

ORIGINAL

SV
12/20/22

PETITION FOR VARIANCE
BEFORE THE HEARING BOARD OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

22 DEC -9 P12:14

PETITIONER: CARGILL, INCORPORATED

CASE NO: 6232- 1

FACILITY ID: 094930

FACILITY ADDRESS: 566 North Gilbert Street, Fullerton, CA 92833

1. TYPE OF VARIANCE REQUESTED (more than one box may be checked; see Attachment A, Item 1, before selecting)

INTERIM SHORT REGULAR EMERGENCY EX PARTE EMERGENCY

2. CONTACT: Name, title, company (if different than Petitioner), address, and phone number of persons authorized to receive notices regarding this Petition (no more than two authorized persons).

Greg Noland

Malcolm Weiss, Esq.

Facility Leader

Hunton Andrews Kurth LLP

566 North Gilbert Street

550 S. Hope Street

Fullerton, CA Zip 92833

Los Angeles, CA Zip 90071

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RECLAIM. permit Yes No

Title V Permit Yes No

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If you require disability-related accommodations to facilitate participating in the hearing, contact the Clerk of the Board at least five (5) calendar days prior to the hearing.

[ALL DOCUMENTS FILED WITH CLERK'S OFFICE BECOME PUBLIC RECORD]

4. **GOOD CAUSE:** Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances; see Attachment A, Item 4)

N/A

5. Briefly describe the type of business and processes at your facility.

Cargill is a major producer and re-packager of food grade oil at its Fullerton, CA Facility. The Facility employs 90 people. The Facility is a terminal and packaging facility for edible oils (SIC Code 2079) such as shortening, palm kernel, soybean, sunflower, canola, peanut, corn, cottonseed, vegetable, and animal fats. Edible oil is transported to the facility by railcars and tanker trucks where the oil is received into aboveground tanks. The oil is transferred from the aboveground tanks into a packaging warehouse. Per customer requirements, the oil products are packaged into smaller containers and then loaded onto trucks for customer delivery. The Facility distributes packaged and bulk oil to foodservice, retail, grocery, and restaurant customers across the United States and is Cargill's only edible oil facility on the west coast. The Facility's supply and distribution of edible oil is a critical component of the food production supply chain in the western United States. Disruptions to this Facility's edible oil supply and distribution would negatively impact food availability, potentially resulting in food shortages, and would result in higher consumer prices for every day foods in the region.

6. List the equipment and/or activity(s) that are the subject of this petition (see Attachment A, Item 6, Example #1). **Attach copies of the Permit(s) to Construct and/or Permit(s) to Operate for the subject equipment. For RECLAIM or Title V facilities, attach *only* the relevant sections of the Facility Permit showing the equipment or process and conditions that are subject to this petition. You must bring the entire Facility Permit to the hearing.**

Equipment/Activity	Application/ Permit No.	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
Hurst Boiler, Natural Gas, with Low NOx Burner, Flue Gas Recirculation, 20.5 MMBtu/hr. <u>See Attachment 1</u>).	617570	D16	NA

*Attach copy of denial letter

7. Briefly describe the activity or equipment, and why it is necessary to the operation of your business. A schematic or diagram may be attached, in addition to the descriptive text.

Cargill is submitting this petition for a short variance for the Facility's existing boiler (D16) thereby allowing additional time for construction, installation and shakedown of the already purchased new boiler needed to comply with Rule 1146 NOx limits. The existing boiler is critical to operating a

majority of the processes at the Facility and the Facility cannot operate without the boiler. A boiler is essential to transferring oil from the aboveground tanks to the warehouse for packaging per customer requirements. Steam produced by the Facility's boiler heats up the edible oil and increases its fluidity, allowing it to be transferred and packaged. Additionally, the steam from the boiler is used in the melting process for oil/shortening for the baked goods industry. Furthermore, the boiler provides critical heat for sanitation, housekeeping, and other processes and activities at the Facility. A process flow diagram is provided as Attachment 2 to this petition.

Shutting down the boiler would, essentially, force the Facility to cease most operations, which would create a significant disruption to Cargill's incoming and outgoing supply chain. A shut down would cripple Cargill's edible oil supply for the region, causing significant disruptions and potentially food shortages.

8. Is there a regular maintenance and/or inspection schedule for this equipment? Yes No

If yes, how often: At least annually.

Date of last maintenance and/or inspection: The last regular inspection was in May, 2022.

Describe the maintenance and/or inspection that was performed.

A source test was last conducted on May 12, 2022. A source test is performed every three years for NOx and CO emissions per the requirements of SCAQMD Rule 2012.

Boiler tuning is performed biannually as per the requirements of SCAQMD RECLAIM Rule 2020. Gas meter calibration is performed annually.

In addition to the regular inspections and maintenance, the boiler is subject to annual safety inspections and periodic inspections by maintenance technicians.

9. List all District rules, and/or permit conditions [indicating the specific section(s) and subsection(s)] from which you are seeking variance relief (if requesting variance from Rule 401 or permit condition, see Attachment A). Briefly explain how you are or will be in violation of each rule or condition (see Attachment A, Item 9, Example #2).

Rule	Explanation
Rules 1146(c)(1)(l) and 1146(e)(1)	The current schedule is for the new boiler installation to be completed at the end of March 2023. However, the Facility cannot meet the 5 ppmv NOx limit in Rule 1146 by the compliance deadline of January 1, 2023. The Facility is seeking a variance to continue operating the existing boiler while the installation of the new boiler is completed.
PTO (July 9, 2021), Condition A195.5 and Condition E448.1	Condition A195.5 limits NOx emissions to 5 ppmv averaged over 15 minutes. Condition E448.1 requires compliance with Rules 1100, 1146 and 40 CFR Part 60 subpart Dc. Existing boiler (D16) cannot meet the 5 ppmv standard.
Rules 1100(e)(2)(B) and (e)(3)(A)	As described above, Cargill will not be able to replace its existing boiler on or before January 1, 2023 as required by the Rule and thus is not able to comply with the established NOx limits.

Rule 2004(f)(1)	Rule 2004(f)(1) requires the Facility Permit holder to comply will all rules and permit conditions. As discussed, the facility will be out of compliance with the provisions of Rule 1146 as of January 1, 2023.
Rule 203(b)	Rule 203(b) prohibits operating equipment contrary to permit conditions and the new, compliant boiler will not be operational by January 1, 2023.

10. Are the equipment or activities subject to this request currently under variance coverage? Yes No

Case No.	Date of Action	Final Compliance Date	Explanation

11. Are any other equipment or activities at this location currently (or within the last six months) under variance coverage? Yes No

Case No.	Date of Action	Final Compliance Date	Explanation

12. Were you issued any Notice(s) of Violation or Notice(s) to Comply concerning this equipment or activity within the past year? Yes No

If yes, you must attach a copy of each notice.

13. Have you received any complaints from the public regarding the operation of the subject equipment or activity within the last six months? Yes No

If yes, you should be prepared to present details at the hearing.

14. Explain why it is beyond your reasonable control to comply with the rule(s) and/or permit condition(s). Provide specific event(s) and date(s) of occurrence(s), if applicable.

Cargill has strived to comply with the January 1, 2023 compliance deadline in SCAQMD Rule 1146 for the Facility's boiler, but cannot meet the deadline due to severe supply chain delays that are entirely outside Cargill's control.

Cargill is seeking a short variance in advance of requirements of SCAQMD Rule 1146 that take effect on January 1, 2023. In short, due to unprecedented and uncontrollable supply chain delays because of the pandemic, and in spite of Cargill's best efforts to have a new, compliant boiler installed and operational by January 1, 2023, Cargill recently determined that compliance by this deadline is not achievable.

Cargill engaged Process Solutions Inc. (PSI) in August 2019 to procure, install, and commission the new boiler for full operation well before January 1, 2023. In December 2019, Cargill submitted a permit application to construct and install a new boiler to meet the lower NOx limit required by Rule 1146. Cargill received its permit to construct the new boiler in September 2020 and has received necessary SCAQMD permit extensions. Cargill awarded a construction bid to PSI in December 2020 specifying and anticipating that installation would be complete by September 2022. After the design phase was complete, in January 2022 Cargill executed a contract to procure and install its new boiler. Cargill structured the contract schedule with PSI to have the boiler operational by September 2022, well in advance of the Rule 1146 January 1, 2023 compliance date. However, despite Cargill's best efforts, it is now clear that because of unprecedented, unavoidable and unforeseen delays, the new boiler cannot be installed and operational until the end of March 2023.

Cargill has aggressively been working (including weekly project calls) with its general contractor, PSI, and the boiler manufacturer, Cleaver Brooks, to avoid having to seek this variance. However, on July 23, 2022, PSI raised a concern about potential construction and boiler installation delays as a result of supply chain problems in procuring critical equipment and components for the boiler. Since then, and in contact with SCAQMD staff, Cargill has been diligently working with PSI and Cleaver Brooks to expedite the boiler installation. Among other things, Cargill offered to pay a premium for earlier boiler delivery and installation and investigated the option of installing a temporary boiler (which turned out to be infeasible). However, despite Cargill's good faith efforts, the contractors were unable to expedite delivery due to the fact that critical parts are just not available.

In November, 2022 PSI provided a revised construction and installation schedule showing that final boiler installation and commissioning would be complete at the end of March, 2023. On November 18, 2022, the boiler manufacturer provided a revised schedule indicating that critical boiler components remain missing, thus thwarting all hope of avoiding the need to obtain a variance. Cargill has been in weekly communication with PSI and in as needed communication with Cleaver

Brooks over time and especially in the past several weeks (though with some difficulty due to the Thanksgiving holiday, among other things) to press for expedited delivery of the missing components and expedited installation of the purchased boiler. Unfortunately, Cargill now knows there is nothing further it can do to have the new boiler up and running by January 1, 2023 to meet the Rule 1146 requirements.

15. When and how did you first become aware that you would not be in compliance with the rule(s) and/or permit condition(s)? Provide specific event(s) and date(s) of occurrence(s).

Cargill's contractor, PSI, informed Cargill on July 23, 2022 that some boiler control components were unavailable due to supply chain issues and that installation of the boiler could be delayed. Cargill has continued to press PSI to meet the January 1, 2023 deadline and has offered additional payment to expedite the project schedule. However, PSI and Cleaver Brooks insist that expedited delivery and installation is not an option. On November 4, 2022, PSI confirmed that the overall construction and boiler installation would be delayed past January 1, 2023 and showing the new, compliant boiler operational by the end of March, 2023. On November 18, 2022, Cleaver Brooks, provided a revised schedule indicating that critical boiler components are still missing.

16. List date(s) and action(s) you have taken since that time to achieve compliance.

Cargill will remain in compliance with all applicable SCAQMD rules, regulations and permit conditions until January 1, 2023.

Since learning that the boiler installation timing was in jeopardy, Cargill has continued to press for expedited delivery and installation of the boiler to meet the January 1, 2023 deadline. Cargill has been utilizing a weekly call and frequent meetings with PSI to obtain updates and to repeatedly request expedited boiler installation. As mentioned, Cargill also offered additional payments to expedite this process.

Cargill has also evaluated renting a temporary boiler for the Facility. For multiple reasons, Cargill has assessed that using a temporary boiler would be extremely difficult and expensive, and would create safety concerns. Due to operational disruptions (the facility would need to shut down for up to five days), enhanced employee health and safety concerns, and the substantial and unreasonable costs of installing a rental boiler for a short term, this option is not viable.

Installation of a rental boiler would impede access to the Facility's primary loadout tanks and hinder

production, along with increasing the likelihood of spills and environmental releases. Installing a rental boiler would also pose safety concerns to Facility employees because trucks would have to drive through employee walking areas since the rental boiler would restrict access to the loadout terminal. In addition, the Facility has limited space for a rental boiler and having a new, large combustion unit in the operation area presents another safety concern. Temporary electrical and gas connections for the rental boiler would create additional safety concerns for employees that must walk through this area.

17. What would be the harm to your business during **and/or after** the period of the variance if the variance were not granted?

Economic losses: If the Facility cannot operate its existing boiler past January 1, 2023, Cargill will be unable to receive edible oils or deliver processed oils to customers, resulting revenue losses of approximately \$180,000 per each work day until the new boiler is operational. Cargill would also be at substantial risk of losing customers to other edible oil suppliers. We have not quantified the monetary harm of the contract breaches or lost business, but it would be significant.

Number of employees laid off (if any): Approximately 20-30.

Provide detailed information regarding economic losses, if any, (anticipated business closure, breach of contracts, hardship on customers, layoffs, and/or similar Impacts).

A Facility shutdown or curtailment would cause significant (and unrecoverable) financial losses to Cargill. Shutting down the existing boiler would also effectively result in shutting down the Facility and maintaining a reduced crew of employees. A Facility shutdown would cost approximately \$180,000 in sales losses per day. Cargill would also incur losses of approximately \$30,000-\$50,000 associated with railcar delivery logistics, including demurrage and additional transportation/storage expenses associated the dozens of railroad cars it owns since they would not be collecting or delivering product. Further, if the Facility cannot process and deliver edible oil products, up to 20,000,000 pounds of product would spoil.

Cargill will also be unable to meet its contracts obligations with customers across the food supply chain if the Facility is forced to shut down production. The Facility's supply of edible oil across the region is a critical aspect of the food supply chain, and shutting down production would severely disrupt the food supply chain causing a significant ripple effect and possible food shortages, along with possible substantial unknown liability.

18. Can you curtail or terminate operations in lieu of, or in addition to, obtaining a variance? Please explain.

No. Because the existing boiler (D16) cannot meet the 5 ppmv limit required by Rule 1146, any use of that boiler would subject the Facility to SCAQMD enforcement action after January 1, 2023. For the reasons cited above, the Facility cannot operate without a boiler.

19. Estimate excess emissions, if any, on a daily basis, including, if applicable, excess opacity (the percentage of total opacity above 20% during the variance period). If the variance will result in no excess emissions, insert "N/A" here and skip to No. 20.

Pollutant	(A)	(B)	(C)*
	Total Estimated Excess Emissions (lbs/day)	Reduction Due to Mitigation (lbs/day)	Net Emissions After Mitigation (lbs/day)
NOx	3.14	0	3.14

* Column A minus Column B = Column C

Excess Opacity: 0 %

20. Show calculations used to estimate quantities in No. 19, or explain why there will be no excess emissions.

The detailed emission calculations are included as Attachment 3.

21. Explain how you plan to reduce (mitigate) excess emissions during the variance period to the maximum extent feasible, or why reductions are not feasible.

The Facility operates the existing boiler as efficiently as possible to meet the steam demand for the facility's operations. The existing boiler is rated for a maximum NOx emission rate of 30 ppmv and therefore a direct reduction in excess emissions is not feasible without reducing production. However, the facility performs tuning on the boiler and utilizes good combustion practices to minimize emissions.

22. How do you plan to monitor or quantify emission levels from the equipment or activity(s) during the variance period, and to make such records available to the District? **Any proposed monitoring does not relieve RECLAIM facilities from applicable missing data requirements.**

The Facility will rely on the non-resettable totalizing fuel flow meter on the boiler, which is compliant with SCAQMD RECLAIM Rule 2012, to monitor and record natural gas usage during the variance period. The Facility will quantify emissions based on boiler meter readings in accordance with

SCAQMD Rule 2012, Chapter 3 large sources emissions formula.

23. How do you intend to achieve compliance with the rule(s) and/or permit condition(s)? Include a detailed description of any equipment to be installed, modifications or process changes to be made, permit conditions to be amended, etc., dates by which the actions will be completed, and an estimate of total costs.

Cargill submitted a construction application to the SCAQMD on December 3, 2019 to install a new boiler to comply with the SCAQMD Rule 1146 NOx limit of 5 ppmv and SCAQMD issued a permit to construct in September 2020. Cargill's permit includes provisions applicable to the new boiler (D18), so no further air permitting will be needed.

The total cost to purchase and install the new boiler is approximately \$1,500,000.

24. State the date you are requesting the variance to begin: January 1, 2023; and the date by which you expect to achieve final compliance: March 31, 2023.

If the regular variance is to extend beyond one year, you **must** include a **Schedule of Increments of Progress**, specifying dates or time increments for steps needed to achieve compliance. See District Rule 102 for definition of Increments of Progress (see Attachment A, Item 24, Example #3).

N/A

25. List the names of any District personnel with whom facility representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply.

Clarisse Polintan (909) 396-2685

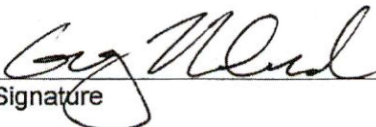
Sandys Thomas (909) 396-3162

If the petition was completed by someone other than the petitioner, please provide their name and title below.

<u>Malcolm C. Weiss</u>	<u>Hunton Andrews Kurth LLP</u>	<u>Partner</u>
Name	Company	Title

The undersigned, under penalty of perjury, states that the above petition, including attachments and the items therein set forth, is true and correct.

Executed on December 8, 2022, at Fullerton, California


Signature

Greg Noland
Print Name

Title: Facility Leader

Attachment 1

FACILITY PERMIT TO OPERATE

**CARGILL INC
566 N GILBERT ST
FULLERTON, CA 92833**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Wayne Natri
Executive Officer

By _____
Jason Aspell
Deputy Executive Officer
Engineering and Permitting

FACILITY PERMIT TO OPERATE CARGILL INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: EXTERNAL COMBUSTION					
System 1: INDUSTRIAL BOILERS					
BOILER, NATURAL GAS, HURST BOILER & WELDING COMPANY, MODEL SERIES 400, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 20.5 MMBTU/HR WITH A/N: 617570 BURNER, NATURAL GAS, CPL SYSTEMS INC., MODEL 20FD30, WITH LOW NOX BURNER, 20.5 MMBTU/HR	D16		NOX: LARGE SOURCE**	CO: 400 PPMV NATURAL GAS (5A) ; CO: 400 PPMV NATURAL GAS (4) ; NOX: 30 PPMV NATURAL GAS (4) ; NOX: 30 PPMV NATURAL GAS (3) ; PM: (9) ; PM: 0.1 GRAINS/SCF NATURAL GAS (5)	A195.2, A195.3, D12.2, D111.1, H23.1, K40.1, K67.1
BOILER, NATURAL GAS, CLEAVER-BROOKS, MODEL CBEX-ELITE, POST MOD TO DEVICE NO. D16, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 20.412 MMBTU/HR WITH A/N: 617570 BURNER, NATURAL GAS, CLEAVER-BROOKS, MODEL CBEX-ELITE, POSTMOD, WITH LOW NOX BURNER, 20.412 MMBTU/HR	D18		NOX: LARGE SOURCE**	CO: 50 PPMV NATURAL GAS (4) ; CO: 400 PPMV NATURAL GAS (5) ; NOX: 5 PPMV NATURAL GAS (5) ; NOX: 5 PPMV NATURAL GAS (4) ; PM: 0.1 GRAINS/SCF (5)	A195.4, A195.5, D12.3, D28.2, E113.1, E448.1, H23.2, I297.1, K40.1
Process 2: BULK UNLOADING/LOADING STATIONS					
System 1: BIODIESEL HANDLING AND STORAGE					
UNLOADING STATION, BULK, RAILCAR A/N: 478352	D4				C1.1, C1.2

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE CARGILL INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F48.1 The operator shall not operate at this facility Device D16 once Device D18 is constructed and operating. Once Device D18 is constructed and operating, Device D16 shall be removed and the Permit Inactivated.

SYSTEM CONDITIONS

S1.1 The operator shall limit the material processed to no more than 182.5 ton(s) in any one month.

For the purpose of this condition, material processed shall be defined as clay.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[Systems subject to this condition : Process 2, System 2]

DEVICE CONDITIONS

A. Emission Limits

A195.2 The 400 PPMV CO emission limit(s) is averaged over 15 minutes, corrected to 3 percent oxygen, dry.

[Devices subject to this condition : D16]

A195.3 The 30 PPMV NOX emission limit(s) is averaged over 15 minutes, corrected to 3 percent oxygen, dry.

FACILITY PERMIT TO OPERATE CARGILL INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D16]

A195.4 The 50 PPMV CO emission limit(s) is averaged over 15 minutes, corrected to 3 percent oxygen, dry.

[Devices subject to this condition : D18]

A195.5 The 5 PPMV NOX emission limit(s) is averaged over 15 minutes, corrected to 3 percent oxygen, dry.

[Devices subject to this condition : D18]

C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the throughput to no more than 100000 gallon(s) per day.

For the purpose of this condition, material processed shall be defined as biodiesel.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[Devices subject to this condition : D4]

C1.2 The operator shall limit the throughput to no more than 6,825,939 gallon(s) per year.

For the purpose of this condition, material processed shall be defined as biodiesel.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

FACILITY PERMIT TO OPERATE CARGILL INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E. Equipment Operation/Construction Requirements

E71.1 The operator shall only load biodiesel fuel from this equipment when the vapor return line is in operation.

[Devices subject to this condition : D8]

E113.1 The operator shall have the burner equipped with a control system to automatically regulate the combustion air, fuel and, if applicable, recirculated flue gas as the boiler load varies. This control system shall be adjusted and tuned at least once a year according to the manufacturer's specifications to maintain its ability to repeat the same performance at the same firing rate.

[Devices subject to this condition : D18]

E178.1 The operator shall load biodiesel into tank trucks using bottom loading.

[Devices subject to this condition : D8]

E448.1 The operator shall comply with the following requirements:

All applicable requirements of Rule 1100, Rule 1146 and 40 CFR Part 60, Subpart Dc.

The permit for this equipment shall expire if construction of this equipment is not complete within one year from issuance date of this permit unless an extension is approved in writing by the Executive Officer. A written request for extension shall be filed with the South Coast AQMD Engineering Division prior to the permit's expiration date. The written request shall include reasons for extension request, status of modification, estimated completion date, and increments of progress.

FACILITY PERMIT TO OPERATE CARGILL INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D18]

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	1146
CO	District Rule	407

[Devices subject to this condition : D16]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	1146
NOX	District Rule	1146
NOX	District Rule	1100

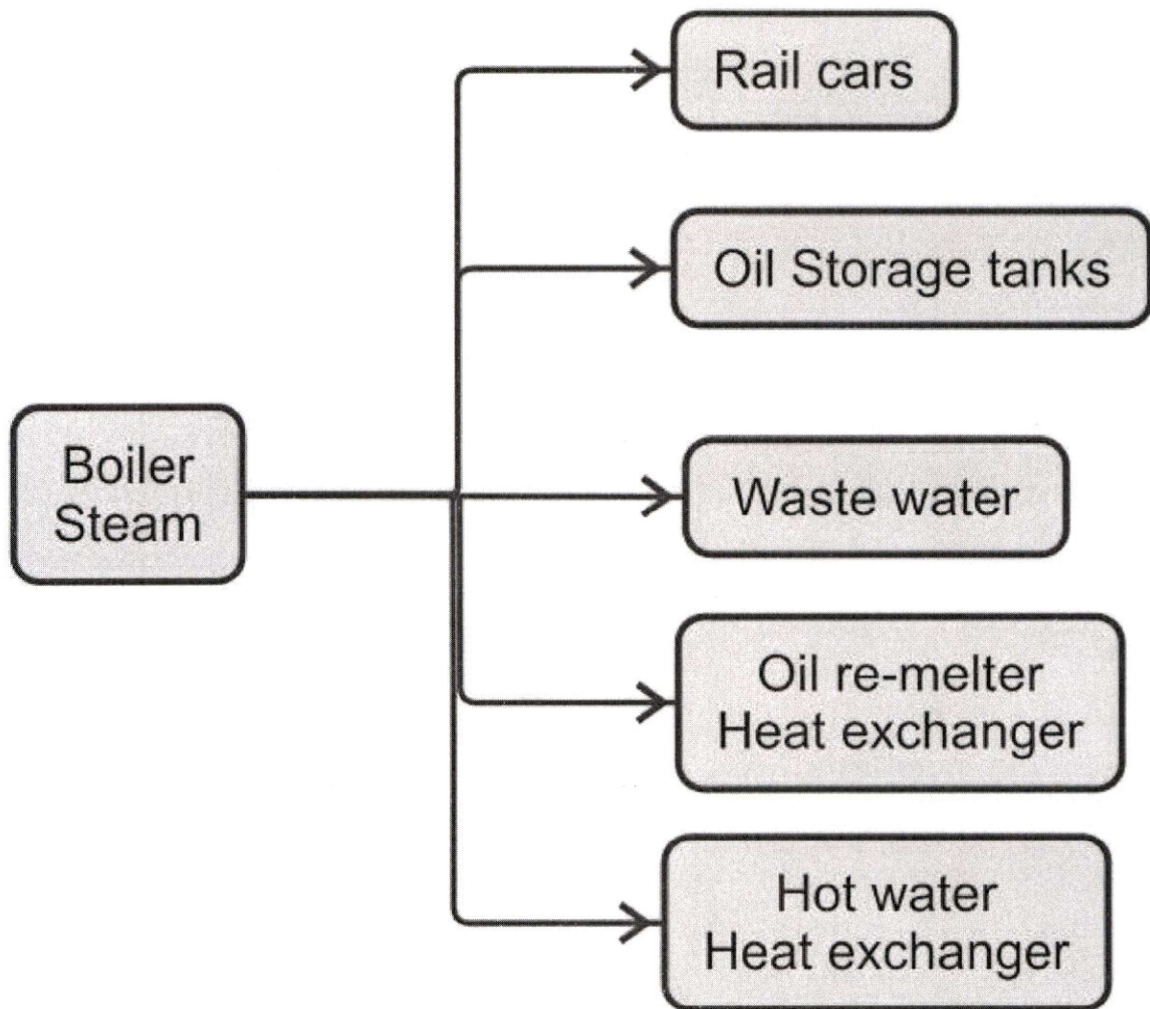
[Devices subject to this condition : D18]

I. Administrative

Attachment 2

Cargill Inc. - Fullerton Facility

Process Flow Diagram



Attachment 3

**Cargill Fullerton Variance Petition
Excess Emission Calculations**

Variance Period: January 2023 through March 2023	
Days	90
Excess Emissions (lbs NOx)	282.93
Daily Excess Emissions (lbs NOx)	3.14

**Cargill Fullerton Variance Petition
Excess Emission Calculations**

Natural Gas Usage

Months	Natural Gas Usage from the SoCal Utility Bills (MMSCF/month)
Jan 2022	3.59
Feb 2022	3.25
Mar 2022	3.58
Apr 2022	2.63
May 2022	2.97
Jun 2022	2.76
Jul 2022	2.68
Aug 2022	2.82
Sep 2022	2.35
Oct 2022	2.48
Average	2.91

Projected Boiler Emissions (January through March 2023)

Date	NG Usage	Pressure	Emission Factor (@ 30 ppmv)	Emission Factor (@ 5 ppmv)	NOx Emissions (@ 30 ppmv)	NOx Emissions (@ 5 ppmv)	Excess NOx Emissions
	MMSCF	Factor	lbs/MMSCF	lbs/MMSCF	lbs NOx/month	lbs NOx/month	lbs NOx/month
Jan-23	2.91	1	38.89	6.48	113.17	18.86	94.31
Feb-23	2.91	1	38.89	6.48	113.17	18.86	94.31
Mar-23	2.91	1	38.89	6.48	113.17	18.86	94.31
Total Excess Emissions (lbs)							282.93

Cargill Fullerton Variance Petition Excess Emission Calculations

**Rule 2012, Chapter 3 Large Source - CPMS
Section D - Emission Calculations for Reported Data
2. Monthly Mass Emissions for Normal Operating Hours**

$$E_k = \text{PPMV}_{\text{O}_2} \times [20.9 / (20.9 - b)] \times 1.195 \times 10^{-7} \times \text{SUM}\{(F_{dj} \times d_j \times V_j)\}$$

where:

- E_k = The monthly mass emission of nitrogen oxides (lb/month).
- PPMV_{O_2} = The RECLAIM concentration limit as listed in the Facility Permit. (ppmv) and based on standardized oxygen concentration in the exhaust stream.
- b = The standard concentrations of oxygen as listed in the Facility Permit or as found in Table 3-F. (%)
- r = The number of different types of fuel.
- j = Each type of fuel.
- F_{dj} = The oxygen-based dry F factor for oxygen for each type of fuel, the ratio of the dry gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) specified in 40 CFR Part 60, Appendix A, Method 19.
- d_j = The monthly fuel usage for each type of fuel recorded by the fuel totalizer (mmscf per month or mgal per month).
- V_j = The higher heating value of the fuel for each type of fuel found in Table 3-D (mmBtu/mmscf or mmBtu/mgal) or determined by a continuous analyzer.

Parameters	Value	Unit
b	3	%
F_{dj}	8710	--
V_j	1050	mmBtu/mmscf
PPMV_{O_2}	30	ppmv

Calculation of Emission factor for Existing Boiler (@ 30 ppmv)

$E_k =$	30	1.167597765	1.214E-07	8710	1050	x d_j
$E_k =$	38.89	x d_j				

Calculation of Emission factor for New Boiler (@ 5 ppmv)

$E_k =$	5	1.167597765	1.214E-07	8710	1050	x d_j
$E_k =$	6.48	x d_j				

Note:

1. Mass conversion factor (1.214×10^{-7} lbs/ft³) applied from SCAQMD memo dated January 6, 2017 (attached).

Cargill Fullerton Variance Petition Excess Emission Calculations

Date: January 6, 2017

To: All RECLAIM Participants

Subject: Calculation of NOx Mass Emissions for Large Sources and Process Units with Concentration Limit and Stack or Fuel Flow Measured at 60°F

On February 5, 2016, Appendix A of Rules 2011 and 2012 were amended by the South Coast Air Quality Management District (SCAQMD) Governing Board to include an alternative temperature of 60°F in addition to 68°F as follows: "Standard Gas Conditions are defined as one atmosphere of pressure and a temperature of 68°F or 60°F, provided that one of these temperatures is used throughout the facility".

As seen in the attachment, the equations in the Rule 2012 Protocol (Appendix A to Rule 2012) for calculation of large source and process unit NOx mass emissions using a concentration limit and stack flow or stack flow calculated from fuel flow utilize a mass conversion factor of 1.195×10^{-7} lbs/ft³ based on stack flow or fuel flow measured at 68°F. However, for facilities that have chosen to monitor stack gas volumetric flow rate at 60°F or calculate stack gas volumetric flow based on fuel flow taken at 60°F, a different temperature-dependent mass conversion factor (1.214×10^{-7} lbs/ft³) is required in order to properly quantify emissions.

All RECLAIM facilities that quantify emissions for large sources or process units using equations for either the concentration limit and stack flow measured at 60°F, or the concentration limit and calculated stack gas volumetric flow based on fuel flow taken at 60°F must determine and report emissions using the correct mass NOx conversion factor (i.e., 1.195×10^{-7} lbs/ft³ for facilities using 68°F and 1.214×10^{-7} lbs/ft³ for facilities using 60°F as standard temperature) starting from January 1, 2017¹. Failure of RECLAIM facilities to apply the appropriate mass conversion factor according to this advisory after December 31, 2016 will be subject to enforcement action.

For the RECLAIM 2015 Compliance Year annual audit for Cycle 1 and Cycle 2 facilities, as well as emission reporting periods in 2016, SCAQMD's compliance teams will correct the NOx calculated emissions for these large sources and process units during these audits. If the recalculation of NOx mass emissions using the correct mass conversion factor results in a facility exceeding its Allocation, the excess emissions will be deducted from the facility's future RECLAIM Trading Credits (RTCs) holding pursuant to Rule 2010 (b)(1)(A). SCAQMD will review inaccurate emission reporting during Compliance Years 2015 and 2016 on a case-by-case basis and will take enforcement action in addition to allocation deductions, if appropriate.

Any questions or concerns regarding this Compliance Advisory should be directed to the RECLAIM Hotline at (909) 396-3119.