

January 23, 2023

Mr. Marc Percival
Hilmar Cheese Company
PO Box 910
Hilmar, CA 95324

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: N-1275
Project Number: N-1223921

Dear Mr. Percival:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The facility has proposed to revise the annual fuel throughput of the 29.25 MMBtu/hr biogas-fired flare to 100,000 MMBtu/year to comply with District Rule 4311 and remove the 40 CFR Part 64 Compliance Assurance Monitoring (CAM) requirements.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Samir Sheikh
Executive Director/Air Pollution Control Officer

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Thank you for your cooperation in this matter.

Sincerely,



Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo Rios, EPA (w/enclosure) via EPS

San Joaquin Valley Air Pollution Control District Authority to Construct

Modification of an Existing Flare for Compliance with Rule 4311

Facility Name: Hilmar Cheese Company
Mailing Address: PO Box 910
Hilmar, CA 95324
Contact Person: Julie Connel
Telephone: (209) 656-1171
Email: jconnel@hilmarcheese.com
Application #: N-1275-23-12
Project #: N-1223921
Deemed Complete: December 15, 2022

Date: January 23, 2023
Engineer: John Yoshimura
Lead Engineer: James Harader

I. PROPOSAL

Hilmar Cheese Company requests an Authority to Construct (ATC) for the modification of a 29.25 MMBtu/hr biogas-fired flare to comply with the requirements of District Rule 4311 – *Flares*. The applicant has proposed to comply by limiting the annual throughput to 100,000 MMBtu/year. Recent annual records demonstrate that the flare is already below the new annual throughput limit (see Appendix A). Because the flare is already meeting the new limit, no operational changes will be made to the flare. As discussed in Section VIII, the proposed modification does not constitute a NSR modification to unit N-1275-23. Therefore, this project is not subject to District Rule 2201.

The facility has also proposed to remove the Compliance Assurance Monitoring (CAM) requirements for this permit unit. The uncontrolled annual emissions are below the CAM threshold, therefore, CAM is no longer required. Pursuant to District Rule 2520, removing the CAM conditions will be considered a relaxation of the monitoring, reporting, and recordkeeping requirements, therefore, this modification can be classified as a Title V significant modification, and could be processed with 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 ATC, and the facility must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC issued with this project. The following conditions will be added to the ATC:

- {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]
- {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]

See Appendix B: Current Permit to Operate (PTO) N-1275-23-9.

II. APPLICABLE RULES

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 2530	Federally Enforceable Potential to Emit (12/18/08)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4311	Flares (12/17/20)
Rule 4801	Sulfur Compounds (12/17/92)
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

This facility is located at 9001 N Lander Ave in Hilmar. 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

Hilmar Cheese Company operates a 29.25 MMBtu/hr flare to combust gas from the cheese wastewater digester operation.

V. EQUIPMENT LISTING

Pre-Project Equipment Description:

N-1275-23-9: 2.5 MILLION GALLON PER DAY CHEESE WASTEWATER SYSTEM WITH TWO ANAEROBIC DIGESTERS SERVED BY TWO CEILCOTE SPT-18-144 WET SCRUBBERS AND 625 CFM VAREC MODEL 244E ENCLOSED FLARE

Proposed Modification:

N-1275-23-12: MODIFICATION OF 2.5 MILLION GALLON PER DAY CHEESE WASTEWATER SYSTEM WITH TWO ANAEROBIC DIGESTERS SERVED BY TWO CEILCOTE SPT-18-144 WET SCRUBBERS AND 625 CFM VAREC MODEL 244E ENCLOSED FLARE: COMPLY WITH RULE 4311 BY LIMITING THE ANNUAL THROUGHPUT LIMIT TO 100,000 MMBTU/YR AND REMOVE COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

Post Project Equipment Description:

N-1275-23-12: 2.5 MILLION GALLON PER DAY CHEESE WASTEWATER SYSTEM WITH TWO ANAEROBIC DIGESTERS SERVED BY TWO CEILCOTE SPT-18-144 WET SCRUBBERS AND 625 CFM VAREC MODEL 244E ENCLOSED FLARE

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

There are no changes in control methods proposed by the applicant. However, the amendments to Rule 4311 will result in reductions of NOx and VOC emissions from the flare through the reduction of potential gas flared.

VII. GENERAL CALCULATIONS

This project does not meet the criteria for a Rule 2201 Modification, as defined in Section 3.25, and is not subject to the requirements of Rule 2201. Formal calculations for Rule 2201 are not necessary. However, as previously stated, the facility has proposed to remove the CAM requirements for this unit, which are based on the annual potential to emit. Therefore, the annual potential to emit will be calculated based on a revised throughput limit.

A. Assumptions

- The maximum operating schedule is 24 hours per day
- The unit is fired solely on cheese wastewater biogas
- Annual pre-project potential to emit is calculated based on 222,175.5 MMBtu annual heat input (current PTO)
- Annual post-project potential to emit is calculated based on 100,000 MMBtu annual heat input (applicant's proposal)
- Flared gas heat input = 608.7 MMBtu/day or (Current PTO)

B. Emission Factors

Emission Factors		
Pollutant	lb/MMBtu	Source
NO _x	0.06	Current PTO
SO _x	0.00285	Mass balance equation below based 14 ppmv H ₂ S in scrubber outlet
PM ₁₀	0.02	Current PTO
CO	0.30	Current PTO
VOC	0.002	Current PTO

$$SO_x = \frac{\left(32,520 \frac{ft^3 - fuel}{hr} \right) \left(\frac{14 ft^3 - H_2S}{10^6 ft^3 - fuel} \right) \left(\frac{34 lb - H_2S}{lb - mol} \right)}{\left(379.5 \frac{ft^3 - H_2S}{lb - mol} \right) \left(\frac{34 lb - H_2S}{32 lb - S} \right) \left(\frac{32 lb - S}{64 lb - SO_2} \right)}$$

SO_x = 0.077 lb/hr

SO_x = 0.077 lb/hr ÷ (32,520 scf/hr x 780 Btu/scf) x 1E6/MM = 0.003 lb/MMBtu

C. Potential to Emit

The applicant has proposed to limit the annual throughput (MMBtu/year) to meet the applicable threshold specified in Table 2 of District Rule 4311.

Since this flare is used at digester operations, the annual throughput limit is 100,000 MMBtu for any rolling 12-month period.

Potential to Emit (PE)						
Pollutant	Emission Factor (lb/MMBtu)	Heat Input (MMBtu/hr)	Daily Operation (hr/day)	Annual Limit (MMBtu/yr)	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	0.06	29.25	24	100,000	42.1	6,000
SO _x	0.00285	29.25			2.0	285
PM ₁₀	0.02	29.25			14.0	2,000
CO	0.30	29.25			210.6	30,000
VOC	0.002	29.25			1.4	200

VIII. COMPLIANCE

District Rule 2201 New and Modified Stationary Source Review Rule

Section 3.25 states that a modification is an action including at least one of the following items:

- **Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.**

The modification proposed by the applicant does not change the actual production rate or method of operation of the existing flare; the proposal will instead reflect a more accurate representation of current operations.

Furthermore, the flare is an emissions control device for a specific operation which production rate, operating schedule or method of operation is not expected to change as a result of this project.

- **Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. A Replacement Emissions Unit shall not be considered to be a structural change.**

The proposed modification does not involve any structural change or addition to the existing flare as the facility will be establishing an annual heat input limit for Rule 4311 compliance. Therefore, the facility has not proposed a structural change or addition to an existing emissions unit, which would necessitate a change in permit conditions.

- **An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.**

As discussed above, there are no emissions increases associated with this project.

- **Addition of any new emissions unit, which is subject to District permitting requirements.**

The proposed modification does not result in the addition of any new emissions units.

- **A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.**

The applicant is proposing to establish an annual heat input limit for Rule 4311 compliance. While this change will also result in CAM not applying to the unit, the purpose of the proposed modification is to comply with amendments to Rule 4311. Therefore, the facility has not proposed a change in a permit term or condition to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

As shown above, the applicant's proposal is not a modification as defined by Rule 2201. Therefore, Rule 2201 is not applicable and no further discussion is required.

Rule 2410 Prevention of Significant Deterioration

This project does not result in an increase in emissions for any pollutant and therefore cannot result in a new PSD major source or a PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

Hilmar Cheese Company has a Title V permit. The changes authorized by this ATC constitute a significant modification of their Title V permit. The facility has requested that this ATC be issued with a Certificate of Conformity (COC). To satisfy Rule 2520 Section 11.1.12 requirements for significant modifications, this ATC will undergo a 45-day EPA review. Additionally, to satisfy Section 11.3.1.1 for significant modifications, the public shall be given 30 days from the date of publication to submit written comments on the proposed action. Prior to initial operation under this ATC, the applicant must submit a Title V application for an administrative amendment, and permit conditions will be listed as follows:

- {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 2520]
- {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]

See Appendix D for the Compliance Certification Form.

40 CFR Part 64 – Compliance Assurance Monitoring (CAM)

Except for back-up utility units that are exempt under paragraph (b)(2), Section 64.2 states that the requirements of this subpart shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a Part 70 or 71 permit if the unit satisfies all of the following criteria:

- 1) the unit must have an emission limit for the pollutant;

- 2) the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, catalytic oxidizers, etc; and
- 3) the unit must have a pre-control potential to emit of greater than the major source thresholds.

Permit unit N-1275-23-12 is equipped with an enclosed flare as an add-on control VOC emissions. Assuming 99% control of VOC emissions from the enclosed flare, the uncontrolled VOC emissions are calculated as follows:

$$\begin{aligned} \text{Uncontrolled VOC} &= 100,000 \text{ MMBtu/yr} \times 0.002 \text{ lb-VOC/MMBtu} / (1 - 0.99) \\ &= 20,000 \text{ lb-VOC/year} \end{aligned}$$

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO _x	20,000
CO	200,000
PM ₁₀	140,000
SO _x	140,000

As shown above, the uncontrolled VOC emissions is not greater than the major source threshold. Therefore, this permit unit is not subject to the CAM requirements. As a result, the following conditions from the current PTO will not be included in the proposed ATC:

28. During operation of the enclosed flare, the permittee shall continuously monitor and record combustion chamber temperature. The temperature readings shall not be less than 28 degree C (50 degree F) below the average combustion temperature determined during the most recent flare source test, averaged over a 3-hour period. Upon detecting any temperature excursion lower than 28 degree C (50 degree F) below the source test average combustion temperature, averaged over a 3-hour period, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64]
29. The temperature monitoring device shall be calibrated, maintained, and operated according to the manufacturer's specification. [40 CFR Part 64]
39. The enclosed flare burner and its associated components and the vapor collection system shall be inspected on an annual basis. The records of inspection shall at least contain date and time of inspection, identification of the person performing an inspection, parts replacement and repairs, and all maintenance actions taken. The records shall be kept and maintained for compliance inspection upon request. [40 CFR Part 64]
45. Permittee shall maintain a record of continuous flare combustion temperature, continuous volumetric gas flow rate, net heating value of biogas being combusted, daily biogas fuel consumption, and hourly heat input to the flare. [40 CFR Part 64]
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64]
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64]
48. The permittee shall comply with the record keeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64]

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 digester operations and biogas-fired flares.

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 digester operations and biogas-fired flares.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As long as the flaring system is operating correctly, compliance with this rule is expected.

The following condition will be carried over to the new ATC to ensure compliance:

- Visible emissions from the flare serving the anaerobic digesters shall not equal or exceed Ringelmann 1/4 or 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 and 4101]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

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.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

As demonstrated above, there are no increases in emissions associated with this project; therefore, a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

The applicant is not proposing any physical changes to the flares or their particulate matter emissions factor (0.008 lb/MMBtu) under this project. Therefore, continued compliance is expected.

Rule 4311 Flares

The purpose of this rule is to limit emissions of VOCs, NO_x, and SO_x from the operation of flares. Therefore, the unit in this project is subject to this rule.

The flare under this project is subject to Rule 4311. The applicable requirements from this rule are discussed below:

Section 5.0 - Requirements

Pursuant to Section 5.1, flares that are permitted to operate only during an emergency are not subject to the requirements of Sections 5.7, 5.8, 5.9 and 5.10. The modified flare will be permitted to allow limited operation during times that are not emergencies. Therefore, this section does not apply to the modified flare.

Pursuant to Section 5.2, flares that are operated 200 hours or less per calendar year as specified in the Permit to Operate, or with an annual throughput limit equivalent to 200 hours per year at flare rating (MMBtu/hr) as specified in the Permit to Operate, are exempt from the requirements of Sections 5.9 and 5.10 provided that one of the following two conditions are satisfied.

- 5.2.1 For the 200 hours per year validation, the operator shall use a calibrated non-resettable totalizing time meter or equivalent method approved in writing by the APCO;
or
- 5.2.2 For the annual throughput limit equivalent to 200 hours per year validation, the operator shall use a calibrated fuel meter or equivalent method approved in writing by the APCO.

The flare in this project is permitted to operate for more than 200 hours per year. Therefore, this section does not apply.

Sections 5.3 through 5.8 were not amended and will not be discussed in this evaluation.

Section 5.9 states that, except for flares that meet the emissions limits in Table 3, operators of flares located at operations specified in Table 2 shall complete one of the following options:

- 5.9.1 Submit an ATC application to limit flaring annual throughput through an enforceable Permit to Operate limit, to levels not to exceed those specified in Table 2 for two consecutive years, per the compliance schedule in Section 7.2; or
- 5.9.2 Replace or modify the existing flare to meet Table 3 emissions limits per the compliance schedule in Section 7.3.

Rule 4311, Table 2 – Flare Annual Throughput Thresholds (MMBtu/calendar year)	
Flare Category	MMBtu/yr
A. Flares used at Oil and Gas Operations, and Chemical Operations	25,000
B. Flares used at Landfill Operations	90,000
C. Flares used at Digester Operations	100,000
D. Flares used at Organic Liquid Loading Operations	25,000

Rule 4311, Table 3 – VOC and NOx Emissions Requirements for Flares		
Flare Category	VOC (lb/MMBtu)	NOx (lb/MMBtu)
A. Flares at Oil and Gas Operations or Chemical Operations	0.008	0.018
B. Flares at Landfill Operations	0.038	0.025
C. Flares at Digester Operations (Located at a Major Source)	0.038	0.025
D. Flares at Digester Operations (Not located at a Major Source)	N/A	0.060
E. Flares at Organic Liquid Loading Operations	Pounds/1,000 gallons loaded	

The flare is used at a digester operation. The applicant has chosen to comply with heat input rate limit in Table 2 (item A). The following conditions will be included on the permit to ensure compliance:

- On and after January 1, 2024, permittee shall limit flaring annual throughput to levels not to exceed 100,000 MMBtu for any rolling 12-month period. [District Rule 4311]
- {edited 2965} A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the flare shall be installed, utilized, and maintained. [District Rules 2201 and 4311]
- The higher heating value (HHV) of the gas introduced into the flare shall be determined at time of sulfur testing. The measured HHV and amount of gas flared shall be used to determine compliance with the heat input limits in this permit. [District Rules 1070, 2201, and 4311]
- The owner or operator shall maintain accurate daily records of volume (scf), type, higher heating value, sulfur content, total heat input rate (MMBtu) and an up-to-date total annual heat input rate (MMBtu) of the gas flared. [District Rules 2201 and 4311]

Section 5.10 requires that for operators of flares that opt to comply with Section 5.9.1, any operator with a flare that exceeds the annual throughput thresholds specified in Table 2 for two consecutive calendar years shall notify the APCO in writing of the exceedance within 30 days following the end of the second calendar year and shall replace or modify the flare to meet Table 3 emission limits per the compliance schedule in Section 7.4.

The applicant has chosen to comply with the flare annual heat input thresholds in Section 5.9.1, Table 2 rather than complying with the emission limits of Section 5.9.2, Table 3. The flare will be required by permit condition to comply with the applicable thresholds of Table 2 at the time of

initial operation. Therefore, this section is applicable and the following condition will be placed on the permit:

- On and after January 1, 2024, if the flare exceeds 100,000 MMBtu/year heat input for two consecutive calendar years, the operator shall notify the District in writing of the exceedance within 30 days following the end of the second calendar year. By April 15 of the year after the end of the second consecutive calendar year in which an exceedance of the annual heat input rate occurred, the applicant shall submit an Authority to Construct application to modify or replace the flare to comply with 0.018 lb-NO_x/MMBtu and 0.008 lb-VOC/MMBtu emission limits, as noted in Table 3 of Rule 4311 (12/17/20). [District Rule 4311]

Section 5.11, flare minimization plan (FMP), prohibits flaring at petroleum refineries and major sources, except landfill operations, unless it is consistent with an FMP) pursuant to Section 6.5 or is caused by an emergency and is necessary to prevent an accident, hazard, or release of vent gas directly to the atmosphere. The flare under this project is located at a major source. Therefore, a FMP is required. The facility has submitted a FMP (project N-1142662), the following condition will be placed on the ATC to ensure compliance:

- Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311]

Section 5.12, petroleum refinery SO₂ performance targets establishes SO₂ emission reduction standards for petroleum refinery flares. The flare under this project is not located at a petroleum refinery. Therefore, this section does not apply.

Section 5.13 requires the operator of a flare at a petroleum refinery or major source, except landfill operations, subject to flare minimization requirements pursuant to Section 5.11 to monitor the vent gas flow to the flare with a flow measuring device and to maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 shall not be required to monitor vent gas flow to the flare. As discussed above, the flare in this project is located at a major source and is subject to flare minimization requirements pursuant to Section 5.11. Therefore, this section does apply and the following conditions will remain on the PTO, with slight revisions, to ensure compliance:

- The operator of a flare subject to flare minimization requirements pursuant to Section 5.11 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7 of Rule 4311. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 of Rule 4311 shall not be required to monitor vent gas flow to the flare. [District Rule 4311]

Section 5.14 states that, effective on and after January 1, 2024, the operator of a flare subject to the annual throughput thresholds in Table 2 shall monitor the vent gas flow to the flare with a

flow-measuring device or other parameters as specified in the Permit to Operate. The operator shall determine the heating value (Btu per cubic foot) of the vent gas annually in accordance with Section 6.3.6. The operator shall maintain records pursuant to Section 6.1.7. Flares that the operator can verify, based on permit conditions, are not capable of exceeding the annual throughput thresholds in Table 2 shall not be required to monitor vent gas flow to the flare.

The following requirements on the permit satisfies the requirements of this section:

- {edited 2965} A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the flare shall be installed, utilized, and maintained. [District Rules 2201 and 4311]
- The higher heating value (HHV) of the gas introduced into the flare shall be determined at time of sulfur testing. The measured HHV and amount of gas flared shall be used to determine compliance with the heat input limits in this permit. [District Rules 1070, 2201, and 4311]
- The owner or operator shall maintain accurate daily records of volume (scf), type, higher heating value, sulfur content, total heat input rate (MMBtu) and an up-to-date total annual heat input rate (MMBtu) of the gas flared. [District Rules 2201 and 4311]

Section 5.15 requires the operator of a petroleum refinery or a flare at a major source, except landfill operations, with a flaring capacity equal to or greater than 50 MMBtu/hr to monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10 and requires that effective on and after January 1, 2024, the operator of any flare with a flaring capacity equal to or greater than 50 MMBtu per hour shall monitor the flare pursuant to Sections 6.6, 6.7, 6.8, 6.9, and 6.10. The flare under this project is at a major source and rated more than 50 MMBtu/hr. Therefore, this section does apply, and conditions to ensure compliance are discussed in each of the sections below.

Section 6.0 - Administrative Requirements

Section 6.1 states that the following records shall be maintained, retained on-site for a minimum of five years, and made available to the APCO, ARB, and EPA upon request:

- 6.1.1 Copy of the compliance determination conducted pursuant to Section 6.4.1
- 6.1.2 Copy of the source testing result conducted pursuant to Section 6.4.2
- 6.1.3 For flares used during an emergency, record of the duration of flare operation, amount of gas burned, and the nature of the emergency situation
- 6.1.4 Operators claiming an exemption pursuant to Section 5.2 shall record annual hours of operation or annual throughput necessary to demonstrate an exemption under that section
- 6.1.5 A copy of the approved flare minimization plan pursuant to Section 6.5
- 6.1.6 A copy of annual reports submitted to the APCO pursuant to Section 6.2
- 6.1.7 Monitoring data collected pursuant to Sections 5.13, 5.14, 6.6, 6.7, 6.8, 6.9, and 6.10

This flare is not used for emergency purposes and does not claim an exemption pursuant Section 5.2; therefore, the recordkeeping requirements of subsections 6.1.3 and 6.1.4 do not apply. The unit is currently in compliance with these Subsections. Therefore, we will only discuss the sections that were recently amended.

Section 7.0 - Compliance Schedule

Section 7.2 is for operators of flares opting to limit flaring annual throughput per Section 5.9.1, which limits the flaring throughput for flares used at digester operations to 100,000 MMBtu/yr. The compliance schedule is included in Table 5 of this rule.

The facility proposed to limit the annual throughput of this flare to 100,000 MMBtu/yr, which is below the threshold in Table 2. The limit is will be included in their permit and, therefore, it will be enforceable.

Rule 4311, Table 5 – Flaring Throughput Permit to Operate Limit Timeline	
Requirement	Deadline
A. Submit ATC application to limit annual throughput to levels below those specified in Table 2	July 1, 2022
B. Compliance with flaring annual throughput limits	On and after January 1, 2024

The applicant submitted an ATC application for the modification of the flare, which was received on 8/31/22. Therefore, the compliance schedule has been met.

Section 7.3 is for operators of flares opting to replace or modify a flare to meet the emission limits per Section 5.9.2, which limits the VOC and NO_x emissions from flares used at oil and gas operations to 0.008 lb-VOC/MMBtu and 0.018 lb-NO_x/MMBtu. The compliance schedule is included in Table 7 of this rule.

Rule 4311, Table 6 – Flare Modification or Replacement Timeline	
Requirement	Deadline
A. Submit ATC application to modify or replace the flare to meet Table 3 emission limits	July 1, 2022
B. Demonstrate compliance with Table 3 emission limits	December 31, 2023

This section is not applicable, as the applicant has proposed to establish annual heat input limit to comply with section 5.9 of this rule. Thus, no further discussion is required.

Section 7.4 is intended for operators of flares subject to Section 5.10 and they shall meet the compliance schedule in table 7 below:

Rule 4311, Table 7 – Flare Modification or Replacement Timeline	
Requirement	Deadline
A. Submit ATC application to modify or replace the flare to meet Table 3 emission limits	By April 15 of the year after the end of the second consecutive calendar year in which an exceedance of the Annual Throughput Threshold occurred
B. Demonstrate compliance with Table 3 emission limits	By December 31 of the year after the end of the second consecutive calendar year in which an exceedance of the Annual Throughput Threshold occurred

The following condition, already proposed in this evaluation, will be added to the ATC to ensure compliance with this section.

- On and after January 1, 2024, if the flare exceeds 100,000 MMBtu/year heat input for two consecutive calendar years, the operator shall notify the District in writing of the exceedance within 30 days following the end of the second calendar year. By April 15 of the year after the end of the second consecutive calendar year in which an exceedance of the annual heat input rate occurred, the applicant shall submit an Authority to Construct application to modify or replace the flare to comply with 0.018 lb-NOx/MMBtu and 0.008 lb-VOC/MMBtu emission limits, as noted in Table 3 of Rule 4311 (12/17/20). [District Rule 4311]

Compliance is expected with this rule.

Rule 4801 Sulfur Compounds

This rule contains a limit on sulfur compounds. The limit at the point of discharge is 0.2 percent by volume, 2000 ppmv, calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = \frac{n RT}{P}$$

With:

N = moles SO₂

T (Standard Temperature) = 60°F = 520°R

P (Standard Pressure) = 14.7 psi

R (Universal Gas Constant) = $\frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}$

$$\frac{0.00285 \text{ lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 1.97 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 1.97 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

The following condition will be placed on each ATC to ensure continued compliance.

- The sulfur content of the biogas being incinerated by the flare shall not exceed 14 ppmv (as H₂S). [District Rules 2201 and 4801]

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.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

California Health & Safety Code 42301.6 (School Notice)

This facility is not located within 1,000 feet of a school. Regardless, there is no increase in emissions of any hazardous air pollutants with this project; therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

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 District performed an Engineering Evaluation (this document) for the proposed project and determined that the project qualifies for ministerial approval under the District's Guideline for Expedited Application Review (GEAR). Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit are based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

As described above, the project requires only ministerial approval, and is exempt from the provisions of CEQA. As such, an Indemnification Agreement or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. RECOMMENDATION

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct N-1275-23-12, subject to the permit conditions on the attached draft Authority to Construct in Appendix C.

X. BILLING INFORMATION

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-1275-23-12	3020-02-H	29.25 MMBtu/hr	\$1,238

APPENDICES

- A. Emissions Inventory – 2021 Annual Usage Records
- B. Current PTO
- C. Draft ATC
- D. Compliance Certification Form
- E. Emissions Profile

Appendix A:
Emissions Inventory – 2021 Annual Usage Records

Date / Time Printed 2/16/2022
9:14:56 AM

Emission Statement - Calendar Year 2021 Emissions

UTM Zone : 10
UTM East : 690,151
UTM North : 4144

Please Sign and Return to:
San Joaquin Valley APCD
1990 East Gettysburg Avenue
Fresno, CA 93726

Facility ID # N - 1275
TAD # 24 - 1275
SIC # 2022
Facility Name HILMAR CHEESE COMPANY
TOXID #
NAICS 311513

Planning Inventory: 3170

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : N

Device ID #	Process #	Equipment Type	Yearly Process Rate	Units		NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3 Lb / Unit	emissions are in lbs / yr
				Source Classification Code	MILLION CUBIC FEET BURNED							
22	1	NG Combustion - 50.4 MMBtu/Hr	258.19	10200602	7.27	5.0	2.85	.22	.03	.98	.0	(Tons/Yr)
23	1	Biogas Combustion - 29.25 MMBtu/Hr	59.79	MILLION CUBIC FEET BURNED	45.0	1.5	4.3	225.0	15.0	1.74	.0	(Tons/Yr)
23	2	Pilot Fuel - NG	0.95	39990024	1.32	.04	.13	6.61	.44	102.29	.0	(Tons/Yr)
24	1	Lactose Mill - Baghouse	9608	39990023	.03	.0	.0	.14	.01	.0	.0	(Tons/Yr)
24	2	Surge Hopper Bin Vent	9389.6	30203001	.0	.0	.0	.0	.01	.0	.0	(Tons/Yr)
25	1	Lactose Powder Silo #1 Bin Vent	21664.51	30203001	.0	.0	.0	.0	.03	.0	.0	(Tons/Yr)
25	2	Lactose Powder Silo #2 Bin Vent	13456.28	30203001	.0	.0	.0	.0	.03	.0	.0	(Tons/Yr)
25	3	Lactose Powder Silo #3 Bin Vent	14808	30203001	.0	.0	.0	.0	.02	.0	.0	(Tons/Yr)
25	4	Lactose Powder Silo #4 Bin Vent	23052	30203001	.0	.0	.0	.0	.01	.0	.0	(Tons/Yr)
25	5	Lactose Powder Silo #5 Bin Vent	20222.85	30203001	.0	.0	.0	.0	.02	.0	.0	(Tons/Yr)
25	6	Lactose Powder Silo #6 Bin Vent	27156	30203001	.0	.0	.0	.0	.04	.0	.0	(Tons/Yr)
26	1	Warehouse Vacuum	3.15	30203099	.0	.0	.0	.0	.0	.0	.0	(Tons/Yr)
28	1	NG Combustion - 6.7 MMBtu/Hr	44.46	MILLION CUBIC FEET BURNED	8.79	5.5	2.85	11.17	7.6	.0	.0	(Tons/Yr)
28	2	Whey Protein Processing - PM10	3142.27	10200603	.2	.12	.06	.25	.17	.0	.0	(Tons/Yr)
30	1	NG Combustion - 50.2 MMBtu/Hr	185.48	MILLION CUBIC FEET BURNED	2.34	4.23	2.85	2.94	6.0	.57	.0	(Tons/Yr)
				10200602	.22	.39	.26	.27	.56	105.72	.0	(Tons/Yr)

Note: NH3 emissions are in lbs / yr

Appendix B:
Current PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1275-23-9

EXPIRATION DATE: 09/30/2022

EQUIPMENT DESCRIPTION:

2.5 MILLION GALLON PER DAY CHEESE WASTEWATER SYSTEM WITH TWO ANAEROBIC DIGESTERS SERVED BY TWO CEILCOTE SPT-18-144 WET SCRUBBERS AND 625 CFM VAREC MODEL 244E ENCLOSED FLARE

PERMIT UNIT REQUIREMENTS

1. Visible emissions from the flare serving the anaerobic digesters shall not equal or exceed Ringelmann 1/4 or 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
2. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
3. The anaerobic digester system and its associated piping shall be maintained leak free. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This flare shall only be fired on biogas collected from the anaerobic digester system. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The facility-wide NO_x emissions shall not exceed 34,996 pounds during any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The facility-wide PM₁₀ emissions shall not exceed 29,200 pounds during any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The flare heat input shall not exceed 608.7 MMBtu/day. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
8. Emissions from the flare shall not exceed any of the following limits: 0.06 lb-NO_x/MMBtu (as NO₂); 0.02 lb-PM₁₀/MMBtu; 0.30 lb-CO/MMBtu; or 0.002 lb-VOC/MMBtu (as methane). [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
9. The sulfur content of the biogas being incinerated by the flare shall not exceed 14 ppmv (as H₂S). [District Rule 2201] Federally Enforceable Through Title V Permit
10. Source testing to measure NO_x, CO and VOC emissions from the digester-fired flare shall be conducted at least once every twelve (12) months. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
11. For source test purposes, NO_x emissions from the flare shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB Method 100 on a ppmv basis. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
12. For source test purposes, CO emissions from the flare shall be determined using EPA Method 10 or 10B, ARB Methods 1 through 5 with 10, or ARB Method 100. [District Rule 2201] Federally Enforceable Through Title V Permit
13. For source test purposes, VOC emissions from the flare shall be determined using EPA Method 18 or 25 or 25a. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
14. Stack gas oxygen (O₂) shall be determined using EPA Method 3A, EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: HILMAR CHEESE COMPANY
Location: 9001 N LANDER AVE, HILMAR, CA 95324
N-1275-23-9 - Oct 19 2022 11:36AM - YOSHIMIZU

15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 45 days thereafter. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
17. Operator shall determine digester gas fuel higher heating value annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Sampling ports for biogas testing shall be provided in accordance with District requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
19. At least once every 120 days, the hydrogen sulfide concentration of the biogas shall be determined by an independent, certified laboratory using one of the following test methods: EPA Method 11, EPA Method 15, ASTM Method D1072, D3031, D4084, D3246, or D5504. Once three consecutive 120-day laboratory tests show compliance with the permitted hydrogen sulfide concentration limit, the laboratory testing frequency may be reduced to annually. If a subsequent annual laboratory test shows a violation of the permitted hydrogen sulfide concentration limit then 120-day laboratory testing shall resume and continue until three consecutive 120-day laboratory tests show compliance. Once compliance is shown on three consecutive 120-day laboratory tests, the laboratory testing frequency may return to annually. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
20. At least once every two weeks, the facility shall test the biogas to demonstrate compliance with the permitted hydrogen sulfide concentration limit using a properly calibrated gas chromatograph. Once 12 consecutive biweekly tests show compliance, the testing frequency may be reduced to monthly. If a subsequent test shows a violation of the permitted hydrogen sulfide concentration limit then biweekly testing shall resume and continue until 12 consecutive tests show compliance. Once compliance is shown on 12 consecutive biweekly tests, the testing frequency may return to monthly. It is not necessary for the facility to perform gas chromatograph testing during the week in which either the 120-day or annual laboratory testing is performed. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
21. The gas chromatograph used for the biweekly testing shall be calibrated according to the manufacturer's recommendations. Records of the gas chromatograph equipment calibration shall be kept and shall be made available for District inspection upon request. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
22. Biogas sampling shall be conducted using the methods and procedures approved by the District. The District shall be notified each time the biogas sampling frequency changes. [District Rule 1081] Federally Enforceable Through Title V Permit
23. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
24. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
25. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
26. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
27. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

28. During operation of the enclosed flare, the permittee shall continuously monitor and record combustion chamber temperature. The temperature readings shall not be less than 28 degree C (50 degree F) below the average combustion temperature determined during the most recent flare source test, averaged over a 3-hour period. Upon detecting any temperature excursion lower than 28 degree C (50 degree F) below the source test average combustion temperature, averaged over a 3-hour period, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
29. The temperature monitoring device shall be calibrated, maintained, and operated according to the manufacturer's specification. [40 CFR Part 64] Federally Enforceable Through Title V Permit
30. The operator shall monitor and record the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
31. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
32. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following: the results of an investigation to determine the primary cause and contributing factors of the flaring event; any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; if appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and the date, time, and duration of the flaring event. [District Rule 4311] Federally Enforceable Through Title V Permit
33. The operator of a flare subject to flare monitoring requirements pursuant to Section 5.10 shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: the total volumetric flow of vent gas in standard cubic feet for each day; if the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; a flow verification report which shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
34. For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
35. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
36. An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: (1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and (2) The ATC is deemed complete after June 18, 2009, and (3) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: HILMAR CHEESE COMPANY
Location: 9001 N LANDER AVE, HILMAR, CA 95324
N-1275-23-9 - Oct 19 2022 11:35AM - 100186611

37. The anaerobic digester system and its associated piping shall be inspected for leaks at least annually. Any leak detected on the basis of sight, smell, or sound, shall be recorded and a corrective action shall be taken to eliminate the leak. [District Rule 2201] Federally Enforceable Through Title V Permit
38. Records of leak inspections shall contain at least an identification of a person performing an inspection, date and time of the inspection, leak location, and corrective action taken to eliminate leaks. The records shall be maintained, kept, and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
39. The enclosed flare burner and its associated components and the vapor collection system shall be inspected on an annual basis. The records of inspection shall at least contain date and time of inspection, identification of the person performing an inspection, parts replacement and repairs, and all maintenance actions taken. The records shall be kept and maintained for compliance inspection upon request. [40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall determine and record the annual facility-wide NO_x and PM₁₀ emissions, based a rolling 12-month period, using the operational records of each permit unit, and all emission calculations as well as each assumption and each process variable used in the respective calculations. The records shall be updated at least monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
41. The permittee shall maintain records of: (1) the name of the sampler, and the date and time of biogas sampling for H₂S, (2) the name of the tester, and the date and time of biogas testing for H₂S, (3) test results showing the biogas concentration (in ppmv) of H₂S. [District Rule 1081] Federally Enforceable Through Title V Permit
42. Permittee shall maintain daily and annual records of quantity of digester gas combusted in the flare, annual test results of higher heating value of digester gas, and daily heat input for the flare. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
43. Permittee shall maintain the following records: a copy of the source testing result conducted pursuant to Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; a copy of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
44. Permittee shall maintain records of the following when the flare is used during an emergency: duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a record of continuous flare combustion temperature, continuous volumetric gas flow rate, net heating value of biogas being combusted, daily biogas fuel consumption, and hourly heat input to the flare. [40 CFR Part 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. The permittee shall comply with the record keeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
49. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit

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

Appendix C:
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-1275-23-12

LEGAL OWNER OR OPERATOR: HILMAR CHEESE COMPANY
MAILING ADDRESS: ATTN ENVIRONMENTAL COORDINATOR
PO BOX 910
HILMAR, CA 95324

LOCATION: 9001 N LANDER AVE
HILMAR, CA 95324

EQUIPMENT DESCRIPTION:

MODIFICATION OF 2.5 MILLION GALLON PER DAY CHEESE WASTEWATER SYSTEM WITH TWO ANAEROBIC DIGESTERS SERVED BY TWO CEILCOTE SPT-18-144 WET SCRUBBERS AND 625 CFM VAREC MODEL 244E ENCLOSED FLARE: COMPLY WITH RULE 4311 BY LIMITING THE ANNUAL THROUGHPUT LIMIT TO 100,000 MMBTU/YR AND REMOVE 40 CFR PART 64 COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

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. Visible emissions from the flare serving the anaerobic digesters shall not equal or exceed Ringelmann 1/4 or 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
4. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

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.

Samir Sheikh, Executive Director / APCCO

DRAFT
Brian Clements, Director of Permit Services
N-1275-23-12 - Jan 23 2023 7:44AM - Y0919MJJ - Joint Inspection NOT Required

7. The anaerobic digester system and its associated piping shall be maintained leak free. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This flare shall only be fired on biogas collected from the anaerobic digester system. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The facility-wide NO_x emissions shall not exceed 34,996 pounds during any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The facility-wide PM₁₀ emissions shall not exceed 29,200 pounds during any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The flare heat input shall not exceed 608.7 MMBtu/day. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
12. On and after January 1, 2024, permittee shall limit flaring annual throughput to levels not to exceed 100,000 MMBtu for any rolling 12-month period. [District Rule 4311]
13. Emissions from the flare shall not exceed any of the following limits: 0.06 lb-NO_x/MMBtu (as NO₂); 0.02 lb-PM₁₀/MMBtu; 0.30 lb-CO/MMBtu; or 0.002 lb-VOC/MMBtu (as methane). [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
14. The sulfur content of the biogas being incinerated by the flare shall not exceed 14 ppmv (as H₂S). [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
15. Source testing to measure NO_x, CO and VOC emissions from the digester-fired flare shall be conducted at least once every twelve (12) months. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
16. For source test purposes, NO_x emissions from the flare shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB Method 100 on a ppmv basis. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
17. For source test purposes, CO emissions from the flare shall be determined using EPA Method 10 or 10B, ARB Methods 1 through 5 with 10, or ARB Method 100. [District Rule 2201] Federally Enforceable Through Title V Permit
18. For source test purposes, VOC emissions from the flare shall be determined using EPA Method 18 or 25 or 25a. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
19. Stack gas oxygen (O₂) shall be determined using EPA Method 3A, EPA Method 7E, or ARB Method 100. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
20. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 45 days thereafter. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
22. Operator shall determine digester gas fuel higher heating value annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Sampling ports for biogas testing shall be provided in accordance with District requirements. [District Rule 1081] Federally Enforceable Through Title V Permit
24. At least once every 120 days, the hydrogen sulfide concentration of the biogas shall be determined by an independent, certified laboratory using one of the following test methods: EPA Method 11, EPA Method 15, ASTM Method D1072, D3031, D4084, D3246, or D5504. Once three consecutive 120-day laboratory tests show compliance with the permitted hydrogen sulfide concentration limit, the laboratory testing frequency may be reduced to annually. If a subsequent annual laboratory test shows a violation of the permitted hydrogen sulfide concentration limit then 120-day laboratory testing shall resume and continue until three consecutive 120-day laboratory tests show compliance. Once compliance is shown on three consecutive 120-day laboratory tests, the laboratory testing frequency may return to annually. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit

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25. At least once every two weeks, the facility shall test the biogas to demonstrate compliance with the permitted hydrogen sulfide concentration limit using a properly calibrated gas chromatograph. Once 12 consecutive biweekly tests show compliance, the testing frequency may be reduced to monthly. If a subsequent test shows a violation of the permitted hydrogen sulfide concentration limit then biweekly testing shall resume and continue until 12 consecutive tests show compliance. Once compliance is shown on 12 consecutive biweekly tests, the testing frequency may return to monthly. It is not necessary for the facility to perform gas chromatograph testing during the week in which either the 120-day or annual laboratory testing is performed. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
26. The gas chromatograph used for the biweekly testing shall be calibrated according to the manufacturer's recommendations. Records of the gas chromatograph equipment calibration shall be kept and shall be made available for District inspection upon request. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
27. Biogas sampling shall be conducted using the methods and procedures approved by the District. The District shall be notified each time the biogas sampling frequency changes. [District Rule 1081] Federally Enforceable Through Title V Permit
28. A flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
29. Flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
30. Flare shall be equipped with a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. During essential planned power outages when the flare is operating, the pilot monitor is allowed to be non-functional if the flare flame is clearly visible to onsite operators. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
31. If the flare uses a flow-sensing automatic ignition system and does not use a continuous flame pilot, the flare shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
32. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit
33. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of gas combusted in the flare shall be installed, utilized, and maintained. [District Rules 2201 and 4311]
34. The higher heating value (HHV) of the gas introduced into the flare shall be determined at time of sulfur testing. The measured HHV and amount of gas flared shall be used to determine compliance with the heat input limits in this permit. [District Rules 1070, 2201, and 4311]
35. The owner or operator shall maintain accurate daily records of volume (scf), type, higher heating value, sulfur content, total heat input rate (MMBtu) and an up-to-date total annual heat input rate (MMBtu) of the gas flared. [District Rules 2201 and 4311]
36. The operator shall monitor and record the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
37. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 of this rule shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit

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38. The operator of a flare subject to flare minimization plans pursuant to Section 5.8 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the twelve month period of the previous year. The report shall include, but is not limited to all of the following: the results of an investigation to determine the primary cause and contributing factors of the flaring event; any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; if appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and the date, time, and duration of the flaring event. [District Rule 4311] Federally Enforceable Through Title V Permit
39. The operator of a flare subject to flare monitoring requirements pursuant to Section 5.10 shall submit an annual report to the APCO within 30 days following the end of each 12 month period. The report shall include the following: the total volumetric flow of vent gas in standard cubic feet for each day; if the flow monitor used pursuant to Section 5.10 measures molecular weight, the average molecular weight for each hour of each month; a flow verification report which shall include flow verification testing pursuant to Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
40. On and after January 1, 2024, if the flare exceeds 100,000 MMBtu/year heat input for two consecutive calendar years, the operator shall notify the District in writing of the exceedance within 30 days following the end of the second calendar year. By April 15 of the year after the end of the second consecutive calendar year in which an exceedance of the annual heat input rate occurred, the applicant shall submit an Authority to Construct application to modify or replace the flare to comply with 0.018 lb-NOx/MMBtu and 0.008 lb-VOC/MMBtu emission limits, as noted in Table 3 of Rule 4311 (12/17/20). [District Rule 4311]
41. The operator of a flare subject to flare minimization requirements pursuant to Section 5.11 shall monitor the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. The operator shall maintain records pursuant to Section 6.1.7 of Rule 4311. Flares that the operator can verify, based on permit conditions, are not capable of producing reportable flare events pursuant to Section 6.2.2 of Rule 4311 shall not be required to monitor vent gas flow to the flare. [District Rule 4311]
42. For purposes of the flow verification report required by Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
43. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by this section, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
44. An updated FMP shall be submitted by the operator pursuant to Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: (1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and (2) The ATC is deemed complete after June 18, 2009, and (3) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
45. The anaerobic digester system and its associated piping shall be inspected for leaks at least annually. Any leak detected on the basis of sight, smell, or sound, shall be recorded and a corrective action shall be taken to eliminate the leak. [District Rule 2201] Federally Enforceable Through Title V Permit
46. Records of leak inspections shall contain at least an identification of a person performing an inspection, date and time of the inspection, leak location, and corrective action taken to eliminate leaks. The records shall be maintained, kept, and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit

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47. The permittee shall determine and record the annual facility-wide NO_x and PM₁₀ emissions, based a rolling 12-month period, using the operational records of each permit unit, and all emission calculations as well as each assumption and each process variable used in the respective calculations. The records shall be updated at least monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
48. The permittee shall maintain records of: (1) the name of the sampler, and the date and time of biogas sampling for H₂S, (2) the name of the tester, and the date and time of biogas testing for H₂S, (3) test results showing the biogas concentration (in ppmv) of H₂S. [District Rule 1081] Federally Enforceable Through Title V Permit
49. Permittee shall maintain daily and annual records of quantity of digester gas combusted in the flare, annual test results of higher heating value of digester gas, and daily heat input for the flare. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
50. Permittee shall maintain the following records: a copy of the source testing result conducted pursuant to Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; a copy of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
51. Permittee shall maintain records of the following when the flare is used during an emergency: duration of flare operation, amount of gas burned, and the nature of the emergency situation. [District Rule 4311] Federally Enforceable Through Title V Permit
52. All records shall be retained for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit

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Appendix D:
Compliance Certification Form

**San Joaquin Valley
Unified Air Pollution Control District**

Certification of Truth and Accuracy

Company Name: Hilmar Cheese Company, Inc.	Facility ID: N-1275
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I declare, under penalty of perjury under the laws of the state of California that based on information and belief formed after reasonable inquiry, the statements and information provided in the document are true, accurate, and complete:



Signature of Responsible Official

August 31, 2022

Date

Marc Percival

Name of Responsible Official (please print)

Hilmar Site Director

Title of Responsible Official (please print)