Therefore none of the above criteria have been adequately demonstrated to allow a determination of AIP for this technology.

Technology Status for Scrubber (Absorption) Control Systems

Scrubber-based control systems have been operational since 2009. The two known operations are:

1. Ethanol emission control on a winery building at Terravant Winery in Buellton.

2. Operational demonstrations of the NoMoVo system developed by NohBell Corporation at various locations in California.

The scrubber installation at Terrevant Winery in Buellton was required by a permit issued by the Santa Barbara County APCD. The controls were not imposed on the facility as a result of BACT determination (they were installed to reduce or avoid offsets). The system controls fermentation emissions which are first vented from relatively small tanks into the building which encloses the wine making operation. The building atmosphere is then controlled by venting through a water scrubbing device which absorbs and ultimately destroys the ethanol. While it is believed that this installation has operated successfully for several years, its scale of operation is significantly less than required to demonstrate AIP for fermentation in the SJV. Additionally, it is obviously fundamentally different from the type of operation required for direct control of large outdoor fermentation tanks such as are typical in the SJV and would thus be considered to be applicable to a different BACT class and/or category relative to the proposed E & J Gallo Winery installation. Therefore, this operation is not considered to be applicable to an AIP determination for tanks in the SJV.

The NoMoVo system has been operational at the Kendall Jackson Winery in Oakdale, CA, since 2009. The NoMoVo unit at this location has been utilized to simultaneously control emissions from up to three separate 14,000 gallon fermentation tanks over 4 consecutive crush seasons. The unit was source tested by BAAQMD in 2011 using three 30-mintues runs on a single day achieving a control efficiency of 96%. BAAQMD has recently performed an additional source test this season (2013) but the results have not been published at this time. Kendall Jackson has indicated that the unit has operated without significant problems since 2009, successfully operating simultaneously on multiple fermenters without cross contamination of fermentation batches. This

unit was disconnected near the end of the 2013 crush season and has been relocated to a winery in Monterey (Constellation Wines) for testing and demonstration on a 60,000 gallon red wine fermenter. It currently has been in operation at the new location for several weeks but operational performance has not been verified at this time.

Operations at three other wineries have been conducted throughout the 2013 crush season:

1. Central Coast Winery (Santa Barbara): A single unit has been operational throughout the 2013 season simultaneously controlling emissions from seven (7) 15,000 gallon fermentation tanks. The unit operates under a permit from the Santa Barbara County APCD. Discussion with SBCAPCD indicates there are no compliance issues for the unit but performance details for the season are not yet available.
2. Vinwood Winery (Sonoma): A single unit has been operational throughout the 2013 season simultaneously controlling emissions from four (4) 15,000 gallon fermentation tanks. The winery is an outdoor installation similar to large wineries in the SJV. Performance details for the season are not yet available.
3. J. Lohr Winery (Paso Robles): A single unit has been operational throughout the 2013 season controlling emissions from six (6) 10,000 gallon fermentation tanks on a rotating basis. Performance details for the season are not yet available.

While the operational summary above suggests that this technology as demonstrated by NohBell Corporation is on the threshold of AIP status, all operations to date (with the exception of the operation recently commencing at Constellation Wines in Monterey) have been performed at a scale which is less than typical of a commercial winery in the SJV. Additionally, operations have been conducted on coastal wineries which typically produce premium quality red wines with fermentation cycles of 5-8 days with a correspondingly lower peak emission rate. Much of the potential qualifying operation has occurred in the current season which is still underway. Operational and performance data are not yet available to determine if the operations have successfully demonstrated commercial viability for the technology. None of the operations are being performed under air pollution permits which specifically require the system to be operated or to meet specific performance standards. Therefore while the NohBell Corporation operations to date, when fully documented in the furture, may well demonstrate AIP technology for smaller wine tanks (15,000 gallons), the technology has not been demonstrated at a scale consistent with full commercial operation in the SJV and therefore AIP status has not been demonstrated for a full commercial scale operation (such as the E & J Gallo Winery proposal to install twenty-four (24) 56,000 gallon fermentation tanks in District Project N-1131615).

Attachment C

E & J Gallo Winery Cost Effectiveness Analysis

Liv ATC Application – Ethanol Recovery Feasibility

D.W. Slagel

10-27-13 Rev5- Final

1. Design Basis:
    a. The Fermenters are rated for 27.8 inches of water column positive pressure (MAWP)
    b. The peak fermentation rate delivers 288 scfm of CO2
    c. This is to control emissions for the 24 fermenters only (PE=84,864 lbs VOCs). This does not include the cost of the control devices for the storage tanks associated with the project
    d. This assumes a control efficiency of each device of 81%
    e. This assumes the vendors' updated position that only 12 and 13 control devices are required for the condenser and scrubbers, respectively.

2. Equipment Cost
    a. Scrubber
        i. The Fermenters are low pressure vessels. They are rated (MAWP) for 27.8 inches of water column of pressure.
        ii. The scrubber diameter must be large enough to keep the pressure drop under 15" w.c. to keep the system pressure drop under 27.8" w.c. This puts the diameter at 4 feet as a minimum.
        iii. The number of theoretical stages must be a minimum of 15 to deliver an ethanol capture efficiency of over 75%. This requires a height of 20 feet of packing and with the upper and lower sections included the overall height is a minimum of 30 feet.

iv. Capture Efficiency: Water absorption scrubbers are typically considered 80% capture efficiency at best. The vendor is proposing to let the ethanol concentration build to 10% through recycle – this makes the capture efficiency claim very challenging. The number of stages will need to be large making the scrubber tall which also requires the extra width to keep the pressure drop down.

1. (4' dia by 30' tall with high eff packing = $300K x 13 = $3.9MM)

b. Condenser

i. The pressure drop must be under 15" w.c. in the exchanger

ii. Capture Efficiency: Heat transfer to a high volume of inert gas (CO2) requires a high amount of exchanger surface area due to the very low heat transfer rate (U value expected is under 20 BTU/lb/DegF). To do this at a low pressure drop requires an exceptionally large exchanger.

1. (300 ft2 x $500/ft2 = $150K x 12 = $1.8MM)

iii. Ethanol at higher than 20% concentrations is a flammable fluid which requires all electrical and instrumentation within 10 feet of the condenser and ethanol reservoir must be Class 1 Div 2 rated – this is both the devices and the conduit. This also includes any existing equipment and instruments in the Class 1 Div 2 rated area. The condenser and associated pump and tank must be in a diked containment area.

1. ($100K per unit x 12 = $1.2MM)

iv. This condenser must have a chilled glycol system and refrigeration source. Excess refrigeration capacity does not exist. Freon compressor, condenser, evaporator and chilled glycol recirculation loop (pump and tank) and instrumentation and controls.

1. ($100K per unit x 12 = $1.2MM)

c. Both

i. The units must be reliable.

1. Dual pumps will be required for anything critical to the operation.

a. Scrubber ($20K x 13 = $260K)

b. Condenser ($20K x 12 = $240K)

2. Alarms and history logging with Data Loggers and panels will be required

a. Scrubber ($1K x 13 = $13K)

b. Condenser ($1K x 12 = $12K)

d. Summary of additional equipment costs:

i. Scrubber $321K x 13 = $4.2MM

ii. Condenser $371K x 12 = $4.5MM

3. Installation Cost

a. The vapor connecting piping from the fermenter to the control device must be large enough in diameter to keep the pressure drop under 10 inches of water column. This will require piping over 6 inches diameter.

i. Scrubber (6" SS x 60 ft = $9K x 13 = $117K)

ii. Condenser (6" SS x 60 ft = $9K x 12 = $108K)

b. The chilled glycol piping

i. Scrubber ($60K x 12 = $720K)

ii. Condenser ($20K x 12 = $240K)

c. The piping must be designed with a knock out pot (5000 gal) between the fermenter and the control device to capture liquid either entrained in the vapor or from a foam over in the fermenter due to overfilling the fermenter.

i. Scrubber ($50K x 13 = $650K)

ii. Condenser ($50K x 12 = $600K)

d. The instrumentation must be wired to a PLC and programmed. Alarms must be programmed and HMI screens must be modified.

i. Scrubber (4 instr installed = $10K x 13 = $130K)

ii. Condenser (4 instr installed = $10K x 12 = $120K)

e. 480v Power must be run from a distribution panel for the pumps on the control device. Starters must be installed and local disconnects provided.

i. Scrubber ($10K ea for 3 pumps per unit x 13 = $130K)

ii. Condenser ($10K ea for 3 pumps per unit x 12 = $120K)

f. The connecting pipe must include a Clean-In-Place (CIP) system for regular and automated cleaning of the inside of the pipe. This system must include spray nozzles every 5 feet (12 nozzles) and external piping to deliver hot water and caustic to the system. A reservoir tank, pump will be required to supply the system.

i. Scrubber (2"SS x 60 ft = $4K x 13 = $52K)

ii. Condenser (2"SS x 60 ft = $4K x 12 = $48K)

g. A Relief Valve for both pressure and vacuum will need to be purchased and installed on each fermenter. This is due to sealing the fermenter. Currently the system operates with an open vent (18" diameter). An existing 8" nozzle will be utilized for the attachment but the existing 24" man-way will need to be sealed.

i. Scrubber ($10K + $3K = $13K x 13 = $169K)

ii. Condenser ($10K + $3K = $13K x 12 = $156K)

h. Foundations will be necessary for each unit and the unit will have to be mounted on the ground due to size and weight.

i. Scrubber ($70K each x 13 = $650K)

ii. Condenser ($5K each x 12 = $60K)

i. The contingency for a project without Piping and Instrument Diagrams (P&ID's) must be a minimum of 25% of the installed cost of the system.

i. Scrubber ($1.2MM x 0.25 = $0.3MM) ($27.7K ea @ 13)

ii. Condenser ($2.7MM x 0.25 = $0.67MM) ($56K ea @ 12)

j. Summary of additional equipment costs:

i. Scrubber $225K x 13 = $2.9MM

ii. Condenser $178K x 12 = $2.1MM

4. Number of Units –

a. The units are too large to be portable or mobile

b. The loading of the fermenters is based on availability of the fermenters. The objective is to deliver maximum throughput of the system which means no idle time of the fermenters. Any given 6 fermenters could all be actively fermenting at the same time.

c. In the event of rain during crush – instantaneous acceleration of grape receiving could be required which would force a high use rate of the fermenters in an unplanned event.

d. This requires that 24 control devices are necessary for 24 fermenters.

5. Capital Cost Impact

a. There are three main areas of breakdown for capital cost: Equipment Cost, Installation Cost, and Number of Units. If any one of the three is adjusted to correctly reflect the true cost the proposed technology is not cost efficient:

b. Noh-Bell – Scrubber

i. Equipment Cost

1. Increased by $4.2MM ($321K per unit @ 13 units)

2. Vendor claimed Total Capital Invest $1.2MM

3. New total Capital Investment $5.3MM

4. **Cost Effectiveness based on this adjustment only: $24,981/ton**
Note: This does not include any annual O&M costs.

ii. Installation Cost

1. Increased by $2.9MM ($223K per unit @ 13 units)

2. Vendor claimed Total Capital Invest $1.2MM

3. New total Capital Investment $4.1MM

4. **Cost Effectiveness based on this adjustment only : $19,325/ton Note: This does not include any annual O&M costs.**

iii. Number of Units (13 to 24)

1. Increased to $2.3MM

2. Vendor claimed Total Capital Invest $1.2MM

3. **Cost Effectiveness based on this adjustment $10, 841/ton Note: This does not include any annual O&M costs**

iv. If all three adjustments are factored

1. Increased to 17.4MM [(5.3+4.1)(24/13)]

2. Vendor claimed Total Capital Invest $1.2MM

3. **Cost Effectiveness based on increased equipment, installation, and control devices increase to 24)=$82,014/ton Note: This does not include any annual O&M costs.**

c. EcoPAS – Condenser

i. Equipment Cost

1. Increased by $4.5MM ($371K per unit @ 12 units)

2. Vendor claimed Total Capital Invest $2.7MM

3. New total Capital Investment $7.2MM

4. **Cost Effectiveness based on this adjustment only: $33,937/ton Note: This does not include any annual O&M costs,**

ii. Installation Cost

1. Increased by $2.1MM ($105K per unit @ 12 units)

2. Vendor claimed Total Capital Invest $2.7MM

3. New total Capital Investment $4.8MM

4. **Cost Effectiveness based on this adjustment only: $22,624/ton**
   Note: This does not include any annual O&M costs

iii. Number of Units (12 to 24)

1. Increased to $5.4MM

2. Vendor claimed Total Capital Invest $2.7MM

3. **Cost Effectiveness based on this adjustment only: $25,452/ton**
   Note: This does not include any annual O&M Costs

iv. If all three adjustments are factored

1. Increased to $24MM [(7.2+4.8)(24/12)]

2. Vendor claimed Total Capital Invest $2.7MM

3. **Cost Effectiveness based on all three adjustment: $113,122/ton**
   Note: This does not include any O&M costs.

Appendix C

BACT Guideline 5.4.13 and Top Down BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.13*

Last Update 10/6/2009

Wine Storage Tank

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	1. Insulation or Equivalent**, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation.	1. Capture of VOCs and thermal or catalytic oxidation or equivalent (98% control) 2. Capture of VOCs and carbon adsorption or equivalent (95% control) 3. Capture of VOCs and absorption or equivalent (90% control) 4. Capture of VOCs and condensation or equivalent (70% control)	

**Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure ot diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete and wood (except for fittings) are considered self-insulating.

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Top Down BACT Analysis for Wine Storage VOC Emissions for Permit Units N-1237-662-0 through '669-0

Step 1 - Identify All Possible Control Technologies

The SJVUAPCD BACT Clearinghouse guideline 5.4.13, 3rd quarter 2013, identifies achieved in practice BACT for wine storage tanks as follows:

1) Insulation or Equivalent**, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation.
   ***Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure to diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete and wood (except for fittings) are considered self-insulating.*

The SJVUAPCD BACT Clearinghouse guideline 5.4.13, 3rd quarter 2013, identifies technologically feasible BACT for wine storage tanks as follows:

2) Capture of VOCs and thermal or catalytic oxidation or equivalent (98% control)
3) Capture of VOCs and carbon adsorption or equivalent (95% control)
4) Capture of VOCs and absorption or equivalent (90% control)
5) Capture of VOCs and condensation or equivalent (70% control)

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank by Control Effectiveness		
Rank	Control	Overall Capture and Control Efficiency
1	Capture of VOCs and thermal or catalytic oxidation or equivalent	98%
2	Capture of VOCs and carbon adsorption or equivalent	95%
3	Capture of VOCs and absorption or equivalent	90%
4	Capture of VOCs and condensation or equivalent	70%
5	Insulation or Equivalent, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation	Baseline (Achieved-in-Practice)

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for each control technology which is more effective than meeting the requirements of District Rule 4694 plus tank insulation (achieved-in-practice BACT), as proposed by the facility.

Collection System Capital Investment (based on ductwork)

A common feature of all thermal or catalytic oxidation/carbon adsorption/absorption or condensation options is that they require installation of a collection system for delivering the VOCs from the tanks to the common control device.

Collection system to consist of:

- The collection system consists of stainless steel place ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting twenty-four tanks to a common manifold system which ducts the combined vent to the common control device. The cost of dampers and isolation valving, installed in the ductwork, will be included in the cost estimate.
- A minimum duct size is established at six inches diameter at each tank to provide adequate strength for spanning between supports. The main header is twelve inches diameter to handle the potential for simultaneous venting.

Capital Cost Ductwork

Connection from tank to main duct = 8 tanks x 25 feet x $61.30/foot = $12,260
Unit installed cost for 6 inch butterfly valve = $2,125/valve x 8 valves = $17,000
Unit installed cost one foot removable spool = $500/tank x 8 tanks = $4,000
Knockout drum = $46,300
Duct support allowance = $4,000/tank x 8 tanks = $32,000
Pipe support allowance 90 foot pipe bridge = $90,000

Total = $12,260 + $17,000 + $4,000 + $46,300 + $32,000 + $90,000 = $201,560

Ductwork	
Cost Description	Cost ($)
Duct Estimate from Eichleay Study 2005 Data	$201,560
Adjusting factor from 2005 dollars to 2013 dollars (2.75% inflation/year)	1.22
Inflation adjusted duct cost	$245,903
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Ductwork) See Above	$245,903
Instrumentation 10%	$24,590
Sales Tax 3%	$7,377
Freight 5%	$12,295

Purchased equipment cost	**$290,165**
Foundations & supports 8%	$23,213
Handling & erection 14%	$40,623
Electrical 4%	$11,607
Piping 2%	$5,803
Painting 1%	$2,902
Insulation 1%	$2,902
Direct installation costs	**$87,050**
Total Direct Costs	**$377,215**
Indirect Costs (IC)	
Engineering 10%	$29,017
Construction and field expenses 5%	$14,508
Contractor fees 10%	$29,017
Start-up 2%	$5,803
Performance test 1%	$2,902
Contingencies 3%	$8,705
Total Indirect Costs	**$89,952**
Total Capital Investment (TCI) (DC + IC)	**$467,167**

Capital Cost Clean-In-Place (CIP) System

A ducting system on a tank farm must have this system to maintain sanitation and quality of the product. The cost of operation of the CIP system has not been estimated. Operation of a CIP system, using typical cleaning agents, will raise disposal and wastewater treatment costs. Most likely, these costs will be significant.

Clean-In-Place (CIP) System	
Cost Description	Cost ($)
Current cost of CIP system	$200,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (CIP System) See Above	$200,000
Instrumentation 10%	$20,000
Sales Tax 3%	$6,000
Freight 5%	$10,000
Purchased equipment cost	**$236,000**
Foundations & supports 8%	$18,880
Handling & erection 14%	$33,040
Electrical 4%	$9,440
Piping 2%	$4,720
Painting 1%	$2,360
Insulation 1%	$2,360
Direct installation costs	**$70,800**
Total Direct Costs	**$306,800**

Indirect Costs (IC)	
Engineering 10%	$23,600
Construction and field expenses 5%	$11,800
Contractor fees 10%	$23,600
Start-up 2%	$4,720
Performance test 1%	$2,360
Contingencies 3%	$7,080
Total Indirect Costs	**$73,160**
Total Capital Investment (TCI) (DC + IC)	**$379,960**

Annualized Capital Costs

Total capital costs = Ductwork + CIP System
= $467,167 + $379,960
= $847,127

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.163 per District policy, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $847,127 x 0.163 = $137,866

Capture of VOCs and condensation (> 70% collection & control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $137,866

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.70
= 200 lb-VOC/year x 0.70
= 140 lb-VOC/year
= 0.07 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $137,866/year ÷ 0.07 tons-VOC/year
= $1,969,514/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by absorption (> 90% collection & control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $137,866

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.90
= 200 lb-VOC/year x 0.90
= 180 lb-VOC/year
= 0.09 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $137,866/year ÷ 0.09 tons-VOC/year
= $1,531,844/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by carbon adsorption (> 95% collection and control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $137,866

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.95
= 200 lb-VOC/year x 0.95
= 190 lb-VOC/year
= 0.095 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $137,866/year ÷ 0.095 tons-VOC/year
= $1,451,221/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by thermal or catalytic oxidation (> 98% collection & control)

The balanced chemical equation for combustion of ethanol is shown below.

$C_2H_5OH + 3O_2 \rightarrow 3H_2O + 2CO_2$

The RTO would be connected by ducts to the tanks themselves. If the tanks were to overfill and send liquid down the duct, damage to the RTO could occur. The presence of significant liquid in the knock out drum would cause a shut down of the RTO until the issue could be corrected. The ducting costs include a knock out drum allowance.

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $137,866

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.98
= 200 lb-VOC/year x 0.98
= 196 lb-VOC/year
= 0.098 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $137,866/year ÷ 0.098 tons-VOC/year
= $1,406,796/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Step 5 - Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility have been shown to not be cost effective. The facility has proposed Option 1, insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature not exceeding 75 °F within 60 days of completion of fermentation. These BACT requirements will be listed on the permits as enforceable conditions.

Appendix D

Compliance Certification

N-1237
E&J Gallo Winery-Livingston
Compliance Certification Statement
For Federal Major Permit Modifications
Compliance with District Rule 2201, Section 4.15.2

"I certify under penalty of law that all major stationary sources (Title V facilities) operated under my control in California are compliant with all applicable air emissions limitations and standards. The facilities included in this certification statement include the E&J Gallo Winery-Fresno, the E&J Gallo Winery-Livingston, and the E&J Gallo Winery-Modesto."

Mr. Steve Kidd
Vice President of Operations

05/07/13
Date

Appendix E

Certificate of Conformity

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[X] Federal Major Permit MODIFICATION
[] MINOR PERMIT MODIFICATION
[] ADMINISTRATIVE AMENDMENT

COMPANY NAME E&J Gallo Winery - Livingston	FACILITY ID N-1237
1 Type of Organization [x] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2 Owner's Name E&J Gallo Winery-Livingston	
3 Agent to the Owner Mr Dan Martin	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation)

Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s)

Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis

Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted

Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true

Signature of Responsible Official — Date: 05/07/13

Mr Dan Martin

Name of Responsible Official (please print)

Plant Manager- Livingston Winery

Title of Responsible Official (please print)

Appendix F

Draft ATC Permits

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-662-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 319) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-662-0 : Oct 28 2013 8:07AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-663-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 320) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-663-0 : Oct 28 2013 8:07AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-664-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 321) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-664-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-665-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 322) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-665-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-666-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 323) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-666-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-667-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 324) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-667-0 : Oct 28 2013 8:08AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-668-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 325) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-668-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit

10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-669-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 326) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 6 lb, 2nd quarter - 6 lb, 3rd quarter - 6 lb, and fourth quarter - 7 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-669-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 19.5 feet in diameter and 16 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 175,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The annual VOC emissions from wine storage in this tank, calculated on a twelve month rolling basis, shall not exceed 25 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-670-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 425), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-670-0 : Oct 28 2013 8:08AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit

11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-671-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 426), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-671-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-672-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 427), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-672-0 : Oct 28 2013 8:08AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-673-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 428), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-673-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-674-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 429), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-674-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-675-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 430), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-675-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-676-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 431), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-676-0 : Oct 28 2013 8:08AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-677-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 432), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-677-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-678-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 433), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-678-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-679-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 434), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-679-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-680-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 435), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-680-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit

10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit

11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit

16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-681-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 436), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director/APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-681-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-682-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 437), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-682-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-683-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 438), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-683-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-684-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 439), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-684-0 : Oct 28 2013 8:08AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-685-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 440), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-685-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-686-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 441), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-686-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-687-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 442), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-687-0 : Oct 28 2013 8:09AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-688-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 443), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-688-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-689-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 444), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-689-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-690-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 445), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-690-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-691-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 446), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-691-0 : Oct 28 2013 8:09AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-692-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 447), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-692-0 : Oct 28 2013 8:09AM – TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-693-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
56,000 GALLON STAINLESS STEEL RED AND WHITE WINE FERMENTATION TANK (TANK 448), OR EQUIVALENT

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 574 lb, 2nd quarter - 574 lb, 3rd quarter - 575 lb, and 4th quarter - 575 lb. The quantity of offsets required have been reduced by 35%, as District Rule 4694 Section 5.1 requires this facility to achieve at minimum this level of reduction in their Baseline Fermentation Emissions. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4025-1, S-4050-1, S-3808-1, S-3807-1, S-3805-1, and C-1189-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-693-0 : Oct 28 2013 8:09AM -- TOMS : Joint Inspection NOT Required

5. The nominal tank dimensions are 22 feet in diameter and 23 feet in height with a proposed volume of 56,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The daily VOC emissions for fermentation operations in this tank shall not exceed 3.46 lb per 1000 gallons of tank capacity. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall not exceed 3,536 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The annual VOC emissions from wine fermentation in this tank, calculated on a 12 month rolling basis, shall be determined by the following formula: Annual Fermentation VOC emissions = 2.5 lb-VOC/1,000 gallons x Annual White Wine Production (in gallons) + 6.2 lb-VOC/1,000 gallons x Annual Red Wine Production (in gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The operator shall maintain records of the calculated 12 month rolling wine fermentation throughput rate (gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
12. For each batch of must fermented in this tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the average fermentation temperature and the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
13. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume of each wine movement; and the calculated 12 month rolling wine throughput rate for fermentation operations (gallons per 12 month rolling period, calculated monthly). [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
14. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

Appendix G

Public Notice Comments and District Responses

E & J Gallo Winery ATC Project N-1131615
Comments to SJVAPCD

Comment Date: October 14, 2013

Commenter: EcoPAS

Comment

On September 25 we received a request to provide additional information to assist the District in determination of BACT for the proposed Gallo facility. In the sections below we address those questions and identify additional errors in the original District analysis that were revealed in the process of preparing this response. When the errors are corrected the cost-effectiveness of the Passive Alcohol System (PAS) is enhanced.

Installation Costs

District staff posed the following question to us:

You provided some estimates of installation costs previously. Can you provide any additional clarification on the scope, basis, assumptions, and exclusions (additional scope required for turnkey operation but not included in estimate) for the estimates provided?

Thank you for the opportunity to clarify this significant point. Neither the applicant, in their analysis of the PAS installation and operation, nor EPA in the Control Cost Manual (used as the design basis for the District's cost analysis) anticipated the design, installation or operation of the EcoPAS Passive Alcohol System (PAS). Our control system was designed specifically for recapture of ethanol emissions from primary wine fermentation. The system works on high concentration ethanol exhaust streams driven by carbon dioxide and containing significant water vapor content.

Carbon dioxide released as a product of fermentation drives our system that operates without mechanical pumps, motors or fans. The air stream is highly concentrated and undiluted, allowing for high-efficiency capture. Our process is food-grade with retention of ethanol in combination with flavor and aroma compounds producing a high-proof product with commercial value.

The PAS assembly is substantially less expensive to install than assumed by the applicant and envisioned in the 2002 EPA Control Cost Manual. Unlike traditional air pollution systems, the PAS is comprised of standard food/beverage components that are simply assembled on-site. In fact, no tools are required at the winery to

assemble the control system after the mounting brackets are bolted or welded in place. This is because the system is comprised of a series of pre-fabricated components, gaskets and hoses that connected with standard industry triclamp fittings.

EcoPAS has assembled a team of Professional Engineers and licensed contractors with long term experience in the brewing, winemaking and spirits industries. All are knowledgeable and practiced in 3-A Sanitary Standards and industry practices. Our engineers have offices internationally and are especially recognized for their seismic and structural engineering. The installation contractors are multi-state licensed and hand-selected with a 30-year or greater working relationship. The EcoPAS preferred General Contractor is also multi-state licensed with extensive experience in relevant industries.

The cost estimates presented for engineering and installation are based on knowledge of the PAS and its installation requirements, the facility site plan as provided in the permit application, review of relevant permit requirements, and reasonable assumptions regarding a new installation. A firm bid will require working with the applicant, maintaining their standards, and a mutual effort to achieve cost-savings through planned coordination of the new facility and PAS VOC capture equipment.

In Table 1 we present a realistic list of installation expenses shown to clarify the scope, basis and assumptions involved in a turn-key set-up of the PAS for the referenced project. We present this as though we bid on a turn-key installation with a functioning system turned over to the applicant in a ready-to-use condition at the end of a short installation period. No known exclusions have been left.

In Table 2 we use the District's analysis framework for direct comparison and update the factors to represent the capital costs with the erroneous "adjusted capital costs" removed from the calculations. The re-analysis using the District format and corrected capital costs and associated values leads to a cost-effectiveness of $13,265/ton-VOC, well under the cost-effectiveness threshold.

As indicated in our letter to the District (dated 9/3/2013) addressing the proposed ATC, we present arguments why the District's format is inconsistent with current financial markets and fails to recognize the unique design, use and longevity of the PAS system. In that correspondence we presented six ways in which more accurate and defensible model assumptions increase the system cost-effectiveness, even when the erroneous $330,000+ "adjusted capital cost" is included in the analysis.

Table 1
PAS Installation Cost Estimate – Four Units
Project #N-1131615

Engineering Factors considered and/or budgeted: electrical, mechanical, structural, fire suppression, site review/detailing, site meetings, plan check package development, plan check fee, review by Gallo preferred engineer	$24,635
Permits & Testing Factors considered and/or budgeted: structural, deputy inspector, lab analysis/testing, source testing, start-up, TTB, Division 5 FD permit, fire suppression, city permits, APCD permit	$10,000
Installation (Labor) Factors considered and/or budgeted: safety & facility orientation, set-up and materials organization, brackets & supports, manifold, branch lines (post hose), tank manifold (pre-hose), field inspection/cladding, assemble PAS units, field weld & polish, connect PAS system, PAS vent, chiller installation, chilling loop supply & return, PAS capture tanks (set & connect), clean-up and project break-down	$81,600
Installation Expenses Factors considered and/or budgeted: travel labor, per diem, shipping to/from facility, installation equipment, expendable goods, weld gas & supplies, rental: (scissors lift, fork truck, container, field office, aerial lift, generator, crane), small tool expense, truck fee, field supervisor	$59,175
Subcontracts Factors considered and/or budgeted: fire suppression, bonded grounding, concrete pad/platform/footing, electrical, certified weld & passivate	$18,000
Administrative & Contingency Installation & project administration, contingency	$98,100
Total Estimated Installation Costs	$291,510

Table 2
Revised/Corrected District Analysis for PAS TCI

DIRECT COSTS

1.0	(4) PAS units	$1,901,272	
2.0	Instrumentation (not required for equipment operation-optional at request of client)	$0	
3.0	Handling & Erection (portion of expenses from PAS Installation Cost Estimate)	$59,175	
4.0	Piping (2%)	$38,025	
	TOTAL DIRECT COSTS		**$1,998,472**

INDIRECT COSTS

5.0	From EcoPAS Installation Cost Estimate (subtracting Installation Expenses entered above as Handling & Erection). Includes engineering, permits & testing, installation labor, subcontracts, administrative and contingency	$223,335	
	TOTAL INDIRECT COSTS		**$223,335**

TOTAL CAPITAL INVESTMENT (TCI) **$2,221,807**

Using the District's amortization factor* (assuming 10% discount rate and 10 yr device life):

Annualized Capital Investment = $2,221,807 x 0.1627 = **$361,488**

If for the moment we accept the District's method for calculating Annual Costs, the correction for TCI reduces the annual recurrent cost estimate by $46,790 to $ 94,820; therefore, corrected and revised

TOTAL ANNUAL COST = $361,488 + $94,820 = **$456,308**

Therefore, the highest defensible cost/ton of emission reduction for the PAS is:

$456,308/34.4 tons VOC = **$13,265/ton VOC**

Given more realistic assumptions for estimating costs as detailed in the EcoPAS letter to the District dated 9/3/2013 we project a cost-effectiveness range of $0/ton VOC** to $13,000/ton VOC, exceeding cost-effectiveness thresholds.

* A 10% discount rate is unrealistic in current capital markets and the design life for PAS > 25 yrs.
**Best value for recovered ETOH is in flavor and aroma industry, returning positive ROI for PAS installation.

Capture and Control Efficiency

District staff posed the following additional question to us:

In the EcoPAS comments for the project, you pointed out that your unit achieves greater than 90% capture and control efficiency. To consider this level of control,

the District would generally require indication that commercial guarantees would be available for the quoted performance and would also require some supporting test data which would demonstrate that the performance was consistently achievable at the proposed scale of the operation. Can you provide any additional clarification in this area?

Our stated results derive from testing conducted with a non-optimized pilot-plant unit deployed in commercial wineries for several seasons on fermentation tanks with capacities up to 35,000 must gallons.

As the District is aware, wine fermentation is an atypical industrial source that presents unique challenges for source testing. To begin there is no steady-state production condition for conducting replicate tests. The concentration and volumes of carbon dioxide and ethanol vapor change throughout the fermentation period, that can extend from about three to 15 days for a single batch of wine.

In discussions with EPA staff in North Carolina, a traditional source test would require inlet and outlet monitoring for the duration of the process, in triplicate for each imputed emission factor (one set for red wine and a second set for white wine). The implication of which is that a source testing operation would need to be set up for most of a ferment season in order to demonstrate capture and control efficiency.

A second challenge is that FID is the "gold standard" for organic vapor determinations. A technical difficulty in using this type detector is that the carrier gas is nearly pure carbon dioxide containing water vapor and 8,000 – 16,000ppm ethanol vapor. Therefore, the FID cannot operate without an oxygen dilution system, introducing another source of measurement error. PID units can also be used but the emissions can foul the photocells.

We have successfully used an industrial IR detector approved by the SCAQMD for continuous determination of organic gas emissions from oil and gas operations. This along with grab samples in Tedlar bags and analyzed by a recognized laboratory have been used to confirm capture and control efficiencies.

A unique aspect of the PAS installation is that everything we capture from the air is collected and contained in food-grade liquid form as a high-proof spirit. The alcohol content of the retained fluid is analyzed by a US Treasury Dept. (TTB) approved laboratory. Based on the alcohol content and volume of liquid we quickly and accurately determine the amount of VOC (ethanol) removed from entering the atmosphere.

Direct measurement of captured liquid ethanol is far more accurate, cost-effective and manageable than trying to initiate a major research program to develop a modern source-testing protocol for this non-traditional industrial source. We have confirmed that the SJVUAPCD does not have in-house capability to conduct such testing, CARB is no longer testing this source, the BAAQMD has spot-tested sample

periods (not a complete source test), and EPA capability is located in the North Carolina national offices and they are not budgeted to address this source category. We have also approached private source testing firms and have determined they do not have the capability to conduct a proper source test for this process without a substantial development effort.

Fortunately, we have a simple and straightforward answer to this dilemma. We directly determine the alcohol collected from the exhaust gases that are prevented from entering the atmosphere. Based on comparison with CARB and District emission factors for red or white wine, our pilot system in normal winery operation collects >95% of the expected emissions based on the accepted emission factors. As a legal requirement we need to continue to monitor, analyze and report the retained alcohol to the US Treasury Department for taxing purposes. This, in effect, represents a form of continuous source testing.

Based on three seasons of winery experience, EcoPAS is prepared to offer a manufacturer's guarantee of ≥ 90% capture and control efficiency as long as the PAS equipment is used according the Operator's Manual and terms of the product warrantee.

Required Number of PAS Units

We now understand the erroneous "adjusted capital cost" factor to have been derived from the applicant's increase in requested seasonal tank turns after we submitted our preliminary analysis based on <10 turns/season (as initially proposed by the applicant). We were not informed directly of this change nor asked to comment on whether it would affect either the capital or operating requirements for the PAS units. Had we been asked, we would have identified the error in the District's assumed and incorrect adjustment.

Our initial evaluation was that four PAS units would handle the total flow from the proposed new tank array. That is still our determination based on the potential flow of carbon dioxide and the capacity of the PAS units. The only requirement is that the applicant makes a minor operational accommodation to levelize vapor flow when they are conducting short-cycle (2-3 days) fermentations.

Since a tank cannot ferment two volumes at once, the implication of the applicant increasing the number of seasonal tank-turns is that the season is extended over a more reasonable number of harvest and fermentation days. There are no implications for the sizing or capital requirements for our control system. In fact, the greater number of tank turns results in a higher cost-effectiveness for PAS due to the fact that each unit collects more ethanol each season.

It has been brought to our attention that the applicant has indicated that they have had periods when most tanks are in active fermentation. Our system is capable of handling that load so long as those tanks are not all inoculated with yeast at the

same time with peak flows occurring within a few hours of each other. This requirement is easily managed within normal winery operations.

It is entirely unreasonable to size control equipment capacity on the basis of a once or twice per season unusual short-term condition that can be easily managed by the winery.

To oversize the control system is analogous to building a flood control dam for the once-in-thousand year flood. That is one of the reasons for spillways. And like a spillway, if the applicant cannot control its fermentation conditions, the PAS system will release the excess portion of the short-term (hours) emissions. For the remainder of the fermentation season all emissions would be directed through the PAS.

Nonetheless, the majority of seasonal emissions (>90%) would be removed from the atmosphere; whereas currently these emissions are completely uncontrolled and contribute to the pollutant load of the Valley.

District Response

The cost effectiveness analysis for the condenser control option has been revised to use the provided capital capital and installation costs.

As explained in the Top Down BACT Analysis for the condenser control technology, the quoted efficiency of the EcoPAS system (90%) has been established based on limited small-scale pilot testing. Given that the unit operation has not been fully demonstrated at this time, the District will consider the average control efficiency of the unit to be only 81% for purposes of this project, consistent with the District's BACT Guideline for this class and category source.

The "adjusted capital cost" factor has been removed and the cost effectiveness analysis has been revised with the updated capital cost value. As provided by the control unit manufacturer, to handle the total gas flow proposed for this project, four PAS units are required which was used in the cost effectiveness analysis.

Comment Date: October 16, 2013

Commenter: NohBell Corporation

Comment

NohBell Corporation offers the following analysis in response to the SJV query, and our understanding of the revised data relevant to the E & J Gallo Livingston Winery Expansion. The appropriate number of NoMoVo units to manage the anticipated spikes in capacity utilization and fermentation rate from the mean average remains 18 and does not require revision, on the following basis:

NohBell's proposal of 13 units, was capacity matched optimally around the average operating scenarios presented by E & J Gallo. The revised number (18) of system units was increased to accommodate the indicated potential to emit 75% of maximum capacity: 18 units = (0.75 x 24).

NohBell's understanding of the revised operating metrics submitted by E & J Gallo from an analogous winery indicate an anticipated fermentation scenario assuming:

1) Peak tank utilization level of 86% (19/22)
2) Average fermentation duration is 4.4 days, peak fermentations are 2 days
3) The average capacity fill is 67%, (50% - 80% max during peak)
4) The 4 day running average is 15.5 tanks active

Number of Units

Under this scenario, 18 units is more than sufficient to manage this accelerated flow. The NoMoVo design capacity calculation is engineered with an implied distinction between actual emission flow capacity and the ETOH capture capacity. At higher than average rated gas flows, the capture efficiency ebbs somewhat, but never diminishes completely. Furthermore, multiplying Factors 1 and 3 (Peak utilization x Fill level) generates 86% x 67% = 57% total utilization, well below the 75% utilization originally calculated. NohBell reasserts that the spike in fermentation emission flow and accelerated pace of the fermentations is optimized with 13 - 15 NoMoVo units. We maintain that 18 units is the maximum amount of units required, and that based upon the 4 day running average, that is more than necessary.

NoMoVo has repeatedly, "Achieved In Practice," the connection of multiple tanks to systems, without issue, including foam over, backpressure, or cross contamination. The maximum scfm generated in this scenario is managed capably by the proposed number of units.

This latent capacity assertion is supported by the 2011 Bay Area Air Quality Management District calculation of 96% efficiency. Updated BAAQMD emission

capture efficiency tests completed on October 10, 2013 are pending. The SJVAPCD evaluation of the original NoMoVo proposal assumes a capture efficiency of 81% as an average, less than what is being repeatedly, "Achieved In Practice."

Capital Cost Adjustment

NohBell asserts an error in the original BACT calculation regarding a capital cost adjustment. An increase in Capital Cost of the specified units is inappropriate given any increase in the amount of emissions. This factor is irrelevant to capital cost. The BACT analysis should be modified to assume unit costs of $67,500.00 rather than $79,221.00, and the associated direct and indirect costs should be modified accordingly. 18 units X $67,500.00 = $1,215,000.00.

Annual Costs

The annual operating costs indicated in the SJV BACT analysis are inconsistent with the ongoing experiences at multiple wineries this season. NohBell anticipates submitting data demonstrating labor, and overhead costs far below the costs outlined in the analysis.

Summary

NohBell welcomes the additional scrutiny of the SJVAPCD, and reasserts the proper maximum number of NoMoVo units to manage the accelerated emission flow and fermentation pace is 18. Further, the capital costs and associated direct and indirect costs should be modified to reflect the accurate figure. We are looking forward to continued evaluation of this project and progress toward accuracy.

District Response

The cost effectiveness analysis for the absorption control option has been revised to use 18 control units for this project and the capital cost and associated direct and indirect costs have been revised accordingly.

As explained in the Top Down BACT Analysis for the absorption control technology, The quoted efficiency of the NohBell Corporation scrubber system (96%) was established based an one-time source test over three 30-minute runs. Given that the unit operation has not been fully demonstrated at this time, the District will consider the average control efficiency of the unit to be only 81% for purposes of this project, consistent with the District's BACT Guideline for this class and category source.

Comment Date: October 21, 2013

Commenter: US Environmental Protection Agency

Comment

EPA notes that the District's BACT Guidelines for wine fermentation and storage activities were last updated in 2009. The District should have evaluated whether any of the technologically feasible control technologies listed in the BACT Guidelines have since been achieved in practice. EPA contacted other California air districts to determine if any add-on type controls are successfully being used at other wine production facilities. We were able to locate a few facilities that have successfully installed and are operating various capture and control technologies, some voluntarily and some pursuant to Authorities to Construct issued by their local air districts. Most of these installations are relatively new and are currently operating under extended authorities to construct permits while they await inspections or source test results in order to issue the final permit to operate. Given the existence of similar facilities using add-on controls, the District must evaluate whether any of these facilities are using controls that result in an emission rate that is "achieved in practice." In addition, EPA was able to locate at least one final permit to operate issued by the Santa Barbara County APCD to Terravant Wine Company in 2009 for the installation and operation of an ethanol control system. The permit requires the ethanol control system to reduce ethanol emissions by at least 75 percent. Since this facility has been utilizing add-on controls to reduce emissions for at least 3 years, the use of these controls has clearly been achieved in practice and therefore represents a minimal level of control for the project under evaluation. EPA notes that these controls were not installed to meet LAER or BACT, but instead were used to lower actual emissions below the local District's offset thresholds. Once a control technology has been achieved in practice, costs are no longer allowed to be considered when determining what constitutes LAER (or BACT as defined by the District). For your reference, a copy of this permit to operate is enclosed with this letter.

In addition, at least two of the public comments received by the District were from companies that offer VOC capture and control systems specifically for wine fermentation and storage activities. Both companies state that their control technologies can achieve more than 75 percent level of control, and thus the District should also evaluate whether these control technologies have been achieved in practice or are cost-effective. Generally the company's comments questioned the cost analysis performed by the District, stating that because they manufacture, sell and install these systems, that they could provide more accurate cost data to be used in the District's cost-effective analysis. When specific control equipment cost data is available for a project, the District should use the specific data provided, rather than rely on generic cost estimates derived from EPA's Control Cost Manual. Based on the additional information provided by the two commentors, EPA believes

the District must re-evaluate the cost effectiveness of the controls listed as technologically feasible and determine if any of them are costeffective.

Given the definition of BACT in the District Rule 2201, which requires "the most stringent emission limitation or control technique," the District must consider both the achieved in practice emission control rate of 75 percent and the emission control rate of any technologically feasible control options determined to be cost-effective, when determining what control option constituents BACT for the proposed project.

EPA requests that the District provide us with any updated analysis for this source and if the proposed permit is significantly modified, a new 45-day EPA review permit will be triggered under title V. EPA intends to provide an expedited review of any permit revisions.

District Response

The District has performed a detailed Achieved in Practice analysis for BACT from wine fermentation tanks and is provided as an attachment to the revised evaluation for the project in Attachment B. The Achieved in Practice analysis demonstrates to date, there are no capture and control technologies to control VOC emissions from wine fermentation tanks that can be considered Achieved in Practice.

In addition, the top down BACT analysis has been revised to utilize specific control equipment cost as provided by the control technology manufacturers. With the revised cost effectiveness calculations as provided in the revised evaluation for the project in Appendix B, all technologically feasible control options are not cost effective for this project. As a result, this project is approved with the Achieved in Practice BACT option of temperature-controlled open top tank with maximum average fermentation temperature of 95 deg F for wine fermentation tanks.