

**AIR QUALITY
MANAGEMENT DISTRICT****AUTHORITY TO CONSTRUCT****A/C NO.:** 25368**ISSUED BY:**
JORGE DEGUZMAN**DATE ISSUED:** DECEMBER 11, 2018**DATE EXPIRES:** DECEMBER 11, 2020**ISSUED TO:** THE PROCTER & GAMBLE MANUFACTURING CO.**LOCATION:** 8201 FRUITRIDGE RD., SACRAMENTO, CA 95826

DESCRIPTION: MODIFICATION OF FATTY ALCOHOL MANUFACTURING PROCESS [P/O 25203]; MODIFICATION OF TANK 621 (EMISSION SOURCE ID 1356, 288 GALLON CAPACITY) AND TANK 622 (EMISSION SOURCE ID 1357, 360 GALLON CAPACITY), AND INSTALLATION OF TANK 7825 (EMISSION SOURCE ID 1454, 506 GALLON CAPACITY) AND TANK 7826 (EMISSION SOURCE ID 1455, 646 GALLON CAPACITY)
DESCRIPTION OF PROCESS EQUIPMENT IS SHOWN IN APPENDIX 'A'.

AUTHORITY TO CONSTRUCT CONDITIONS**START-UP REQUIREMENTS**

S1. After completing the equipment installation authorized under this Authority to Construct (ATC), the permit holder must contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) to arrange a start-up inspection. SMAQMD may be contacted at (916) 874-4800.

[Basis: SMAQMD Rule 201, Section 405]

S2. This Authority to Construct may serve as a temporary Permit to Operate provided that:

- A. The permit holder has notified SMAQMD that the equipment installation is complete and the facility is ready for a start-up inspection,
- B. The equipment installed matches the equipment authorized in this Authority to Construct,
- C. The equipment is operated in compliance with all conditions in this Authority to Construct, and
- D. The equipment and its operation complies with SMAQMD, state and federal laws and regulations.

[Basis: SMAQMD Rule 201, Section 303.1 and 405]

S3. The permit holder agrees to indemnify and defend SMAQMD, its officers, agents, and employees if this permit, or the environmental review of the permit under the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA), including any exemption determination, is challenged in state or federal court. This indemnification includes attorney fees awarded against SMAQMD, as well as attorney fees, court costs, legal fees, and other expenses incurred in defending the challenge. The District will provide written notice to the permit holder within 5 days if it receives a petition, complaint or other legal notice by a third party challenging this Authority to Construct (ATC) or the environmental review of the ATC. The permit holder may, within 10 days of notification, request cancellation of the ATC. If the permit holder requests

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cancellation, SMAQMD will cancel the permit within 5 days, and will notify the plaintiffs of the cancellation and request dismissal of the litigation.

[Basis: SMAQMD Rule 201, Section 405]

S4. A permit application for a minor Title V permit modification must be submitted after the issuance of this Authority to Construct but before commencement of operation.

[Basis: SMAQMD Rule 202, Section 101]

GENERAL

1. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.

[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.1]

2. The Air Pollution Control Officer and/or authorized representatives must be permitted to do all of the following:

A. Enter the source premises or any location at which any records required by this ATC are kept.

B. Access and copy any records required by this ATC.

C. Inspect or review any equipment, operation, or method required under this ATC.

D. Sample emissions from the source or require samples to be taken.

[Basis: SMAQMD Rule 201, Section 405]

3. This ATC does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the SMAQMD Rules and Regulations.

[Basis: SMAQMD Rule 201, Sections 303.1, 405]

4. The facility may not discharge air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

[Basis: SMAQMD Rule 402, Section 301]

5. A legible copy of this ATC must be maintained on the premises with the equipment.

[Basis: SMAQMD Rule 201, Section 401]

EMISSION LIMITATIONS

6. The process must not discharge into the atmosphere any visible air contaminants other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which are as dark as or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.

[Basis: SMAQMD Rule 401, Section 301]

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7. Emissions from the following tanks must not exceed the following:

[Basis: SMAQMD Rule 201, Section 405, and Rule 202, Section 408.2]

Process	Pollutant	Emission Limits (A)		
		lb/day	lb/quarter	lb/year
Tank 621 (Emission Source ID 1356)	VOC	0.0 (B)	4	16
Tank 622 (Emission Source ID 1357)	VOC	0.0 (B)	4	16
Tank 1454 (Emission Source ID 1454)	VOC	0.2	15	60
Tank 1455 (Emission Source ID 1455)	VOC	0.2	15	60

(A) Quarterly VOC emissions are as proposed by the applicant. Daily emissions are based on the quarterly emissions divided by 92 days per quarter. The annual emissions are based on four quarters per year.

(B) The actual VOC limit is 0.04 lb/day but it has been rounded to one decimal place as per SMAQMD policy - Significant Figures, 9/26/02.

8. Emissions from each component from the fatty alcohol manufacturing process must not exceed the Maximum Allowable VOC Emissions listed in Appendix B. Total emissions from fatty alcohol manufacturing process must not exceed the following:

[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 301 and Section 408.2]

Process	Pollutant	Emission Limits (A)	
		lb/quarter	lb/year
Fatty Alcohol MFG Process	VOC	2,633	10,532

(A) The complete emissions table is shown in Appendix B.

9. Emissions from the following emission unit must not exceed the following:

[Basis SMAQMD Rule 201, Section 405 and Rule 202, Section 301 and Section 408.2]

Emissions Unit	Pollutant	Emission Limits	
		lb/quarter	lb/year
HFA Filter Room Exhaust Vent (Emission Source ID 1047)	VOC	1,104	4,416

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10. The contents or products associated with each device must not deviate from those identified in the permit application, including changes in constituent mass fractions or operating temperatures that would result in an increase in the VOC composite partial vapor pressure at the actual operating conditions of the emissions unit.

[Basis: SMAQMD Rule 201, Section 405]

EMISSION OFFSETS

11. Prior to commencing operation, Procter & Gamble must provide sufficient emission reduction credits (ERC) to the Air Pollution Control Officer to fully offset the following VOC emissions:

[Basis: SMAQMD Rule 201, Section 303.1]

VOC Emissions to be Offset (A) Pounds/Quarter			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
36	36	36	36

(A) Emission offset ratios required by Rule 202, Section 303 have not been applied to the VOC emissions.

12. Operation of the equipment must occur only after Procter & Gamble provides ERC certificates to the SMAQMD in sufficient quantity to demonstrate compliance with the quarterly emission liability of Condition No. 12. Each ERC emission certificate must be adjusted by the appropriate emission offset ratio specified in Rule 202, Section 303.

[Basis: SMAQMD Rule 202, Section 303]

EQUIPMENT STANDARDS

13. Fugitive VOC emissions from all equipment specified in the table below must comply with either the maximum uncontrolled emission limits or the control system requirements:

[Basis: SMAQMD Rule 464, Sections 301 through 307]

Equipment	Maximum Uncontrolled VOC Emissions OR Control System Requirement
Reactor, distillation column, crystallizer, evaporator or enclosed centrifuge [Basis: SMAQMD Rule 464, Section 301.4]	≤ 15 lb/day OR VOC capture and control system with a combined system efficiency $\geq 85\%$ by weight and a control efficiency $\geq 90\%$ by weight

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Equipment	Maximum Uncontrolled VOC Emissions OR Control System Requirement
<p>If a VOC capture and control system controls <u>more than two process vents</u> from reactors, distillation columns, crystallizers, evaporators or enclosed centrifuges [Basis: SMAQMD Rule 464, Section 301.5]</p>	<p>Combined VOC emissions from all process vents reduced to < 33 lb/day OR Overall combined system efficiency ≥ 85% by weight and an overall control efficiency ≥ 90% by weight</p>
<p>Centrifuge, rotary vacuum filter or other device having an exposed liquid surface where the liquid contains VOC with a VOC composite partial vapor pressure ≥ 26 mm hg @ 20°C [Basis: SMAQMD Rule 464, Section 302.2]</p>	<p style="text-align: center;">≤ 15 lb/day OR A VOC capture and control system with a combined system efficiency ≥ 85% by weight and a control efficiency ≥ 90% by weight</p>
<p>Dryer or other production equipment exhaust system [Basis: SMAQMD Rule 464, Section 303.2]</p>	<p>A. If maximum uncontrolled VOC emissions is ≥ 330 lb/day, a VOC capture and control system with a combined system efficiency ≥ 85% by weight and a control efficiency ≥ 90% by weight. B. If maximum uncontrolled VOC emissions is <330 lb/day, reduce VOC emissions to 33 lb/day.</p>
<p>Process tank containing material with a VOC composite partial vapor pressure > 26 mm hg @ 20°C [Basis: SMAQMD Rule 464, Section 304.2]</p>	<p>A. A closed container, which is kept tightly covered at all times except when accessing the container. B. Maximum uncontrolled VOC emissions ≤ 15 lb/day. OR VOC capture and control system with a combined system efficiency ≥ 85% by weight and a control efficiency ≥ 90% by weight</p>

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Equipment	Maximum Uncontrolled VOC Emissions OR Control System Requirement
<p>Equipment transferring liquid with a VOC composite vapor pressure > 26 mm hg @ 20°C into any truck, trailer, railroad tank car or storage tank of 2,000 gallons capacity or greater [Basis: SMAQMD Rule 464, Section 306]</p>	<p>Vapor balance system with all of the following components:</p> <ul style="list-style-type: none"> A. A permanent submerged fill pipe which discharges at not more than six inches from the bottom of the tank; B. A submerged fill pipe which discharges at not more than six inches from the bottom of the tanker truck or rail car; C. A vapor return line which transfers at least 90% by weight of the displaced VOC vapor from the stationary storage tank being filled back to the mobile or stationary supply tank; and D. A pressure/vacuum relief valve with relief settings of not less than ± 0.03 psig. <p style="text-align: center;">OR</p> <p>VOC capture and control system with a combined system efficiency of $\geq 85\%$ by weight and a control efficiency of $\geq 90\%$ by weight</p> <p style="text-align: center;">OR</p> <p>An internal or external floating roof which complies with the procedures described in 40 CFR §63.119(b), (c), (d) and §63.120.</p>
<p>Storage tanks with capacities > 40,000 gallons [Basis: SMAQMD Rule 464, Section 307.1]</p>	<p>Compliance with SMAQMD Rule 446 – Storage Of Petroleum Products.</p>
<p>Storage tank with a capacity > 55 gallons and $\leq 40,000$ gallons containing material with a VOC composite partial vapor pressure of > 78 mm hg @ 20°C [Basis: SMAQMD Rule 464, Section 307.1]</p>	<p>A pressure/vacuum relief valve with a relief setting of not less than ± 0.03 psig or an equivalent control method permitted under SMAQMD Rule 201 – General Permit Requirements, on all vents of any storage tank.</p>
<p>Storage tank with a capacity ≤ 55 gallons containing material with a VOC composite partial vapor pressure of > 78 mm hg @ 20°C [Basis: SMAQMD Rule 464, Section 307.2]</p>	<p>Closed container, which is kept tightly covered at all times except when accessing the container</p>

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14. The facility must not exceed the following raw materials process limit:
[SMAQMD Rule 201, Section 405]

Material	Maximum Allowable Processing Rate lb/quarter
Crude Vegetable Oil	147,500,000

15. The facility must use closed containers for the storage or disposal of cloth, paper, or sponges used for solvent cleanup.

[Basis: SMAQMD Rule 464, Section 308.1]

16. The facility must store fresh and spent cleanup solvent materials in closed containers.

[Basis: SMAQMD Rule 464, Section 308.2]

17. The facility may not use a cleanup material to perform in-line solvent cleaning of process units and piping unless either:

- A. The emissions are vented to a VOC capture and control system which has a combined system efficiency of at least 85% by weight and a control efficiency of at least 90% by weight; or
- B. The solvent complies with a VOC content limit of 200 grams/liter and a vapor pressure limit of less than 45 mm hg @ 68°F (20°C).

[Basis: SMAQMD Rule 464, Section 308.3]

18. Except for laboratory equipment cleaning exempt pursuant to Rule 464, Section 115 and inline solvent cleaning of process units and piping as provided in Rule 464, Section 308.3, a person may not use a solvent to perform maintenance solvent cleaning including, but not limited to mechanical parts and work areas unless the solvent complies with a VOC content limit of 25 grams per liter (0.21 pounds per gallon).

[Basis: SMAQMD Rule 464, Section 308.3]

EMISSION TESTING

19. The facility must perform the following source tests at least once during each calendar year, under the following conditions:

- A. VOC mass emissions must be determined for the following emission point:

Emission Source ID	Emission Point	Test Methods
1047	HFA Filter Room Exhaust Vent	EPA Methods 1 – 4 & EPA Method 18 or Method 25

- 1) If EPA Method 25 is performed to determine VOC mass emissions for streams that are known to contain methanol, methanol must also be measured using either EPA Method 18 or EPA Method

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308. A molecular weight of 32 must be used for methanol and a molecular weight of 16 must be used for non-methanol VOC in all calculations.

- 2) If EPA Method 18 is performed to determine VOC mass emissions, the individual molecular weights of each VOC identified in the exhaust stream must be accounted for in all calculations.
- B. A source test plan must be submitted to the Air Pollution Control Officer for written approval at least 30 days before the scheduled date of the source test. The source test plan must include, but is not limited to, the proposed operating conditions during the source test, the specific protocol being used, and a description of all sampling and analytical procedures to be used.
- C. Source tests must be performed between May 15 and September 30. If the source test is conducted outside of this time period, source test runs must be conducted while the outside ambient temperature is 80°F or higher.
- D. Source test runs must coincide with the worst case operating scenario approved by the SMAQMD. For batch processes or equipment venting batch processes, the duration of the test runs must be the time from the start to the completion of the batch cycle, unless the test run is conducted under an absolute or hypothetical worst case scenario as described in SMAQMD Rule 464, Section 411.3. For a batch cycle or test period greater than 3 hours, a single test run conducted over the duration of the batch cycle or test period used for the emission determination. For batch cycles or test periods less than or equal to 3 hours, testing must include at a minimum, 3 one-hour runs.
- E. Notify the air pollution control officer at least 7 days prior to the source test date and start time if the date has changed from that approved in the source test plan.
- F. A written source test report must be submitted to the air pollution control officer within 60 days after completion of the source test. The source test report must include any total resource effectiveness (TRE) calculations used to show compliance with 40 CFR 60, Subparts NNN and RRR

[Basis: SMAQMD Rule 207, Section 305(f)(4)]

20. Unless otherwise stated, the performance tests for demonstrating compliance with the requirements of this Authority to Construct must be the following:
 - A. **VOC Mass Emission Rate And Control Efficiency:** Except where otherwise specified, the VOC mass emission rate and control efficiency must be determined in accordance with EPA Method 18, 25 or 25a; EPA Method 1 or 1a; EPA Method 2, 2a, 2b or 2c; EPA Method 3; and EPA Method 4 (whichever combination is most applicable).
 - B. **Capture/Collection Efficiency:** Capture/collection efficiency must be determined by using EPA *guidelines for developing collection efficiency protocols*, 55 Federal Register 26865, June 29, 1990. Individual collection efficiency test runs subject to the EPA technical guidelines must be determined by:
 - 1) EPA Methods 204, 204a, 204b, 204c, 204e and/or 204f; or
 - 2) the South Coast Air Quality Management District "Protocol For Determining Volatile Organic Compound (VOC) Capture Efficiency; or
 - 3) any other method approved in writing by the U.S. EPA, the California Air Resources Board, and the Air Pollution Control Officer.
 - C. **VOC Concentration in Wastewater:** The total VOC concentration in wastewater must be determined in accordance with EPA Method 305 or method 25d.
 - D. **Vapor Pressure:** Vapor pressure of a VOC must be determined in accordance with ASTM method D2879-86 or may be obtained from the most current edition of standard reference texts, including, but not limited to:

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- 1) *The Vapor Pressure Of Pure Substances*, Boublik, Fried And Hala: Elsevier Scientific Publishing Company, New York;
- 2) *Perry's Chemical Engineer's Handbook*, McGraw-Hill Book Company;
- 3) *CRC Handbook Of Chemistry And Physics*, Chemical Rubber Publishing Company;
- 4) *Lange's Handbook Of Chemistry*, John Dean, Editor, McGraw-Hill Book Company.

E. **Leak Detection:** EPA Method 21 must be used to determine the existence of a leak.

[Basis: SMAQMD Rule 464, Section 502]

21. The facility must notify the Air Pollution Control Officer at least one week in advance of the date and time of any fugitive emissions monitoring performed for the purposes of satisfying conditions in SMAQMD Rule 443.

[Basis: SMAQMD Rule 201, Section 405]

RECORD KEEPING

22. The facility must recalculate the total resource effectiveness (TRE) index value for any unit subject to 40 CFR 60 Subpart NNN and Subpart RRR whenever process changes are made accordingly. Examples of process changes include: changes in production capacity, feedstock-type or catalyst-type, or whenever there is a replacement, removal or addition of recovery equipment. The TRE must be recalculated based on test data or on best engineering estimates of the effects of the change to the recovery system.

[Basis: 40 CFR 60.664(f) and 40 CFR 60.704(f)]

23. The following records must be continuously maintained on-site for the most recent five-year period and must be made available to the air pollution control officer upon request. Quarterly records as specified in the table below must be made available for inspection within 30 days following the end of the preceding quarter.

Frequency	Information to be Maintained
At all times	<p>A. Changes in production capacity, feedstock type, or catalyst type, or any replacement, removal or addition of recovery equipment for a distillation unit or reactor subject to 40 CFR 60 subpart NNN or subpart RRR.</p> <p>B. Any recalculation of the TRE index value required by 40 CFR 60 subpart NNN or subpart RRR.</p> <p>C. Source test reports.</p> <p>D. Fugitive emission monitoring reports including:</p> <ol style="list-style-type: none">1) identity of each affected device or flange2) date of inspection3) leak rate
Daily	<p>E. Types and amounts of organic compounds used and produced by each organic chemical manufacturing process unit as referenced in appendix 'b'.</p>

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Frequency	Information to be Maintained
When leak is detected during an inspection required by Condition No. 24	F. Identity of each affected device or flange G. Date of detection of leak H. Leak rate I. Date of repair J. Leak rate after repair K. Date when leak free L. Date when device or flange returns to regular inspection schedule M. Date and time leak reported to the air pollution control officer (for wastewater individual drain covers and wastewater oil-water separators only).
Quarterly	N. Throughput of each device listed in the table referenced in condition No. 8. For process tanks containing materials with a VOC composite vapor pressure greater than or equal to 26 mm hg @ 20°C, the throughput must be measured by instrumentation. The instrumentation may be located at the process tank or another upstream or downstream location that is in series with the process tank.

24. The permit holder must, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.).

[Basis: SMAQMD Rule 201, Section 303.1]

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Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following list identifies the rules that most commonly apply to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS (8-24-06)
202	NEW SOURCE REVIEW (8-23-12)
401	RINGELMANN CHART (4-19-83)
402	NUISANCE (8-3-77)
443	LEAKS FROM SYNTHETIC ORGANIC AND POLYMER MANUFACTURING (9-5-96)
464	ORGANIC CHEMICAL MANUFACTURING OPERAITONS (4-28-16)
<u>FEDERAL</u>	<u>REGULATION TITLE</u>
40 CFR 60 SUBPART VV	STANDARDS OF PERFORMANCE FOR EQUIPMENT LEAKS OF VOC IN SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
40 CFR 60 SUBPART NNN	STANDARDS OF PERFORMANCE FOR VOC EMISSIONS FROM SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY (SOCMI) DISTILLATION OPERATIONS
40 CFR 60 SUBPART RRR	STANDARDS OF PERFORMANCE FOR VOC EMISSIONS FROM SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY (SOCMI) REACTOR PROCESSES.
40 CFR 63 SUBPART F	NATIONAL EMISSION STANDARDS FOR ORGANIC CHEMICAL HAZARDOUS POLLUTANTS FROM THE SYNTHETIC ORGANIC CHEMICAL MANUFACTURING INDUSTRY
40 CFR 63 SUBPART FFFF	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING

The conditions on this Authority to Construct reflect some, but not all, of the requirements of these rules. Because other rule requirements may apply to the operation, the owner/operator should be familiar with all of the rules and related requirements. In addition, because future changes in prohibitory rules may establish more stringent requirements that may supersede the conditions listed here, the owner/operator should monitor proposed rules and rule adoption actions at SMAQMD.

For further information please consult your SMAQMD rulebook or contact the SMAQMD for assistance.

FATTY ALCOHOL MANUFACTURING PROCESS

A/C NO.	EQUIPMENT DESCRIPTION
25368	<p>FATTY ALCOHOL MANUFACTURING PROCESS CONSISTING OF THE FOLLOWING:</p> <ol style="list-style-type: none">1. BOTTOMS WASHING/COOLING PROCESS<ol style="list-style-type: none">A. ESTER BOTTOMS SURGE TANKB. ESTER BOTTOMS SURGE TANK PUMPC. ALCOHOL BOTTOMS SURGE TANKD. ALCOHOL BOTTOMS WASH WATER HEATERE. ALCOHOL BOTTOMS WASH COLUMNF. ALCOHOL BOTTOMS WASH COLUMN FEED PUMPG. WASHED ALCOHOL BOTTOMS SURGE TANKH. ALCOHOL BOTTOMS RECYCLE PUMPI. REWORK ALCOHOL TO HFAJ. REWORK SCALE TANK2. CATALYST SLURRY MAKING PROCESS<ol style="list-style-type: none">A. CATALYST MIX TANKB. CATALYST BOOSTER PUMPC. CATALYST EDUCTORD. CATALYST FEED SYSTEME. CATALYST HOPPERF. DUST CONTROL SYSTEM WITH FAN3. CATALYST FEED PROCESS<ol style="list-style-type: none">A. CATALYST FEED TANKB. CATALYST BOOSTER PUMPC. ESTER FEED TANKD. ESTER BOOSTER PUMPE. ESTER PREHEATER4. HIGH PRESSURE HYDROGENATION PROCESS<ol style="list-style-type: none">A. CATALYST HIGH PRESSURE FEED PUMPSB. HYDROGEN HEATER (964 KW)C. ONE-STAGE RECYCLE COMPRESSORD. FOUR-STAGE COMPRESSORE. CRUDE SEPARATORF. HYDROGEN/OVERHEADS INTERCHANGERG. ESTER/CRUDE INTERCHANGER5. PRESSURE LET DOWN PROCESS<ol style="list-style-type: none">A. BOILING WATER COOLINGB. OVERHEADS COOLING WATER COOLERC. OVERHEADS SEPARATORSD. OVERHEADS BLOWDOWN TANKE. CRUDE COOLING WATER COOLERF. CRUDE BLOWDOWN TANKG. CENTRIFUGAL SEPARATORH. SOUTH HYDROGEN VENT SEAL TANK

FATTY ALCOHOL MANUFACTURING PROCESS (continued)

A/C NO.	EQUIPMENT DESCRIPTION
25368	<p>FATTY ALCOHOL MANUFACTURING PROCESS CONSISTING OF THE FOLLOWING:</p> <ol style="list-style-type: none"> 6. CRUDE FILTRATION PROCESS <ol style="list-style-type: none"> A. CRUDE FILTER FEED TANK B. CRUDE FILTER FEED PUMPS C. DISPOSAL FILTER FEED PUMP D. CRUDE POLISH FILTERS 7. CATALYST DISPOSAL PROCESS <ol style="list-style-type: none"> A. TWO (2) DISPOSAL FILTERS B. TWO (2) DISPOSAL FILTER SHOCK TANKS C. DISPOSAL SHOCK PUMP D. TWO (2) DISPOSAL FILTER SURGE TANKS E. DISPOSAL FILTER SURGE PUMP 8. OVERHEADS FILTRATION <ol style="list-style-type: none"> A. OVERHEADS FILTER FEED TANK B. OVERHEADS FILTER FEED PUMP C. OVERHEADS FILTER D. OVERHEADS FILTER SURGE TANK E. OVERHEADS FILTER SURGE PUMP F. OVERHEADS POLISH FILTERS 9. METHANOL STRIPPING <ol style="list-style-type: none"> A. STRIPPER OVERHEADS FEED TANK B. STRIPPER OVERHEADS FEED PUMP C. CROSS FLOW FILTERS TANK D. CROSS FLOW FILTER BACKFLASH PUMPS E. STRIPPER CRUDE FEED PUMP F. STRIPPER FEED POLISH FILTERS G. STRIPPER TWO-BAR HEATER H. STRIPPER TEN-BAR HEATER I. METHANOL STRIPPER 10. SCAVENGER DISTILLATION <ol style="list-style-type: none"> A. SCAVENGER STILL B. SCAVENGER REBOILER C. SCAVENGER STILL PUMPS D. SCAVENGER CONDENSER E. SCAVENGER DISTILLATE RECEIVER F. SCAVENGER DISTILLATE PUMP G. SCAVENGER VENT CONDENDER H. SCAVENGER VACUUM EJECTOR

FATTY ALCOHOL MANUFACTURING PROCESS (continued)

A/C NO.	EQUIPMENT DESCRIPTION
25368	FATTY ALCOHOL MANUFACTURING PROCESS CONSISTING OF THE FOLLOWING:
	11. FRACTIONATED ALCOHOL PRODUCTION
	A. STILL
	B. REBOILER
	C. STILL PUMPS
	D. CONDENSER
	E. DISTILLATE RECEIVER
	F. DISTILLATE PUMP
	G. COOLER
	H. VENT CONDENSER
	I. VACUUM EJECTORS
	J. ALCOHOL REWORK TANK
	K. ALCOHOL SCALE TANK
	L. FIVE (5) ALCOHOL TO SCALE TANKS
	M. FOUR (4) BACK-UP ALCOHOL SCALES TANKS
	12. STEARYL STILL
	A. STEARYL STILL
	B. STEARYL BOILING WATER CONDENSER
	C. STEARYL COLD WATER CONDENSER
	D. STEARYL DISTILLATE RECEIVER
	E. STEARYL EJECTOR SYSTEM
	F. STEARYL TOPPING PUMP
	G. STEARYL TOPPING COOLER
	H. STEARYL PRODUCT PUMP
	I. STEARYL PRODUCT COOLER
	J. STEARYL BOTTOMS PUMP
	K. STEARYL REBOILER

A/C 25368 – FATTY ALCOHOL MANUFACTURING PROCESS EMISSIONS

(REVISED 12/11/2018)

EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
0500	73-D-7754	WATER TANK	616	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0501	44-C-8052	HYDROGEN RECYCLE KNOCKOUT DRUM	94	PROCESS TANK	HYDROGEN	NO VENT	NO LIMIT	NO LIMIT	0
0502	44-C-8037	HYDROGEN RECYCLE SEPARATOR	22	PROCESS TANK	HYDROGEN	NO VENT	NO LIMIT	NO LIMIT	0
0503	44-E-7101 45-C-7621	BOILING WATER COOLER – NORTH & SOUTH	184 EACH	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0504	44-E-109	OVERHEADS COLD WATER COOLER – NORTH	468	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0505	45-D-7626	OVERHEADS COLD WATER COOLER – SOUTH	468	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0506	44-E-104	CRUDE BOILING WATER COOLER – NORTH	468	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0507	44-E-105 45-D-7625	CRUDE COLD WATER COOLER – NORTH & SOUTH	126 EACH	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0508	44-K-2 45-K-7609	(2) HYDROGEN COMPRESSORS	28 16	COMPRESSORS	HYDROGEN	NO VENT	NO LIMIT	NO LIMIT	0
0509	45-C-8982	HYDROGEN TANK	2,585	PROCESS TANK (NOT IN SERVICE)	NA	NO VENT	0	0	0
0510	45-C-7612	ELECTRIC HYDROGEN HEATER	NA	HEATER	HYDROGEN	NO VENT	NO LIMIT	NO LIMIT	0
0511	73-D-7767	WATER TANK	476	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0512	73-D-7770	WATER TANK	476	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0513	50-E-1204	FATTY ALCOHOL BOILING WATER CONDENSER	NA	CONDENSER	WATER	NO VENT	NO LIMIT	NO LIMIT	0
0514	50-C-303	METHANOL STRIPPER COLUMN	627	DISTILLATION COLUMN	OUT OF SERVICE	NO VENT	0	0	0
0515	73-C-4828 73-C-4829	(2) WELL WATER ZEOLITE SOFTENER TANKS	159 EACH	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0516	73-C-8532	WELL WATER DEAERATOR TANK	109	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0517	73-C-8601 73-C-8602 73-C-8603 73-C-8604 73-C-8606	WELL WATER (5) LA SOFTENER TANKS	478 EACH	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
0518	73-C-8606	WELL WATER BREAK TANK	627	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0

A/C 25368 – FATTY ALCOHOL MANUFACTURING PROCESS EMISSIONS (continued)

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
0519	73-D-867	WELL WATER SALT TANK	847	PROCESS TANK	WATER	VENT	NO LIMIT	NO LIMIT	0
1000	40-D-331	TANK 653	11,845	PROCESS TANK	ESTERS	6" PVVV	15,000,000	NO LIMIT	51
1001	40-D-332	TANK 663	11,845	PROCESS TANK	ESTERS	6" PVVV	15,000,000	NO LIMIT	60
1009	40-D-333	TANK 661	7,638	PROCESS TANK	ESTERS	8" PVVV	6,142,459	NO LIMIT	9.6
1016	50-C-327	TANK 611	5,970	PROCESS TANK	FATTY ALCOHOL	8" VENT, 8" OVERFLOW	10,000,000	NO LIMIT	0.3
1027	44-D-220	TANK 666	7,638	PROCESS TANK	ESTERS	4" VENT	49,500,000	NO LIMIT	17
1028	44-D-219	TANK 667	7,638	PROCESS TANK	ESTERS	4" VENT	49,500,000	NO LIMIT	17
1029	44-D-279	TANK 656	2,398	PROCESS TANK	FATTY ALCOHOL	4" PVVV	6,900,000	NO LIMIT	3
1030	45-D-7692	ESTER FEED WATER DRAW-OFF TANK	71	PROCESS TANK	WATER/ ESTERS	24" OPEN TOP	85,995	NO LIMIT	0
1033 & 1033.1	50-E-7344	SCAVENGER ALCOHOL STILL EJECTOR CONDENSER	50	PROCESS VENT	VAPOR	2.5" VENT, DRAIN	620,448	3	276
1035 & 1035.1	50-C-7347	SCAVENGER ALCOHOL STILL EJECTOR CONDENSATE TANK	294	PROCESS TANK AND PROCESS VENT	WATER/ METHANOL	4" VENT, 2" OVERFLOW	725,000	NO LIMIT	0
1037	45-D-7677	TANK 767	11,375	PROCESS TANK	ESTERS	9" VENT	49,500,000	NO LIMIT	17
1038	45-D-7678	TANK 766	11,040	PROCESS TANK	ESTERS	4" VENT	49,500,000	NO LIMIT	17
1039	50-D-7774	TANK 610	3,167	PROCESS TANK	WATER/ METHANOL	3" OVERFLOW	10,000,000	NO LIMIT	0
1045	54-D-214	TANK 665	3,760	PROCESS TANK	FATTY ALCOHOL	3" PVVV	15,000,000	NO LIMIT	7.1
1046	54-D-201	TANK 655	3,848	PROCESS TANK	FATTY ALCOHOL	2" VENT	153,562	NO LIMIT	0.3
1047	NA	HFA FILTER ROOM EXHAUST VENT	NA	PROCESS VENT	ROOM AIR	5'-6" VENT	NA	12	1,104
1059	54-D-289	SCRAP ALCOHOL TANK	60	PROCESS TANK	FATTY ALCOHOL	36" LOOSE COVER	NO LIMIT	NO LIMIT	0
1092	90-D-7403	TANK 608	202,566	PROCESS TANK	FATTY ALCOHOL	8" PVVV	3,750,000	NO LIMIT	0
1094	90-D-6140	TANK 614	41,881	PROCESS TANK	FATTY ALCOHOL	4" PVVV	10,000,000	NO LIMIT	0.1
1095	90-D-6150	TANK 615	18,214	PROCESS TANK	FATTY ALCOHOL	4" PVVV	3,750,000	NO LIMIT	0.6

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
1096	90-D-6130	TANK 613	18,214	PROCESS TANK	FATTY ALCOHOL	4" PVVV	3,750,000	NO LIMIT	0.6
1154	50-D-411	TANK 612	2,783	PROCESS TANK	FATTY ALCOHOL	4" VENT, 4" OVERFLOW	10,000,000	NO LIMIT	0
1156	50-C-1216	THERMAL FLUID TANK	7,051	PROCESS TANK	THERMAL FLUID (DOWTHERM)	8" VENT	8,000	NO LIMIT	0
1157	50-Y-414B	THERMAL FLUID (DOWTHERM) CIRCULATION SYSTEM WITH PURGE EJECTOR	NA	PROCESS VENT	THERMAL FLUID (DOWTHERM)	1.5" VENT	30,000	NO LIMIT	0
1160	50-D-300	TANK 651	8,226	PROCESS TANK	FATTY ALCOHOL	6" PVVV	15,000,000	NO LIMIT	4.3
1161	50-D-7334	TANK 650	7,833	PROCESS TANK	FATTY ALCOHOL	6" PVVV	15,000,000	NO LIMIT	4.3
1162	50-D-7358	TANK 659	16,922	PROCESS TANK	FATTY ALCOHOL	8" PVVV	60,000,000	NO LIMIT	10
1163	50-D-7332	TANK 658	16,383	PROCESS TANK	FATTY ALCOHOL	4" PVVV	60,000,000	NO LIMIT	10
1164	50-D-7652	TANK 646	20,306	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK [B]	NO LIMIT [D]	NO LIMIT	0
1165	50-D-337	TANK 662	7,293	PROCESS TANK	FATTY ALCOHOL	8" PVVV	15,000,000	NO LIMIT	1.1
1166	50-D-330	TANK 652	7,638	PROCESS TANK	FATTY ALCOHOL	8" PVVV	15,000,000	NO LIMIT	1.1
1315	40-C-1211	FLASH TANK AND ESTER/ALCOHOL BOTTOMS COOLER	2,879	PROCESS TANK	WATER	NO VENT	NO LIMIT	NO LIMIT	0
1321	40-D-1310	ESTER SCRAP TANK	75	PROCESS TANK	ESTERS	LOOSE COVER	12,500	NO LIMIT	0
1322	44-C-103	NORTH CRUDE SEPARATOR	198	PROCESS TANK	FATTY ALCOHOL	NO VENT	NO LIMIT [C]	NO LIMIT	0
1323	44-C-106	NORTH OVERHEADS SEPARATOR	198	PROCESS TANK	FATTY ALCOHOL	NORMAL – AIR PRODUCTS EMERGENCY RELIEF - NVST	NO LIMIT [C]	NO LIMIT	0
1324	44-C-200	CRUDE BLOWDOWN TANK – NORTH	355	PROCESS TANK	FATTY ALCOHOL	NORMAL – AIR PRODUCTS EMERGENCY RELIEF - NVST	NO LIMIT [E]	NO LIMIT	0
1325	44-C-211	TANK 636	288	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK	NO LIMIT [E]	NO LIMIT	0
1326	45-C-7619	SOUTH CRUDE SEPARATOR	238	PROCESS TANK	FATTY ALCOHOL	NO VENT	NO LIMIT [C]	NO LIMIT	0

A/C 25368 – FATTY ALCOHOL MANUFACTURING PROCESS EMISSIONS (continued)

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
1327	45-C-7624	CRUDE BLOWDOWN TANK – SOUTH	355	PROCESS TANK	FATTY ALCOHOL	NORMAL – AIR PRODUCTS EMERGENCY RELIEF - SVST	NO LIMIT [F]	NO LIMIT	0
1328	45-C-7627	SOUTH OVERHEADS SEPARATOR	212	PROCESS TANK	FATTY ALCOHOL	NORMAL – AIR PRODUCTS EMERGENCY RELIEF - SVST	NO LIMIT [C]	NO LIMIT	0
1329	45-C-7676	TANK 756	3,760	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1330	50-C-1200	MIDDLE CUT ALCOHOL STILL	22,562	DISTILLATION COLUMN	FATTY ALCOHOL	TO DEVICE 1039	113,750,000	NO LIMIT	0
1331	50-C-1201	MIDDLE CUT ALCOHOL STILL DISTILLATE RECEIVER	705	PROCESS TANK	FATTY ALCOHOL	TO DEVICE 1039	NO LIMIT [C]	NO LIMIT	0
1332	50-C-1209	CETYL ALCOHOL DISTILLATE RECEIVER	202	PROCESS TANK	FATTY ALCOHOL	TO DEVICE 1039	NO LIMIT [C]	NO LIMIT	0
1334	50-C-5711	METHANOL STRIPPER DISTILLATE RECEIVER	129	PROCESS TANK	METHANOL	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1335	50-C-5738	STEARYL ALCOHOL STILL DISTILLATE RECEIVER	360	PROCESS TANK	FATTY ALCOHOL	NO VENT	NO LIMIT [C]	NO LIMIT	0
1336	50-C-7335	TANK 649	17,768	PROCESS TANK	ESTERS	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1337	50-C-7338	SCAVENGER ALCOHOL STILL	799	DISTILLATION COLUMN	FATTY ALCOHOL	VACUUM SYSTEM	114,500,000	NO LIMIT	0
1338	50-C-7343	SCAVENGER ALCOHOL STILL DISTILLATE RECEIVER	104	PROCESS TANK	FATTY ALCOHOL/ METHANOL	TO DEVICE 1033	NO LIMIT [C]	NO LIMIT	0
1339	50-C-7400	FATTY ALCOHOL STILL CATCH TANK	1,175	PROCESS TANK	FATTY ALCOHOL	NO VENT	0	0	0
1340	54-C-7636	TANK 669	10,576	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK	NO LIMIT [E]	NO LIMIT	0
1341	50-C-7653	ALCOHOL BOTTOMS WASH COLUMN	564	PROCESS TANK	FATTY ALCOHOL	TO DEVICE 1344	10,000,000	NO LIMIT	0
1342	54-C-7661	TANK 668	7,638	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK	NO LIMIT [E]	NO LIMIT	0
1343	50-C-7749	TANK 657	19,460	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1344	50-C-7936 & 50-E-7942	ALCOHOL BOTTOMS FLASH TANK & AFTER CONDENSER	212	PROCESS TANK AND PROCESS VENT	FATTY ALCOHOL	VENT TO ATMOSPHERE	NO LIMIT [C]	NO LIMIT	0

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
1345	54-C-8055	OVERHEAD ALCOHOL SURGE TANK	360	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1346	50-C-8754	TANK 620	3,102	PROCESS TANK	METHANOL	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1347	50-D-390	TANK 660	7,638	PROCESS TANK	FATTY ALCOHOL	NORTH VENT SEAL TANK [A]	NO LIMIT [D]	NO LIMIT	0
1348	50-D-7331	TANK 648	16,376	PROCESS TANK	FATTY ALCOHOL	4" PVVV	60,000,000	NO LIMIT	11
1349	50-D-7903	ALCOHOL REMELT TANK	190	PROCESS TANK	FATTY ALCOHOL	LOOSE COVER	25,000	NO LIMIT	0
1350	50-E-1202	FATTY ALCOHOL CONDENSER	NA	CONDENSER	FATTY ALCOHOL	NO VENT	NO LIMIT [C]	NO LIMIT	0
1351	50-E-1400	FATTY ALCOHOL EJECTOR AFTER CONDENSER	1,400	CONDENSER	WATER/ FATTY ALCOHOL	TO DEVICE 1039	NO LIMIT [C]	NO LIMIT	0
1352	50-C-5732	STEARYL ALCOHOL STILL	19,313	DISTILLATION COLUMN	FATTY ALCOHOL	TO DEVICE 1354	25,000,000	NO LIMIT	0
1353	50-E-5748	FATTY ALCOHOL PRODUCT COOLER	82	PROCESS TANK	FATTY ALCOHOL	NA	NO LIMIT [C]	NO LIMIT	0
1354	50-E-5777	STEARYL ALCOHOL STILL EJECTOR AFTER CONDENSER	23	PROCESS VENT	FATTY ALCOHOL	2" VENT	NO LIMIT [C]	3	276
1355	50-E-7353	FATTY ALCOHOL EJECTOR AFTER CONDENSER	102	PROCESS TANK	FATTY ALCOHOL	VENTS TO ATMOSPHERE AND TO DEVICE 1039	NO LIMIT [C]	NO LIMIT	0
1356	51-D-7824	TANK 621	288	PROCESS TANK	FATTY ALCOHOL	4" PVVV, 6" OVERFLOW	4,000,000	0.1	4
1357	51-D-7827	TANK 622	360	PROCESS TANK	FATTY ALCOHOL	4" PVVV, 2 VENT	4,000,000	0.1	4
1358	54-C-7200	TANK 670	8,226	PROCESS TANK	FATTY ALCOHOL/ METHANOL	NORTH VENT SEAL TANK	NO LIMIT [E]	NO LIMIT	663
1360	54-D-302	SLURRY TANK – NORTH	158	PROCESS TANK	FATTY ALCOHOL	CENTRIFUGE VENT METHANOL ABSORBER	NO LIMIT [C]	NO LIMIT	0
1361	54-D-645	TANK 645	1,100	PROCESS TANK	FATTY ALCOHOL	HFA FILTER ROOM	NO LIMIT [C]	NO LIMIT	0
1362	55-C-214	TANK 765	3,760	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1363	55-C-7636	TANK 769	10,576	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1364	55-C-7661	TANK 768	10,576	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1365	55-C-7663	SHOCK TANK	1,798	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
1366	55-C-7665	TANK 770	10,576	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1367	55-D-7650	MOTT FILTER TUBE STORAGE	NA	PROCESS TANK (NOT PART OF PROCESS)	FILTERS	LOOSE COVER	0	0	0
1368	55-D-7660	SLURRY TANK – SOUTH	84	PROCESS TANK	FATTY ALCOHOL	CENTRIFUGE VENT METHANOL ABSORBER	NO LIMIT [C]	NO LIMIT	0
1369	55-D-8001	TANK 701	24,450	PROCESS TANK	WATER/ METHANOL	14" VENT	230,000,000	NO LIMIT	6.5
1370	55-D-8002	TANK 702	24,450	PROCESS TANK	WATER/ METHANOL	14" VENT	230,000,000	NO LIMIT	6.5
1371	55-D-8003	TANK 703	27,009	PROCESS TANK	WATER/ METHANOL	14" VENT	230,000,000	NO LIMIT	4.5
1372	55-D-8004	TANK 704	11,751	PROCESS TANK	FATTY ALCOHOL	14" DRAIN	500,000	NO LIMIT	8.9
1373	55-D-8005	TANK 705	595	PROCESS TANK	EARTH/ WATER	NO VENT	NO LIMIT	NO LIMIT	0
1374	55-D-8008	TANK 708	1,765	WASTEWATER TANK	WATER/ METHANOL	CLOSED TOP	230,000,000	NO LIMIT	7
1395	73-D-2178	FAT TRAP SKIMS TANK	200	PROCESS TANK	FATTY ALCOHOL/ ESTERS	2" VENT, 1.5" OVERFLOW	500,000	NO LIMIT	0
1423	45-C-7629	OVERHEADS BLOWDOWN TANK – SOUTH	288	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1424	55-C-7639	CRUDE FILTER SURGE TANK	68	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1440	50-C-323	METHANOL STRIPPER COLUMN	2,938	DISTILLATION COLUMN	METHANOL	NORTH VENT SEAL TANK VIA SOURCE 1334	NO LIMIT [G]	NO LIMIT	0
1441	44-C-101 44-C-102 44-C-122 44-C-7100	(4) ALCOHOL REACTORS – NORTH	529	REACTORS	ESTERS	NO VENT	NO LIMIT [G]	NO LIMIT	0
1442	44-C-7615 44-C-7616 44-C-7617 44-C-7618	(4) ALCOHOL REACTORS – SOUTH	529	REACTORS	ESTERS	NO VENT	NO LIMIT [G]	NO LIMIT	0
1443	54-C-203 54-C-204	(2) SWEETLAND FILTER PRESSES	NA	SEPARATOR	FATTY ALCOHOL/ METHANOL	NO VENT	NO LIMIT [C]	NO LIMIT	0
1444	50-E-1205	FATTY ALCOHOL REBOILER	282	PROCESS TANK	FATTY ALCOHOL	NO VENT	NO LIMIT [C]	NO LIMIT	0
1445	50-E-7642	METHANOL STRIPPER CRUDE PRE-HEATER	117	PROCESS TANK	FATTY ALCOHOL	NO VENT	NO LIMIT [D]	NO LIMIT	0

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EMISSION SOURCE ID	EQUIPMENT ID	EMISSIONS UNIT NAME	CAPACITY (GAL)	SOCMI DEVICE TYPE	CONTENTS OR PRODUCTS	VENT	MAXIMUM ALLOWABLE THROUGHPUT OR PRODUCTION (LB/QUARTER)	MAXIMUM ALLOWABLE VOC EMISSIONS	
								LB/DAY	LB/QUARTER
1446 & 1446.1	55-Y-300 & 55-Y-7710	NORTH & SOUTH CENTRIFUGES	30 EACH	CENTRIFUGES	FATTY ALCOHOL	CENTRIFUGE VENT METHANOL ABSORBER	79,637,500	NO LIMIT	0
1447	55-Y-7662	CRUDE (MOTT) FILTER	3,621	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1448	55-C-2242	CRUDE (MOTT) FILTER	4,512	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1449	55-C-2244	MOTT DISPOSAL FILTER SHOCK TANK	11,989	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1450	55-C-2288	MOTT DISPOSAL FILTER SURGE TANK	292	PROCESS TANK	FATTY ALCOHOL	SOUTH VENT SEAL TANK	NO LIMIT [F]	NO LIMIT	0
1451	50-C-7338	SCAVENGER STILL	7,974	DISTILLATION COLUMN	FATTY ALCOHOL	ATMOSPHERE VENT VIA SOURCE 1033	NO LIMIT [D]	NO LIMIT	0
1452		DOWTHERM FLASH TANK	4,700	PROCESS TANK		NO VENT	NO LIMIT	NO LIMIT	0
1453	TBD	CETYL ALCOHOL STILL	15,000	DISTILLATION COLUMN	FATTY ALCOHOL	TO DEVICE 1352	35,000,000	NO LIMIT [H]	0
1454	TBD	TANK 7825	506	PROCESS TANK	FATTY ALCOHOL	4" PVVV	1,100,000	0.2	15
1455	TBD	TANK 7826	646	PROCESS TANK	FATTY ALCOHOL	4" PVVV	1,100,000	0.2	15
TOTAL VOC EMISSIONS									2,633

[A] Back-up venting through APC Scrubber North HFA/Distillation and NVST to atmosphere.

[B] Back-up venting through NVST.

[C] Source is not fundamental process vessel that regulates throughput and does not vent to atmosphere.

[D] Source vents to the South Thermal Oxidizer.

[E] Source is not a fundamental process vessel that regulates throughput. Source vents through the North Vent Seal Tank.

[F] Source is not a fundamental process vessel that regulates throughput. Source vents through the South Vent Seal Tank.

[G] Source venting is based on emergency conditions not based on throughput.

[H] Source is a closed process that does not directly vent to atmosphere.