JULY 2019

Final Environmental Impact Report

FOR THE

Fresno Rendering Plant Relocation Project

State Clearinghouse No. 2018111043

PREPARED FOR:
City of Fresno
2600 Fresno Street
Fresno, CA 93721
Contact: Jennifer Clark, Director

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Contact: Jennifer Clark, Director

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TABLE OF CONTENTS

Tables

LIST OF ABBREVIATIONS

CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
City	City of Fresno
CUP	conditional use permit
DEIR	draft environmental impact report
DPM	diesel particulate matter
FEIR	final environmental impact report
GPA	general plan amendment
HRA	Health Risk Assessment
LOS	level of service
MMBTU/hr	million British Thermal Unit/hour
OCP	Odor Control Plan
project	Fresno Rendering Plant Relocation Project
RTO	boilers/regenerative thermal oxidizer
RWQCB	Regional Water Quality Control Board
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWRCB	California State Water Resources Control Board
TAC	toxic air contaminant
TIS	Traffic Impact Study

1 INTRODUCTION

This final environmental impact report (FEIR) has been prepared by City of Fresno (City), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132). This FEIR contains responses to comments received on the draft environmental impact report (DEIR) for the Fresno Rendering Plant Relocation Project (project). The FEIR consists of the DEIR and this document (response to comments document), which includes comments on the DEIR, responses to those comments, and revisions to the DEIR.

1.1 PURPOSE AND INTENDED USES OF THIS FEIR

CEQA requires a lead agency that has prepared a DEIR to consult with and obtain comments from responsible and trustee agencies that have jurisdiction by law with respect to the project, and to provide the public with an opportunity to comment on the DEIR. The FEIR is the mechanism for responding to these comments. This FEIR has been prepared to respond to comments received on the DEIR; and to present corrections, revisions, and other clarifications to the DEIR, including project updates, made in response to these comments and as a result of the applicant's ongoing planning and design efforts. The FEIR will be used to support the City's decision regarding whether to approve the Fresno Rendering Plant Relocation Project.

This FEIR will also be used by CEQA responsible and trustee agencies to ensure that they have met their requirements under CEQA before deciding whether to approve or permit project elements over which they have jurisdiction. It may also be used by other state, regional, and local agencies that may have an interest in resources that could be affected by the project or that have jurisdiction over portions of the project.

Responsible, trustee, and interested agencies may include:

- California State Water Resources Control Board (SWRCB),
- Central Valley Regional Water Quality Control Board (RWQCB),
- San Joaquin Valley Air Pollution Control District (SJVAPCD), and
- County of Fresno.

1.2 PROJECT LOCATION

The project site is located within the city limits, but not within the city proper; the site is located just east of the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) within a large island of incorporated, City-owned property south of West Jensen Avenue. The property consists of 40 acres of land used currently used for agriculture, and 20 acres of this property would be developed for the rendering plant (project site). This land is located within a 3,200-acre area of incorporated land and is separated from the rest of the city by approximately 2 miles.

1.3 PROJECT OBJECTIVES

The project would relocate the existing rendering plant from its current location on Belgravia Ave just southwest of downtown to the new 20-acre site near the RWRF and expand its current permitted processing limits from 850,000 pounds per day to 2 million pounds per day or more but would be limited to a permitted maximum of 10 million pounds per week rather than a daily maximum. The project would require a general plan amendment (GPA) to change the General Plan land use designation of land from Public Facility to Heavy Industrial, and a rezone of the same property from PI to Industrial-Heavy (IH). The proposed Darling facility would also require a conditional use permit (CUP) to operate within the IH zone that would be processed with the GPA and rezone.

1.4 SUMMARY DESCRIPTION OF THE PROJECT

The project would include a total of four buildings—a conversion facility, a truck shop, a maintenance shop, and an office building—with a total floor area of approximately 40,000 square feet (sf), which is approximately 12,200 sf larger than the existing facility.

Excluding equipment, typical building height would be approximately 28 feet with a maximum building height of 45 feet. The tallest equipment would include two new 60-foot protein storage silos. The conversion facility would be a concrete pre-cast building, and the other three buildings would include metal, brick, or block veneer.

The industrial activities related to the project would be similar to those of the existing Darling facility and would include an increase in processing capacity. Raw materials to be converted would be collected and delivered to the facility for processing 6 to 7 days per week. Processing would typically begin on Monday and run through Saturday or as needed Sunday. Approximately 60 to 70 full-time employees would work at the facility (23 new positions would be created as a result of the operational expansion). The facility would operate in three shifts with three production shifts and one maintenance shift.

1.5 MAJOR CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

The DEIR identified potentially significant impacts related to the project and identified mitigation measures to reduce most of these impacts to a less-than-significant level. The following potentially significant impacts would be reduced to a less-than-significant level through implementation of mitigation measures identified in the DEIR:

- Impact 4.2-2: Create a Substantial New Source of Light and/or Glare
- Impact 4.4-4: Exposure of Sensitive Receptors to TACs
- Impact 4.4-5: Exposure of Sensitive Receptors to Odors
- Impact 4.5-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources
- Impact 4.5-4: Directly or Indirectly Destroy a Unique Paleontological Resource
- Impact 4.6-1: Cause Disturbance to or Loss of Burrowing Owl
- Impact 4.6-2: Cause Disturbance to or Loss of Swainson's Hawk and Other Nesting Raptors
- Impact 4.6-3: Cause Disturbance to or Loss of California Horned Lark
- Impact 4.8-2: Create Potential Human Hazards from Exposure to Existing On-Site Hazardous Materials
- Impact 4.9-3: Increase in Surface Water Runoff Potentially Exceeding the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff
- Impact 4.11-3: Long-Term Operational Non-Transportation Noise Levels

The following impacts would remain significant and unavoidable after implementation of mitigation measures identified in the DEIR.

- Impact 4.3-1: Convert agricultural uses, including lands designated as Important Farmlands, to non-agricultural use or involve changes in the existing environment that could result in conversion of Important Farmland to non-agricultural use
- Cumulative Impacts to Intersection Operations. Mitigation measures identified in the DEIR would reduce the impact to a less-than-significant level; however, the intersections are under County jurisdiction and the City cannot ensure implementation. The impact, therefore, is considered significant and unavoidable.

1.6 CEQA PUBLIC REVIEW PROCESS

On May 14, 2019, the City released the DEIR for a 45-day public review and comment period. The DEIR was submitted to the State Clearinghouse for distribution to reviewing agencies; posted on the City's website (https://www.fresno.gov/cityclerk/notices-publications/); and was made available at the City's offices and the Fresno County Public Library. A notice of availability of the DEIR was published in the Fresno Bee.

As a result of these notification efforts, written comments were received from two local agencies (Fresno County and San Joaquin Valley Air Pollution Control District) on the content of the DEIR. Chapter 2, "Responses to Comments," identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines CCR Section 15088.5).

After completion of the Draft EIR, additional project-specific information regarding the proposed sources of air pollutant emissions became available. Specifically, a detailed list of all proposed stationary sources and a description of additional sources of fugitive off-gassing emissions was provided to Ascent by SJVAPCD. Upon review of this additional information, the operational air quality impact regarding exposure of sensitive receptors to toxic air contaminants (TACs) was reevaluated and revised. Please see the responses to the SJVAPCD comment letter (Letter 3) provided in Chapter 2, "Responses to Comments," specifically response to comment 3-1.

1.7 ORGANIZATION OF THE FEIR

This FEIR is organized as follows:

Chapter 1, "Introduction," describes the purpose of the FEIR, summarizes the Fresno Rendering Plant Relocation Project and the major conclusions of the DEIR, provides an overview of the CEQA public review process, and describes the content of the FEIR.

Chapter 2, "Responses to Comments," contains a list of all parties who submitted comments on the DEIR during the public review period, comments excerpted from the comment letters received, and responses to the comments.

Chapter 3, "Revisions to the DEIR," presents revisions to the DEIR text made in response to comments, or to amplify, clarify or make minor modifications or corrections. Changes in the text are signified by ~~strikeouts~~ where text is removed and by <u>underline</u> where text is added.

Chapter 4, "References," identifies the documents used as sources for the analysis.

Chapter 5, "List of Preparers," identifies the lead agency contacts as well as the preparers of this FEIR.

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2 RESPONSES TO COMMENTS

This chapter contains comment letters received during the public review period for the DEIR, which concluded on June 27, 2019. In conformance with Section 15088(a) of the State CEQA Guidelines, written responses were prepared addressing comments on environmental issues received from reviewers of the DEIR.

2.1 LIST OF COMMENTERS ON THE DEIR

Table 2-1 presents the list of commenters, including the numerical designation for each comment letter received, the author of the comment letter, and the date of the comment letter.

Table 2-1 List of Commenters

Letter No.	Commenter	Date
1	County of Fresno, Department of Public Health	May 21, 2019
2	County of Fresno, Department of Public Works and Planning	June 20, 2019
3	San Joaquin Valley Air Pollution Control District	June 28, 2019

2.2 COMMENTS AND RESPONSES

The written individual comments received on the DEIR and the responses to those comments are provided below. Individual comments have been excerpted from the comment letters received and included below. Each comment is immediately followed by the response to that comment.

Letter 1	County of Fresno, Department of Public Health Kevin Tsuda, Environmental Health Specialist II 5/21/19

Comment 1-1 The hazardous materials section should address the potential for discovering abandoned underground petroleum storage tank(s) during construction and grading activities. If this occurs, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health System. Contact the Certified Unified Program Agency (CUPA) at (559) 600-3271 for more information.

Similarly, sewage disposal systems may be discovered during construction and grading activities. All sewage disposal systems within the project area shall be properly destroyed under permit and inspection from the City of Fresno, Building and Safety Section.

Response 1-1 As discussed on page 4.8-5 of the DEIR, based on review of regulatory databases for hazardous sites including underground storage tanks, no hazards were identified on-site. There was a leaking underground storage tank located near the project site at 5607 Jensen Avenue West; however, cleanup was completed in 2000. In addition, Mitigation Measure 4.8-2 on page 4.8-10 of the DEIR, requires the applicant to conduct a Phase I environmental site assessment prior to initiating grading, which would include more detailed evaluation of potential hazards on-site, including underground storage tanks. If any underground storage tanks are identified on-site, the applicant will secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health System prior to removal of any tanks. If any sewage systems are identified on-

site, the applicant will obtain a Construction Permit from the City of Fresno, Building and Safety Section prior to removal of any sewage systems.

Comment 1-2 The Hydrology and Water Quality Section should address the manner in which existing water wells, both domestic and agricultural, will be handled in areas of the proposed project. Areas served by individual domestic and agricultural wells may provide a conduit to groundwater if not properly protected or destroyed. Improper abandonment of such wells presents a significant risk of contaminating groundwater. For this reason, when development occurs, it is extremely important to ensure the safe and proper destruction of all abandoned water wells.

Response 1-2 Mitigation Measure 4.8-2 on page 4.8-10 of the DEIR, requires the applicant to conduct a Phase I environmental site assessment prior to initiating grading, which would identify any on-site wells. If any groundwater wells are identified on-site, the applicant will secure a Well Destruction Permit from the Fresno County Department of Public Health, Environmental Health System prior to removing any wells.

Letter 2	County of Fresno, Department of Public Works and Planning Thomas Kobayashi, Planner 6/20/19

Comment 2-1 The Department of Public Health, Environmental Health Division has requested that the Hazardous Materials section should be revised to address the potential for discovering abandoned underground petroleum storage tank(s) during construction and grading activities. If this occurs, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Similarly, sewage disposal systems may be discovered during construction and grading activities. All sewage disposal systems within the project area shall be properly destroyed under permit and inspection from the City of Fresno, Building and Safety Section.

Response 2-1 See response to Comment 1-1 above.

Comment 2-2 Additionally, the Department of Public Health requests that revisions to the Hydrology and Water Quality Section be made to address the manner in which existing water wells, both domestic and agricultural, will be handled in areas of the proposed project. Areas served by individual domestic and agricultural wells may provide a conduit to groundwater if not property protected or destroyed. Improper abandonment of such wells presents a significant risk of contaminating groundwater. For this reason, when development occurs, it is extremely important to ensure the safe and proper destruction of all abandoned water wells.

Response 2-2 See response to Comment 1-2 above.

Comment 2-3 The Design Division of the Department of Public Works and Planning has reviewed the project and requests that comments from the previous OAR, from when the Fresno Rendering Plant Relocation project was considered for a Mitigated Negative Declaration, be included in the record for the Draft EIR document. To the County's knowledge, those comments from the previous OAR have not been addressed; therefore, comments from the previous OAR request for the Fresno Rendering Plant will still apply. A copy of the aforementioned comments has been enclosed for your review. If studies and documentation exist for the project that address the County's comments, please provide them for review. For more information regarding the comments provided from the Design Division, please contact Brian Spaunhurst at (559) 600-4533 or by email at BSpaunhurst@FresnoCountyCA.gov.

Response 2-3 The primary environmental issue raised in the County's October 9, 2017 comment on the IS/MND related to the County's level of service (LOS) thresholds. The traffic study for the EIR was updated specifically with the County's comments in mind and includes the County's LOS C threshold for applicable intersections. Please see Section 4.12, "Transportation and Traffic," and Chapter 5, "Cumulative Impacts" for updated traffic analysis and mitigation measures. Regarding the concern raised in the October 2017 comment related to potential truck-related impacts to pavement, the City does not consider pavement to be an environmental resource; therefore, impacts to pavement are not considered a CEQA issue, except to the extent that serious disrepair could result in a physical hazard to motorists, bicyclists, or pedestrians. The City and County maintain their roads and it is anticipated that no such hazard would result. The City acknowledges that increased truck traffic could require additional maintenance to Jensen Avenue. This is considered a funding issue, not an environmental issue; therefore, no changes to the EIR are required because CEQA does not require evaluation of fiscal or economic impacts. However, the City will continue to coordinate with the County regarding this roadway maintenance issue.

Comment 2-4 Additionally, the Road Maintenance and Operations Division of the Department of Public Works and Planning has provided comments as listed below.

A separate Traffic Impact Study (TIS) was included with the draft Environmental Impact Report (EIR). That TIS and the draft EIR referenced significant impact with the cumulative impacts plus project traffic that would reduce the level of service at two intersections to an unacceptable level. These intersections include Jensen/Cornelia and Jensen/Brawley. However, the report indicated that these impacts would not be addressed because the City has not identified any planned or programmed improvements for these intersections, and because the intersections are outside of the City' s Sphere of Influence. Therefore, no mitigations are proposed.

Response 2-4 The comment is incorrect that the cumulative traffic impacts "would not be addressed." The Draft EIR (p. 5-11) includes Mitigation Measures 5-1a and 5-1b that require fair share payment of traffic fees for cumulative impacts to the intersections of Jensen Avenue/Cornelia Avenue and Jensen Avenue/Brawley Avenue. The Draft EIR conservatively concludes that the impact remains significant because although the construction of the improvements identified in the mitigation measures would result in both intersections operating at acceptable levels, because "these intersections are outside the City of Fresno's jurisdictional control, it cannot be guaranteed that these improvements would be implemented." However, regardless of whether the improvements are actually implemented, the fair share payment identified in the mitigation measures would still be required.

Comment 2-5 The Road Maintenance and Operations Division recommends that the project's pro-rata shares for the recommended improvements to mitigate the impacts be determined and set aside in a separate trust fund for any future improvements to those intersections at such time in the future that improvements are warranted.

Response 2-5 The County's recommended funding mechanism is being considered by the City; however, the specific funding mechanism does not affect the environmental analysis or overall conclusion related to the cumulative traffic impact. As stated in the Draft EIR (and in response to comment 2-4 above), because the intersections are outside the City's jurisdictional control, it cannot be guaranteed that the improvements identified in the mitigation measures would be implemented. Despite the specific funding mechanism, the appropriate conclusion is that the project would have a potential substantial contribution to a significant cumulative impact. No changes to the Draft EIR are necessary.

Letter 3	San Joaquin Valley Air Pollution Control District Brian Clements, Program Manager 6/28/19

Comment 3-1 The District recommends that the DEIR's Health Risk Assessment (HRA) be revised to include prioritization and if necessary, a refined HRA, for all construction and operational emission sources from the Project.

The prioritization in the DEIR only analyzed toxic emissions associated with the new boiler. The District recommends conducting a screening analysis that includes all sources of emissions (including but not limited to construction equipment, mobile source (Heavy Duty Trucks), and stationary source equipment).

A screening analysis is used to identify projects which may have a significant health impact. A prioritization, using CAPCOA's updated methodology, is the recommended screening method. A prioritization score of 10 or greater is considered to be significant and a refined Health Risk Assessment (HRA) should be performed.

Please provide the following information electronically to the District for review:

- AERMOD model files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodology.

More information on toxic emission factors, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Contacting the District at (559) 230-6000 for assistance; or
- Visiting the Districts website (Modeling Guidance) at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm

Response 3-1 The San Joaquin Valley Air Pollution Control District (SJVAPCD) recommends that the HRA prepared for the DEIR be revised to include prioritization and if necessary, a refined HRA, for all construction and operational emission sources from the project. More specifically the comment suggests that the DEIR revise the HRA screening analysis to include all sources of emissions (including but not limited to construction equipment, mobile source (Heavy Duty Trucks), and stationary source equipment).

Regarding construction-related emissions of toxic air contaminants (TACs), as discussed on page 4.4-18 of the DEIR, diesel particulate matter (DPM) emissions were estimated and modeled using a prioritization calculation, consistent with SJVAPCD and California Air Pollution Control Officers Association (CAPCOA) guidance. The DEIR (page 4.4-18) goes on to explain that estimated construction emissions resulted in a prioritization score of 0.003 and would not exceed the SJVAPCD's threshold of 10, used to determine when a complete HRA should be prepared. Therefore, no further analysis of construction-related TACs would be required.

Regarding operational emissions of TACs, page 4.4-18 of the DEIR also discusses how the prioritization screening analysis was conducted for the proposed stationary sources and how California Air Resources Board screening distances for diesel truck emissions sources were used to evaluate risk exposure from the proposed rendering plant.

In response to the comment from the SJVAPCD, the prioritization analysis for operational TAC emissions has been updated to include DPM emissions from idling of delivery trucks near the

entrance to the proposed facility, running DPM emissions from the delivery trucks along the proposed driveway, and TAC emissions from the proposed stationary equipment.

Since preparation of the DEIR, additional details regarding the proposed stationary equipment and operational emissions-generating activities have become available.

Sources of TACs from the proposed rendering facility would include the following:

- Fugitive TAC emissions from raw material storage.
- Fugitive TAC emissions during truck transport of raw material.
- Fugitive TAC exhaust emissions during the cooking process.
- Combustion emissions from natural gas and digester gas use from boilers/regenerative thermal oxidizers (RTOs).
- Idling DPM emissions from delivery trucks.
- Running DPM emissions from delivery trucks.

Based on refined project information (e.g., detailed list of proposed stationary sources) and discussions with the SJVAPCD, Ascent reviewed the air quality analysis conducted in the DEIR, and in coordination with the SJVAPCD, a supplemental analysis was conducted, and the results are included in the discussion provided below.

In accordance with SJVAPCD conditions of approval for these types of facilities, the project would be required to process all raw material within a timely manner (i.e., 2 hours), which reduces the potential for off-gassing of TAC emissions (Garcia, pers. comm., 2019). Regarding the potential for TAC release during transport of raw material, Mitigation Measure 4.4-5 of the DEIR requires that all raw material either be transported within enclosed containers or enclosed trucks, reducing the potential for TAC release. Regarding fugitive exhaust emissions during the cooking process, emission factors were not available for this source and would vary depending on daily production. However, based on a study of rendering plant emissions conducted in Belgium, the use of a condenser reduced Benzene, the primary TAC of concern emitted during the cooking process, to zero (Z.A. Bhatti, F. Maqbool & H.V. Langenhove, 2014). The proposed rendering plant would include condensers at each of the RTOs, where these emissions would occur, which would reduce TAC emissions from this source. In addition, the U.S. Environmental Protections Agency's AP-42, a commonly used resource to obtain emission factors for various sources, has Chapter 9.5.3 Meat Rendering Plants that discusses the various sources of emissions, but does not have published emission factors associated with the cooking process (EPA 1995). Considering that raw material would be required to be processed within 2 hours, transported material would be covered, and evaporative emissions from the RTOs would be minimal, these sources were not included in the prioritization calculation.

Stationary sources would include three 4-million British Thermal Unit/hour (MMBTU/hr) RTOs and two 62.76 MMBTU/hr natural gas/biogas-fired boilers. Up to 18 percent of the facility's total energy use would be supplied by digester gas from the existing Fresno-Clovis Regional Wastewater Reclamation Facility. To estimate emissions from the combustion of natural gas/digester gas, the total annual anticipated natural gas consumption was input into the SJVAPCD-provided "Gas-Fired External Combustion" calculator and the total anticipated digester gas consumption was input into the SJVAPCD-provided "Digester Gas-Fired External Combustion" calculator. Based on the anticipated volume of gas consumption, the calculators output emissions of TACs.

In addition to the proposed stationary sources, daily activity would involve delivery trucks transporting material to and from the rendering plant. Idling DPM emissions at the plant's entrance and DPM running emissions were estimated for 150 truck trips per day and idling for up to 5 minutes per truck. Refer to Appendix A for detailed modeling assumptions and inputs.

To conduct the prioritization analysis, TAC emissions associated with combustion of natural gas/digester gas were entered into the SJVAPCD-provided prioritization calculator. DPM emissions from truck idling and trucks driving were also entered into a separate prioritization calculator. As discussed in the DEIR, existing sensitive receptors are located approximately 2,440 feet from the proposed rendering plant. Truck idling would occur near the entrance to the rendering plant, and therefore, outputs from the prioritization calculation for the stationary sources and the truck idling were obtained for receptors located between 1,640 to 3,280 feet. Regarding truck running emissions, the proposed driveway (Figure 3-5 of the DEIR) could be located as close as 1,500 feet from an existing resident to the east of the project site on South Cornelia Avenue, and, therefore, outputs from the prioritization calculation for the running truck emissions were obtained for receptors located between 820 to 1,640 feet. The sum of all three sources resulted in a prioritization score of 3.1, not exceeding the SJVAPCD screening level for conducting an HRA of 10. It should be noted that the DEIR reported a higher prioritization score. However, because this revised analysis was based on more detailed project-specific information available after the preparation of the DEIR, this prioritization analysis is more project-specific and accurate. Considering the results of the revised prioritization analysis, no HRA was prepared.

Revisions to the DEIR are included in Chapter 3, "Revisions to the DEIR". These revisions include elimination of Mitigation Measure 4.4-4 because, after making the adjustments to the air quality modeling based on refined project information, the model showed that emissions would be reduced to a level below the threshold.

Comment 3-2 The District recommends the City of Fresno (City) revise Mitigation Measure 4.4-5 to include a monitoring and enforceability component and to include an approach for corrective actions as detailed below.

The City determined that the nuisance odor impacts are less than significant after implementation of an Odor Control Plan (OCP) and through compliance with District permitting requirements. Due to the nature of rendering plants, the associated operations are susceptible to nuisance odors from the transportation of raw materials and on-site processing of raw materials, and as such, potentially creating objectionable odors that may impact nearby residences and may generate public odor complaints.

- The Mitigation Measure 4.4-5 "Prepare an Odor Control Plan" requires that the project proponent prepare an Odor Control Plan and to make it available to the City upon requires. The District recommends that in order for the Mitigation Measure 4.4-5 to be measurable and enforceable, the Mitigation Measure 4.4-5 should include a monitoring and reporting schedule or some other means of accountability. The District believes the City as the leas agency to be the appropriate agency to enforce the OCP and verify that the details and future proposed "odor reduction" measures are implemented. As such, the District recommends Mitigation Measure 4.4-5 be revised to require submittal of the OCP to the City for review and approval. In addition, the District is willing to assist the City with reviewing the OCP to determine consistency with District permitting requirements and recommends the OCP be routed to the District for review.
- While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often resulting in citizen complaints to local governments such as the City and the District. The OCP should consider all available pertinent information and address known and historical causes of odor for this rendering operation. For instance, odor will be more evident if the proposed Regenerative thermal Oxidizers fail, or the enclosed/covered truck trailers to manage the transport of raw materials have leakage that causes spillage on roadways. Therefore, the District recommends that the OCP be adaptable to address such potential issues and requiring corrective action to known concerns associated with the facility.

Response 3-2 The SJVAPCD recommends that Mitigation Measure 4.4-5, "Prepare an Odor Control Plan" be revised to include a monitoring and enforceability component and to include an approach for corrective action.

Potential odor impacts resulting from the proposed project are thoroughly disclosed and evaluated in Impact 4.4-5, "Exposure of Sensitive Receptors to Odors" of the DEIR (DEIR pages 4.4-19 through 4.4-20). As noted by the SJVAPCD, the City determined that odor impacts would be significant, and that mitigation would be required. Mitigation includes preparation and implementation of an OCP and compliance with SJVAPCD permitting requirements.

The SJVAPCD recommends that, as lead agency, the City should review and approve the OCP, and include a monitoring and reporting schedule to ensure enforceability and accountability of the mitigation. The SJVAPCD also indicates willingness to assist the City with review of the OCP to determine consistency with SJVAPCD permitting requirements.

The City is aware of both its "authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment" (CEQA Guidelines Section 15041) and its responsibility to ensure "that implementation of the mitigation measures occurs in accordance with the [mitigation monitoring and reporting] program" (CEQA Guidelines Section 15097). While the mitigation monitoring and reporting program (MMRP) was not circulated with the DEIR (nor is it required to be), it is prepared and adopted by the City as part of its EIR certification and project approval process. As required, the MMRP includes the monitoring and reporting details the SJVAPCD appears to be seeking to ensure that mitigation measures are implemented.

While Mitigation Measure 4.4-5 is adequate as written in the DEIR, revisions are incorporated in response to the request by the SJVAPCD. Revisions to Mitigation Measure 4.4-5 are included in Chapter 3, "Revisions to the DEIR". These are considered minor clarifications in response to the request by SJVAPCD.

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3 REVISIONS TO THE DEIR

This chapter presents specific text changes made to the DEIR since its publication and public review. The changes are presented in the order in which they appear in the original DEIR and are identified by the DEIR page number. Text deletions are shown in ~~strikethrough~~, and text additions are shown in underline.

The information contained within this chapter clarifies and expands on information in the DEIR and does not constitute "significant new information" requiring recirculation. (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.)

Note that there is text formatting in this chapter that provides important information and that cannot be read by an e-reader. If you would like assistance with this information, please contact Chris Lang, Planner II, at (559) 621-8023.

Revisions to Chapter 2, Executive Summary

To be consistent with Section 4.3, Agricultural Resources, the following text on page 2-3 of the DEIR is revised as follows:

- Agricultural Resources Impact 4.3-1: The project would convert Prime Farmland and Farmland of Statewide Importance to a non-agricultural use. As part of the General Plan Update process, the City of Fresno General Plan Master Environmental Impact Report (MEIR) evaluated the potential for future development associated with the General Plan to result in impacts related to conversion of Important Farmland to non-agricultural use. The General Plan identified policies to reduce potential impacts to farmland conversion outside the city limits. Although the project site is on city-owned land and is within the city limits, it is not within the city proper and is surrounded primarily by agricultural uses. Because the project site is outside the city proper in an area dominated by farmland and agricultural operations, and the project would result in a permanent conversion of Important Farmland. This impact would be significant. Mitigation Measure 4.3-1: Farmland Preservation would require that the applicant or City provide in-kind or similar resource value protection for land similar to the project site at a ratio of 1:1. The City will identify the type of easement to be used for mitigation and ~~will determine~~ be the implementing agent for this mitigation. While implementation of Mitigation Measure 4.3-1 could reduce the impact on Important Farmland by preserving forever a similar acreage and type of farmland, once farmland is removed through development, it is irretrievably lost to future generations. Therefore, the impact would remain significant and unavoidable.

To be consistent with Section 4.3, Agricultural Resources, Table 2-1 on page ES-2-5 of the DEIR is revised as follows:

> Mitigation Measure 4.3-1: Farmland Preservation
> Consistent with the Fresno General Plan Policy RC-9-c the applicant or City shall provide in-kind or similar resource value protection for land similar to the project site at a ratio of 1:1. This protection may consist of the establishment of farmland easements, or other similar mechanism and shall be implemented before issuance of the first grading permit for development. The City will identify the type of easement to be used for mitigation and ~~will determine~~be the implementing agent for this mitigation.

Revisions to Section 4.4, Air Quality

To provide clarification, text on page 4.4-11 of the DEIR is revised as follows:

> There are several agricultural residences in the vicinity of the project area. The two nearest residences are located approximately 2,440 feet east of the site and the proposed stationary sources, both on the east side of South Cornelia Avenue. In addition, the proposed driveway location where delivery/haul trucks would enter/exit the site is located approximately ~~1,700~~1,500 feet to the west of these same receptors.

To reflect the refined project design, text under Mobile CO Impacts, Health Risk, and Odors on page 4.4-12 of the DEIR is revised as follows:

> Health risk from project-generated construction- and operation-related emissions of TACs were assessed qualitatively and quantitatively. This assessment is based on the location from which construction- or operation-related TAC emissions would be generated by the project relative to on-site sensitive receptors as construction occurs, as well as the duration during which TAC exposure would occur. The SJVAPCD's prioritization calculator was used to estimate the health risk from the project's construction activity, with diesel PM the primary pollutant of concern. The prioritization calculator was also used to estimate health risk from the use of ~~a~~ two boilers, three regenerative thermal oxidizers (RTOs), delivery truck idling emissions, and delivery truck running emissions during project operation. The prioritization calculator uses residential cancer risk normalization factors, based on modeling conducted by the Office of Environmental Health Hazard Assessment, that captures the 95th percentile of all normalization values generated by modeling of 44 different sources at approximately 500,000 receptors.

To reflect the refined project design, Impact 4.4-4 on pages 4.4-17 and 4.4-18 of the DEIR is revised as follows:

Impact 4.4-4 Exposure of Sensitive Receptors to TACs

Short-term construction activities would result in emissions of diesel PM. However, construction activities would vary over the entire construction period. Modeled worst-case construction emissions would be substantially below SJVAPCD-recommended threshold. Construction activities would take place relatively far away from offsite sensitive receptors (i.e., 2,440 feet away). Therefore, given the dispersive properties of diesel PM, concentrations would be minimal at this distance. Operation of the project would result in a new natural gas-powered boiler and operation of diesel delivery trucks. Levels of TACs from project-related construction would not result in a substantial increase in health risk exposure at offsite sensitive receptors, increases in cancer risk that are greater than 20 in 1 million, or a hazard index greater than one~~., however, operation of the new boiler could result in a substantial increase in health risk exposure at offsite sensitive receptors.~~ This impact would be **less than significant**.

The project would result in short-term diesel exhaust emissions from on-site construction equipment. Operation of the rendering facility would result in truck trips (and associated diesel exhaust) as well as various pollutants emitted from the on-site stationary equipment such as the natural gas-powered boiler. The project site is located adjacent to the existing RWRF along West Jensen Avenue. Surrounding land uses are primarily agriculture. A few agricultural residences are in the vicinity; the nearest two residences are located approximately 2,440 feet east of the proposed building and associated stationary sources, both on the east side of South Cornelia Avenue. The proposed driveway where delivery trucks would enter/exit the site is approximately ~~1,700~~1,500 feet west of these same receptors.

For construction activity, diesel PM is the primary TAC of concern. With regard to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, Health Risk Assessments, which are studies that determine the exposure of sensitive receptors to TAC emissions, should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2012:11-3).

As discussed previously, project-related construction emissions, including PM_{10} (a surrogate for diesel PM) would not exceed SVJAPCD significance thresholds and would not be substantial. Further, the construction phase would be relatively short (i.e., 18 to 24 months). The SJVAPCD Prioritization Calculator was used to estimate the maximum prioritization score associated with construction-generated PM_{10} emissions. Results

from this analysis indicated that the maximum prioritization score would not exceed 0.003 for receptors located between 1,640 feet and 3,280 feet. This is below SJVAPCD's prioritization score of 10. Thus, considering that project emissions would not exceed SJVAPCD thresholds, the short duration of construction-related activities and the distance to nearby receptors (i.e., over 1,000 feet), project construction would not expose sensitive receptors to substantial pollutant concentrations.

Operation of the rendering facility would include emissions from on-site stationary sources (e.g., boilers, ~~generators~~RTOs) and diesel exhaust emissions from truck loading/unloading at the rendering facility, as well as running emission from trucks passing by the existing residence on South Cornelia Avenue.~~Regarding diesel exhaust from delivery trucks, CARB has developed recommendations for siting new sensitive land uses such as residences near various TAC sources (CARB 2005). Based on this guidance, distribution centers would be similar sources to the loading/unloading activities that would take place at the rendering facility. CARB recommends that sensitive receptors not be located within 1,000 feet of a distribution center that accommodates more than 100 trucks per day. Existing sensitive receptors are located as close as 2,440 feet from the new facility and operation would result in up to 150 truck trips per day at maximum capacity. The nearest residence to the facility's driveway that would provide truck access would be approximately 1,700 feet from the nearest sensitive receptor. This would not exceed the screening criteria recommended by CARB. Project truck activity would be consistent with CARB recommendations and would not expose nearby sensitive land uses to substantial concentrations of diesel PM~~. The project would relocate the existing facility from its current location, which is near a residential area of the city, to a much more rural area that is not close to highly populated areas.

Regarding stationary sources, SJVAPCD Regulation II ensures that stationary source emissions will be reduced or mitigated to below applicable limits, thus not exposing existing sensitive receptors to substantial TAC concentrations. TAC emissions were estimated based on the anticipated ~~daily~~annual natural gas/digester gas consumption of the boilers/RTOs (484.6 million standard cubic feet [MMscf]). In addition, truck idling and running emissions of diesel PM were also estimated and entered into a separate prioritization calculator. Results from each prioritization calculator, at respective distances to the nearby receptor for each source were summed. That is, stationary sources and truck idling emissions would occur approximately 2,440 feet from existing receptors and trucks passing by on the proposed driveway could occur 1,500 feet from the existing receptor~~of 679 thousand cubic feet (mcf) and process emissions were input into the SJVAPCD Prioritization Calculator~~. Results from the screening analysis indicated a maximum prioritization score of 3.1. ~~between 17 and 34 for receptors located between 1,640 feet and 3,280 feet would occur depending on the type of boiler installed.~~ See ~~Appendix B~~ Appendix A to the FEIR for modeling inputs and outputs.

Results from the screening-level risk analysis indicated that project operational activities would not exceed the SJVAPCD's prioritization score of 10. No HRA would be required and the project would not~~Project-related activities could~~ expose nearby, offsite sensitive receptors to incremental increases in cancer, chronic, and acute risk that exceed applicable thresholds.

~~Thus, project-related operation could expose nearby sensitive receptors to substantial levels of pollutants and~~ tThis impact would be **less than significant**.

To reflect the refined air quality modeling, Mitigation Measure 4.4-4 and Significance after Mitigation on page 4.4-18 of the DEIR are revised as follows:

~~Mitigation Measure 4.4-4: Apply Best Available Control Technology for New Stationary Sources~~

~~The project proponent shall install a boiler with a catalyst designed to reduce TAC emissions, or other equally effective control technology based on the source type. For example, an oxidation catalyst or a Non-Selective Catalytic Reduction (NSCR) catalyst can reduce TAC emissions by 76 percent (SJVAPCD 2016).~~

~~Significance after Mitigation~~

~~Implementation of Mitigation Measure 4.4-4 would reduce TAC emissions associated with boiler use by 76 percent. Results from the SJVAPCD Prioritization Calculator indicated a maximum prioritization score of~~

~~between 4 and 8 for receptor located between 1,640 feet and 3,280 feet. This would not exceed SJVAPCD's prioritization score of 10 and would not expose nearby sensitive receptors to substantial levels of pollutants. This impact would be reduced to **less than significant** with mitigation.~~

To provide clarification, Mitigation Measure 4.4-5 on page 4.4-20 of the DEIR is revised as follows:

Mitigation Measure 4.4-5: Prepare an Odor Control Plan

The following odor management conditions will be applicable to the facility and will be consistent, and not in conflict with, the conditions of the sites Authority to Construct (ATC) or Permit to Operate (PTO) issued by the San Joaquin Air Pollution Control District (SJVAPCD). The project proponent shall prepare and implement an Odor Control Plan (OCP). The OCP will include measures to minimize the potential for a substantial odor increase at residences within 1 mile of the project site and shall memorialize the facility's odor abatement system equipment, the systems performance monitoring protocols, and the procedures for investigating and correcting public complaints. The OCP will be submitted ~~made available~~ to the City for review and approval ~~upon request~~. Approval by the City will not be unreasonably withheld or delayed. The OCP will also be submitted to SJVAPCD for review to ~~will~~ ensure the equipment to be used ~~OCP~~ is consistent and not in conflict with the SJVAPCD requirements. Measures included in the OCP shall be consistent and not in conflict with the Best Available Control Technology standards presently established by SJVAPCD. Raw food processing byproducts shall be transported to and from the facility in closed containers and/or enclosed trucks/trailers. The OCP shall consider all available pertinent information to address known causes of odor. The OCP may be modified to include additional measures, if necessary, to minimize odor generation such that the potential for project-related odor complaints from existing residents would be reduced to the degree feasible. To ensure the proper performance of the odor abatement system, certain flow, temperature, pressure, and chemical checks will be performed and logged every shift. Any breakdowns reportable under the SJVAPCD Rule 1100 will be submitted to the City. All public complaints received by facility management will be investigated, ~~and~~ documented~~,~~ and, if verified, resolved through appropriate response actions ~~will be taken~~. The facility will provide a 24-hour hotline for public complaints and the number will be posted at the facility entrance.

4 REFERENCES

Bhatti, Z.A. F. Maqbool, and H.V. Langenhove (2014). *Environmental Technology: Rendering plant Emissions of Volatile Organic Compounds During Sterilization and Cooking Processes*. Available: https://www.tandfonline.com/doi/abs/10.1080/09593330.2013.867364. Accessed July 10, 2019.

Clark, Jennifer. Director. Planning Department, City of Fresno, Fresno, CA. May 23, 2017—email to Mike Parker of Ascent Environmental regarding data needs for the Fresno Rendering Plant Relocation Project.

Garcia, Jesse. San Joaquin Valley Air Pollution Control District, Fresno, CA. June 25, 2019—phone call with Dimitri Antoniou of Ascent Environmental regarding emission sources for the Fresno Rendering Plant Relocation Project.

U.S. Environmental Protection Agency. 1995. Food And Agriculture. 9.5.3 Meat Rendering Plants.

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Appendix A

Air Quality Modeling Data

Prioritization Summary		Darling Rendering Plant	Dig Gas Ext	NG Ext.	Truck Idling Emissions	Truck Running Emissions (half mile)
Receptor Proximity and Proximity Factors (Meters)		Feet	**Max Score**	**Max Score**	**Max Score**	**Max Score**
0< R<100	**1.000**	**0<R<328**	1.23E+01	8.50E-01	2.30E+02	9.92E+00
100≤R<250	**0.250**	**328 < R < 820**	3.06E+00	2.13E-01	5.75E+01	2.48E+00
250≤R<500	**0.040**	**820 < R < 1640**	4.90E-01	3.40E-02	9.19E+00	3.97E-01
500≤R<1000	**0.011**	**1640 < R < 3280**	1.35E-01	9.35E-03	2.53E+00	1.09E-01
1000≤R<1500	**0.003**	**3280 < R < 4921**	3.68E-02	2.55E-03	6.90E-01	2.98E-02
1500≤R<2000	**0.002**	**4921 < R < 6561**	2.45E-02	1.70E-03	4.60E-01	1.98E-02
2000<R	**0.001**	**6561 < R**	1.23E-02	8.50E-04	2.30E-01	9.92E-03

Stationary sources at 2440 ft	1.44E-01	0.14
Idling Trucks at 2440 ft	2.53E+00	2.53
Running Trucks at 1500 ft	3.97E-01	0.40
Total	3.07E+00	**3.07**

Assumptions

Truck Idling

Based on highest emission rate from Table 4.3-50 of EMFAC2017's Technical Documentation Volume 3 for heavy heavy duty MY's 2007 through 2021. Pre-MY2007 idling emission rates not available in EMFAC documentation or model. According to Table 4.3-50, in 2020, 77% of HHDT vehicles in Fresno County would be MY2010 or newer, 11% would be between MY2007-2009, 12% would be older than MY2007.

Pre-MY2007 emission rates based on SJVAPCD recommended truck idling emission rates from the 2006 guidance.
Calculation based on 75 truck deliveries per day and up to 5 minutes of idling per truck per day.

Annual emissions assumed truck deliveries 7 days a week

https://ww3.arb.ca.gov/msei/downloads/emfac2017-volume-iii-technical-documentation.pdf

Truck Running

based on lb/mi for average HHDT in Fresno County in 2020. Assumes emissions from two trips per truck on a half mile stretch of road closest to receptors and up to 150 trucks per day on a single road. In reality the trucks would likely be distributed across multiple roads, so this is a conservative assumption. See Attached EMFAC and emission calculation.

Truck Running Emission Factor Calculation
EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: FRESNO
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Ye	Vehicle Cat	Model Year	Speed	Fuel	Pop Percent	Population	VMT	Trips	PM10_RUNEX	PM10_IDLEX	PM10_STRE	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STRE	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	N2O_RUNE	N2O_IDLEX	N2O_STRE	N2O_TOTE	Fuel Consumption
FRESNO	2020	HHDT	1976	Aggregatec	DSL	0%	0.014117	1.854042	0.063822	8.05132E-07	3.7325E-09	0	8.08865E-07	7.35743E-08	1.2618E-07	1.00862E-06	7.70303E-07	3.57103E-09	0	7.73874E-07	1.83936E-08	5.40771E-08	8.46345E-07	4.46867E-08	2.3004E-10	0	4.49E-08	7.43E-07	3.83E-09	0	7.47E-07	0.000424
FRESNO	2020	HHDT	1977	Aggregatec	DSL	0%	0.038468	5.054082	0.173914	2.18566E-06	1.0171E-08	0	2.19583E-06	2.00562E-07	3.43964E-07	2.74036E-06	2.09111E-06	9.73105E-09	0	2.10084E-06	5.01406E-08	1.47413E-07	2.29839E-06	1.21815E-07	6.26858E-10	0	1.22E-07	2.03E-06	1.04E-08	0	2.04E-06	0.001155
FRESNO	2020	HHDT	1978	Aggregatec	DSL	0%	0.87404	22.04765	2.708716	6.79391E-06	4.61528E-07	0	7.25544E-06	8.74922E-07	1.50049E-06	9.63085E-06	6.50001E-06	4.41562E-07	0	6.94157E-06	2.1873E-07	6.43067E-07	7.80337E-06	5.08788E-07	2.84447E-08	0	5.37E-07	8.47E-06	4.73E-07	0	8.94E-06	0.005068
FRESNO	2020	HHDT	1979	Aggregatec	DSL	0%	1.813641	39.708	5.539662	1.12356E-05	9.72684E-07	0	1.22083E-05	1.57574E-06	2.7024E-06	1.64865E-05	1.07496E-05	9.30607E-07	0	1.16802E-05	3.93935E-07	1.15817E-06	1.32323E-05	9.08662E-07	5.99481E-08	0	9.69E-07	1.51E-05	9.97E-07	0	1.61E-05	0.009137
FRESNO	2020	HHDT	1980	Aggregatec	DSL	0%	1.565853	49.74277	5.337708	8.92002E-06	9.08227E-07	0	9.82825E-06	1.97395E-06	3.38533E-06	1.51875E-05	8.53414E-06	8.68937E-07	0	9.40308E-06	4.93488E-07	1.45086E-06	1.13474E-05	1.79823E-06	5.59754E-08	0	1.85E-06	2.99E-05	9.31E-07	0	3.09E-05	0.017492
FRESNO	2020	HHDT	1981	Aggregatec	DSL	0%	5.967949	164.6592	19.42611	3.54192E-05	3.34388E-06	0	3.87631E-05	6.53421E-06	1.12062E-05	5.65034E-05	3.3887E-05	3.19923E-06	0	3.70862E-05	1.63355E-06	4.80264E-06	4.35224E-05	5.17624E-06	2.06089E-07	0	5.38E-06	8.61E-05	3.43E-06	0	8.96E-05	0.050774
FRESNO	2020	HHDT	1982	Aggregatec	DSL	0%	5.391885	120.7765	16.50601	3.38594E-05	2.88493E-06	0	3.67443E-05	4.7928E-06	8.21965E-06	4.97568E-05	3.23947E-05	2.76013E-06	0	3.51548E-05	1.1982E-06	3.52271E-06	3.98757E-05	2.7678E-06	1.77803E-07	0	2.95E-06	4.61E-05	2.96E-06	0	4.9E-05	0.027787
FRESNO	2020	HHDT	1983	Aggregatec	DSL	0%	7.4489	246.595	26.20355	3.1325E-05	4.50387E-06	0	3.58288E-05	9.78568E-06	1.67824E-05	6.23969E-05	2.99698E-05	4.30903E-06	0	3.42789E-05	2.44642E-06	7.19248E-06	4.39178E-05	1.00389E-05	2.77581E-07	0	1.03E-05	0.000167	4.62E-06	0	0.000172	0.09732
FRESNO	2020	HHDT	1984	Aggregatec	DSL	0%	4.800108	136.0336	15.70317	6.54795E-05	3.10654E-06	0	6.85861E-05	5.39825E-06	9.258E-06	8.32423E-05	6.26469E-05	2.97215E-06	0	6.56191E-05	1.34956E-06	3.96771E-06	7.09363E-05	3.10236E-06	1.45924E-07	0	3.25E-06	5.16E-05	2.43E-06	0	5.4E-05	0.030643
FRESNO	2020	HHDT	1985	Aggregatec	DSL	0%	10.24161	255.2486	34.33941	0.000100168	7.33462E-06	0	0.000107503	1.01291E-05	1.73714E-05	0.000135003	9.58348E-05	7.01733E-06	0	0.000102852	2.53227E-06	7.44488E-06	0.000112829	6.75212E-06	3.16406E-07	0	7.07E-06	0.000112	5.26E-06	0	0.000118	0.066681
FRESNO	2020	HHDT	1986	Aggregatec	DSL	0%	9.473855	328.7766	33.61406	7.42907E-05	6.06245E-06	0	8.03531E-05	1.30469E-05	2.23755E-05	0.000115775	7.10769E-05	5.8002E-06	0	7.68771E-05	3.26173E-06	9.58948E-06	8.97283E-05	1.22899E-05	3.35803E-07	0	1.26E-05	0.000204	5.59E-06	0	0.00021	0.119104
FRESNO	2020	HHDT	1987	Aggregatec	DSL	0%	18.25688	488.9783	58.95035	0.000107544	5.05515E-06	0	0.000112599	1.94042E-05	3.32782E-05	0.000165282	0.000102892	4.83647E-06	0	0.000107728	4.85106E-06	1.42621E-05	0.000126842	1.44596E-05	6.59162E-07	0	1.51E-05	0.000241	1.1E-05	0	0.000252	0.142623
FRESNO	2020	HHDT	1988	Aggregatec	DSL	0%	9.905105	280.691	33.10563	9.03305E-05	3.23232E-06	0	9.35628E-05	1.11387E-05	1.91029E-05	0.000123804	8.64228E-05	3.09249E-06	0	8.95153E-05	2.78468E-06	8.18696E-06	0.000100487	7.15272E-06	3.23696E-07	0	7.48E-06	0.000119	5.39E-06	0	0.000124	0.070529
FRESNO	2020	HHDT	1989	Aggregatec	DSL	0%	10.93043	345.6258	37.98585	0.000107368	3.73966E-06	0	0.000111108	1.37155E-05	2.35221E-05	0.000148345	0.000102723	3.57788E-06	0	0.000106301	3.42888E-06	1.00809E-05	0.000119811	1.02448E-05	3.65481E-07	0	1.06E-05	0.00017	6.08E-06	0	0.000177	0.100092
FRESNO	2020	HHDT	1990	Aggregatec	DSL	0%	8.873335	304.3864	29.50555	8.10336E-05	2.35869E-06	0	8.33923E-05	1.2079E-05	2.07155E-05	0.000116187	7.75282E-05	2.25665E-06	0	7.97848E-05	3.01976E-06	8.87809E-06	9.16827E-05	8.42345E-06	3.07558E-07	0	8.73E-06	0.00014	5.12E-06	0	0.000145	0.082364
FRESNO	2020	HHDT	1991	Aggregatec	DSL	0%	12.14316	347.5824	42.72748	5.32755E-05	3.18057E-06	0	5.6456E-05	1.37932E-05	2.36553E-05	9.39045E-05	5.09708E-05	3.04298E-06	0	5.40138E-05	3.4483E-06	1.0138E-05	6.76E-05	1.07039E-05	4.23588E-07	0	1.11E-05	0.000178	7.05E-06	0	0.000185	0.104971
FRESNO	2020	HHDT	1992	Aggregatec	DSL	0%	12.97807	417.5142	46.16843	4.24673E-05	3.2817E-06	0	4.5749E-05	1.65683E-05	2.84146E-05	9.07319E-05	4.06302E-05	3.13973E-06	0	4.37699E-05	4.14208E-06	1.21777E-05	6.00897E-05	1.5284E-05	4.85299E-07	0	1.58E-05	0.000254	8.07E-06	0	0.000262	0.148759
FRESNO	2020	HHDT	1993	Aggregatec	DSL	0%	12.9016	359.4803	45.26304	5.50511E-05	3.6264E-06	0	5.86775E-05	1.42653E-05	2.4465E-05	9.74079E-05	5.26696E-05	3.46953E-06	0	5.61391E-05	3.56633E-06	1.0485E-05	7.01905E-05	1.07049E-05	4.34759E-07	0	1.11E-05	0.000178	7.23E-06	0	0.000185	0.105086
FRESNO	2020	HHDT	1994	Aggregatec	DSL	0%	17.03655	609.6272	62.17683	4.43245E-05	3.25891E-06	0	4.75835E-05	2.4192E-05	4.14892E-05	0.000113265	4.24071E-05	3.11793E-06	0	4.5525E-05	6.04799E-06	1.77811E-05	6.93541E-05	2.12971E-05	6.61081E-07	0	2.2E-05	0.000354	1.1E-05	0	0.000365	0.207143
FRESNO	2020	HHDT	1995	Aggregatec	DSL	0%	25.02852	775.6786	87.99891	7.31134E-05	4.86596E-06	0	7.79794E-05	3.07814E-05	5.27901E-05	0.000161551	6.99506E-05	4.65546E-06	0	7.4606E-05	7.69535E-06	2.26243E-05	0.000104926	2.36278E-05	9.14605E-07	0	2.45E-05	0.000393	1.52E-05	0	0.000408	0.231521
FRESNO	2020	HHDT	1996	Aggregatec	DSL	0%	47.72059	3707.762	468.2784	0.002590362	3.10065E-05	0	0.002621368	0.000145575	0.000249661	0.003016604	0.002478304	2.96651E-05	0	0.002507969	3.63937E-05	0.000106998	0.00265136	7.18206E-05	1.36687E-06	0	7.32E-05	0.001195	2.27E-05	0	0.001218	0.690414
FRESNO	2020	HHDT	1997	Aggregatec	DSL	0%	48.73127	3877.818	495.9046	0.002781684	3.26849E-05	0	0.002814369	0.000151569	0.000259941	0.00322588	0.002661349	3.1271E-05	0	0.00269262	3.78923E-05	0.000111403	0.002841916	7.1069E-05	1.36363E-06	0	7.24E-05	0.001182	2.27E-05	0	0.001205	0.683293
FRESNO	2020	HHDT	1998	Aggregatec	DSL	0%	60.23745	4869.469	646.457	0.003518298	3.92404E-05	0	0.003557539	0.000191062	0.000327672	0.004076273	0.003366098	3.75428E-05	0	0.003403641	4.77656E-05	0.000140431	0.003591837	8.89343E-05	1.71441E-06	0	9.06E-05	0.00148	2.85E-05	0	0.001508	0.855135
FRESNO	2020	HHDT	1999	Aggregatec	DSL	1%	99.33934	7555.363	985.362	0.004901859	5.91375E-05	0	0.004960996	0.000296047	0.00050772	0.005764763	0.004689807	5.65792E-05	0	0.004746386	7.40116E-05	0.000217594	0.005037992	0.000143232	2.94134E-06	0	0.000146	0.002383	4.89E-05	0	0.002432	1.378925
FRESNO	2020	HHDT	2000	Aggregatec	DSL	1%	218.8067	17313.39	2421.909	0.009093109	0.000243091	0	0.009336201	0.000680034	0.001166258	0.011182493	0.008699745	0.000232575	0	0.008932321	0.000170008	0.000499825	0.009602154	0.000322792	1.04223E-05	0	0.000333	0.005371	0.000173	0	0.005544	3.143378
FRESNO	2020	HHDT	2001	Aggregatec	DSL	1%	173.7578	12805.85	1762.221	0.006421902	0.000172991	0	0.006594893	0.000503628	0.000863722	0.007962244	0.006144094	0.000165507	0	0.006309601	0.000125907	0.000370167	0.006805675	0.000252441	8.1704E-06	0	0.000261	0.0042	0.000136	0	0.004336	2.458478
FRESNO	2020	HHDT	2002	Aggregatec	DSL	1%	118.9359	8874.166	1187.223	0.004442224	0.000122152	0	0.004564376	0.00034629	0.000593887	0.005504552	0.004250056	0.000116867	0	0.004366923	8.65724E-05	0.000254523	0.004708018	0.000179099	5.76979E-06	0	0.000185	0.00298	9.6E-05	0	0.003076	1.743963
FRESNO	2020	HHDT	2003	Aggregatec	DSL	1%	148.5503	11780.44	1593.964	0.006905569	0.000163462	0	0.007069031	0.000456544	0.000782974	0.008308549	0.006606838	0.000156391	0	0.006763228	0.000114136	0.00033556	0.007212924	0.000227657	7.45823E-06	0	0.000235	0.003788	0.000124	0	0.003912	2.217958
FRESNO	2020	HHDT	2004	Aggregatec	DSL	1%	157.6767	11755.14	1607.773	0.008078763	0.000166106	0	0.00824487	0.000457449	0.000784525	0.009486843	0.00772928	0.000158921	0	0.0078882	0.000114362	0.000336225	0.008338787	0.0002338	7.93106E-06	0	0.000242	0.00389	0.000132	0	0.004022	2.280374
FRESNO	2020	HHDT	2005	Aggregatec	DSL	2%	274.8974	20675.14	2911.573	0.014751792	0.00033589	0	0.015087682	0.000803027	0.001377191	0.0172679	0.014113636	0.00032136	0	0.014434996	0.000200757	0.000590225	0.015225977	0.000394473	1.48154E-05	0	0.000409	0.006563	0.000246	0	0.00681	3.861019
FRESNO	2020	HHDT	2006	Aggregatec	DSL	2%	328.4827	27938.39	3635.512	0.020304603	0.000438813	0	0.020743417	0.001082687	0.001856808	0.023682912	0.019426235	0.000419831	0	0.019846066	0.000270672	0.000795775	0.020912512	0.000529498	1.83206E-05	0	0.000548	0.00881	0.000305	0	0.009115	5.167844
FRESNO	2020	HHDT	2007	Aggregatec	DSL	3%	413.3325	38573.44	4831.95	0.021295705	0.000665225	0	0.021960931	0.001504626	0.002580433	0.026045989	0.020374463	0.000636448	0	0.02101091	0.000376156	0.0011059	0.022492967	0.000703766	2.60739E-05	0	0.00073	0.011709	0.000434	0	0.012143	6.88494
FRESNO	2020	HHDT	2008	Aggregatec	DSL	4%	560.5379	51996.13	5861.559	0.003480793	3.82727E-05	0	0.003519066	0.002042297	0.00350254	0.009063903	0.003330216	3.6617E-05	0	0.003366833	0.000510574	0.001501088	0.005378496	0.000976801	6.89687E-05	0	0.001046	0.016252	0.001147	0	0.017399	9.865273
FRESNO	2020	HHDT	2009	Aggregatec	DSL	5%	737.1789	74218.05	8077.67	0.003886341	1.48535E-05	0	0.003901195	0.00292486	0.005016135	0.011842189	0.00371822	1.42109E-05	0	0.003732431	0.000731215	0.002149772	0.006613418	0.001375424	0.000106558	0	0.001482	0.022884	0.001773	0	0.024657	13.98027
FRESNO	2020	HHDT	2010	Aggregatec	DSL	4%	563.5853	62306.58	6345.851	0.0047108	1.28678E-05	0	0.004723668	0.002462351	0.004222932	0.011408951	0.004507013	1.23112E-05	0	0.004519324	0.000615588	0.001809828	0.00694474	0.001148428	9.0599E-05	0	0.001239	0.019107	0.001507	0	0.020615	11.68836
FRESNO	2020	HHDT	2011	Aggregatec	DSL	4%	661.3792	80224.71	7702.107	0.006138271	1.54191E-05	0	0.00615369	0.003172613	0.005441032	0.014767335	0.005872732	1.47521E-05	0	0.005887484	0.000793153	0.002331871	0.009012508	0.001403808	9.91735E-05	0	0.001503	0.023356	0.00165	0	0.025006	14.17837
FRESNO	2020	HHDT	2012	Aggregatec	DSL	12%	1852.55	184606.8	19908.98	0.008209816	3.62004E-05	0	0.008246016	0.007269933	0.012467935	0.027983885	0.007854663	3.46344E-05	0	0.007889297	0.001817483	0.005343401	0.015050182	0.003179381	0.000226702	0	0.003406	0.052898	0.003772	0	0.05667	32.13128
FRESNO	2020	HHDT	2013	Aggregatec	DSL	7%	1100.84	152556.6	13115.9	0.006385983	2.93901E-05	0	0.006415373	0.006016678	0.010318602	0.022750653	0.006109728	2.81187E-05	0	0.006137847	0.001504169	0.004422258	0.012064275	0.00262593	0.000184053	0	0.00281	0.04369	0.003062	0	0.046752	26.50797
FRESNO	2020	HHDT	2014	Aggregatec	DSL	8%	1187.595	186683.1	14748.69	0.005970933	3.62689E-05	0	0.006007202	0.007372238	0.012643387	0.026022827	0.005712634	3.46999E-05	0	0.005747333	0.001843059	0.005418595	0.013008987	0.002656311	0.000197686	0	0.002854	0.044195	0.003289	0	0.047484	26.92318
FRESNO	2020	HHDT	2015	Aggregatec	DSL	10%	1584.269	274802.4	20083.93	0.007745645	5.32697E-05	0	0.007798915	0.010854982	0.018616295	0.037270192	0.007410572	5.09653E-05	0	0.007461537	0.002713746	0.007978412	0.018153695	0.003856697	0.00029035	0	0.004147	0.064167	0.004831	0	0.068998	39.12117
FRESNO	2020	HHDT	2016	Aggregatec	DSL	15%	2301.885	436934.8	29709.39	0.011180791	8.57393E-05	0	0.01126653	0.017230206	0.029549803	0.058046538	0.010697115	8.20303E-05	0	0.010779145	0.004307551	0.012664201	0.027750897	0.006160083	0.000467328	0	0.006627	0.10249	0.007775	0	0.110266	62.51969
FRESNO	2020	HHDT	2017	Aggregatec	DSL	6%	878.4972	141128.2	9211.165	0.003070789	2.56503E-05	0	0.003096439	0.005573652	0.009558813	0.018228904	0.002937948	2.45407E-05	0	0.002962488	0.001393413	0.004096634	0.008452536	0.001950333	0.000135787	0	0.002086	0.032449	0.002259	0	0.034709	19.67941
FRESNO	2020	HHDT	2018	Aggregatec	DSL	4%	673.8199	134521.6	8140.015	0.002565778	2.39081E-05	0	0.002589686	0.00531134	0.009108949	0.017009975	0.002454784	2.28738E-05	0	0.002477658	0.001327835	0.003903835	0.007709328	0.00180256	0.000126564	0	0.001929	0.029991	0.002106	0	0.032096	18.19839
FRESNO	2020	HHDT	2019	Aggregatec	DSL	4%	685.1295	138766.4	8189.132	0.002206655	2.45492E-05	0	0.002231205	0.005479068	0.009396601	0.017106874	0.002111196	2.34872E-05	0	0.002134684	0.001369767	0.004027115	0.007531565	0.001864205	0.000129958	0	0.001994	0.031016	0.002162	0	0.033179	18.81194
FRESNO	2020	HHDT	2020	Aggregatec	DSL	3%	455.9808	89040.84	5289.824	0.001108391	1.51938E-05	0	0.001123585	0.003512403	0.00602377	0.010659758	0.001060443	1.45365E-05	0	0.001074979	0.000878101	0.002581616	0.004534696	0.001198887	8.04323E-05	0	0.001279	0.019947	0.001338	0	0.021285	12.06846
FRESNO	2020	HHDT	2021	Aggregatec	DSL	1%	225.9824	21459.74	2919.504	0.000200015	9.5485E-06	0	0.000209564	0.000849567	0.001457008	0.002516139	0.000191363	9.13544E-06	0	0.000200498	0.000212392	0.000624432	0.001037322	0.000246556	4.43698E-05	0	0.000291	0.004102	0.000738	0	0.00484	2.744453

Percent <MY 2007	12%
Percent MY2007-2009	11%
Percent >=MY2010	77%

Avg Running EF (lb/mi) 0.000156942