

Agenda Date: December 20, 2018
Agenda Placement: Regular
Estimated Time: 20 Minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer 

CONTACT: Timothy Mitro, Air Quality Engineer (961-8883)

SUBJECT: Adopting the Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule

RECOMMENDATION:

That the Board:

- A. Hold a public hearing to receive testimony on the adoption of the Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule,
- B. Adopt the resolution included as Attachment 1. The resolution formally adopts the rule development schedule contained in Attachment B to the resolution, and
- C. Find that the adoption of the Best Available Retrofit Control Technology Rule Development Schedule is not a project under CEQA, and is therefore exempt from CEQA review.

BACKGROUND:

Assembly Bill (AB) 617, enacted in July 2017, has a multitude of requirements to address the disproportionate impacts of air pollution in environmental justice communities. One of the key components of AB 617 is to reduce air pollutant emissions from facilities that participate in the California Greenhouse Gas (GHG) Cap-and-Trade system. Emissions of criteria pollutants and toxic air contaminants are often associated with GHG-emitting sources.

AB 617 helps alleviate the pollution burden near these communities by requiring each air district to adopt an expedited rule development schedule for the implementation of Best Available Retrofit Control Technology (BARCT) by January 1, 2019. To meet the BARCT emission limits, a facility may need to install new air pollution controls on their existing unit, or replace the unit

in part or in whole.

The AB 617 requirement for BARCT only applies to industrial sources that are subject to the California Cap-and-Trade program. Since Santa Barbara County is nonattainment for the state PM10 standard (particulate matter with a diameter of 10 microns or less) and is nonattainment-transitional for the state ozone standard, these industrial sources must install BARCT by the earliest feasible date, but no later than December 31, 2023.

DISCUSSION:

AB 617 requires each air district to adopt an expedited rule development schedule for the implementation of BARCT at each industrial source subject to the California GHG Cap-and-Trade program. There are six industrial sources within Santa Barbara County. District staff evaluated these industrial sources and determined that the majority of their operations already meet BARCT standards, but some equipment units may still need retrofits.

District staff prepared a rule development schedule, as shown in Attachment B to the Board resolution, that contains three new rules and the modification of three existing rules in order to satisfy the AB 617 BARCT requirements. Two of the existing rules were already scheduled for updates related to the Ozone Plan emission reductions. This schedule commits the District to the six rule development proceedings that will occur between 2019 and 2021. Each rule will go through the District's established public process, including public workshops and Community Advisory Council vetting. If adopted by your Board, the rule amendments will help reduce emissions from some of the largest sources of air pollution within the County.

FISCAL IMPACTS TO THE REGULATED COMMUNITY:

There are six industrial sources affected by the BARCT Rule Development Schedule. They are:

- 1) ExxonMobil – Pacific Offshore Pipeline Company
- 2) ExxonMobil – Las Flores Canyon
- 3) Pacific Coast Energy Company – Orcutt Hill
- 4) ERG Operating Company – Cat Canyon West
- 5) Imerys Minerals California
- 6) Windset Farms

The technical feasibility and estimated costs for these facilities to implement the proposed rule requirements will be reviewed and made available prior to the adoption of each rule on the schedule.

FISCAL IMPACTS TO THE DISTRICT BUDGET:

The District does not envision substantive changes to fee revenues or staffing requirements due to the proposed rule amendments. Current staffing levels will be sufficient to perform the rule development proceedings included in the schedule. Within the current fiscal year, the California Air Resources Board provided \$74,432 to the District to implement local requirements of AB 617 associated with community engagement, emissions reporting, and control technologies. A similar funding level is anticipated for Fiscal Year 2019-20.

PUBLIC REVIEW:

The District made documents on this project available for review on October 24, 2018. A draft rule development schedule was presented and discussed at a joint public workshop and Community Advisory Council (CAC) meeting on November 7, 2018. The CAC reviewed the schedule and voted to recommend that the District Board approve the schedule, with the motion including a request to delay the Rule 333 proceeding from 2020 to 2021. The proposed schedule was then publicly noticed on December 12, 2018, and the public was invited to this Board Hearing.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):

This rule development schedule establishes a process for the District to consider incorporating new provisions into the District's rulebook to satisfy the BARCT requirements of AB 617. The rule development schedule is not a binding commitment to adopt any particular control measure and therefore does not meet the definition of a "project" under CEQA Guidelines Section 15378 (b)(5), which excludes "*...organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment.*" A Notice of Exemption, as shown in Attachment C to the Board resolution, will be filed in compliance with CEQA Guidelines Section 15062.

ATTACHMENTS:

- 1) Resolution – Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule, which includes the following:
 - A. Staff Report
 - B. Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule
 - C. CEQA Notice of Exemption

ATTACHMENT #1

**Resolution in the Matter of
Adopting the Assembly Bill 617 Best Available Retrofit Control
Technology Rule Development Schedule**

**RESOLUTION OF THE BOARD OF DIRECTORS OF
THE SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT**

IN THE MATTER OF ADOPTING THE
ASSEMBLY BILL 617 BEST AVAILABLE
RETROFIT CONTROL TECHNOLOGY
RULE DEVELOPMENT SCHEDULE

APCD RESOLUTION NO. _____

RECITALS

WHEREAS, California Health and Safety Code Section 40920.6, as amended by California Assembly Bill 617 (2017), requires each California air district that is a nonattainment area for one or more air pollutants to adopt an expedited rule schedule for the implementation of Best Available Retrofit Control Technology on or before January 1, 2019, and the rule schedule must provide for the implementation of Best Available Retrofit Control Technology by the earliest feasible date, but in any event, not later than December 31, 2023; and

WHEREAS, the Santa Barbara County Air Pollution Control District ("District") is designated nonattainment for the state ozone and particulate matter less than 10 microns in diameter (PM₁₀) ambient air quality standards; and

WHEREAS, the Best Available Retrofit Control Technology schedule shall apply to each industrial source that, as of January 1, 2017, was subject to the California Greenhouse Gas Cap-and-Trade Regulation adopted by the California Air Resources Board pursuant to Health and Safety Code Section 38562; and

WHEREAS, there are six industrial sources in Santa Barbara County that were subject to the Greenhouse Gas Cap-and-Trade Regulation as of January 1, 2017; and

WHEREAS, Assembly Bill 617 required the California Air Resources Board to establish and maintain a statewide technology clearinghouse that identifies and consolidates the various Best Available Retrofit Control Technology determinations made within the state; and

WHEREAS, District staff evaluated the emission source categories at the six industrial sources by comparing the District's current regulations to the Best Available Retrofit Control Technology rules contained in the California Air Resources Board technology clearinghouse, and

identified six emission source categories at the six industrial sources that do not meet the Best Available Retrofit Control Technology standards; and

WHEREAS, the Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule (“Rule Development Schedule”), as set forth in Attachment B to this resolution, includes a schedule for the District to conduct rulemaking procedures, including both rule amendments and potential new rules, in order to implement Best Available Retrofit Control Technology at the six industrial sources; and

WHEREAS, the rules that are included on the schedule will go through the District’s rulemaking process, including public workshops, cost and feasibility studies, District Community Advisory Council review, and California Environmental Quality Act (CEQA) review prior to bringing the rule actions to the District Board (“Board”) for decision; and

WHEREAS, the Board held a public meeting on December 20, 2018, and considered the local public health and clean air benefits to the surrounding communities, the preliminary assessment of cost-effectiveness of control options, and the air quality and attainment benefits of the control options; and

WHEREAS, the Board evaluated the Rule Development Schedule and determined that it is not a binding commitment to adopt any particular control measure and therefore does not meet the definition of a “project” under CEQA and as defined in Section 15378 of the CEQA Guidelines (Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act, Sections 15000 et. seq.).

NOW, THEREFORE, IT IS HEREBY RESOLVED, as follows:

1. The Staff Report, as set forth in Attachment A of this resolution, has been presented to this Board and reviewed and considered prior to approving the project.
2. The Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule, as set forth in Attachment B of this resolution, is hereby adopted by the Santa Barbara County Air Pollution Control District.

APCD RESOLUTION – ADOPTING THE ASSEMBLY BILL 617
BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY
RULE DEVELOPMENT SCHEDULE

3. The Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule is exempt from CEQA and a Notice of Exemption, as set forth in Attachment C of this resolution, should be filed pursuant to Section 15062 of the CEQA Guidelines.

PASSED, APPROVED AND ADOPTED by the Air Pollution Control District Board of the Santa Barbara County, State of California, this ____ day of _____, _____, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT

ATTEST:

AERON ARLIN GENET
Clerk of the Board

By _____
Deputy

By _____
Chair

APPROVED AS TO FORM:

MICHAEL C. GHIZZONI
Santa Barbara County Counsel

By 
Deputy

Resolution in the Matter of
Adopting the Assembly Bill 617 Best Available Retrofit Control
Technology Rule Development Schedule

ATTACHMENT #A

Staff Report:
Assembly Bill 617 Best Available Retrofit Control Technology
Rule Development Schedule

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

Staff Report: Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule

Date: December 10, 2018

Scheduled Adoption Hearing: December 20, 2018

Aeron Arlin Genet
Air Pollution Control Officer

Prepared By:
Tim Mitro
Air Quality Engineer

Main Office
260 N. San Antonio Road, Suite A
Santa Barbara, California 93110
Telephone (805) 961-8800
www.ourair.org

North County Office
301 E Cook St, Suite L
Santa Maria, CA 93454

Our Mission
*Our mission is to protect the people and the environment of
Santa Barbara County from the effects of air pollution.*

TABLE OF CONTENTS

	Page
1. EXECUTIVE SUMMARY	1
2. AB 617 BACKGROUND & MANDATES	1
2.1 AB 617 Background & Mandates	1
2.2 CARB Technology Clearinghouse - BARCT	2
3. AB 617 Industrial Sources.....	3
3.1 ExxonMobil – Pacific Offshore Pipeline Company	3
3.2 ExxonMobil – Las Flores Canyon	3
3.3 Pacific Coast Energy Company – Orcutt Hill	3
3.4 ERG Operating Company – Cat Canyon West	4
3.5 Imerys Filtration Minerals	4
3.6 Windset Farms	5
4. Emission Source Categories, Applicable Rules, and BARCT Evaluation	6
4.1 Source Categories that Require BARCT Rule Evaluations	6
4.1.1 Boilers and Process Heaters (Between 2 – 5 MMBtu/hr)	6
4.1.2 Boilers and Process Heaters (5 MMBtu/hr and greater)	6
4.1.3 Particulate Matter – Process Emissions and Fugitive Emissions	7
4.1.4 Reciprocating Internal Combustion Engines (RICE)	8
4.1.5 Turbines, Duct Burners, and Heat Recovery Steam Generators	8
4.1.6 Miscellaneous Nitrogen Oxides (NOx) Combustion Sources	9
4.2 Source Categories that Do Not Require BARCT Rule Revisions	9
4.2.1 Boilers and Process Heaters (0.075 – 2 MMBtu/hr)	9
4.2.2 Oil & Gas Flares and Thermal Oxidizers	10
4.2.3 Oil & Gas Storage Tanks and Loading Racks	10
4.2.4 Oil & Gas Sumps, Pits, and Well Cellars	10
4.2.5 Oil & Gas Fugitive ROC Emissions	11
4.2.6 Sulfur Oxides (SOx) Emission Sources	11
5. PROPOSED AB 617 RULE DEVELOPMENT SCHEDULE	13
5.1 Rule Development Background	13
5.2 Proposed AB 617 Rule Development Schedule	13
6. ENVIRONMENTAL IMPACTS – CEQA	16
7. PUBLIC REVIEW	16
8. REFERENCES	18
9. ATTACHMENTS TO THE STAFF REPORT	18
9.1 Attachment A. FAQs and Clarification	
9.2 Attachment B. Air District Rule Crosswalk	
9.3 Attachment C. AB 617 Affected Equipment Units	

1. EXECUTIVE SUMMARY

Assembly Bill (AB) 617 requires each air district to adopt an expedited rule development schedule for the implementation of Best Available Retrofit Control Technology (BARCT) at each industrial source subject to the California Greenhouse Gas (GHG) Cap-and-Trade requirements. This legislation affects six industrial sources within Santa Barbara County. District staff evaluated these sources and determined that the majority of their operations already meet BARCT standards, but some equipment units may still need retrofits.

District staff prepared a rule development schedule that contains three new rules and the modification of three existing rules in order to satisfy the AB 617 retrofit requirements. This schedule commits the District to a rule development process that ensures the timelines in AB 617 are achieved. Each rule will go through the District's established public process, including Public Workshops and Community Advisory Council vetting. If adopted, the rule amendments will help reduce emissions from some of the largest sources of air pollution within the County.

2. AB 617 BACKGROUND & MANDATES

2.1 AB 617 Background & Mandates

Assembly Bill (AB) 617, enacted in July 2017, has a multitude of requirements to address the disproportionate impacts of air pollution in environmental justice communities. One of the key components of AB 617 is to reduce air pollutant emissions from facilities that participate in the California Greenhouse Gas (GHG) Cap-and-Trade system.¹ Cap-and-Trade is designed to limit GHG emissions, and allows facilities to comply by either reducing GHG emissions at the source or by purchasing GHG emission allowances. Emissions of criteria pollutants and toxic air contaminants are often associated with GHG-emitting sources, and these pollutants may impact local communities that are already experiencing a disproportionate burden from air pollution.

AB 617 helps alleviate the pollution burden near these communities by requiring each air district to adopt an expedited rule development schedule for Best Available Retrofit Control Technology (BARCT) by January 1, 2019.² BARCT is “an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.”³ To meet the BARCT emission limits, a facility may need to install new air pollution controls on their existing unit, or replace the unit in part or in whole.

The requirement for BARCT only applies to facilities described in AB 617 as an “industrial source.” An “industrial source” is any facility subject to the Cap-and-Trade requirements that is located in an area designated nonattainment for an air pollutant. Since Santa Barbara County is nonattainment for the state PM₁₀ standard (particulate matter with a diameter of 10 microns or less) and is nonattainment-transitional for the state ozone standard, these industrial sources must install BARCT by the earliest feasible date, but no later than December 31, 2023. However, there are a few caveats. First, retrofits are not required if the District determines that BARCT standards are already in place for the equipment category. Also, the schedule does not apply to

¹ <https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>

² California Health and Safety Code section 40920.6.(c).1

³ California Health and Safety Code section 40406 definition

facilities that have already implemented BACT or BARCT for an equipment category since 2007.

2.2 CARB Technology Clearinghouse - BARCT

AB 617 also required the California Air Resources Board (CARB) to create a statewide clearinghouse that identifies and consolidates the various BARCT determinations made within the state.⁴ CARB developed a new web-based database that contains emission control data for District rules (i.e., BARCT) as well as District Best Available Control Technology (BACT) determinations and guidelines. To help design the Technology Clearinghouse, CARB created a workgroup consisting of various air districts in California, including Santa Barbara County APCD. The Technology Clearinghouse provides a valuable portal for air agencies and the public in comparing the BARCT rules and BACT determinations throughout the state, and it is available to the public at the following website: <https://www.arb.ca.gov/techclearinghouse/>.

⁴ California Health and Safety Code section 40920.8

3. AB 617 Industrial Sources

There are six facilities in the District that have been identified as industrial sources subject to AB 617 BARCT requirements. A brief description of each facility is listed below.

3.1 ExxonMobil – Pacific Offshore Pipeline Company

The Pacific Offshore Pipeline Company (“POPCO”) Gas Plant is a facility that is located in Las Flores Canyon, approximately 20 miles west of Santa Barbara. The POPCO facility was originally permitted in 1980, and it processes raw sour gas produced from Platforms Hondo, Harmony, and Heritage, which are located in federal waters off the California coast in the Santa Barbara Channel. The gas is transported through a subsea pipeline and treated at the onshore facility. The natural gas is dried, treated, compressed, and sold to the local utility company. In addition, the plant contains a Sulfur Removal Unit (SRU) process to convert the extracted sulfur compounds into elemental sulfur. The elemental sulfur is sold and trucked out of the facility as a by-product chemical. Propane and butane are also produced and trucked offsite.

The plant contains multiple processes that generate emissions, including two large steam boilers (each rated at 41 MMBtu/hr) that are used to supply process heat and incinerate tail gas produced from the SRU; two tri-ethylene glycol (TEG) reboilers burning natural gas; and, a thermal oxidation unit to safely handle and dispose of waste gases generated during facility start-ups, shutdowns, and process upsets.

3.2 ExxonMobil – Las Flores Canyon

The Las Flores Canyon Oil and Gas Plant is a facility that is located adjacent to the POPCO Gas Plant in Las Flores Canyon, approximately 20 miles west of Santa Barbara. The facility was originally permitted in 1987 to process crude oil and natural gas from Platforms Hondo, Harmony, and Heritage, which are located in federal waters off the California coast in the Santa Barbara Channel. The facility receives a produced crude oil/water/gas emulsion from the offshore platforms via a 20-inch emulsion pipeline.

The onshore facilities are broken down into four main plants: the Oil Treating Plant (OTP), the Transportation Terminal (TT), the Stripping Gas Treating Plant (SGTP), and the Cogeneration Power Plant (CPP). The Oil Treating Plant dehydrates, stabilizes, and sweetens the crude oil to meet product specifications. Oil is transferred to storage tanks at the Transportation Terminal, and is then transported via the Plains All American Pipeline for final processing at a downstream refinery.⁵ The Stripping Gas Treating Plant processes the gas to produce a sweet fuel gas for use in the onshore facilities. Finally, the Cogeneration Power Plant (CPP) generates up to 49 megawatts (MW) of electric power for both the onshore facilities and the offshore platforms. In the CPP, heat from the gas turbine exhaust is recovered in a Heat Recovery Steam Generator (HRSG) to generate steam for the plant. The HRSG system is also supplementary fired to provide additional heat for the oil and gas processing operations.

3.3 Pacific Coast Energy Company – Orcutt Hill

Pacific Coast Energy Company (“PCEC”) – Orcutt Hill is an onshore oil and gas production and processing facility that is located approximately 2.5 miles south of the community of Orcutt. The

⁵ Oil production has halted since the pipeline ruptured near Refugio Beach in May 2015.

facility was originally developed by the Union Oil Company in the 1920s, and it is comprised of 12 oil and gas leases, each with their own oil wells; some leases also have tank batteries and related processing equipment. The extracted crude oil and gas emulsion from the wells is separated in tank batteries using various equipment units such as heaters, tanks, and separators. The crude oil is shipped offsite via pipeline. Produced gas is gathered from the various leases and is piped to the Orcutt Hill Compressor Plant. At the compressor plant, the gas is dehydrated and scrubbed to remove hydrogen sulfide (H₂S), condensate, and water. This gas is then burned in various combustion equipment located at the stationary source (e.g., boilers, engines and steam generators). Many of the oil wells at the source are powered by internal combustion engines.

PCEC uses gas-fired steam generators to enhance oil recovery at the various wells. This process involves cyclic steaming of wells at the various leases by producing high-pressure steam that is injected into the oil wells. Only a few wells are steamed at a time, typically lasting for three to five days. Steam is allowed to soak in the wells for one to two days before the wells are returned to production. This process continues until all wells have been steamed, after which the process is repeated.

3.4 ERG Operating Company – Cat Canyon West

ERG Operating Company (“ERG”) – Cat Canyon West is an onshore oil and gas production and processing stationary source that is located approximately ten miles southeast of the City of Santa Maria. The facility was originally developed over 100 years ago, and it is comprised of 14 oil and gas leases, each with their own oil wells; some leases also have tank batteries and related processing equipment. The extracted crude oil and gas emulsion from the wells is separated in tank batteries using various equipment units such as heaters, tanks, and separators. The crude oil is transported offsite by tanker trucks. Produced gas is scrubbed to remove H₂S, condensate, and water. This gas is then burned in various combustion equipment located at the stationary source (e.g., boilers, engines and steam generators).

At newer well sites, gas-fired steam generators create steam to enhance oil recovery. This process involves cyclic steaming of wells at the various leases by producing high-pressure steam that is injected into the oil wells. Only a few wells are steamed at a time, typically lasting for three to five days. Steam is allowed to soak in the wells for one to two days before the wells are returned to production. This process continues until all wells have been steamed, after which the process is repeated. The remaining wells are produced without steam injection.

3.5 Imerys Filtration Minerals

Imerys Filtration Minerals, Inc. (“Imerys”) is a diatomaceous earth mining and processing facility that is located approximately one mile south of the City of Lompoc. Mining has occurred at this site for over 100 years, with Imerys being the current owner and operator of the mine since 2012.⁶

Diatomaceous earth is a sedimentary deposit composed of fossilized diatoms that contained siliceous skeletons. Imerys mines and mills diatomite into powders of various grades for use

⁶ Celite Corporation purchased the mine facility from Manville Sales Corporation in 1991 and changed its name to Imerys in 2012.

by industries, such as for filtration aids or fillers. Most of the ore is surface mined from lands adjacent to the plant, and then is initially crushed and screened using mobile equipment and stored in stockpiles. The crushed and screened crude is transported to the powder mills as needed using covered conveyors. Particulate Matter (PM) is created during the mining, crushing, screening, and conveying of the mineral product.

The powder mill production processes consists of varying combinations of additional crushing, milling, drying, calcining, conveying, classifying and packing. The natural diatomaceous earth is transformed into calcinated powders via exposure to high temperatures in the natural gas-fired rotary kilns. Many grades of ore contain naturally occurring sulfur. When this sulfur bearing ore is processed, significant amounts of sulfur dioxide are created. The final diatomaceous earth product is classified into a variety of grades before being bagged for shipment, by truck or by rail, to distributors and customers.

3.6 Windset Farms

Windset Farms is an industrial-sized greenhouse facility that is located on the western edge in the City of Santa Maria. The facility was initially built in 2010 and has since expanded, now consisting of six large greenhouses surrounding a centralized packhouse building. With the latest expansion, the greenhouses at Windset Farms cover over 7 million square feet. The greenhouses are based on a Dutch design of a semi-closed unit specifically engineered for use in the Santa Barbara County climate. The greenhouses utilize state-of-the-art control systems to manage irrigation and internal environmental growing conditions for their vegetable crops.

For greenhouses, internal temperature, humidity, and carbon dioxide (CO₂) content are critical elements for growing. The greenhouses are heated and dehumidified using six boilers, with each boiler serving its associated greenhouse. Each boiler has a rated heat input of 42.7 MMBtu/hr and the boiler exhaust is directed into the greenhouse as part of the CO₂-dosing process required for plant growth. The boilers also heat water that is stored in large insulated tanks that regulate greenhouse temperature and humidity as needed. Because these boilers are directly used in the growing of crops, they are classified as an agricultural source and are exempt from obtaining a District Permit to Operate pursuant to section D.3 of District Rule 202. Nevertheless, Windset Farms is an “industrial source” pursuant to the California Air Resources Board’s Cap-and-Trade Program; therefore, the AB 617 BARCT requirements apply to the facility.

4. Emission Source Categories, Applicable Rules, and BARCT Evaluation

To determine whether our existing rules and permit conditions reflect current BARCT emission standards, staff evaluated each emission category at the six AB 617 industrial sources. Staff reviewed available information on the current achievable emission limits and potential controls for each source category and pollutant. This information included guidelines and recent determinations of both BACT and BARCT made by other air districts, most of which are found at the CARB Technology Clearinghouse.⁷

Staff also estimated the potential emission reductions and cost-effectiveness of the control measures using preliminary data. The preliminary data will be refined further during the rule development process. The background information and preliminary BARCT determinations for each source category at the AB 617 industrial sources are shown below. Section 4.1 contains the source categories that do not meet current BARCT emission standards. A proposed schedule for implementing BARCT standards at the AB 617 industrial sources is included in Section 5 of this report. Section 4.2 contains the source categories that meet current BARCT emission standards. Rule revisions are not required for these source categories.

4.1 Source Categories that Require BARCT Rule Evaluations

4.1.1 Boilers and Process Heaters (Between 2 – 5 MMBtu/hr)

Rule 361 was initially adopted in January 2008 and it applies to medium-sized boilers, water heaters, steam generators, and process heaters with a rated heat input capacity between 2 to 5 MMBtu/hr. The current nitrogen oxides (NO_x) emission limit in the rule is 30 ppm⁸ NO_x at 3% oxygen (O₂), and this limit does not represent today's BARCT standard for the source category.

Rule 361 was identified in the District's 2016 Ozone Plan as a rule that could be amended to attain further NO_x emission reductions. In the 2016 Ozone Plan, District staff recommended amending the rule so that new units would have to meet either a 9 or 12 ppm NO_x limit, depending on the boiler's configuration. Based on the CARB Technology Clearinghouse, these NO_x limits represent the current BARCT standard for this source category. Staff proposes to evaluate the industrial sources to see if these emission standards can be achieved in an expedited fashion, which may affect the boilers at ERG – Cat Canyon West and Imerys. Any new requirements proposed for the AB 617 facilities will be fully evaluated and vetted through the rule development process.

4.1.2 Boilers and Process Heaters (5 MMBtu/hr and greater)

Rule 342 was initially adopted in March 1992 and it applies to large boilers, water heaters, steam generators, and process heaters with a rated heat input capacity of 5 MMBtu/hr and greater. The current NO_x emission limit in the rule, 30 ppm NO_x at 3% O₂, does not represent today's BARCT standard for this source category.

⁷ <https://www.arb.ca.gov/techclearinghouse/>

⁸ Parts per million by volume, expressed on a dry gas basis

Rule 342 was identified in the District's 2016 Ozone Plan as a rule that could be amended to attain further NOx emission reductions. In the 2016 Ozone Plan, District staff recommended amending the rule so that new units would have to meet either a 9 or 15 ppm NOx limit, depending on the boiler's maximum rated heat input. Based on the CARB Technology Clearinghouse, these new NOx limits may reflect BARCT, but further investigation is necessary to evaluate whether lower limits, such as 7 to 9 ppm NOx, reflect current BARCT emission standards. Staff proposes to evaluate the industrial sources to see if these emission standards can be achieved in an expedited fashion, which may affect ExxonMobil – POPCO, Imerys, and Windset Farms. Any new requirements proposed for the AB 617 facilities will be fully evaluated and vetted through the rule development process.

4.1.3 Particulate Matter – Process Emissions and Fugitive Emissions

Particulate matter (PM) can be directly created from various types of manufacturing processes. For mineral processing operations, PM is created during the mining, crushing, screening, and conveying of the mineral product. Air pollution control devices such as baghouses, cyclones, and wet scrubbers can be used for controlling the PM emissions. These emission control systems can achieve a 99 percent or higher control efficiency when they are designed, operated, and maintained properly.

Of the six AB 617 industrial sources in the District, Imerys is the only facility that involves the processing of solid mineral materials. Line #7, Imerys' main production line, uses a Venturi Scrubber/Packed Bed Tower system that controls PM emissions with an efficiency of 99.8 percent or higher. This control efficiency is verified through the source test and monitoring requirements contained in the facility's permit. The production line at the Imerys Powder Mill, as well as the various specialty plants at the facility, have baghouses serving the diatomaceous earth production process. The baghouses are used to capture the particulate matter exhausted from the cyclones, and they are also used to control emissions in the loading areas.

Not all emission sources at the facility can be controlled by the air pollution control equipment. Fugitive dust (those emissions that cannot reasonably be captured by an emission control device) is generated during activities such as the initial extraction of the material from the ground, loading and unloading (into storage piles and then from the piles to conveyors), driving on unpaved roads, and wind erosion. The facility employs various best management practices to control the fugitive dust emissions. This includes using a water spray/fog dust suppression system to help prevent the creation of fugitive dust from the storage piles and other sources.

Based on the District's analysis of this facility, the conditions in its Title V permit, and staff's review of the CARB Technology Clearinghouse, the majority of the operations at Imerys meet the current BARCT standard for this source category. However, some of the older baghouses at the facility may not achieve the highest level of control when compared to new baghouses being designed today. Staff proposes to create a new rule that specifically addresses particulate matter control devices to ensure that the older baghouses meet the current BARCT standard. This new rule would be titled, Rule 363, *Particulate Matter (PM) Control Devices*. We expect to incorporate into the rule standards from South Coast Air Quality Management District Rule 1155, which was initially adopted in December 2009. Any new requirements proposed will be fully evaluated and vetted through the rule development process.

4.1.4 Reciprocating Internal Combustion Engines (RICE)

Reciprocating internal combustion engines generate power through an explosive combustion of an air/fuel mixture in an enclosed chamber. RICE are used for various functions such as generating electricity, operating water pumps, pumping oil from wells, and compressing gas. There are two primary types of engines: compression-ignition (CI) and spark-ignition (SI) engines. Compression ignition engines are typically fired on diesel fuel. There are emission and operational limitations for these engines due to the state's Airborne Toxic Control Measures (ATCMs). Spark-ignited internal combustion engines burn fuels such as natural gas, field gas, propane, or landfill gases.

District Rule 333, *Control of Emissions from Reciprocating Internal Combustion Engines*, was initially adopted in 1991. In 2008, the rule was amended to incorporate some of the recommended changes from CARB's 2001 Determination of Reasonably Available Control Technology (RACT) and Best Available Retrofit Control Technology (BARCT) for Stationary Spark-Ignited Internal Combustion Engines. Based on the District's attainment status, the District was only required to adopt the RACT standard for these engines, and so the current rule does not reflect the BARCT emission standard.

The District reviewed the engines that are permitted at the AB 617 industrial sources. All of the engines with a maximum rated brake horsepower of 50 or higher are either emergency or low-use engines (engines that are operated less than 200 hours per calendar year) or they have been derated to less than 50 brake horsepower using orifice plates. Retrofitting emergency and low-use engines would not be cost-effective as they are not operated enough to justify the additional costs. However, it may be feasible and cost-effective to bring the derated units into the rule by removing the Rule 333 exemption⁹ for just these six AB 617 industrial sources. The only facility that is expected to be impacted is PCEC – Orcutt Hill. The majority of the engines at PCEC were originally manufactured in the 1970s and 1980s, and were derated soon after the 1991 adoption of Rule 333.

Based on CARB's Technology Clearinghouse, the current BARCT emission standard for rich burn, non-cyclically loaded engines is 25 ppm NO_x at 15% O₂. The 43 derated engines at PCEC do not have any emission controls, but could be retrofitted with non-selective catalytic control systems and air/fuel ratio controllers to achieve the current BARCT standard. Depending on specific circumstances, it is expected that some engines may be retrofitted with emission controls, whereas other engines may be replaced with electric motors. Any new requirements proposed will be fully evaluated and vetted through the rule development process.

4.1.5 Turbines, Duct Burners, and Heat Recovery Steam Generators

A gas-fired turbine is an internal combustion engine that consists of a compressor, a combustor and a power turbine. The compressor provides pressurized air to the combustor where the fuel is burned. Hot exhaust gases enter the power turbine where the gases expand across turbine blades, driving one or more shafts to power a compressor and an electric generator or other device. Stationary gas-fired turbines are generally used to generate electricity. Currently, the District does not have a rule that covers gas turbines. Other air districts, such as San Joaquin Valley Air

⁹ Rule 333.B.1.c

Pollution Control District and South Coast Air Quality Management District, have adopted such a rule.

Of the AB 617 industrial sources in the District, ExxonMobil – Las Flores Canyon is the only facility that uses turbines. Based on our review of the CARB Technology Clearinghouse, the current BARCT standard for this source category is 5 ppm NO_x at 15% O₂. To make the current BARCT standard for this source category enforceable, staff proposes to create a new rule that is titled Rule 358, *Stationary Gas Turbines*. The technology used by the Las Flores Canyon turbine may be capable of reaching sub-5 ppm NO_x levels; operational adjustments may be necessary to ensure that the emission limits are met during normal operations.¹⁰ Any new requirements proposed will be fully evaluated and vetted through the rule development process.

4.1.6 Miscellaneous Nitrogen Oxides (NO_x) Combustion Sources

This source category covers emissions from dryers, dehydrators, ovens, furnaces, kilns, and other processes where the flame or hot air directly heats the product or process fluid. Of the AB 617 industrial sources in the District, Imerys uses multiple burners and dryer systems in their product lines, with the maximum heat input of the burners ranging from 1 MMBtu/hr to over 50 MMBtu/hr. Some of the units already use low-NO_x burners, and a few units have conventional burners with no emission controls.

Based on the CARB Technology Clearinghouse, the current BARCT standard for this source category is to employ low-NO_x burners that can achieve 60 ppm NO_x at 3% oxygen for units that have a process temperature of 1,200 degrees Fahrenheit and greater. Due to the high operating capacity of the burners at the Imerys facility, it may be feasible and cost-effective to create a new rule that can achieve emission reductions for this source category. Staff proposes to create a new rule titled Rule 362, *Nitrogen Oxides (NO_x) from Miscellaneous Combustion Sources*. We expect to incorporate into the rule standards from Ventura County Air Pollution Control District Rule 74.34, which was adopted in December 2016, and South Coast Air Quality Management District Rule 1147, which was initially adopted in December 2008. Any new requirements proposed will be fully evaluated and vetted through the rule development process.

4.2 Source Categories that Do Not Require BARCT Rule Revisions

4.2.1 Boilers and Process Heaters (0.075 – 2 MMBtu/hr)

Rule 360 is a point-of-sale rule that regulates NO_x from small boilers, water heaters, steam generators, and process heaters with a rated heat input capacity within the range of 0.075 to 2 MMBtu/hr. The rule was last amended in March 2018 to lower the NO_x emission limit for new and modified natural gas fired units down to 20 ppm NO_x at 3% O₂ content.

Based on the CARB Technology Clearinghouse, Rule 360 represents the most stringent standard that is feasible today, and the NO_x limits in Rule 360 represent the BARCT standard for this source category. No other air district has adopted a rule with an emission limit of less than 20 ppm for this size of emission unit. Further BARCT evaluation and rulemaking for this source category is not required.

¹⁰ Excluding startup and shutdown emissions, which are still minimized to the extent practicable.

4.2.2 Oil & Gas Flares and Thermal Oxidizers

The incineration of waste gases in a flare or thermal oxidizer is a combustion process to destroy waste gases (reactive organic compounds and/or sulfur compounds) using a high-temperature flame. In the oil and gas production industry, flares and thermal oxidizers are also used to combust both waste gases and/or production gas that cannot be routed to a utility pipeline. Flares and thermal oxidizers are designed for both continuous service and intermittent service (e.g., emergency upset conditions). District Rule 359, *Flares and Thermal Oxidizers*, was initially adopted in 1994. The rule requires flare operators to minimize flare gas volumes, sets NO_x and ROC emission limits for the flares, and limits the sulfur content of fuel that is combusted in the flares or thermal oxidizers.

Based on the CARB Technology Clearinghouse, Rule 359 represents the current BARCT standard for this source category because it is equivalent to the rules that have been implemented in other air districts. Further BARCT evaluation and rulemaking for this source category is not required.

4.2.3 Oil & Gas Storage Tanks and Loading Racks

Emissions from organic liquid storage tanks occur due to the evaporative, breathing and flashing losses associated with the production, processing, storage, and transference of the organic liquid. The emissions vary with tank design, as there are design features and controls that can prevent excessive evaporative losses. Depending on the type of facility, storage tanks are regulated under District Rule 325, *Crude Oil Production and Separation*, or Rule 326, *Storage of Reactive Organic Compound Liquids*. These rules were initially adopted in the early 1970s and were updated in the early 1990s to lower the thresholds in which the emission controls were required. There have only been a few minor updates to the rules since then.

Another source of emissions closely related to storage tanks is the oil tanker truck loading and unloading of organic liquids at a loading rack. The primary sources of emissions from the loading process are the reactive organic gases escaping from the truck or tank during the loading process. Loading racks are regulated under Rule 346, *Loading of Organic Liquid Cargo Vessels*. This rule was initially adopted in 1992, and it requires facilities operating above a specified throughput level to install a vapor recovery system on their loading racks. The District's 1992 Board Letter for the initial adoption of Rule 346 identified the measure as a BARCT measure.

Based on the CARB Technology Clearinghouse, the current rules for this source category represent the current BARCT standard because they have similar control requirements and achieve similar emission reductions when compared to the control requirements that have been adopted in other air districts. Further BARCT evaluation and rulemaking for this source category is not required.

4.2.4 Oil & Gas Sumps, Pits, and Well Cellars

Crude oil contains a substantial amount of water and solids, and these non-oil materials must be separated out before the oil can be sold. Sumps and pits, which are basically large detention basins, can be used to accomplish some of this separation by allowing materials time to settle out. Rule 344 was developed in 1994 to prevent sumps from being used, or to require the sumps

to be replaced with storage tanks or other alternatives that achieve at least 80 percent control efficiency for Reactive Organic Compounds (ROCs).

Rule 344 also addresses well cellars, which are lined or unlined containments where one or more wellheads are installed. Well cellars average 6 feet in diameter and are about 6 feet deep. It was common to find cellars with standing crude oil at the bottom, and so Rule 344 required the proper maintenance of components at the wellhead in order to avoid excessive evaporative losses.

Based on the CARB Technology Clearinghouse, the current rule for this source category represents the current BARCT standard because it has similar control requirements and achieves similar emission reductions when compared to the control requirements that have been adopted in other air districts. Further BARCT evaluation and rulemaking for this source category is not required.

4.2.5 Oil & Gas Fugitive ROC Emissions

Facilities operating in the oil & gas sector use a variety of piping components to transfer produced oil and gases to refineries and other end-users. These components (such as valves, fittings, pumps, and compressors) may leak reactive organic compounds throughout their service life. To reduce these emissions, the components are regulated under District Rule 331, *Fugitive Emissions Inspection and Maintenance*. This rule was initially adopted in the early 1970s and was updated in the early 1990s to lower the thresholds in which the emission controls were required and to clarify other elements of the rule.

Rule 331 requires owners and operators of oil and gas production, processing, and refining facilities to inspect and maintain facility components to prevent fugitive emission leaks. The rule requires most components to be inspected every three months using a hand-held analyzer that detects hydrocarbons. If leaks are found, a component is required to be tightened or otherwise repaired within a specified time frame.

Based on the CARB Technology Clearinghouse, the current rule for this source category represents the current BARCT standard because it has similar control requirements and achieves similar emission reductions when compared to the control requirements that have been adopted in other air districts. Further BARCT evaluation and rulemaking for this source category is not required.

4.2.6 Sulfur Oxides (SO_x) Emission Sources

District Rule 311 was originally adopted in 1971 and it contains the general sulfur content limits for gaseous and liquid fuels combusted in Santa Barbara County. However, all six of the AB 617 industrial sources in the District use processes or control equipment that go beyond the requirements in Rule 311.

The oil and gas production facilities all generate SO_x emissions from the processing and combustion of produced natural gas. This is because the produced gas often includes a small percentage of sulfur compounds, including hydrogen sulfide. To control these SO_x emissions, ExxonMobil's Las Flores Canyon facility uses a Sulfur Recovery Unit consisting of a Claus Unit and a Tail Gas Cleanup Unit to remove 99.9 percent of sulfur in the inlet gas. Whereas the

POPCO facility uses a Sulfur Recovery Unit consisting of a Clause Unit, a Beavon Unit and a Stretford Process Unit to remove 99.9 percent of sulfur in the inlet gas. The controls utilized at these facilities represented Best Available Control Technology (BACT) at the time they were installed.

The PCEC Orcutt Hill and ERG Cat Canyon West facilities use sulfur treatment systems to reduce the sulfur content of the produced natural gas combusted at the facilities. PCEC Orcutt Hill uses SulfaTreat systems and blends their produced gas with utility purchased natural gas to maintain fuel sulfur levels below 23 ppm. ERG Cat Canyon West uses SulfaTreat and SulfaScrub systems to maintain fuel sulfur levels below 40 ppm.

The Imerys facility also generates SO_x emissions from the processing of diatomaceous earth materials that contain elemental sulfur and other sulfur compounds. The raw materials are heated during processing, which oxidizes the sulfur compounds to form SO_x. The main Imerys processing line, Line #7, uses a Venturi Scrubber/Packed Bed Tower system to control SO_x emissions by at least 99.75 percent. The smaller scale Celpure production line uses two Packed Tower Scrubbers to control SO_x emissions by at least 99 percent. Both of these SO_x control systems represented BACT at the time they were installed.

Finally, Windset Farms generates SO_x emissions from the combustion of natural gas in their large boilers. They combust only utility purchased natural gas, which is tightly regulated by the California Public Utilities Commission (PUC) to ensure low sulfur content. Additional sulfur controls on PUC natural gas would not be feasible or cost-effective.

Based on our review of the CARB Technology Clearinghouse, the emission controls and fuel sulfur requirements in place at the six AB 617 industrial sources represent the current BARCT standard for this source category. Further BARCT evaluation and rulemaking for this source category is not required.

5. PROPOSED AB 617 RULE DEVELOPMENT SCHEDULE

5.1 Rule Development Background

From start to finish, District rule development proceedings typically take 6 to 9 months to complete. The entire process emphasizes opportunities for public input in order to address the concerns of affected businesses and community groups and to ensure an understandable, workable, and enforceable rule. The rule development proceedings involve the following:

- Conduct a technical assessment, including:
 - Research emission controls and requirements,
 - Review other air district rules,
 - Collect data from affected sources and equipment vendors,
 - Draft rule language and staff reports,
- Request review and comment from the California Air Resources Board and Environmental Protection Agency,
- Conduct public workshops and gather input from industry and other affected parties,
- Refine emission reduction estimates and cost-effectiveness calculations,
- Community Advisory Council review and recommendation, and
- At a public hearing, present the rule adoption package to the Board of Directors for consideration.

Once adopted, a rule will have its own emission standards and requirements, and the rule itself will document the implementation dates for the affected facilities to comply with the new standards. Staff recognizes that some rule development projects may take more time during the technical assessment phase, which includes an assessment of the initial feasibility and cost-effectiveness of a rule. During this phase, information is gathered from manufacturers and permitted sources to make sure that the rule impacts are fully addressed, and that the specific operational characteristics of the equipment impacted by the rule changes are considered. These requests for information and analyses can extend a project timeline.

5.2 Proposed AB 617 Rule Development Schedule

As required by AB 617, the Board must take the following into account when setting the rule development schedule:

- 1) The local public health and clean air benefits to the community,
- 2) The cost-effectiveness of each control option, and
- 3) The air quality and attainment benefits of each control option.¹¹

Table 1, below, incorporates these elements and shows the estimated schedule for the six rule development projects that were identified in Section 4.1.

¹¹ California Health and Safety Code section 40920.6(d)

Table 1: AB 617 Rule Development Schedule

Rule #	Rule Name	AB 617 Rule Development Schedule
361	Boilers, Steam Generators and Process Heaters (Between 2-5 MMBtu/hr)	2019
342	Boilers, Steam Generators and Process Heaters (5 MMBtu/hr and greater)	2019
363	Particulate Matter (PM) Control Devices	2020
333	Control of Emissions from Reciprocating Internal Combustion Engines	2021
358	Stationary Gas Turbines	2021
362	Nitrogen Oxides (NOx) from Miscellaneous Combustion Sources	2021

As described in this report, District staff has done an initial review of the various emissions sources and control technologies currently used at the AB 617 industrial sources. The sources and control technologies were compared with technologies being employed at other air districts in California, via the BARCT Technology Clearinghouse. The cost-effectiveness of those control technologies were considered by staff when deciding which rule development efforts should be placed on the schedule.

All of the rule development efforts that were placed on the schedule would benefit public health and provide clean air benefits to the community by reducing air pollutant emissions from large industrial sources. The rule development efforts included in the schedule focus on reducing emissions of NO_x (a precursor pollutant to both ozone and PM₁₀) and PM₁₀, both of which are nonattainment pollutants. Therefore, the reductions that would be achieved through the rule development efforts in the schedule would benefit the District's attainment of the state ozone and PM₁₀ ambient air quality standards.

AB 617 also requires that the schedule give highest priority to those permitted units that have not modified emissions-related permit conditions for the greatest period of time.¹² District staff considered the age of the equipment, as well as the number of units at each of the AB 617 industrial sources, when deciding which rule development efforts should be included, and when they should be done. Much of the equipment that would be subject to these BARCT standards is 25 or 30 years old, and some are even older. A listing of the AB 617 Affected Equipment Units can be found in Attachment C.

The rule development schedule above includes two control measures from the 2016 Ozone Plan (Rules 361 and 342). These control measures were originally planned for adoption in 2018. However, consideration of the AB 617 BARCT requirements and the additional analysis of the Ozone Plan control measures has delayed those two rules. Staff anticipates that the six rule

¹² California Health & Safety Code Section 40920.6(c)(3)

development proceedings on the AB 617 Rule Development Schedule can be completed by the end of 2021 and these rules would be implemented by December 31, 2023.

During the District's rule development proceedings, staff may conclude that one or more of the rule amendments or new rules on the schedule are unnecessary. This might occur if a source has voluntarily met the BARCT standard, if equipment has been removed from service, or if the BARCT standard was found not to be cost-effective. If this were to occur, the specific rule development effort would be discontinued and the conclusion would be reported to the District Board.

6. ENVIRONMENTAL IMPACTS – CEQA

The California Environmental Quality Act (CEQA) requires environmental review for certain actions. This rule development schedule establishes a process for the District to consider incorporating new provisions into the District’s rulebook to satisfy the BARCT requirements of AB 617. The rule development schedule is not a binding commitment to adopt any particular control measure and therefore does not meet the definition of a “project” under CEQA Guidelines Section 15378 (b)(5), which excludes “...organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment.” A CEQA determination will be made when the rule development schedule is brought to the District Board for adoption.

7. PUBLIC REVIEW

Community Advisory Council & Workshop

To facilitate the participation of the public and the regulated community in the development of the District’s regulatory program, the District created the Community Advisory Council (CAC). The CAC is composed of representatives appointed by the District’s Board of Directors. Its charter is, among other things, to review proposed changes to the District’s Rules and Regulations and make recommendations to the Board of Directors on these changes.

The CAC met and discussed the AB 617 BARCT Rule Development Schedule on November 7, 2018 in Buellton. The event also served as a public workshop, where the District invited representatives from the AB 617 industrial sources to share information and directly comment on the proposed schedule. Also, individuals who subscribed to the District’s rule update notices were invited to the joint workshop/CAC meeting.

The discussions at the workshop and CAC meeting covered a variety of topics, with one of the key topics being the implementation of the rules that are included in the schedule. Industry representatives voiced their concern that meeting the December 31, 2023 implementation date may be difficult.

Staff acknowledges that each facility has its own unique circumstances and operating constraints. Identifying cost-effective emission reductions that don’t compromise the facility’s process may require additional research and data collection. Staff reaffirmed that the BARCT standards and implementation dates for each rule would be evaluated during the rule’s specific rule development process.

After the discussions, the CAC reviewed the draft schedule and approved it by a vote of 18-1, with the motion including a request to delay the Rule 333 proceeding from 2020 to 2021. This motion has been incorporated into the proposed rule development schedule.

Public Hearing

The proposed AB 617 BARCT Rule Development Schedule is scheduled to be heard at the December 20, 2018 Board Meeting. The schedule will be publicly noticed and made available at the District offices and on the District's website prior to the public hearing, where the Board will consider adopting the schedule. The public is invited to the hearing and can provide comments on the proposed schedule prior to or at the hearing.

8. REFERENCES

- 1) California Air Resources Board – *Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for the Control of Oxides of Nitrogen from Stationary Gas Turbines*, Approved May 18, 1992.
- 2) California Air Resources Board – *Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters*, Approved July 18, 1991.
- 3) California Air Resources Board – *Determination of Reasonably Available Control Technology and Best Available Retrofit Control Technology for Stationary Spark-Ignited Internal Combustion Engines*, Approved December 2001.
- 4) California Air Resources Board – *Technical Support Document for Suggested Control Measure for the Control of Organic Compound Emissions from Sumps Used in Oil Production Operations*, Approved July 1988.

9. ATTACHMENTS TO THE STAFF REPORT

- 9.1 Attachment A. FAQs and Clarification**
- 9.2 Attachment B. Air District Rule Crosswalk**
- 9.3 Attachment C. AB 617 Affected Equipment Units**

ATTACHMENTS TO THE STAFF REPORT

ATTACHMENT A

FAQs and Clarification

Attachment A: FAQs and Clarification

The following text provides rule clarifications in the format of frequently asked questions:

1. **Question:** What is Best Available Retrofit Control Technology (BARCT)?

Response: Per California Health and Safety Code section 40406, BARCT is an “emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.” Air districts that are designated as *serious*, *severe*, or *extreme* nonattainment for any air pollutant are already required to adopt BARCT.¹³ Based on the evaluation by the South Coast Air Quality Management District, this statutory definition of BARCT does not preclude entirely replacing existing equipment with new cleaner equipment.

2. **Question:** Can BARCT change over time? How do past BARCT determinations apply?

Response: Yes, BARCT can change over time. Past BARCT determinations may still be relevant if made recently and/or technology hasn’t changed, but new BARCT determinations were made for this evaluation.

3. **Question:** What is the difference between BACT (Best Available Control Technology) and BARCT?

Response: BACT represents the most stringent emission limit or control technique that is achieved in practice or is technically feasible and cost-effective. BACT is evaluated on the permit application prior to equipment installation or modification, in accordance with District Rule 802, *New Source Review*. Incorporating emission controls into a project is more practical during the design phase of a project. In most cases, BACT will be more stringent than BARCT.

4. **Question:** What is an “expedited rulemaking schedule?”

Response: An expedited rulemaking schedule documents the rules that may potentially be feasible and adopted within the next few years because the current requirements (whether in a District rule or in the affected unit’s District permit) do not reflect the current BARCT standard. The feasibility of each rule will be further evaluated during the rule development process.

¹³ California Health and Safety Code section 40919-40920.5

5. **Question:** Can a potential BARCT rule be excluded from the schedule if the reductions from the rule are not necessary to meet the requirements of the attainment plan?

Response: No. In order to achieve emission reductions at the largest sources in the state and to benefit community health, AB 617 requires that all facilities subject to the Cap and Trade program meet the current BARCT standard for their source category by December 31, 2023.

6. **Question:** Can a potential BARCT rule be excluded from the schedule if the rule is not cost-effective or feasible?

Response: Yes. In evaluating the BARCT rules, it may not be cost-effective or feasible to impose the BARCT emission limit on the industrial source. In these scenarios, no rule changes have to be made and the AB 617 requirements are still satisfied.

7. **Question:** What is the significance of the December 31, 2023 implementation date?

Response: Pursuant to AB 617, the controls must be installed and operating at the facilities by the earliest feasible date, but no later than December 31, 2023. The specific timeline and compliance requirements for the affected units will be documented in the amended rules.

ATTACHMENTS TO THE STAFF REPORT

ATTACHMENT B

Air District Rule Crosswalk

Attachment B: Air District Rule Crosswalk

District staff reviewed the rules applicable to the six AB 617 industrial sources and compared them to the corresponding rules at various other air districts. A crosswalk for each emission source category is provided below.

DISTRICT EMISSION SOURCE	SANTA BARBARA COUNTY APCD	VENTURA COUNTY APCD	SOUTH COAST AQMD	SAN JOAQUIN VALLEY APCD	SAC-METRO AQMD	BAY AREA AQMD
Boilers (0.075 - 2 MMBtu/hr)	Rule 360	Rule 74.11.1, 74.15.1	Rule 1146.2	Rule 4308	Rule 411 & 414	Rule 9-6
Boilers (2 - 5 MMBtu/hr)	Rule 361	Rule 74.15.1	Rule 1146.1	Rule 4307	Rule 411	Rule 9-7
Boilers (5+ MMBtu/hr)	Rule 342	Rule 74.15	Rule 1146	Rule 4320	Rule 411	Rule 9-7
Reciprocating Internal Combustion Engines	Rule 333	Rule 74.9	Rule 1110.2	Rule 4702	Rule 412	Rule 9-8
Turbines	N/A	Rule 74.23	Rule 1134	Rule 4703	Rule 413	Rule 9-9
Miscellaneous NOx Sources	N/A	Rule 74.34	Rule 1147	Rule 4309	Rule 419	N/A
Particulate Matter – Process/Fugitive Emissions	Rule 302, 304-307	Rule 52-53, 55-55.2	Rule 401, 403-405, 1155, 1157, 1186, 1186.1	Rule 4101, 4201- 4202, Regulation VIII	Rule 401, 403-405	Rule 6-1
Oil & Gas Flares and Thermal Oxidizers	Rule 359	Rule 54	Proposed Rule 1118.1	Rule 4311	N/A	Rule 12-11, 12-12
Oil & Gas Storage Tanks and Loading Racks	Rule 325-326, 346	Rule 71-1 to 71-3	Rule 462-463, 1178	Rule 4623-4624	Rule 446	Rule 8-5
Oil & Gas Sumps, Pits, and Well Cellars	Rule 344	Rule 71-4	Rule 1148.1, 1176	Rule 4402, 4625	N/A	Rule 8-37
Oil & Gas Fugitive ROC Emissions	Rule 331	Rule 74-10	Rule 466-467, 1173	Rule 4409	N/A	Rule 8-18, 8-37
Sulfur Compounds	Rule 309-311	Rule 54, 64	Rule 407, 431.1, 431.2, 468-469	Rule 4301, 4406 & source-specific rules	Rule 406, 420	Rule 9-1, 9-2

ATTACHMENTS TO THE STAFF REPORT

ATTACHMENT C

AB 617 Affected Equipment Units

Attachment C: AB 617 Affected Equipment Units

District staff reviewed the permitted equipment and processes at the six AB 617 industrial sources, and evaluated whether each emitting unit complied with the current BARCT standard for its source category. The units that may not meet the BARCT standard are identified in the table below.

Facility Name	ARB GHG ID	District Stationary Source ID	Device Name	Rated Heat Input Capacity (MMBtu/hr)	Rule Applicability	Current NOx limit	Footnote Reference
ExxonMobil – POPCO	104459	1482	Boiler A & Boiler B	41 (each)	Rule 342	30 ppm @ 3% O ₂	---
ExxonMobil – Las Flores Canyon	104460	1482	Gas Turbine & HRSG	465 & 345	New Rule 358	7.4 ppm @ 15% O ₂	---
PCEC – Orcutt Hill	101674	2667	43 derated engines	19.67 (combined total)	Rule 333	500 ppm @ 15% O ₂	1
ERG – Cat Canyon West	104458	2560	Process Heater #1 & #2	4.8 (each)	Rule 361	80 ppm @ 3% O ₂	2
			Heater Treater	4.9	Rule 361	80 ppm @ 3% O ₂	2
Imerys	101318	1735	Main Boiler	23	Rule 342	30 ppm @ 3% O ₂	---
			Standby Boiler	15.5	Rule 342	80 ppm @ 3% O ₂	2
			Package Boiler	3.78	Rule 361	80 ppm @ 3% O ₂	2
			Line #7 Kiln	50	New Rule 362	73 ppm @ 3% O ₂	---
			Pellet Plant Kiln & Dryer	8.9 (combined total)	New Rule 362	80 ppm @ 3% O ₂	2
			Celpure Plant Kiln & Dryers	9.0 (combined total)	New Rule 362	80 ppm @ 3% O ₂	2
			Multiple Baghouses	N/A	New Rule 363	N/A	---
Windset Farms	104359	11108	Boilers #1 - 6	42.7 (each)	Rule 342	30 ppm @ 3% O ₂	3

¹ Default Internal Combustion Emission Factor

² Default External Combustion Emission Factor

³ Current NOx limit for Boilers #5-6 is assumed to be the same as Boilers #1-4.

Resolution in the Matter of
Adopting the Assembly Bill 617 Best Available Retrofit Control
Technology Rule Development Schedule

ATTACHMENT #B

Assembly Bill 617 Best Available Retrofit Control Technology
Rule Development Schedule

Attachment B

Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule

Rule Number	Rule Name	BARCT Rule Development Schedule ¹
361	Boilers, Steam Generators and Process Heaters (Between 2-5 MMBtu/hr)	2019
342	Boilers, Steam Generators and Process Heaters (5 MMBtu/hr and greater)	2019
363	Particulate Matter (PM) Control Devices	2020
333	Control of Emissions from Reciprocating Internal Combustion Engines	2021
358	Stationary Gas Turbines	2021
362	Nitrogen Oxides (NOx) from Miscellaneous Combustion Sources	2021

¹ If the rule is determined to be feasible and cost-effective.

Resolution in the Matter of
Adopting the Assembly Bill 617 Best Available Retrofit Control
Technology Rule Development Schedule

ATTACHMENT #C

CEQA Notice of Exemption



**Santa Barbara County
Air Pollution Control District**

Our Vision  **Clean Air**

NOTICE OF EXEMPTION

TO: Clerk of the Board
County of Santa Barbara
105 East Anapamu Street – Room 407
Santa Barbara, CA 93101

FROM: Santa Barbara County
Air Pollution Control District
260 North San Antonio Road, Suite A
Santa Barbara, CA 93110

Project Title: Assembly Bill 617 Best Available Retrofit Control Technology (BARCT) Rule
Development Schedule

Location: Santa Barbara County

Project Description: The project consists of District Board adoption of a rule development schedule that commits the Board to consideration of adoption of three new rules and the modification of three existing rules in order to satisfy the Assembly Bill (AB) 617 requirements to implement Best Available Retrofit Control Technology requirements. This schedule commits the District to a rule development process that ensures the timelines in AB 617 are achieved. Each rule will go through the District's established public process, including Public Workshops and Community Advisory Council vetting. If adopted, the rule amendments will help reduce emissions from some of the largest sources of air pollution within the County.

Exempt Status: (Check One)

- ☐ Ministerial (Section 21080 (b)(1); 15268)
- ☐ Declared Emergency (Section 21080(b)(3); 15269(a))
- ☐ Emergency Project (Section 21080(b)(4); 15269(b)(c))
- ☐ Categorical Exemption
CEQA Guidelines Section(s): _____
- ☐ Statutory Exemption
Code Number(s): _____
- ☐ General Exemption under CEQA Section 15061(b)(3)
- ☒ Not a Project
CEQA Guidelines Section(s): 15378(b)(5)

Reasons Why Project is Exempt: CEQA Guidelines Section 15378(b)(5) states that a project does not include "*organizational or administrative activities of governments that will not result in direct or indirect physical changes in the environment.*" The rule development schedule establishes a process for the District to consider adopting new and modified District regulations to satisfy the BARCT requirements of AB 617. The Board of Directors' approval of a rule development schedule is an administrative activity that will not result in direct or indirect changes in the environment.

Contact Person: Timothy Mitro

Telephone: (805) 961-8883

Molly Pearson
Planning Division

Date: _____

Clerk of the Board Date and Time Stamp

Aeron Arlin Genet
Air Pollution Control Officer