apcd air pollution control district
SANTA BARBARA COUNTY

Agenda Item: I-1
Agenda Date: June 16, 2022
Agenda Placement: Regular
Estimated Time: 15 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, Planning Division, (805) 979-8329

SUBJECT: Determine that a Rule for Particulate Matter Control Devices is No Longer Necessary to Satisfy Assembly Bill 617 Requirements

---

RECOMMENDATION:

Consider recommendations as follows:

1. Receive and file a report regarding Best Available Retrofit Control Technology (BARCT) for particulate matter control devices at Assembly Bill 617 Industrial Sources;

2. Adopt a resolution determining that a rule development proceeding for draft Rule 363 to implement BARCT for particulate matter control devices is no longer necessary because the affected Assembly Bill 617 Industrial Source necessitating draft Rule 363 has requested changes to their District Permit to Operate to incorporate BARCT requirements that will be implemented no later than December 31, 2023.

BACKGROUND:

Assembly Bill (AB) 617, enacted in July 2017, has many 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.

In December 2018, as required by AB 617, your Board adopted a Best Available Retrofit Control Technology (BARCT) Rule Development Schedule that included a commitment to evaluate BARCT for six emission source categories. BARCT is an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and

economic impacts. To meet the BARCT emission standards, a facility may need to install new air pollution controls on their existing unit(s) or replace the unit(s) in part or in whole. Per the requirements of AB 617, the BARCT requirements only affect the following six industrial sources in Santa Barbara County:

1) Exxon Mobil – Las Flores Canyon
2) Exxon Mobil – Pacific Offshore Pipeline Company (POPCO)
3) Pacific Coast Energy Company (PCEC) – Orcutt Hill
4) Cat Canyon Resources, LLC – Cat Canyon West
5) Imerys Filtrations Minerals, Inc.
6) Windset Farms.

Since Santa Barbara County is nonattainment for both the state ozone standard and the state PM_{10} standard (particulate matter with a diameter of 10 microns or less), these industrial sources must meet the BARCT standards by the earliest feasible date, but no later than December 31, 2023.

DISCUSSION:

Particulate matter is directly emitted from various man-made and naturally-occurring sources such as the crushing and grinding of aggregates, windblown dust, and agricultural operations. Since being exposed to particulate matter can lead to a wide variety of cardiovascular and respiratory health effects, industrial facilities are often required to use PM control devices to capture and reduce the PM emissions created by their processes. Some of the more common PM control devices includes baghouses, cyclones, and wet scrubbers since these units can reduce PM emissions by 80 to 99%. However, some of the older control devices are not as effective when compared to new devices being designed today.

One of the commitments on the District's AB 617 rule schedule is to evaluate BARCT for PM control devices to see if any retrofits or upgrades would be required at the AB 617 Industrial Sources. Staff has completed its analysis and has concluded that the following conditions are necessary to implement BARCT for PM control devices:

1) Large baghouses are required to use a bag leak detection system and be source tested to demonstrate compliance with the BARCT emission standard of 0.005 grains per dry standard cubic foot; and

2) Visible emission observations and maintenance checks need to be performed on the remaining air pollution control devices to make sure that they are properly maintained and not venting excessive amounts of PM.

These standards are based on the requirements included in South Coast Air Quality Management District Rule 1155, which was adopted in 2009 and identified as BARCT in the California Air Resources Board's Technology Clearinghouse.[1] A detailed description of the technical BARCT analysis is included as Attachment A to this letter.

[1] https://ww2.arb.ca.gov/current-air-district-rules

Out of the six AB 617 industrial sources in Santa Barbara County, Imerys Filtration Minerals, Inc. ("Imerys") is the only facility that is currently affected by this BARCT analysis. Imerys is a diatomaceous earth mining and processing facility that is located south of Lompoc. The facility uses over 60 different PM control devices of various sizes, and some of the older units do not currently meet the BARCT standards discussed above.

The District initially proposed to adopt a rule to codify the BARCT requirements in the District's rulebook. However, after the public workshop in April 2021, Imerys decided to incorporate the BARCT standards directly into their operating permit. Imerys' commitment to perform this work is documented in the Authority to Construct permit, included as Attachment B to this letter. The modifications at the facility will be fully implemented no later than December 31, 2023, ensuring that the BARCT standards are implemented prior to the mandated timeline in AB 617. The District's engineering evaluation for Imerys' permit also documents the rationale for including the BARCT standards, thereby preventing the permit conditions from being removed in the future.

Since all BARCT requirements are incorporated directly into the facility's operating permit and no other facilities in the County currently require BARCT for PM control devices due to AB 617, it is no longer necessary to adopt a rule that regulates PM control devices. The BARCT analysis will continue to apply to Imerys' existing equipment units as well as any new units installed in the future at the site to guarantee that the PM emissions are effectively controlled. In addition, the BARCT analysis will be forwarded to the California Air Resources Board for inclusion into their AB 617 BARCT webpage (ww2.arb.ca.gov/expedited-barct). Staff worked with District Counsel and concluded that this approach effectively satisfies the AB 617 mandate because it accomplishes the emission reduction goals of the legislation.

A proposed District Board Resolution is included as Attachment C. If approved by your Board, the resolution concludes that a rule development proceeding for PM control devices (draft Rule 363) is no longer necessary to satisfy the AB 617 BARCT requirements.

PUBLIC REVIEW:

District staff worked directly with Imerys to review the initial BARCT analysis and requirements during the end of calendar year 2020 and in early 2021. The District then held a joint public workshop and Community Advisory Council (CAC) meeting on April 28, 2021 to present, discuss, and hear comments on the draft BARCT analysis, which at the time was drafted as Rule 363. To inform the public about the meeting, District staff e-mailed a public notice to everyone who subscribed to the electronic noticing subscription list. Staff also mailed a hardcopy notice to the six AB 617 Industrial Sources that may be affected by the BARCT analysis.

The workshop was attended by the CAC members and representatives from Imerys. In accordance with California Executive Order N-33-20, the meeting was held virtually. All participants had a chance to comment on the various aspects of the analysis during the workshop. After the workshop, the CAC convened, and additional questions were raised regarding the emission reduction calculations and the capabilities of the bag leak detection technology. The CAC recommended that District staff continues to work with Imerys to resolve these concerns.

District staff worked directly with Imerys to review the additional concerns and investigate solutions to implement the BARCT standards at the facility. Staff then hosted another CAC meeting on April 27, 2022 where the CAC received a briefing on the BARCT analysis and the changes that would be incorporated into the Imerys permit. The public and the six AB 617 Industrial Sources were also informed of this meeting through the District's electronic noticing subscription list.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):

The proposed action for the Board of Directors is to determine that a rule development proceeding for PM Control Devices is no longer necessary to satisfy the AB 617 BARCT requirements. Staff has concluded that this action is not a project subject to CEQA because it will not cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment [Public Resources Code §21065 and State CEQA Guidelines §15378(b)(5)].

FISCAL IMPACTS:

The implementation of BARCT will affect PM control devices at Imerys' diatomaceous earth processing facility. The facility will have to conduct baghouse modernization efforts, additional monitoring, and best management practices all of which are incurred in the interest of bringing the facility operations up to current control technology standards and complying with state legislation. The capital costs, as shown in the BARCT analysis, are estimated to be $970,000 while the ongoing monitoring costs are estimated to be $52,000 per year.

The costs for the permitting and compliance activities by District staff are included in the budget approved by your Board. There are no additional fiscal impacts.

ATTACHMENTS:

A. Assembly Bill 617 BARCT Analysis for PM Control Devices
B. Imerys Authority To Construct Permit #15804
C. District Board Resolution for Assembly Bill 617 - Particulate Matter (PM) Control Devices

ATTACHMENT A

Assembly Bill 617 BARCT Analysis for PM Control Devices

June 16, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT

Assembly Bill 617 –
BARCT Analysis for Particulate Matter (PM) Control Devices

Date: June 9, 2022

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

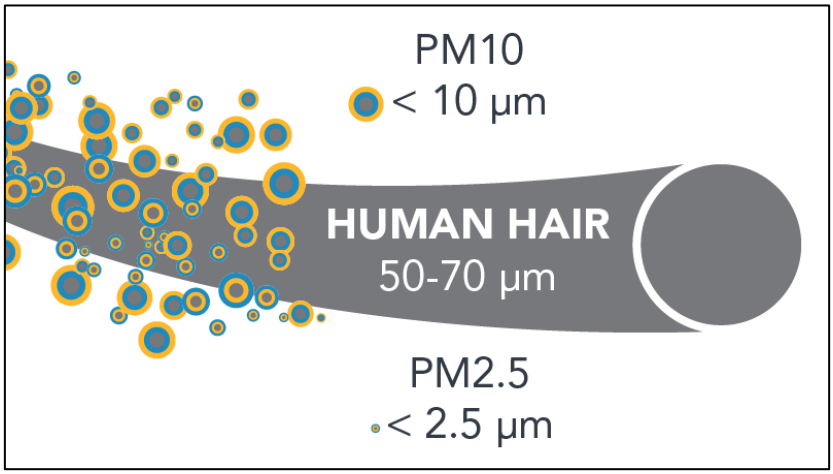
1. BACKGROUND

1.1 Particulate Matter and Health

Particulate Matter (PM) pollution is composed of a variety of different substances, such as fine minerals, metals, soot, smoke, organic matter, and other particles that are suspended in the air. PM is directly emitted from various man-made and naturally occurring sources such as the crushing and grinding of aggregates, windblown dust, and agricultural operations. PM emissions are also formed in the atmosphere through chemical reactions of gaseous pollutants such as sulfur dioxide, nitrogen oxides, and reactive organic compounds, all of which are emitted through fuel combustion processes.

Particles are defined by their diameter for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM_{10}) are inhalable into the lungs and can cause adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter ($PM_{2.5}$). Therefore, $PM_{2.5}$ comprises a portion of PM_{10}. Figure 1.1 demonstrates how particles in this size range compare to the size of a human hair.

Figure 1.1 – Particulate Matter (PM) Size Comparison



Breathing of fine particulate matter can lead to a wide variety of cardiovascular and respiratory health effects such as heart attacks, asthma aggravation, decreased lung function, coughing, or difficulty breathing and may lead to premature death in people with heart or lung disease. For public health reasons, the District is most concerned with inhalable PM_{10} and $PM_{2.5}$. Santa Barbara County is currently designated as attainment for the federal PM_{10} Ambient Air Quality Standard and for the state and federal $PM_{2.5}$ standards, but it is designated as nonattainment for the state PM_{10} standard.

1.2 The AB 617 BARCT Rule Development Schedule

Assembly Bill (AB) 617, enacted in July 2017, has many requirements to address the disproportionate impacts of air pollution in disadvantaged 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. 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 large 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. The District's AB 617 BARCT schedule was adopted at the December 2018 Board Hearing, and Rule 363 was included on the list of measures that needed to be evaluated for BARCT.[1] BARCT is an emission limitation that is based on the maximum degree of reduction achievable, and takes into account environmental, energy, and economic impacts. To meet the BARCT emission limits, a facility may need to install new air pollution controls on their existing unit(s) or replace the unit(s) in part or in whole.

The BARCT requirements apply to the following six facilities within the District boundaries since they are industrial sources subject to the California Cap-and-Trade requirements:

1) Exxon Mobil – Las Flores Canyon,
2) Exxon Mobil – Pacific Offshore Pipeline Company (POPCO),
3) Pacific Coast Energy Company (PCEC) – Orcutt Hill,
4) Cat Canyon Resources, LLC – Cat Canyon West[2],
5) Imerys Filtrations Minerals, Inc., and
6) Windset Farms.

These large facilities typically have both the resources and expertise to make process changes to meet the BARCT standards, and such changes will effectively reduce both criteria pollutants and toxic air contaminants. Out of these six facilities, only Imerys uses PM control devices at this time. The remaining AB 617 industrial sources are engaged in oil and gas operations or agricultural operations and do not use any PM control devices, but the analysis would still apply to them if they install such PM control devices in the future.

1.3 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.[3] Diatomaceous earth is a sedimentary deposit composed of fossilized diatoms, a type of algae that contains siliceous skeletons. Imerys mines and processes the diatomite ore into powders of various grades for use by industries, such as for filtration aids or fillers.

Most of the ore is surface mined from lands within the facility boundaries, crushed and screened using mobile equipment, and then stored in stockpiles. The stockpiled material is then

[1] Additional information on the AB 617 BARCT Rule Development Schedule is available on the District's website at www.ourair.org/community-air.
[2] Facility was previously operated by ERG Operating Company and has since been transferred to Cat Canyon Resources, LLC.
[3] Celite Corporation purchased the mine facility from Manville Sales Corporation in 1991 and changed its name to Imerys in 2012.

transported to the powder mill using covered conveyors. The powder mill production line consists of various equipment combinations to additionally crush, mill, dry, and convey minerals. The natural diatomaceous earth is then transformed into calcinated powders via exposure to high temperatures in the natural gas-fired rotary kilns. Finally, the product is classified into a variety of grades before being bagged for shipment, by truck or by rail, for distribution to customers.

Particulate matter is created during all process steps to mine, crush, screen, and convey the minerals. Imerys uses over 60 different emission control systems, such as baghouses, cyclones, and wet scrubbers, to reduce the amount of particulate matter emitted from the process equipment. Despite the existing emission controls, Imerys uses a number of processes that, when aggregated, has a Potential to Emit (PTE) of over 100 tons per year of criteria pollutants. This means that Imerys is required to have a consolidated local and federal operating permit under the federal Part 70 (Title V) program. Title V facilities are subject to enhanced monitoring, recordkeeping, and reporting requirements. These requirements promote ongoing internal vigilance and accountability, providing a higher level of confidence that all air quality regulations are being complied with.

1.4 Review of Particulate Matter Control Technologies

Baghouses

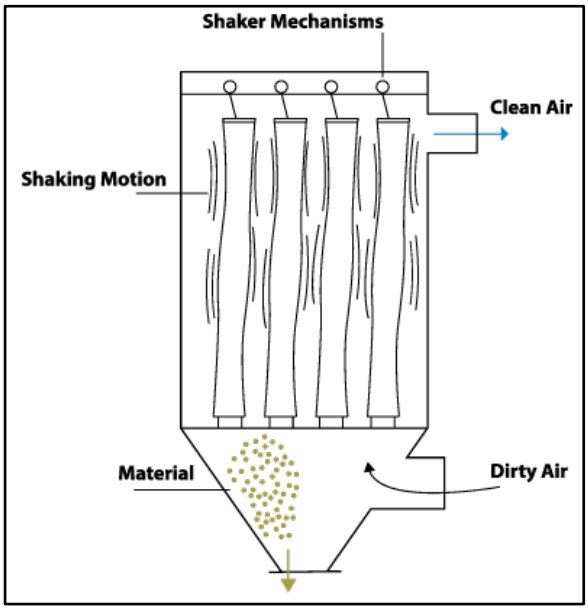
Figure 1.2 – Baghouse

A baghouse is an air filtration control device designed to remove particulate matter (PM) from exhaust gases using long cylindrical filter bags, cartridge filters, or envelope-type filters. In this industry, the terms “particulate matter”, “particles” and “dust” are used synonymously. The basic concept of a baghouse is that particle-laden air flows through the inlet, the particles are captured by the filters, and the clean air is exhausted from the baghouse outlet. Most baghouses use fans or blowers to force the air through the filters. The blowers can either be placed upstream of the baghouse, creating a positive-pressure system, or downstream of the baghouse, creating a negative-pressure system that draws the air through the filters. When designed properly, baghouses can achieve a control efficiency of 99 percent or higher. An example of a baghouse is shown in Figure 1.2.

During their normal operating cycle, baghouse filters accumulate enough PM that it forms solid dust layers or dust cakes on top of the filters, and these need to be cleaned out to prevent excessive pressure increases. The three main baghouse cleaning methods are shaker systems, reverse air systems, and pulse jet systems. Each cleaning method causes the dust cakes to fall into a collection hopper. The dust is typically removed from the collection hopper through a rotary airlock onto a conveyer system or into a larger discharge bin. A description of each cleaning method is provided below:

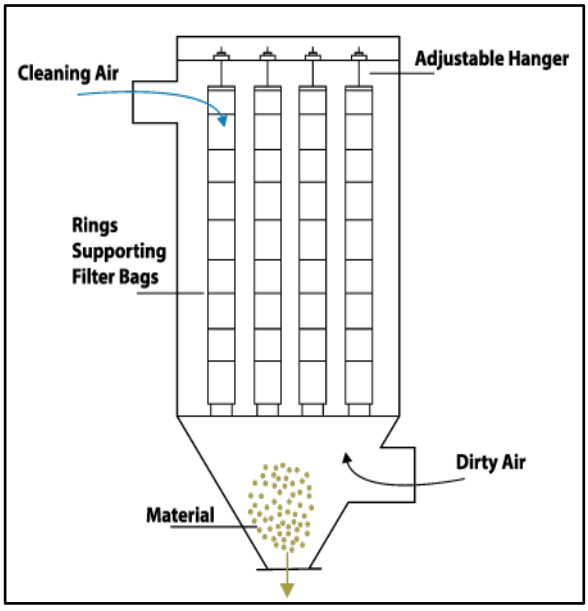
1) Shaker systems use physical shaking motion to remove the dust cakes. The shaking motion can be performed manually by facility operators or by using an automated mechanical shaker mechanism. Manual cleaning cycles can take up to a half an hour to complete while automatic cleaning cycles only take a few minutes. For safety reasons, the baghouse air flow needs to stop for the duration of the cleaning cycle. This means that shaker systems are not suited for applications with high dust loads since the bags would need to be cleaned often, resulting in increased process downtime. A diagram of a shaker system is shown in Figure 1.3.

Figure 1.3 – Shaker System



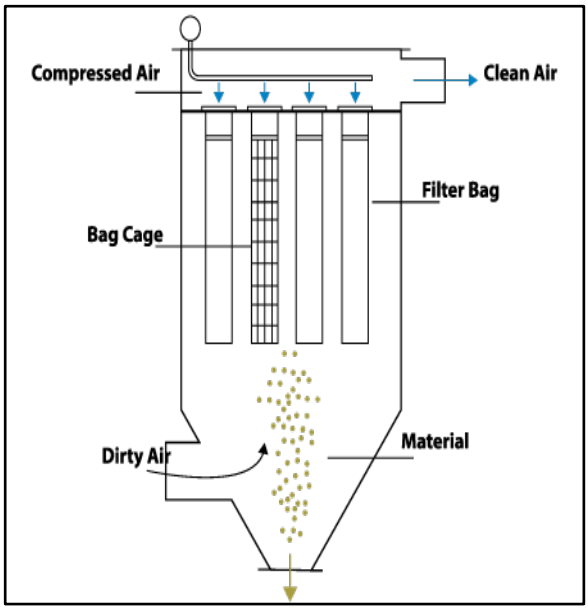
2) A reverse air system uses a low-pressure flow of air to break the dust cake and clean the bags of material build-up. Since the air flows in a reverse direction during the cleaning cycle, a separate fan is necessary to provide the required air flow for about 30 seconds. Many reverse air baghouses can continue operating during the cleaning cycle since the baghouses are separated into compartments and only one compartment is cleaned at a time. The low-pressure flow of a reverse air system allows the bags to have a longer lifespan, but the system may have difficulties in removing the residual dust stuck within the bag fibers. A diagram of a reverse air system is shown in Figure 1.4.

Figure 1.4 – Reverse Air System



3) A pulse jet system uses a high-pressure jet of compressed air to remove the dust cake on the bags at regularly timed intervals. The compressed air is more effective at removing the residual dust, but it can have some unintended consequences such as propelling the dust cake onto other nearby bags. Nevertheless, pulse jet systems are the most common type of cleaning system that accounts for the majority of new installations. An advantage of pulse jet systems, compared to shaker or reverse air systems, is that less fabric filter area is needed to handle the exhaust stream. This results in a smaller, more compact baghouse design with lower capital costs. The cleaning cycle requires approximately 0.5 seconds to complete and it can be performed while the baghouse remains in operation. A diagram of a pulse jet system is shown in Figure 1.5.

Figure 1.5 – Pulse Jet System



For the purposes of this analysis, the term "baghouse" is used to consolidate the requirements for other filter-types, many of which do not actually use bags. For instance, cartridge filters have pleated filter media supported on a perforated metal cartridge. Due to their pleated design, cartridge filters are usually used for processes with lower air flows, but higher cleaning requirements. The dirty cartridges can be cleaned with a pulse jet system, or they can be entirely replaced after their service life with new cartridges.

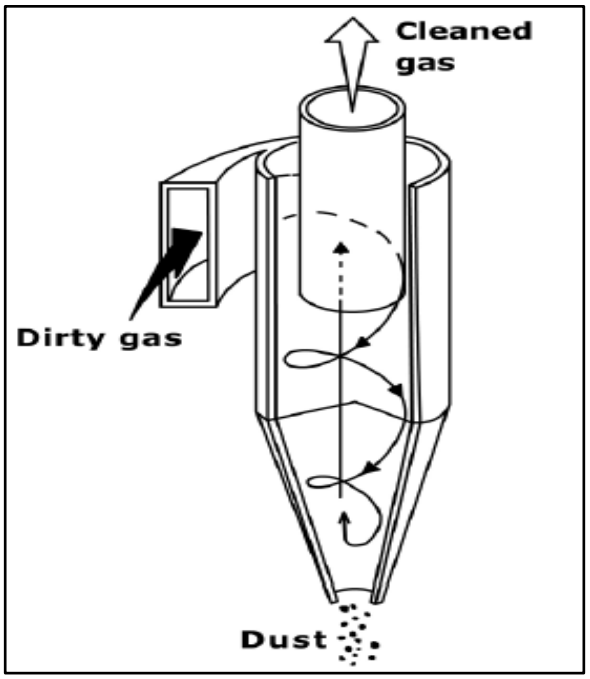
Also, bin vents are considered a type of baghouse. A bin vent is a dust collector that is installed on top of a storage silo. It is typically a passive system that captures the displaced particulate matter during material loading operations. If the silo is completely sealed, the displaced air can only go in one direction, through the dust collector. Bin vents are typically cleaned by either a shaker or pulse jet system and they require periodic filter change-outs to maintain their integrity. An example of two bin vents is shown in Figure 1.6.

Figure 1.6 – Bin Vents

Cyclones

Cyclones are air pollution control devices that remove the heavier particles in a gas stream through the use of centrifugal force. Large particles have enough inertia that they hit the cyclone walls and fall out of the gas stream while most of the smaller particles remain in the exhaust. The control efficiency for conventional cyclones is estimated to be 70 to 90 percent for PM, 30 to 90 percent for PM_{10}, and 10 to 40 percent for $PM_{2.5}$. Cyclones are often used as pre-cleaning systems since they effectively reduce the total amount of particulate matter to downstream devices (such as baghouses) by removing the larger, more abrasive particles. A cyclone diagram is shown in Figure 1.7.

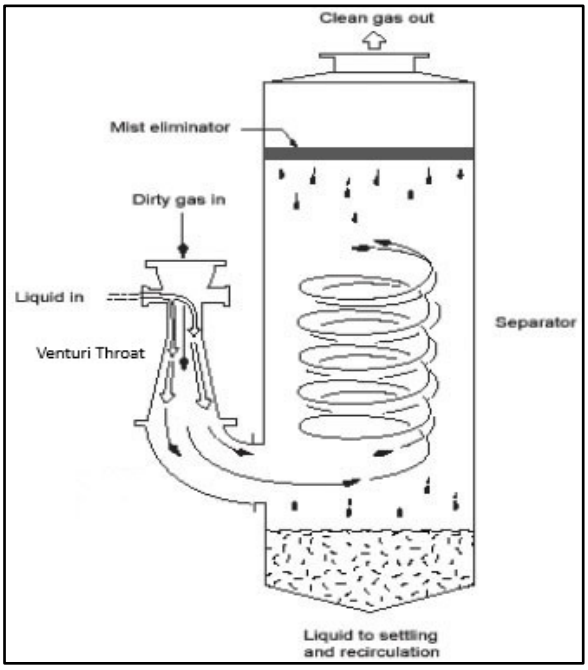
Figure 1.7 – Cyclone



Wet Scrubbers

A wet scrubber is a control device designed to remove particulate and gaseous emissions (such as sulfur dioxide) from the exhaust gas stream by transferring the air pollutants to the scrubbing liquid. Wet scrubbers typically use a venturi system to improve gas-liquid contact and the pollution control efficiency. Venturi systems accelerate the waste gas stream during the throat section, causing increased turbulence and droplet atomization. After the throat section, the mixture decelerates, causing the droplets to reform. This allows the exhaust gas to be cleaned by approximately 80 to 99+ percent depending on the configuration and the specific pollutants being controlled.

Figure 1.8 – Wet Scrubber



Before the exhaust gas leaves the wet scrubber, it may flow through a cyclonic separator and/or a mist eliminator to remove any entrained liquid particles, preventing the liquid from damaging or corroding any downstream equipment. A drawback of using a wet scrubber is that it creates a new waste stream of scrubbing liquid, but the scrubbing liquid is often recycled through the process until it no longer meets the necessary operational parameters. A diagram of a wet scrubber is shown in Figure 1.8.

1.5 New Source Performance Standard (NSPS) Subpart OOO

The Federal Clean Air Act requires the U.S Environmental Protection Agency (EPA) to identify categories of emission sources that contribute significantly to air pollution. For these source categories, EPA must set air quality emissions standards that reflect the best technology that has been adequately demonstrated, taking into account non-air quality impacts and energy requirements. These standards are known as the New Source Performance Standards (NSPS). There are approximately 90 different NSPS standards, with each one individually designed for a specific industry or type of device and separated into a different subpart.

One of those subparts is NSPS Subpart OOO, which addresses nonmetallic mineral processing plants. NSPS Subpart OOO contains a variety of operational and work practice standards for new and modified devices at mineral processing plants. These standards include limiting the amount of fugitive emissions from the device and monitoring requirements to verify the device's operational integrity. NSPS Subpart OOO was originally adopted in 1985 and it was amended in 2009 to include additional PM control requirements. The NSPS requirements apply to Imerys and are already integrated into Imerys' permit. However, older devices at Imerys may be exempt from the NSPS requirements if they were installed before the regulation was adopted or amended. A summary of the NSPS standards as they relate to this BARCT analysis is incorporated into Section 3.2 of this report.

2. BARCT ANALYSIS FOR PM CONTROL DEVICES

2.1 Overview of Analysis

The following major requirements are necessary to satisfy the BARCT provisions in AB 617:

- Large baghouses are required to use a bag leak detection system and be source tested to demonstrate compliance with the BARCT emission standard of 0.005 grains per dry standard cubic foot; and
- Visible emission observations and maintenance checks need to be performed on the remaining air pollution control devices to make sure that they are properly maintained and not venting excessive amounts of PM.

These standards are based on South Coast Air Quality Management District Rule 1155, which was initially adopted in December 2009. Based on the District's analysis, most operations at the affected AB 617 industrial source meet the current BARCT standards for PM Control Devices. However, some of the older baghouses may not achieve the highest level of control when compared to new baghouses being designed today. This analysis addresses all particulate matter control devices to ensure that the older baghouses meet the BARCT standards. All of the requirements are described in further detail in their corresponding sections below. Summary Table 2.1 is included at the end of this section to help visualize the requirements and the specific operating exemptions. An evaluation of the costs and impacts of the new requirements are listed in Section 4 of this report.

2.2 Requirement – No Visible Emissions

Visible emissions typically indicate that the control device needs maintenance or that the control device is not properly designed to control the source of PM emissions. If visible emissions are observed, the facility operator shall take correction action to fix the issue and reduce the PM emissions from the control device. This requirement will apply to nearly all units except those covered under certain operating exemptions, as listed in Section 2.8.

2.3 EPA Method 22 – Weekly Observations

Since EPA promulgated Method 22 in 1982, it has become an important tool in the control of visible emissions. Method 22 is a qualitative technique that consists of a visual check for the presence or absence of visible emissions. Users don't have to be certified to conduct this method, but they need to have a working knowledge of certain observation techniques to perform it correctly. Therefore, Method 22 requires the user to be trained and attend a lecture session of the EPA Method 9 opacity/smoke school, or read and apply the techniques from the EPA-prescribed Visible Emissions Field Manual. The California Air Resources Board (CARB) also has a Visible Emission Evaluation (VEE) handbook and they can provide the required training online.

Each affected facility must have at least one person that is trained to conduct EPA Method 22. A facility will be required to perform weekly six-minute visible emission observations on each of their PM control devices to verify that no visible emissions are being emitted. To streamline this requirement and reduce associated costs, observations of multiple PM air pollution control devices can be performed at a single time by a single observer as long as all of the control

devices and their stacks are located in the same field of view and records are kept for each observation. Some devices can also be exempted from the weekly Method 22 observation, and the exemptions are explained in more detail in Section 2.8.

If visible emissions are observed during a Method 22 observation or at any other time, the operator shall take corrective actions within 24 hours to eliminate the visible emissions. Once the corrective actions are taken, the operator needs to perform a new Method 22 observation to verify that no further action is necessary. If the corrective actions were successful and no visible emissions are present, normal operations may resume. However, if visible emissions are still present after the 24-hour period, the operator must shutdown the PM emitting equipment until additional adjustments can be made.

If an operator complies with the above requirements with subsequent corrective actions within the 24-hour period and maintains documentation of all actions, the operator will not be in violation of the "no visible emissions" monitoring requirement. This will encourage the facility operator to check visible emissions frequently and take corrective actions in an expeditious manner to correct any problems.

2.4 Tier 2 Baghouses – Emission Rate and Source Tests

For the purpose of this analysis, baghouses are separated into two types based on their cumulative filter surface area:

- "Tier 1" baghouses are considered the small baghouses with a cumulative filter surface area less than or equal to 7,500 square feet, and
- "Tier 2" baghouses are the large baghouses with greater than 7,500 square feet of cumulative filter surface area.

Typically, baghouses with more cumulative filter surface area are used to control larger emission units. The smaller Tier 1 baghouses can be cost-effectively controlled and monitored with the "no visible emissions" requirement and weekly Method 22 observations, but the larger Tier 2 baghouses are held to a higher BARCT standard because they have a much larger potential to emit.

To establish the BARCT standard for Tier 2 baghouses, the District first reviewed the South Coast AQMD staff report that was published in 2009. The South Coast AQMD found that baghouses used in all industries could feasibly meet a PM emission rate of 0.01 grains per dry standard cubic foot (gr/dscf). District staff then reviewed multiple permit applications from the last two decades at the affected AB 617 industrial source and found that the baghouses could feasibly meet an even lower PM emission rate of 0.005 gr/dscf. This 0.005 gr/dscf emission rate has been identified by the District as Best Available Control Technology (BACT) since multiple baghouse manufacturers provided emission guarantees that their systems could meet the limit.

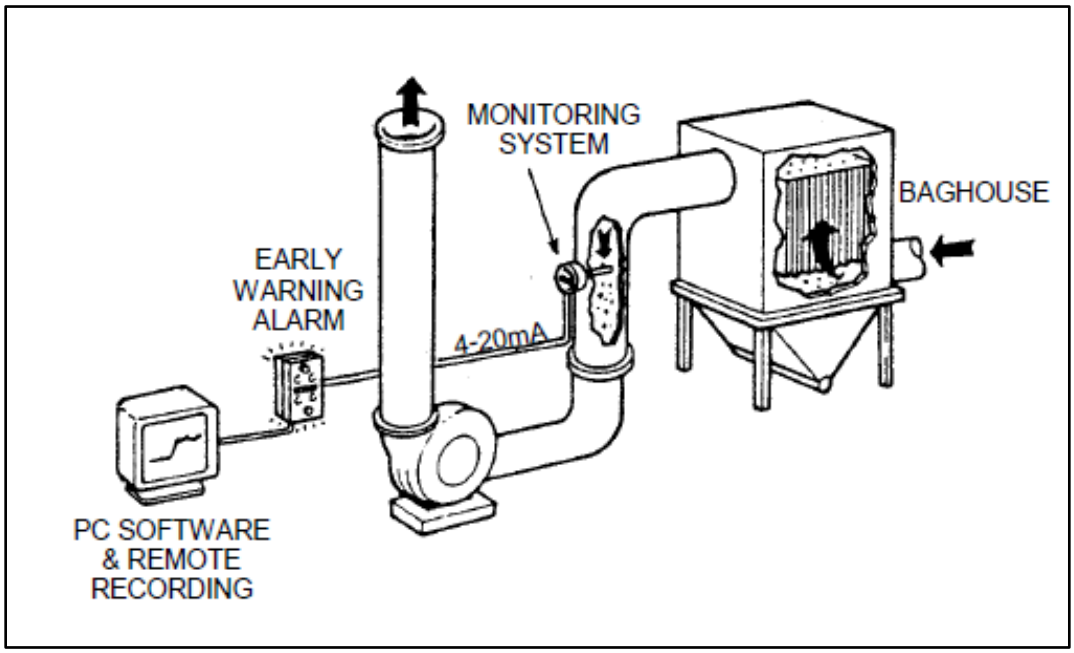
Because a BACT standard has been in place for the last two decades, the majority of the permitted baghouses at the affected AB 617 industrial source already meet the 0.005 gr/dscf standard. If a baghouse has difficulties meeting the limit, it may need to be modernized with higher quality bags or filters, which is normal over the course of a baghouse's lifespan. Bags typically have a normal service life between 1 to 3 years depending on the material being filtered

and the overall system design. Based on the information above, the 0.005 gr/dscf emission rate is considered BARCT for large, Tier 2 baghouses. To demonstrate compliance with the emission rate, the facility will need to perform source tests, at a minimum, once every five years using either EPA Method 5 or EPA Method 17.

2.5 Bag Leak Detection System (BLDS)

A Bag Leak Detection System (BLDS) is a qualitative tool that detects particles exiting from the stack of a control device and consists of a stainless-steel probe, signal-processing electronics, and the associated cable outputs. When the energized probe is placed in an exhaust gas stream, it can detect small current changes in the electrical charge. The current changes are created either by particles hitting the probe (called triboelectricity) or particles passing by or flowing near the probe (called electrostatic induction). After the system is fully tested and calibrated, a BLDS has the ability to provide data on the relative PM emissions of the control device based on the monitored current. This is useful because higher relative levels of PM are indicative of a bag leak or bag failure. A diagram of a BLDS is provided in Figure 2.1 below.

Figure 2.1 – Bag Leak Detection System (BLDS)



Each BLDS is equipped with an alarm that activates when the emissions are greater than a preset level. If the operator receives an alarm from the BLDS, the operator must investigate the baghouse and BLDS, and take all necessary corrective actions to eliminate the cause of the alarm within three (3) hours. Corrective actions include, but are not limited to, inspection and readjustment of the bag seals, repair or replacement of any defective bags, cleaning the bag leak detection system probe, or shutting down the equipment that vents into the baghouse. In most cases, the necessary corrective action will include a shutdown of the equipment so maintenance personnel can safely access and inspect the baghouse filters. Certain corrective actions and maintenance activities may take longer than three (3) hours to complete, and in such cases, the equipment must remain shut down until the repairs are completed.

It is important to note that not all BLDS alarms indicate baghouse malfunction or bag failure. For instance, when bags are cleaned by a pulse jet system, the bag surface is expanded and discharged particles can penetrate the bag. These particles can activate the alarm if the level is higher than the preset level. Scenarios such as these should be identified during the initial testing phase of the BLDS alarm to make sure that the alarm mainly captures baghouse malfunctions, as opposed to the reoccurring cleaning operations. The baghouse also needs to be operated and maintained so the BLDS alarm activation is minimized and that the cumulative hours of alarm time within any continuous (rolling) six-month period do not exceed more than five percent of the total operating hours in that period. If cumulative alarm time exceeds five percent, the operator would need to shut down the equipment that vents into the baghouse until additional actions are taken to eliminate the excessive alarms.

Overall, BLDS systems are useful tools to detect elevated levels of particulate matter while having minimal maintenance costs after the initial testing phase. Another advantage of the BLDS system is that gradual deteriorations can be noted well in advance of the alarm set point, providing engineering and maintenance teams adequate time to proactively respond to, troubleshoot, and resolve developing issues. This helps reduce maintenance costs and increases productivity by decreasing total system downtime. Due to the benefits listed above, the BARCT analysis requires all Tier 2 baghouses to be equipped with a functional BLDS.

2.6 Baghouse Modernization – Manual Shaker Systems

Manual shaker baghouses are typically used on relatively small or infrequently used industrial applications. However, manual cleaning is not an effective method of removing the dust cakes and it can lead to a higher risk of leaks, tears, or complete bag failure. The BARCT analysis requires all manual shaker baghouses to be modernized. At a minimum, the manual systems shall be retrofitted to a mechanical, automated shaking system, and this upgrade can be performed without a full replacement of the baghouse.

2.7 General Best Practices

The BARCT analysis includes some general best practices to make sure that each PM control device is operating properly. For instance, all control devices shall be operated and maintained pursuant to the manufacturer's operations and maintenance manual or other similar written materials. Also, materials collected in a PM control device must be discharged for disposal in such a way as to prevent fugitive emissions from being re-entrained in the atmosphere. These practices are typically included in most air quality permits, and they are incorporated into the BARCT analysis to highlight their importance in reducing PM emissions.

2.8 Exemptions

For the purpose of this BARCT analysis, staff evaluated the wide range of PM control devices and considered the impacts to each of the devices. A number of exemptions to all or part of the analysis are included, with the intent of reducing impacts and costs where warranted. These exemptions are listed below:

1) All spray booths and their associated filters are exempt from the provisions of this analysis. Spray booths are widely regulated by prohibitory rules that focus on reactive organic compound (ROC) emission reductions through the use of low-ROC coatings and solvents. These rules also include operation and maintenance procedures to reduce PM emissions associated with any spray booths.

2) With the exception of the "no visible emissions" requirement, small or temporary units are exempt from the additional monitoring and recordkeeping requirements of the analysis. This includes baghouses with filter area less than or equal to 100 square feet, any portable dust collector, fume extractor, or negative air machine with a maximum rated capacity of less than or equal to 3,000 cubic feet per minute (cfm), and high-efficiency particulate air (HEPA) equipment.

3) Certain units are not subject to a weekly six-minute Method 22 observation requirement. This includes infrequently used units such as bin vents and other noncontinuous processes (e.g. operates no more than once per week for a period of less than 20 hours; or operates for periods of less than one hour, not to cumulatively exceed four hours during any single day). Also, any unit that is operated with a BLDS in accordance with the analysis would no longer be subject to the weekly Method 22 observation. Tier 2 baghouses are required to be equipped with a BLDS, but other smaller units may be equipped with a BLDS to be exempted from the weekly Method 22 observation.

4) Since many PM control devices need time to stabilize after being turned on, this analysis exempts the devices during their startup operations. For the purpose of this exemption, startup intervals shall last until the device reaches stable operating conditions and in no case shall be longer than 45 minutes. However, this does not mean that the PM control device is allowed unlimited emissions during the startup period. The general PM rules, such as the opacity requirement in Rule 302 and the grain loading concentrations in Rules 304 and 305, still apply during startup operations.

5) Air pollution control devices are often used in series (e.g. cyclone functioning as a pre-cleaner for a baghouse). In these instances, the analysis exempts the initial pre-cleaner devices from having to comply with the emission limits, the weekly Method 22 observation, and the BLDS requirements prescribed in this analysis. These three standards are intended to control the final unit that exhausts particulate matter pollution into the atmosphere. Applying these three standards to a pre-cleaner device would achieve minimal air quality benefits, and so the pre-cleaner unit may be exempted.

Table 2.1. Summary Table of BARCT Analysis for PM Control Devices

Device Type	Requirement				
	No Visible Emissions	Emission Limit & Source Test	General Best Practices	Weekly Method 22	BLDS
Spray Booth	Exempt				
$\leq$ 100 ft^2 cloth area, Portable Units $\leq$ 3,000 cfm, HEPA systems	Applies	Exempt			
Tier 2 Baghouse (7,500+ ft^2 area)	Applies	Applies	Applies	Exempt	Applies
Tier 1 Baghouse (100 – 7,500 ft^2 cloth area)	Applies	Doesn't apply	Applies	Applies	Doesn't apply
Remaining PM Control Devices (scrubbers, cyclones, etc.)	Applies	Doesn't apply	Applies	Applies	Doesn't apply

* Additional operational exemptions may apply, as described in Section 2.8 of this analysis.

3. COMPARISON WITH OTHER AIR QUALITY REGULATIONS

3.1 District BARCT Analysis and SCAQMD Rule 1155

The District compared the BARCT analysis against South Coast Air Quality Management District's Rule 1155, as adopted in 2009 and amended in 2014. A comparison chart is shown below in Table 3.1. The District's analysis is written in such a way that it is as consistent as possible with the South Coast AQMD rule while still adequately acknowledging the permit history and concerns of the affected industries within the Santa Barbara County Air Pollution Control District.

Table 3.1. Comparison to Air District Rules

ANALYSIS DESCRIPTION		**BARCT Analysis - PM Control Devices**	**South Coast AQMD Rule 1155 (2014)**
Section	**Component**		
Applicability		AB 617 Industrial Sources	All facilities (aggregate, asphalt, concrete, metal products, etc.)
Exemptions		Small/Portable Equipment	Small/Portable Equipment
		Startup Operations	Startup Operations
Requirements	Visible Emissions	None	None
	EPA Method 22 Observation Duration	6 minutes	5 minutes
	EPA Method 22 Observation Frequency	Every week	Every week
	Large Baghouse Threshold	7,500 ft^2 filter area	7,500 ft^2 filter area
	Emission Limits on Large Baghouses	0.005 gr/dscf	0.01 gr/dscf
	BLDS alarm time allowed	5%	5%, excluding some alarms
Testing	Source Test Applicability	Large Baghouses	Large Baghouses
	Source Test Frequency	Every 5 years	Every 5 years
	Test Methods	EPA Method 5 or 17	SCAQMD Method 5.1 – 5.3

3.2 District BARCT Analysis and NSPS Subpart OOO

New Source Performance Standard (NSPS) Subpart OOO establishes particulate matter standards for Nonmetallic Mineral Processing Plants. The subpart is applicable to equipment such as crushers, grinding mills, screening operations, belt conveyors, bagging operations, and storage bins, and any control devices used to capture particulate matter emissions from such equipment. NSPS Subpart OOO applies to equipment units and devices that commenced construction, reconstruction, or modification on or after September 1, 1983. More stringent requirements apply to units that commenced construction, reconstruction, or modification after April 22, 2008. Some of the NSPS Subpart OOO operational requirements for PM control devices are shown below in Table 3.2.

Table 3.2. NSPS Subpart OOO Requirements for PM Control Devices

Rule Component	Install or Modification Date	Emission Standard	Test Method
Emission Limit [1]	9/1/1983 to 4/22/2008	0.022 gr/dscf	EPA Method 5 or 17
	After 4/22/2008	0.014 gr/dscf	EPA Method 5 or 17
Opacity Limit [2]	9/1/1983 to 4/22/2008	7% opacity	EPA Method 9
	After 4/22/2008	No Visible Emissions	EPA Method 22 or BLDS

Since the original NSPS Subpart OOO standards have been in place for over three decades, many devices at mineral processing plants are complying with the emission limits and opacity limits as prescribed above. The NSPS Subpart OOO standards are similar to the standards in the BARCT analysis, but there are two main differences. First, the BARCT analysis will apply the BARCT standards to all PM control devices at an affected facility, even the oldest units that have not been modified since 1983.

The other main difference is the timing and frequency of the compliance demonstrations. For example, the BARCT analysis requires weekly Method 22 observations for 6 minutes while NSPS Subpart OOO requires quarterly Method 22 observations for 30 minutes. An affected facility will need to comply with both standards and have its air quality permit streamlined to reflect the most stringent requirement. This means that every quarter, one (1) 30-minute observation and twelve (12) 6-minute observations would be performed. However, both the BARCT analysis and NSPS Subpart OOO allow for the use of a BLDS in lieu of the Method 22 observations. In this instance, using a BLDS may greatly simplify the compliance requirements and scheduling of personnel.

[1] Not applicable to bin vents.
[2] Not applicable to wet scrubbers. Individual bin vents subject to a 7% opacity limit.

4. IMPACTS OF THE BARCT ANALYSIS

4.1 Emission Impacts

The BARCT analysis establishes minimum performance standards and maintenance requirements for PM control devices. This includes good maintenance and housekeeping practices, visible emissions monitoring, equipment or bag upgrades, and installation of a BLDS on the largest baghouses. All of these performance standards will lead to early detection and repair, thereby decreasing the frequency of unexpected upsets due to bag ruptures and other problems and reduce the amount of particulate matter emitted.

The BARCT analysis will primarily have emission impacts at Imerys' diatomaceous earth processing facility. Imerys' Title V permit already contains some monitoring requirements to make sure the PM control devices are operating appropriately, but the BARCT standards will further enhance the existing maintenance and monitoring requirements in Imerys' permit. The analysis is also expected to achieve PM emission reductions through the removal of two positive-pressure, open sock baghouses at Imerys. These open sock baghouses are over 50 years old, and the exhaust stream that is currently vented to these units will be rerouted to an existing enclosed baghouse.

4.2 Impact to Industry

The BARCT analysis will affect all new and existing PM control devices at AB 617 industrial sources. At this time, the analysis will mainly have a fiscal impact on Imerys' diatomaceous earth processing facility since Imerys currently operates equipment that does not meet the current BARCT requirements. Estimated costs for the changes at Imerys are estimated below in Table 4.2.

Table 4.2 – Estimated BARCT Costs

Requirement	Number of Affected Units	Cost per Affected Unit	Total Cost
Baghouse Modernization or Removal: Open Sock Baghouses	2	$460,000 [1]	$920,000
BLDS installation on Tier 2 Baghouses	4	$12,500	$50,000
Additional Source Tests on Tier 2 Baghouses	2	$5,000 every 5 years	$10,000 every 5 years
Weekly Method 22 Observations	50	$1,000 every year	$50,000 every year

Imerys is already required to perform various source tests and EPA Method 9 and EPA Method 22 observations on their PM control devices in accordance with their Title V permit. Since most of the baghouses are already on a source testing schedule, the BARCT analysis will only require two more units to be source tested every five years. Also, Imerys has multiple

[1] Manufacturer quote for the purchase of a new baghouse with additional adjustments for installation costs.

personnel that are fully trained and able to conduct Method 22 observations. The analysis will require weekly tests, and the estimated costs for each Method 22 test are based on the anticipated time it takes to perform the test and associated recordkeeping. On average, this work will take approximately 15 minutes per test, so each unit will require approximately 13 hours of labor per year.

Imerys has submitted an Authority to Construct permit application to modify its facility to comply with the BARCT analysis for PM Control Devices. The modifications included in the permit application are required to be performed and implemented no later than December 31, 2023, in accordance AB 617. Any device that fails to meet the operating standards in the BARCT analysis will need to be shut down on December 31, 2023 and may only be operated once the necessary modifications are complete. Staff concludes that although there will be costs related to the baghouse modernizations efforts, BLDS installations, sources tests, and additional monitoring time, the costs are incurred in the interest of bringing the facility operations up to current control technology standards and to comply with state legislation.

5. REFERENCES

1) South Coast Air Quality Management District – *Rule 1155, Particulate Matter (PM) Control Devices,* Adopted December 4, 2009.
2) South Coast Air Quality Management District – *Staff Report for Rule 1155, Particulate Matter (PM) Control Devices*, December 2009.
3) South Coast Air Quality Management District – *Rule 1155, Particulate Matter (PM) Control Devices,* Amended May 2, 2014.
4) South Coast Air Quality Management District – *Rule 1155, PM Control Devices Summary and FAQs*, July 2015.
5) U.S. Environmental Protection Agency – *Visible Emissions Field Manual EPA Methods 9 and 22*, December 1993.
6) U.S. Environmental Protection Agency – *Air Pollution Control Cost Manual – Sixth Edition (EPA 452/B-02-001)*, January 2002.
7) U.S. Environmental Protection Agency – *Fabric Filter Bag Leak Detection Guidance (EPA-454/R-98-015)*, September 1997.
8) Santa Barbara County Air Pollution Control District – *Assembly Bill 617 Best Available Retrofit Control Technology Rule Development Schedule,* Adopted December 20, 2018.

6. ATTACHMENTS

6.1 Attachment #1. FAQs and Analysis Clarification

ATTACHMENT #1

FAQs and Analysis Clarification

Attachment #1: FAQs and Analysis Clarification

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

Applicability & Exemptions

1. **Question:** Is the BARCT analysis applicable to baghouses and scrubbers that control emissions from combustion equipment?

   Response: The BARCT analysis applies to baghouses and scrubbers that are used to vent direct PM emissions. Some external combustion equipment, such as dryers and kilns, often use baghouses or scrubbers as the final venting point. Even though dryers and kilns primarily create combustion emissions, the processes may also have direct PM emissions associated with them due to the conveying of the material being dried (e.g. diatomaceous earth). The BARCT analysis is intended to cover these types of units.

   The BARCT analysis for PM Control Devices is not intended to cover diesel particulate filters on engines or scrubbers on large, oil-fired boilers. These types of processes are only venting combustion emissions and have no direct, non-combustion emissions.

2. **Question:** How does the startup exemption apply to passive and active bin vents? Passive bin vents don't have any sort of exhaust fan, and active bin vents are only turned on for about an hour during silo loading operations.

   Response: The startup exemption allows PM control devices up to a 45-minute period to reach normal, steady state operations. Startup operations may end before the 45-minute period if, based on manufacturer recommendations or facility procedures, the unit engages in normal operations.

   In the case of a passive bin vent, there are no startup operations since the unit is never turned on. It is effectively always operating, and so the startup exemption does not apply. Active bin vents, on the other hand, may have slight startup emissions when they're turned on after a maintenance activity or when they're preparing to receive product in the silo. However, once silo filling begins, the bin vent is no longer in startup mode and the "no visible emissions" requirement is applicable.

Visible Emission Observations

3. **Question:** Is there a certification process necessary to become trained in reading visible emissions using US EPA Method 22?

   Response: No. EPA Method 22 does not require certification; however, self-training and knowledge of implementing the method is required. Method 22 training can be obtained from written US EPA or CARB materials or from the lecture portion of the EPA Method 9 certification course.

4. **Question:** How does "opacity" relate to the visibility of the emissions?

   Response: Opacity is the degree to which the visibility of the background is reduced by particulate matter or smoke plumes. It is measured on a scale from 0% to 100%, with 0% being clear and 100% meaning that nothing can be seen beyond the plume. Opacity observations are conducted using EPA Method 9, which requires each 15 second observation to be rounded up or down to the nearest 5% opacity. District inspectors are certified to conduct EPA Method 9 and are able to perform a visible emissions evaluation.

5. **Question:** The "no visible emissions" requirement seems to be focused on fixing any issues with the PM control devices as they're observed. If a facility doesn't maintain their equipment, will they ever receive a penalty or Notice of Violation (NOV) for having visible emissions?

   Response: Yes. If the District observes visible emissions from PM control devices subject to the "no visible emissions" requirement during an inspection, then an NOV may be issued. However, if the facility actively identified the issue prior to the inspection and is actively working to correct it (as verified with their recordkeeping logs), it would not be considered a violation.

6. **Question:** Does the "no visible emissions" requirement only apply to the control equipment exhaust stack?

   Response: No. EPA Method 22 readings can be taken on any part of the control equipment, including fugitive emissions from leaks or holes in the control device.

7. **Question:** If a PM control device at a facility is temporarily shut down for an extended period of time (e.g. greater than one week), is the operator still required to perform weekly Method 22 observations?

   Response: No, the operator is not required to conduct Method 22 observations while the PM control equipment is not in operation for the extended period, provided no process activity takes place and records regarding the operational status of the equipment are maintained.

8. **Question:** Can a facility use a Continuous Opacity Meter System (COMS) instead of relying on the weekly Method 22 observations?

   Response: No, a COMS would not exempt a control device from the weekly Method 22 observations. However, a facility may install a BLDS on a PM air pollution control device instead of performing the weekly Method 22 observations. A BLDS is required instead of a COMS because a COMS is more expensive and has a wider variety of data errors (affected by relative humidity, optical misalignment, and dust accumulation on the transceiver lens).

Baghouses and Bag Leak Detection Systems (BLDS)

9. **Question:** Why are the BARCT requirements based on baghouse filter surface area?

   Response: Filter surface area is a key baghouse parameter that can easily be identified by the manufacturer. It is incorporated into the baghouse design and needs to be sufficiently large enough to handle the PM loading rate of the controlled emission units. Even if the operator temporarily closes or removes some of the bags, the manufacturer-designed filter surface area remains constant.

10. **Question:** Are the baghouses required to have magnehelic gauges to make sure they're operating in the desired pressure range?

    Response: The BARCT analysis does not specifically require magnehelic gauges on each baghouse. Instead, the analysis requires each PM air pollution control device to be operated and maintained in accordance with the manufacturer's operation and maintenance manual (or other similar written materials supplied by the manufacturer) to ensure that the control device remains in proper operating condition. A magnehelic gauge will be a part of most baghouse systems.

11. **Question:** What type of alarms are you intending to see for a BLDS?

    Response: A BLDS alarm should sound under these three scenarios: 1) Alarm time with elevated emissions that are visible; 2) Alarm time with elevated emissions that aren't visible; and 3) Alarm time if the BLDS is malfunctioning.

    These three scenarios all count towards the requirement to maintain less than a five (5) percent aggregated alarm time, but they each have different severities in relation to the PM emissions emitted. The recordkeeping elements of the permit will help the operator describe the severity of each alarm and these records will be made available to District staff.

12. **Question:** Can a BLDS be installed on non-baghouse PM control devices, such as on cyclones?

    Response: Yes, the BLDS technology is transferrable to other PM air pollution control devices besides baghouses. Thus, a cyclone may be exempt from weekly visible emission observations if a BLDS is installed.

ATTACHMENT B

Imerys Authority to Construct Permit #15804

June 16, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

air pollution control district
SANTA BARBARA COUNTY

Authority to Construct 15804

EQUIPMENT OWNER:

Imerys Filtration Minerals, Inc. 205129

EQUIPMENT OPERATOR:

Imerys Filtration Minerals, Inc.

EQUIPMENT LOCATION:

2500 Miguelito Road, Lompoc

STATIONARY SOURCE/FACILITY:

Imerys Filtration Minerals, Inc. SSID: 01735 FID: 00012

AUTHORIZED MODIFICATION:

This permit implements operating, monitoring, recordkeeping and reporting conditions in order to comply with the requirements of California Assembly Bill 617, which was adopted in July 2017. The changes also include:

1. Depermitting of four open sock baghouses:

   - 4 Dry End BH (Device ID 112)
   - Snow Floss Plant BH (Device ID 133)
   - 6 Dry End Ventilation BH (Device ID 125)
   - 6 Super Fine Super Floss BH (Device ID 126)

2. Rerouting 7,500 SCFM of process air flow that was previously controlled by the 6 Dry End Ventilation BH (Device ID 125) and 6 Super Fine Super Floss BH (Device ID 126) to BH578 (Device ID 119).

3. Installation of baghouse leak detection systems (BLDS) on four baghouses:

   - Baghouse BH777 (Device ID 110721
   - Mill Vent Baghouse 1178BH (Device ID 102)
   - 345BH (Device ID 108)
   - Silicate Plant Ventilation BH (Device ID 142).

4. Addition of weekly monitoring of particulate matter control devices for visible emissions using Method 22 for all baghouses with a cumulative filter surface area less than or equal to 7,500 square feet.

EQUIPMENT DESCRIPTION:

The equipment subject to this permit is listed in the table at the end of this permit.

PROJECT/PROCESS DESCRIPTION:

Imerys currently mines and processes diatomaceous earth (DE) at its Lompoc Plant. Imerys operates multiple product lines each with "wet end" and "dry end" processing. Wet diatomaceous earth crude is surface mined, crushed, milled and dried and/or calcined at high temperatures. The dried product is classified into a variety of grades and bagged, or bulk loaded for shipment to distributors and customers. Specialized wet and dry processing of diatomite and other materials occurs on a smaller scale at the Synthetic Silicates Plant and the Pellet Plant. The Imerys Facility ID is 0012 and the Stationary Source ID is 1735.

CONDITIONS:

1. **Emissions Limitations**. The mass emissions from the equipment permitted herein shall not exceed the limits listed in Tables 5.3 and 5.4 of this permit on or after December 31, 2023. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit. In addition:

    a. On or after December 31, 2023, all baghouses with a cumulative filter surface area greater than 7,500 square feet, which exhaust to the atmosphere, shall meet an outlet PM concentration of less than or equal to 0.005 grains per dry standard cubic foot (gr/dscf) except as allowed per the start-up provisions of Condition 6.

2. **Operating Restrictions**. The equipment permitted herein is subject to the following operational restrictions.

    a. By December 31, 2023, Imerys shall implement the following:

        i. Install and operate BLDS on the following baghouses in accordance with the requirements of the District approved *BLDS Process Monitoring, Calibration and Maintenance Plan*: Baghouse 777 (DID# 110721), Mill Vent Baghouse (DID# 000102), Baghouse 345 (DID# 000108), and Silicate Plant Ventilation Baghouse (DID# 000142).

        ii. Remove from service the 4 Dry End Baghouse (DID# 000112), Snow Floss Plant Baghouse (DID# 000113), 6 Dry End Ventilation Baghouse (DID# 000125) and the 6 Super Fine Super Floss Baghouse (DID# 000126).

        iii. Reroute the process streams previously venting to the 6 Dry End Ventilation Baghouse (DID# 000125) and the 6 Super Fine Super Floss Baghouse (DID# 000126) to Baghouse 578 (DID# 000119).

b. Visible Emissions Restriction – PM Air Pollution Control Devices without BLDS. On or after December 31, 2023, Imerys shall not cause or allow any visible emissions from any PM control device, which is not equipped with a District approved BLDS, except as allowed per the start-up provisions of Condition 6. Notwithstanding the above, Imerys shall not be considered in violation of this condition if Imerys is in the process of complying or has complied with the requirements below:

   i. If any visible emissions are observed exiting any of the PM control devices that are not equipped with a District approved BLDS, Imerys shall implement all necessary corrective actions to eliminate the visible emissions within 24 hours, and:

      1. To verify that the corrective actions were effective, Imerys shall complete a new Method 22 observation to ensure no visible emissions are present.

      2. If Imerys, after taking all corrective actions, subsequently observes visible emissions, Imerys shall shut down the PM emitting equipment that vents into the control device until additional steps are taken to prevent the visible emissions.

c. Visible Emissions Restriction – PM Air Pollution Control Devices with BLDS. On or after the date the District-approved BLDS is installed, but not later than December 31, 2023, Imerys shall not cause or allow any visible emissions from any PM control device which is equipped with a District approved BLDS, except as allowed per the start-up provisions of Condition 6. Notwithstanding the above, Imerys shall not be considered in violation of this condition if Imerys is in the process of complying or has complied with the requirements below:

   i. If Imerys receives an alarm from the BLDS, Imerys shall investigate the control device and the BLDS, observe if there are any visible emissions from the control device exhaust, and take all necessary corrective actions to eliminate the cause of the alarm and any visible emissions. Corrective actions to eliminate the cause of the alarm and any visible emissions shall be performed within 3 hours of detecting the alarm. Notwithstanding the above, the District may allow Imerys more than 3 hours to alleviate a specific alarm condition if the issue has been identified in the *AB617 Compliance Plan*, Imerys adequately explains why it is not feasible to alleviate the condition within 3 hours, and demonstrates that the condition will be fixed as expeditiously as practicable.

d. Imerys shall not operate any new baghouses with a cumulative filter surface area greater than 7,500 square feet that vents to atmosphere, unless the baghouse is equipped with a District approved BLDS, which is installed, operated, calibrated and maintained pursuant to the manufacturers written recommendations to monitor baghouse performance, and complies with the requirements of Condition 1.a and 2.c of this permit.

e. On or after December 31, 2023, Imerys shall be not operate the Celite Analytical Filter Aid Baghouse (DID# 000152), Sackroom Baghouse (DID# 000153) and the Experimental Plant Ventilation Baghouse (DID# 005935) unless a valid ATC permit has been issued to authorize the replacement or retrofit of the baghouse, with at minimum, an automated shaker baghouse and the modification or replacement has been completed prior to resuming operations. In addition, Imerys shall not install any new manual shaker baghouses after the issuance of this permit.

f. All PM control devices shall be operated and maintained in accordance with the manufacturer's operation and maintenance manual or other similar written materials supplied by the manufacturer or distributor of a control device to ensure that the control device remains in proper operating condition. If such documents are not available, the operator shall provide and follow written operation and maintenance procedures for the PM control device(s). Such documentation shall be made available to the Control Officer immediately upon request.

g. Imerys shall install and maintain the ventilation system to all existing and new baghouses with a cumulative filter surface area greater than 100 square feet, such that the ventilation system meets the minimum capture velocity requirement specified in the applicable standards of the most current edition of the U.S. Industrial Ventilation Handbook, American Conference of Governmental Industrial Hygienists, at the time of installation.

h. Imerys shall discharge material collected in all PM control devices in such a way as to prevent fugitive emissions from being re-entrained in the atmosphere, including, but not limited to, the use of shrouding or the use of dust suppressants to stabilize the material.

i. The airflow to Baghouse 578 shall not exceed 31,500 scfm.

j. Any PM control device equipped with a District approved BLDS as listed in the *BLDS Process Monitoring, Calibration and Maintenance Plan* and subject to the no visible emission requirements of Condition *2*.c, is exempt from the daily visible emissions observation requirements, quarterly Method 9 inspection requirements and quarterly Method 22 inspection requirements listed in conditions C.6.(c)(iv), C.6.(c)(v), C.6.(c)(vii) of PT-70 PTO 5840-R6 Part 1 and C.1(c)(ii), C.1(c)(iii), C.1(c)(iv) of PT-70 PTO 5840-R6 Part 2 (and any reevaluations thereof) except as provided in Condition 3.b.11.

3. **Monitoring**. The equipment permitted herein is subject to the following monitoring requirements.

a. PM Control Devices without BLDS.

i. No later than December 31, 2023, Imerys shall have a minimum of one person trained (trained observer) in the reading of visible emissions pursuant to the most current version of EPA Method 22.

ii. Starting December 31, 2023, Imerys shall conduct a 6-minute Method 22 visible emissions inspection on all PM control devices not equipped with a District approved BLDS, using an observer trained in accordance with the requirements of Condition 3.a.i, at least once each calendar week. To the extent that multiple Method 22 observations can be conducted simultaneously, Imerys may observe multiple sources

at the same time as long as all of the sources are located in the same field of view of the observer and appropriate records are kept for each observation. If the operator detects any visible emissions during the observation, the operator shall continue the observation on the source with visible emissions and stop the observation(s) on the additional sources(s). If the activity being observed is consistently a duration of less than six minutes, then the Method 22 observation shall be for the period in which the activity takes place.

iii. Imerys shall comply with the requirements of Condition 2.b if visible emissions are detected exiting the PM control device at any time, including during a weekly Method 22 inspection.

iv. Notwithstanding the above, weekly Method 22 inspections are not required on a PM control device, if any of the following apply:

1. The PM control device is not operated during the calendar week, as verified through operational records maintained per condition 4.a.vii and 4.c.

2. The PM control device vents a non-continuous process[1] or meets the definition of a bin vent[2] and is listed in the *AB617 Compliance Plan*.

3. The PM control device is a portable dust collector, fume extractor, or negative air machine, has a manufacturer's maximum rated capacity of less than or equal to 3,000 cubic feet per minute, and is listed in the *AB 617 Compliance Plan.*

4. Baghouses with a cumulative surface area less than or equal to 100 square feet as identified in the *AB617 Compliance Plan.*

5. The PM control device is equipped with District approved BLDS, is listed in the *AB 617 Compliance Plan* as being equipped with BLDS, and the BLDS is maintained and operated in accordance with the District approved *BLDS Process Monitoring Calibration and Maintenance Plan.*

6. The PM control device is connected in series and does not exhaust to the atmosphere as identified in the *AB 617 Compliance Plan*.

b. Baghouse Leak Detection Systems (BLDS).

i. All District approved BLDS installed on a PM control device shall meet the following monitoring requirements, except if the PM control device is operated in series, does not vent to the atmosphere and is listed in the District approved *AB 617 Compliance Plan* as exempt from the provisions of this condition:

[1] "Non-Continuous Process" means an emissions generating activity vented to a PM air pollution control device that either operates no more than once per week for a period of less than 20 hours; or operates for periods of less than one hour, not to cumulatively exceed 4 hours during any single day.

[2] "Bin Vent" means an air filtration dust collector designed to remove PM from the air that is displaced by materials filling silos and bins.

1. The BLDS sensor must provide an output of relative PM emissions; and

2. The BLDS shall meet the requirements specified in 40 CFR Part 60 Subpart OOO § 60.674 (d).

3. The BLDS shall output raw data to the Data Acquisition System (DAS) which must have a visible and audible alarm set to activate automatically when the BLDS detects a significant increase in relative PM emissions greater than a preset level as identified in the District approved *BLDS Process Monitoring, Calibration and Maintenance Plan*.

4. The BLDS and associated DAS shall be installed, operated, calibrated and maintained pursuant to the manufacturer written recommendations and the District approved *BLDS Process Monitoring, Calibration and Maintenance Plan.*

5. The BLDS shall be certified by the manufacturer to be capable of alarming automatically before visible emissions can be seen in the exhaust of the PM control device and shall set the BLDS to operate at such level. The alarm level shall be detailed in the *BLDS Process Monitoring, Calibration and Maintenance Plan.*

6. The BLDS baseline output shall be established as follows:

    A. Adjust and maintain the range and the averaging period of the device for the specific application per the manufacturer's written specifications and recommendations; and

    B. Establish and maintain the alarm set points and the alarm delay time per the manufacturer's written specifications and recommendations.

7. The operator shall perform adequate maintenance and inspections of each BLDS, according to the written specifications and recommendations of the manufacturer and the District approved *BLDS Process Monitoring, Calibration and Maintenance Plan*, to ensure that the monitor is operating properly at all times.

8. Imerys shall follow the requirements of Condition 2.c.i if an alarm is detected from a BLDS.

9. Alarm Activation Limit: Imerys shall maintain the filters and operate the PM control device such that the BLDS alarm activation is minimized and the cumulative number of hours of alarm activation within a continuous six-month rolling period does not exceed more than five percent (5%) of the total operating hours in that period. If cumulative alarm time exceeds five percent of the total operating hours based on any continuous six-month rolling period, the operator shall shut down the equipment that vents into the associated PM control device until necessary actions are taken to eliminate the elevated emissions.

10. Minimum Quarterly Data Recovery Efficiency: Each BLDS must achieve a minimum quarterly data recovery efficiency (DRE) of 90-percent based on actual hours of operation. The DRE shall be calculated by dividing the BLDS operating hours each quarter by the total PM control device actual operating hours and multiplying by 100.

11. BLDS Downtime: Upon detecting a BLDS equipment failure, Imerys shall implement daily visual emissions monitoring on the PM control device in accordance with Condition C.6.(c)(iv) of PT-70 PTO 5840-R6 Part 1 or C.1(c)(ii) of PT-70 PTO 5840-R6 Part 2 (whichever is applicable) within 24 hours, until such time that the BLDS resumes normal operation.

c. Baghouse 578 Flow Monitor. Imerys shall install a District approved flow monitor and recording system on Baghouse 578 prior to rerouting process flows from the 6 Dry End Ventilation Baghouse (DID# 000125) and the 6 Super Fine Super Floss Baghouse (DID# 000126) to Baghouse 578 (DID# 000119).

d. Source Testing. Imerys shall meet the baghouse source test requirements required by Part-70/PTO 5840-R6 and Condition 12 of this permit.

4. **Recordkeeping**. The permittee shall record and maintain the following information. This data shall be maintained for a minimum of five (5) years from the date of entry and made available to the District upon request.

a. Weekly Method 22 Observations: Imerys shall maintain records of each weekly Method 22 inspection for all PM control devices not equipped with a District approved BLDS pursuant to the requirements of Condition 3.a including:

i. Observer's name and affiliation.

ii. Date and time of each weekly Method 22 observation.

iii. Process unit(s) being observed including Device ID.

iv. Observer's position relative to the source.

v. Observation duration.

vi. Whether visible emissions occurred, and cumulative amount of time visible emissions occurred during the observation; If visible emissions are detected the following additional information shall be recorded:

A. The date, time, and description of the corrective action taken to eliminate any visible emissions and the name of the person performing the corrective action.

vii. If the control device is not in operation during that week, then report items i through vi above with a notation that the device was not in operation during the calendar week.

b. PM Control Devices with BLDS: Imerys shall maintain the following records for all PM control devices equipped with BLDS:

i. Date and time of all routine maintenance and inspections conducted on each BLDS including the name of the facility representative responsible for maintaining each BLDS.

ii. The date and time of any alarm, including length of the alarm time, cause of the alarm, process unit name and Device ID with the alarm state, and visible emissions observations during and after the alarm.

iii. The date and time corrective action was completed to eliminate the cause of the alarm and the name of the person performing the corrective action.

iv. Cumulative alarm time for each BLDS based on the previous six-month rolling period.

v. Records of BLDS downtime which include the date and time BLDS failure occurred, the Device ID and Device name of the PM control device associated with the failed BLDS, and the date and time the BLDS resumed operation. The DRE shall be calculated by dividing the BLDS operating hours each quarter by the PM control device actual operating hours each quarter.

vi. Records required by the District approved *BLDS Process Monitoring, Calibration and Maintenance Plan.*

c. Daily records of the date and duration of all startups and shutdowns of each PM control device, including startups after a repair to fix an equipment breakdown or after a scheduled maintenance activity.

d. Quarterly and annual hours of operation for each PM control device.

e. The 1-minute block average flowrate reading (scfm) to Baghouse 578.

5. **Reporting**. By March 1 of each year, a written report documenting compliance with the terms and conditions of this permit for the previous calendar year shall be provided by the permittee to the District (Attn: *Annual Report Coordinator*). The report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit. The report shall be in a format approved by the District. All logs and other basic source data not included in the report shall be made available to the District upon request. The report shall include the following information:

a. Weekly Method 22 Observations Summary Log: Imerys shall submit a summary log detailing the results of each weekly Method 22 inspection for all PM control devices not equipped with a District approved BLDS. The summary log shall including:

i. Date and time of each weekly Method 22 observation.

ii. Process unit(s) being observed including Device ID.

iii. Whether visible emissions occurred, or if the control device was not operated during the week and as a result no Method 22 inspection was conducted. If visible emissions are detected for any PM control device during a weekly Method 22 inspection, the full Method 22 inspection record required by Condition 4.a shall be attached to the summary log for the inspection:

b. PM Control Devices with BLDS: Imerys shall submit the following records for all PM control devices equipped with BLDS:

i. Date and time of all routine maintenance and inspections conducted on each BLDS including the name of the facility representative responsible for maintaining each BLDS.

ii. The date and time of any alarm, including length of the alarm time, cause of the alarm, process unit name and Device ID with the alarm state, and visible emissions observations during and after the alarm.

iii. The date and time corrective action was completed to eliminate the cause of the alarm and the name of the person performing the corrective action; and

iv. Cumulative alarm time for each BLDS based on the previous six-month rolling period.

v. Records of BLDS downtime which include the date and time BLDS failure occurred, the Device ID and Device name of the PM control device associated with the failed BLDS, and the date and time the BLDS resumed operation.

vi. The quarterly operating hours of each BLDS and the calculated quarterly DRE percentage per Condition 3.b.10.

vii. If the visible emissions are detected or a BLDS alarm is triggered during a PM control device start-up interval per the provision of Condition 6, Imerys shall flag the event as having occurred during start-up and include records of baghouse start-up date and time per Condition 4.c.

c. Quarterly and annual hours of operation for each baghouse.

d. The maximum 1-minute block average scfm flowrate reading to Baghouse 578 each calendar month.

6. **PM Control Device Start-up Provisions**: The exhaust concentration requirement of Condition 1.a and visible emission operating restrictions of Condition 2.b and 2.c shall not apply during start-up of a PM control device, including start-up after a repair to fix an equipment breakdown or after a scheduled maintenance activity. For the purposes of this condition, the start-up interval shall not last longer than necessary to reach stable operating conditions and in no case shall be longer than 45 minutes.

   Additionally, alarms detected during the start-up interval as defined above, shall not be included in the rolling 6 month alarm activation limit calculation per condition 3.b.i.9.

   This condition does not relieve Imerys from complying with the PM concentration (grain loading) requirements of Rule 304, 305 or the opacity requirements as specified in Rule 302.

7. **Non-Operational Provisions:** Permitted PM control devices that are non-operational as of the issuance of this permit and listed in the *AB 617 Compliance Plan* as being non-operational, may remain in a non-operational state in-lieu of complying with the requirements in Conditions 1, 2, 3, 4 and 5 of this permit. Any PM control device listed as non-operational in the *AB 617 Compliance Plan* shall immediately become subject to the requirements in Conditions 1, 2, 3, 4 and 5 upon operation.

8. **Baghouse Leak Detection System Process Monitoring, Calibration and Maintenance Plan.** Prior to the installation of each new BLDS, Imerys shall submit and obtain approval of a facility wide BLDS Process Monitoring, Calibration and Maintenance (PMCMP). The plan shall demonstrate compliance with the BLDS plan requirements specified in 40 CFR Part 60 Subpart OOO § 60.674 (d) and include the following:

   a. Device ID and name of the PM control device being monitored by each BLDS including permitted exhaust concentration limits.

   b. Manufacturer specifications for each BLDS.

   c. Stack diagram which includes the location of the BLDS probe installation for each PM control device.

   d. Documentation that each BLDS system is certified by the manufacturer to be capable of detecting PM emissions at concentrations of 0.00044 gr/dscf or less.

   e. The audible and visual alarm setpoint and preset level for each BLDS and the alarm delay time as recommended by the manufacturer.

   f. The baseline output of the BLDS including range and averaging period of the device. If a third-party DAS system is used to record the BLDS sensor output, provide details of the DAS system make, model and averaging periods.

   g. Inspection, maintenance, and calibration intervals as recommended or required by the BLDS manufacturer.

   Imerys shall not adjust the averaging period, alarm set point, or alarm delay time without first submitting an updated BLDS plan for District review and approval.

9. **AB 617 Compliance Plan**: Imerys shall maintain an AB 617 Compliance Plan. The plan shall include the following:

   a. A list of all permitted PM air pollution control devices at Imerys. For each permitted PM air pollution control device, identify the following:

      i. If the PM air pollution control device is a baghouse, bin vent, cyclone, wet scrubber, portable dust collector, fume extractor, negative air machine, high efficiency particulate air (HEPA) system or other PM control device.

      ii. Whether any sections of Condition 1, 2, 3, 4 or 5 of this permit apply to the PM air pollution control device.

      iii. If the PM air pollution control device vents to a non-continuous process.

      iv. If the PM air pollution control device is equipped with a District approved BLDS.

      v. If the PM air pollution control device is connected in series and does not exhaust to the atmosphere

      vi. If the PM air pollution control device is in a non-operational state as of the issuance of this permit and will remain non-operational in lieu of complying with the requirements in Conditions 1, 2, 3, 4 and 5 per the provisions in Condition 7.

      vii. For all baghouses identified in Condition 9.a.i above, include the following information:

         A. The number of bags used,
         B. The dimensions of the bags
         C. The cumulative filter surface area of the baghouse
         D. The type of filter fabric material used
         E. The filter cleaning method, and
         F. The maximum rated airflow capacity of the baghouse.

      viii. Whether any source testing requirements apply and if so the applicable source testing frequency.

10. **BLDS Installation Authorization**: Imerys may install BLDS on any baghouse without the need to first obtain a District permit if all of the following requirements are met:

   a. Imerys submits for District review and approval a revised BLDS Process Monitoring, Calibration and Maintenance Plan which meets all of the requirements in Condition 8.

   b. Imerys submits for District review and approval a revised *AB 617 Compliance* Plan which identifies the applicable baghouse as being equipped with BLDS and subject to the requirements of Condition 2.c, 3.b, 4.b and 5.b.

c. Imerys receives written District approval to proceed with installation and operation of the BLDS. Upon installation and initial operations, the BLDS system will become subject to the operational, monitoring, recordkeeping and reporting requirements in Conditions 2.c, 3.b, 4.b and 5.b.

d. Imerys notifies the District within 14 days of the start of BLDS operation (engr@sbcapcd.org).

Installation of a BLDS without meeting the requirements in a, b, c and d above or without a valid District permit shall constitute a violation of District Rule 201.

11. **Source Compliance Demonstration Period**. The equipment permitted herein can operate temporarily during the SCDP. The SCDP shall begin upon issuance of this permit and shall end on December 31, 2023. During the SCDP, the permittee shall comply with all operational, monitoring, recordkeeping and reporting requirements as specified in this permit.

During the SCDP, the permittee shall:

a. Submit and obtain District approval of the *AB 617 Compliance Plan* within 180 days of the issuance of this permit. The plan shall meet the requirements of Condition 9.

b. Submit and obtain District approval of the *Baghouse Leak Detection Process Monitoring, Calibration and Maintenance Plan* for the four baghouses required to install BLDS per the requirements of Condition 2.a.i prior to the installation of the BLDS, but no later than December 31, 2022. The plan shall meet the requirements of Condition 8.

c. Submit and obtain District approval of a *Baghouse 578 Process Monitor Plan* prior to rerouting flows from the 6 Dry End Ventilation Baghouse (DID# 000125) and 6 Super Fine Super Floss Baghouse (DID# 000126) to Baghouse 578 (DID# 000119). The plan shall detail the flow meter and DAS system make, model and specifications, data averaging period and reporting requirement for the DAS system, as well as any maintenance and calibration requirements for the flow meter.

d. Conduct source testing on the Mill Ventilation Baghouse (DID# 000102) no later than June 26, 2023 to ensure the 5 year source test requirement is achieved.

e. Notify the District within 14 days of installation and operation of each BLDS required to be installed per Condition 2.a.i. The notification shall include the name and Device # of the associated baghouse with the BLDS installation, as well as the installation and operation dates.

f. Notify the District within 14 days of removal of each open sock baghouse per the requirements of Condition 2.a.ii. The notification shall list the name, Device # and date the open sock baghouse that was removed from service.

g. Notify the District within 14 days of rerouting process flows from the 6 Dry End Ventilation Baghouse (DID# 000125) and 6 Super Fine Super Floss Baghouse (DID# 000126) to Baghouse 578 (DID# 000119) as required by Condition 2.a.iii. The notification shall include the date the process was rerouted.

h. Arrange for District inspection not more than 30 calendar days (or other mutually agreed to time period) after the installation and operation of each BLDS and after rerouting the process flow to Baghouse 578. An inspection can be arranged via e-mail to enfr@sbcapcd.org or by calling the District Compliance Division at (805) 979-8050. A minimum of three calendar days advance notice shall be given to the District. The Compliance Division may waive this inspection requirement if an initial inspection is deemed unnecessary to verify that the modifications authorized by this permit are in compliance with District rules and permit conditions.

i. Submit a Permit to Operate (PTO) and Part 70 Minor Modification application and the appropriate filing fee not more than 60 calendar days prior to the expiration of the SCDP pursuant to District Rule 201.E.2. Upon the District's determination that the permit application is "complete", the permittee may continue temporary operations under the SCDP until such time the PTO is issued final or one year from the date of PTO application completeness, whichever occurs earlier. Failure to submit the PTO application within the specified period shall be documented by an enforcement |action.

12. **Source Testing.** The following source testing provisions shall apply:

a. *Baghouse Test Schedule* - The baghouses shall be source tested consistent with the frequency stated in Table 9.9, with July 1st as the anniversary date. The specified month of testing for the above noted equipment units may be modified if approved in advance by the District. If an equipment item in Table 9.9 cannot be tested due to non-operational status, and all operational equipment units have been tested in the group, (i.e. a cycle completed) Imerys shall commence the next cycle of testing. In addition, any unit that was unable to be tested due to non-operation in the previous cycle, shall be tested within 90 days of startup. Imerys shall perform source testing of air emissions and process parameters listed in Table 9.12 *(Source Test Requirements for Baghouses and Rotoclones)* for the baghouses.

Source testing of the Mill Ventilation Baghouse (DID# 102) and the Silicate Plant Ventilation Baghouse (DID# 142) shall be conducted at least once every 5 years from the date of the last source test.

b. The permittee shall submit a written source test plan to the District for approval (e-mail to sourcetest@sbcapcd.org) at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified (e-mail to sourcetest@sbcapcd.org) at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.

c. Source test results shall be submitted to the District (e-mail to sourcetest@sbcapcd.org) within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates and applicable permit conditions, rules and NSPS (if applicable). All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.

d. A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

The timelines in (a), (b), and (c) above may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District

13. **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Evaluation prepared for and issued with the permit.

14. **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer’s maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site.

15. **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.

16. **Severability.** If any condition herein is determined to be invalid, all other conditions shall remain in force.

17. **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.

18. **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.

19. **Equipment Identification.** Identifying tag(s) or name plate(s) shall be displayed on the equipment to show manufacturer, model number, and serial number. The tag(s) or plate(s) shall be affixed to the equipment in a permanent and conspicuous position.

20. **Emission Factor Revisions.** The District may update the emission factors for any calculation based on USEPA AP-42 or District emission factors at the next permit modification or permit reevaluation to account for USEPA and/or District revisions to the underlying emission factors.

21. **Nuisance.** Except as otherwise provided in Section 41705 of the California H&SC, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

22. **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.*

23. **Documents Incorporated by Reference.** The documents listed below, including any District-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition. These documents shall be implemented for the life of the project:

    - *BLDS Process Monitoring, Calibration and Maintenance Plan* (TBD)
    - *AB 617 Compliance Plan (TBD)*
    - *Baghouse 578 Process Monitoring Plan* (TBD)

24. **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for the activities listed below that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the permittee as required by Rule 210. Reimbursable activities include work involving permitting, compliance, CEMS, modeling/AQIA, ambient air monitoring and air toxics.

AIR POLLUTION CONTROL OFFICER

DATE

Attachments:

- Table 9.9 - Baghouse Equipment Source Test Grouping and Frequency
- Table 9.12 – Source Testing Requirements for Baghouses and Rotoclones
- Tables 5.3 - Short Term Emissions PM Control Devices Main Plant & Celpure
- Tables 5.4 - Long Term Emissions PM Control Devices Main Plant & Celpure
- Permit Equipment List(s)
- Permit Evaluation for Authority to Construct 15804

\sbcapcd.org\shares\Groups\ENGR\WP\CELITE\Permits\ATC\ATC 15804\ATC 15804 - Draft Permit .docx

Table 9.9 Bagbouse Equipment Source Test Grouping and Frequency

Group	Device Name(s)	Imerys ID	District DeviceNo	Source Test Frequency
1	Silicate Plant Flash Dryer Baghouse	SPFDBH	103474	At least one baghouse shall be tested every two years
	Pellet Plant Ventilation Baghouse - Hot Recirculating System Ventilation Baghouse[1]	PPHVBH RBH	148 135	
	978 Baghouse	978BH	110	
	Silicate Plant Production Baghouse	SPPBH	141	
2	6 Automatic Packing Station Baghouse (678)	678BH	103363	At least one baghouse shall be tested every two years and the Mill Ventilation Baghouse (DID# 102) and Silicate Plant Ventilation Baghouse (DID# 142) tested at least once every 5 years.
	Silicate Plant Ventilation Baghouse (Pack)	SPVBH	142	
	General Waste Baghouse[1]	GWBH	137	
	Chromosorb Ventilation Baghouse - South[1]	CPVBHS	149	
	Mill Ventilation Baghouse (1178)	11VBH	102	
3	378 Baghouse/ 3 Dry End	378BH	109	At least one baghouse shall be tested every two years
	5 Automatic Packing Station Baghouse (578)	578BH	119	
	Mortar Plant Ventilation Baghouse	MPVBH	146	
	Silicate Plant Lime Baghouse	SPLBH	139	
	Baghouse 5DC-01	5DC-01	114326	
4	616 Ventilation Baghouse	616VBH	128	At least one baghouse shall be tested every two years
	Preseparator Waste Baghouse[1]	PSWBH	136	
	Silicate Plant Feed Mix Baghouse	SPFMBH	138	
	Pellet Plant Ventilation Baghouse-Cold	PPCVBH	147	
	Soda Ash Baghouse	SABH	109452	
System 7 Baghouses	7 Wet End Baghouse BH721	BH721	110724	Annual
	7 Dry End Baghouse BH775	BH775	110720	
	7 Dry End Baghouse BH777	BH777	110721	
	7 Dry End Baghouse BH788	BH788	110722	
	7 Dry End Baghouse BH789	BH789	110723	
System 7 Kiln Bypass	7 Kiln Bypass BH717	BH717	110719	Every six years
Silo Area Group 1	Product Storage Silo Baghouses	BH101, BH102, BH103, BH104, BH105, BH106, BH107, BH108	110191, 110192, 110193, 110194, 110195, 110196, 110197, 110198	At least two baghouses shall be tested every year, and each baghouse must be tested every three years
Silo Area Group 2	Disposition Bin Baghouses	BH109A, BH109B, BH110A, BH110B	110649, 110650, 110651, 110652	At least one baghouse shall be tested every year, and each baghouse must be tested every three years
Silo Area Group 3	Holding Bin Baghouses	BH925A, BH925B, 3 & 4 Bulk Bin Baghouse	110641, 110642, 151, 103514	At least one baghouse shall be tested per year, and each baghouse must be tested every three years
3 Automatic Packing Station	3 Automatic Packing Station Baghouse	345BH	108	Annual
Packing Station	Packing Station Baghouse	BH125	110525	Annual
Milling Circuit	Milling Circuit baghouses	BH901 BH916 BH912	108935 108940 110203	Annual
Crushing Plant Ventilation Baghouse	Crushing Plant Ventilation Baghouse	CRVBH	100	Every three years
Bagging and Packing	Bagging and Packing passive vent baghouses	BH131A1, BH131A2, BH131B1, BH131B2	110532, 110533, 110534, 110535	At least one baghouses shall be tested every three years

Table 9.12 Source Testing Requirements for Baghouses and Rotoclones

Baghouses and Rotoclone
Source Testing Requirements

Emission & Limit Test Points[(c)]	Pollutants[(d), (e)]	Parameters	Test Methods[(a),(b)]
Baghouses and Rotoclone	PM ROC Hydrochloric Acid Sulfuric Acid	ppmv, lb/hr ppmv, lb/hr ppmv, lb/hr ppmv, lb/hr	EPA Method 5 EPA Method 18 EPA Method 26 EPA Method 8
	Sampling Point Det. Stack Gas Flow Rate O_2 Moisture Content	Dry, Mol. Wt	EPA Method 1 EPA Method 2 or 19 EPA Method 3 EPA Method 4
Baghouses	Pressure Drop across Baghouse Compressed air manifold pressure[(f)]	inches of H_2O lb/in^2	Calibrated gauge or manometer Pressure Gauge
Silicates Plant Baghouse 5DC-01 (ID 114326), BH717, BH777, BH788, BH789, and BH721 (IDs 110719, 110720, 110721, 110722, 110723, and 110724, respectively) in addition to above.	PM/PM10	lb/hr; grains/dscf	EPA Method 5 or 17
Chromosorb Rotoclone	Styrene and Toluene Usage	gallons/batch	District-approved method

Notes:

[(a)] Alternative methods may be acceptable on a case-by-case basis.

[(b)] USEPA Methods 1 -4 to be used to determine sampling traverses and points, stack temperature and flow rate, O_2, dry MW, CO_2, and moisture content. Alternatively, USEPA Method 19 may be used to determine stack flow rate.

[(c)] Rotoclone Test Frequency: The rotoclone shall be tested every six years in accordance with condition 9.C.7(c)

[(d)] PM is total suspended particulates; and use of PM:PM_{10} ratio = 1 allows testing for PM only.

[(e)] The Chromosorb Rotoclone shall be tested for ROC and Hydrochloric Acid only.

[(f)] Compressed air pressure at a compressed air manifold for pulse-cleaned baghouses only.

[(g)] Source testing shall be performed for the baghouses and rotoclones in an "as found" condition at loads as defined in condition 9.C.11.b

[(h)] Baghouse BH717 shall be tested at least once every 6 years during operations in kiln bypass mode.

Table 5.3 Short Term Emissions PM Control Devices Main Plant

Equipment Description			NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Federal Enforceability
Equipment Item	Process Line	District DeviceNo	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	
3 Air Sifter Ventilation Baghouse		6471	--	--	--	--	--	--	--	--	0.00	0.04	0.00	0.04	0.00	0.04	--	--	FE
345 Baghouse		108	--	--	--	--	--	--	--	--	0.86	20.57	0.34	8.23	0.34	8.23	--	--	FE
378 Baghouse/ 3 Dry End		109	--	--	--	--	--	--	--	--	2.86	68.73	2.86	68.73	2.86	68.73	--	--	FE
3 Bulk Bin Baghouse		151	--	--	--	--	--	--	--	--	0.13	3.04	0.13	3.04	0.13	3.04	--	--	FE
5 Air Sifter Ventilation Baghouse		6472	--	--	--	--	--	--	--	--	0.00	0.04	0.00	0.04	0.00	0.04	--	--	FE
578 Baghouse		119	--	--	--	--	--	--	--	--	1.35	32.40	1.35	32.40	1.35	32.40	--	--	FE
6 Automatic Packing Station Baghouse (678)		103363	--	--	--	--	--	--	--	--	5.66	135.77	5.66	135.77	5.66	135.77	--	--	FE
616 Ventilation Baghouse		128	--	--	--	--	--	--	--	--	0.57	13.58	0.57	13.58	0.57	13.58	--	--	FE
7 Wet End Baghouse BH721	Line 7	110724	--	--	--	--	--	--	--	--	0.03	0.71	0.03	0.71	0.03	0.71	--	--	FE
7 Dry End Baghouse BH775	Line 7	110720	--	--	--	--	--	--	--	--	0.16	3.92	0.16	3.92	0.16	3.92	--	--	FE
7 Dry End Baghouse BH777	Line 7	110721	--	--	--	--	--	--	--	--	1.35	32.42	1.35	32.42	1.35	32.42	--	--	FE
7 Dry End Baghouse BH778	Line 7	110722	--	--	--	--	--	--	--	--	0.49	11.73	0.49	11.73	0.49	11.73	--	--	FE
7 Dry End Baghouse BH789	Line 7	110723	--	--	--	--	--	--	--	--	0.60	14.44	0.60	14.44	0.60	14.44	--	--	FE
7 Kiln Bypass BH717	Line 7	110719	--	--	--	--	--	--	--	--							--	--	FE
Mill Ventilation Baghouse (1178)		102	--	--	--	--	--	--	--	--	1.54	37.03	1.54	37.03	1.54	37.03	--	--	FE
Silicate Plant Flash Dryer Baghouse		103474	--	--	--	--	--	--	--	--	37.80	907.20	37.80	907.20	37.80	907.20	--	--	FE
Silicate Plant Feed Mix Baghouse		138	--	--	--	--	--	--	--	--	40.00	960.00	40.00	960.00	40.00	960.00	--	--	FE
Silicate Plant Lime Baghouse		139	--	--	--	--	--	--	--	--	7.71	185.14	7.71	185.14	7.71	185.14	--	--	FE
Silicate Plant Production Baghouse		141	--	--	--	--	--	--	--	--	8.49	203.66	8.49	203.66	8.49	203.66	--	--	FE
Silicate Plant Ventilation Baghouse (Pack)		142	--	--	--	--	--	--	--	--	1.80	43.20	1.80	43.20	1.80	43.20	--	--	FE
Silicates Plant Baghouse 5DC-01		114326	--	--	--	--	--	--	--	--	0.09	2.06	0.09	2.06	0.09	2.06	--	--	FE
Mortar Plant Ventilation Baghouse		146	--	--	--	--	--	--	--	--	40.00	960.00	40.00	960.00	40.00	960.00	--	--	FE
Pellet Plant Ventilation Baghouse - Cold		147	--	--	--	--	--	--	--	--	40.00	960.00	40.00	960.00	40.00	960.00	--	--	FE
Pellet Plant Ventilation Baghouse - Hot		148	140.0	3360.0	--	--	--	--	200.0	4800.0	0.36	8.64	0.36	8.64	0.36	8.64	--	--	FE
Chromosorb Ventilation Baghouse - South		149	--	--	--	--	--	--	--	--	20.06	481.37	20.06	481.37	20.06	481.37	--	--	FE
Celite Analytical Filter Aid Baghouse		152	--	--	--	--	--	--	--	--	0.35	8.52	0.35	8.52	0.35	8.52	--	--	FE
Experimental Plant Ventilation Baghouse		5935	--	--	--	--	--	--	--	--	2.57	61.71	2.57	61.71	2.57	61.71	--	--	FE
Preseparator Waste Baghouse		136	--	--	--	--	--	--	--	--	0.86	20.57	0.86	20.57	0.86	20.57	--	--	FE
General Waste Baghouse		137	--	--	--	--	--	--	--	--	0.93	22.36	0.93	22.36	0.93	22.36	--	--	FE
Recirculating System Ventilation Baghouse		135	--	--	--	--	--	--	--	--	0.72	17.19	0.72	17.19	0.72	17.19	--	--	FE
4 Bulk Bin Baghouse		103514	--	--	--	--	--	--	--	--	0.13	3.04	0.13	3.04	0.13	3.04	--	--	FE
978 Baghouse		110	--	--	--	--	--	--	--	--	40.00	960.00	40.00	960.00	40.00	960.00	--	--	FE
Crushing Plant Ventilation Baghouse		100	--	--	--	--	--	--	--	--	1.81	43.33	1.81	43.33	1.81	43.33	--	--	FE
Soda Ash Baghouse		109452	--	--	--	--	--	--	--	--	0.03	0.55	0.03	0.55	0.03	0.55	--	--	FE
Sackroom Baghouse		153	--	--	--	--	--	--	--	--	12.80	307.09	12.80	307.09	12.80	307.09	--	--	FE
Chromosorb Rotoclone		150	--	--	--	--	--	--	--	--	25.71	617.14	25.71	617.14	25.71	617.14	--	--	FE

Table 5.3 Short Term Emissions PM Control Devices Main Plant (Continued)

Equipment Description			NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Federal Enforceability
Equipment Item	Process Line	District DeviceNo	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	
Feed Bin Baghouse (BH901)	Milling Circuit	108935	--	--	--	--	--	--	--	--	0.11	2.62	0.11	2.62	0.11	2.62	--	--	FE
Baghouse (BH916)	Milling Circuit	108940	--	--	--	--	--	--	--	--	0.57	13.62	0.57	13.62	0.57	13.62	--	--	FE
Process Baghouse (BH912)	Milling Circuit	110203	--	--	--	--	--	--	--	--	0.56	13.37	0.56	13.37	0.56	13.37	--	--	FE
Baghouse BH101	Silos	110191	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH102	Silos	110192	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH103	Silos	110193	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH104	Silos	110194	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH105	Silos	110195	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH106	Silos	110196	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH107	Silos	110197	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH108	Silos	110198	--	--	--	--	--	--	--	--	0.10	2.48	0.10	2.48	0.10	2.48	--	--	FE
Baghouse BH925A	Silos	110641	--	--	--	--	--	--	--	--	0.03	0.74	0.03	0.74	0.03	0.74	--	--	FE
Baghouse BH925B	Silos	110642	--	--	--	--	--	--	--	--	0.03	0.74	0.03	0.74	0.03	0.74	--	--	FE
Baghouse BH109A	Silos	110649	--	--	--	--	--	--	--	--	0.06	1.54	0.06	1.54	0.06	1.54	--	--	FE
Baghouse BH109B	Silos	110650	--	--	--	--	--	--	--	--	0.06	1.54	0.06	1.54	0.06	1.54	--	--	FE
Baghouse BH110A	Silos	110651									0.06	1.54	0.06	1.54	0.06	1.54	--	--	FE
Baghouse BH110B	Silos	110652	--	--	--	--	--	--	--	--	0.06	1.54	0.06	1.54	0.06	1.54	--	--	FE
Packing Sta BH125	Bagging and Packing	110525	--	--	--	--	--	--	--	--	0.61	14.67	0.61	14.67	0.61	14.67	--	--	FE
Bin Vent BH131A1	Bagging and Packing	110532	--	--	--	--	--	--	--	--	0.04	1.06	0.04	1.06	0.04	1.06	--	--	FE
Bin Vent BH131A2	Bagging and Packing	110533	--	--	--	--	--	--	--	--	0.04	1.06	0.04	1.06	0.04	1.06	--	--	FE
Bin Vent BH131B1	Bagging and Packing	110534	--	--	--	--	--	--	--	--	0.04	1.06	0.04	1.06	0.04	1.06	--	--	FE
Bin Vent BH131B2	Bagging and Packing	110535	--	--	--	--	--	--	--	--	0.04	1.06	0.04	1.06	0.04	1.06	--	--	FE

Table 5.3 Short Term Emissions PM Control Devices Celpure Facility

Equipment Description / Equipment Item	District Device No	NOx		ROC		CO		SOx		H_2SO_4		PM		PM10		PM2.5		GHG		Federal Enforceability
		lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	
Crude Bin Ventilation Baghouse	8073											0.12	2.89	0.12	2.89	0.12	2.89			FE
Soda Ash Bin Baghouse	8074											0.03	0.62	0.03	0.62	0.03	0.62			FE
Kiln Feed (Calciner Surge) Bin Baghouse	8075											0.12	2.88	0.12	2.88	0.12	2.88			FE
Flash Cooler Baghouse	8076											0.12	2.87	0.12	2.87	0.12	2.87			FE
Second Stage Dryer Baghouse	8077											0.35	8.37	0.35	8.37	0.35	8.37			FE
Packing Station Baghouse	8078											0.09	2.06	0.09	2.06	0.09	2.06			FE
Refeed Station Baghouse	8079											0.10	2.47	0.10	2.47	0.10	2.47			FE
Flash Dryer Baghouse	391814											0.19	4.65	0.19	4.65	0.19	4.65			
1st Stage (Flotation) Dryer Baghouse	8082											0.04	1.02	0.04	1.02	0.04	1.02			FE
350 (1st Stage Dryer) Scrubber	106243							0.14	3.41											FE
Acid Demisting Scrubber	106242									0.00	0.00									
Kiln (Calciner) Exhaust Baghouse	8083											0.03	0.64	0.03	0.64	0.03	0.64			FE
370 (Calcining and Leaching) Scrubber	391804							0.38	9.18											FE

Table 5.4 Long Term Emissions PM Control Devices Main Plant

Equipment Description			NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Federal Enforceability
Equipment Item	**Process Line**	**District DeviceNo**	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
3 Air Sifter Ventilation Baghouse		6471	--	--	--	--	--	--	--	--	0.002	0.008	0.002	0.008	0.002	0.008	--	--	FE
345 Baghouse		108	--	--	--	--	--	--	--	--	0.939	3.754	0.375	1.502	0.375	1.502	--	--	FE
378 Baghouse		109	--	--	--	--	--	--	--	--	3.136	12.543	3.136	12.543	3.136	12.543	--	--	FE
3 Bulk Bin Baghouse		151	--	--	--	--	--	--	--	--	0.139	0.555	0.139	0.555	0.139	0.555	--	--	FE
5 Air Sifter Ventilation Baghouse		6472	--	--	--	--	--	--	--	--	0.002	0.008	0.002	0.008	0.002	0.008	--	--	FE
578 Baghouse		119	--	--	--	--	--	--	--	--	1.478	5.913	1.478	5.913	1.478	5.913	--	--	FE
6 Automatic Packing Station Baghouse (678)		103363	--	--	--	--	--	--	--	--	6.195	24.778	6.195	24.778	6.195	24.778	--	--	FE
616 Ventilation Baghouse		128	--	--	--	--	--	--	--	--	0.619	2.478	0.619	2.478	0.619	2.478	--	--	FE
7 Wet End Baghouse BH721	Line 7	110724	--	--	--	--	--	--	--	--	0.032	0.129	0.032	0.129	0.032	0.129	--	--	FE
7 Dry End Baghouse BH775	Line 7	110720	--	--	--	--	--	--	--	--	0.179	0.716	0.179	0.716	0.179	0.716	--	--	FE
7 Dry End Baghouse BH777	Line 7	110721	--	--	--	--	--	--	--	--	1.479	5.917	1.479	5.917	1.479	5.917	--	--	FE
7 Dry End Baghouse BH778	Line 7	110722	--	--	--	--	--	--	--	--	0.535	2.141	0.535	2.141	0.535	2.141	--	--	FE
7 Dry End Baghouse BH789	Line 7	110723	--	--	--	--	--	--	--	--	0.659	2.635	0.659	2.635	0.659	2.635	--	--	FE
7 Kiln Bypass BH717	Line 7	110719	--	--	--	--	--	--	--	--							--	--	FE
Mill Ventilation Baghouse (1178)		102	--	--	--	--	--	--	--	--	1.689	6.758	1.689	6.758	1.689	6.758	--	--	FE
Silicate Plant Flash Dryer Baghouse		103474	--	--	--	--	--	--	--	--	41.391	165.564	41.391	165.564	41.391	165.564	--	--	FE
Silicate Plant Feed Mix Baghouse		138	--	--	--	--	--	--	--	--	43.800	175.200	43.800	175.200	43.800	175.200	--	--	FE
Silicate Plant Lime Baghouse		139	--	--	--	--	--	--	--	--	8.447	33.789	8.447	33.789	8.447	33.789	--	--	FE
Silicate Plant Production Baghouse		141	--	--	--	--	--	--	--	--	9.292	37.167	9.292	37.167	9.292	37.167	--	--	FE
Silicate Plant Ventilation Baghouse (Pack)		142	--	--	--	--	--	--	--	--	1.971	7.884	1.971	7.884	1.971	7.884	--	--	FE
Silicates Plant Baghouse 5DC-01		114326	--	--	--	--	--	--	--	--	0.094	0.375	0.094	0.375	0.094	0.375			FE
Mortar Plant Ventilation Baghouse		146	--	--	--	--	--	--	--	--	43.800	175.200	43.800	175.200	43.800	175.200	--	--	FE
Pellet Plant Ventilation Baghouse - Cold		147	--	--	--	--	--	--	--	--	43.800	175.200	43.800	175.200	43.800	175.200	--	--	FE
Pellet Plant Ventilation Baghouse - Hot		148	145.635	582.540	--	--	--	--	208.050	832.200	0.374	1.498	0.374	1.498	0.374	1.498	--	--	FE
Chromosorb Ventilation Baghouse - South		149	--	--	--	--	--	--	--	--	21.963	87.850	21.963	87.850	21.963	87.850	--	--	FE
Celite Analytical Filter Aid Baghouse		152	--	--	--	--	--	--	--	--	0.389	1.554	0.389	1.554	0.389	1.554	--	--	FE
Experimental Plant Ventilation Baghouse		5935	--	--	--	--	--	--	--	--	2.816	11.263	2.816	11.263	2.816	11.263	--	--	FE
Preseparator Waste Baghouse		136	--	--	--	--	--	--	--	--	0.913	3.651	0.913	3.651	0.913	3.651	--	--	FE
General Waste Baghouse		137	--	--	--	--	--	--	--	--	1.020	4.080	1.020	4.080	1.020	4.080	--	--	FE
Recirculating System Ventilation Baghouse		135	--	--	--	--	--	--	--	--	0.763	3.051	0.763	3.051	0.763	3.051	--	--	FE
4 Bulk Bin Baghouse		103514	--	--	--	--	--	--	--	--	0.139	0.555	0.139	0.555	0.139	0.555	--	--	FE
978 Baghouse		110	--	--	--	--	--	--	--	--	43.800	175.200	43.800	175.200	43.800	175.200	--	--	FE
Crushing Plant Ventilation Baghouse		100	--	--	--	--	--	--	--	--	1.977	7.908	1.977	7.908	1.977	7.908	--	--	FE
Soda Ash Baghouse		109452	--	--	--	--	--	--	--	--	0.006	0.025	0.006	0.025	0.006	0.025	--	--	FE
Sackroom Baghouse		153	--	--	--	--	--	--	--	--	14.011	56.044	14.011	56.044	14.011	56.044	--	--	FE
Chromosorb Rotoclone		150	--	--	--	--	--	--	--	--	28.157	112.629	28.157	112.629	28.157	112.629	--	--	FE

Table 5.4 Long Term Emissions PM Control Devices Main Plant (Continued)

Equipment Description			NOx		ROC		CO		SOx		PM		PM10		PM2.5		GHG		Federal Enforceability
Equipment Item	**Process Line**	**District DeviceNo**	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
Feed Bin Baghouse (BH901)	Milling Circuit	108935	--	--	--	--	--	--	--	--	0.120	0.479	0.120	0.479	0.120	0.479	--	--	FE
Baghouse (BH916)	Milling Circuit	108940	--	--	--	--	--	--	--	--	0.621	2.486	0.621	2.486	0.621	2.486	--	--	FE
Process Baghouse (BH912)	Milling Circuit	110203	--	--	--	--	--	--	--	--	0.610	2.440	0.610	2.440	0.610	2.440	--	--	FE
Baghouse BH101	Silos	110191	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH102	Silos	110192	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH103	Silos	110193	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH104	Silos	110194	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH105	Silos	110195	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH106	Silos	110196	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH107	Silos	110197	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH108	Silos	110198	--	--	--	--	--	--	--	--	0.113	0.453	0.113	0.453	0.113	0.453	--	--	FE
Baghouse BH925A	Silos	110641	--	--	--	--	--	--	--	--	0.034	0.135	0.034	0.135	0.034	0.135	--	--	FE
Baghouse BH925B	Silos	110642	--	--	--	--	--	--	--	--	0.034	0.135	0.034	0.135	0.034	0.135	--	--	FE
Baghouse BH109A	Silos	110649	--	--	--	--	--	--	--	--	0.070	0.282	0.070	0.282	0.070	0.282	--	--	FE
Baghouse BH109B	Silos	110650	--	--	--	--	--	--	--	--	0.070	0.282	0.070	0.282	0.070	0.282	--	--	FE
Baghouse BH110A	Silos	110651	--	--	--	--	--	--	--	--	0.070	0.282	0.070	0.282	0.070	0.282	--	--	FE
Baghouse BH110B	Silos	110652	--	--	--	--	--	--	--	--	0.070	0.282	0.070	0.282	0.070	0.282	--	--	FE
Packing Sta BH125	Bagging and Packing	110525	--	--	--	--	--	--	--	--	0.669	2.677	0.669	2.677	0.669	2.677	--	--	FE
Bin Vent BH131A1	Bagging and Packing	110532	--	--	--	--	--	--	--	--	0.048	0.194	0.048	0.194	0.048	0.194	--	--	FE
Bin Vent BH131A2	Bagging and Packing	110533	--	--	--	--	--	--	--	--	0.048	0.194	0.048	0.194	0.048	0.194	--	--	FE
Bin Vent BH131B1	Bagging and Packing	110534	--	--	--	--	--	--	--	--	0.048	0.194	0.048	0.194	0.048	0.194	--	--	FE
Bin Vent BH131B2	Bagging and Packing	110535	--	--	--	--	--	--	--	--	0.048	0.194	0.048	0.194	0.048	0.194	--	--	FE

Table 5.4 Long Term Emissions PM Control Devices Celpure Facility

Equipment Description / Equipment Item	District Device No	NOx		ROC		CO		SOx		H_2SO_4		PM		PM10		PM2.5		GHG		Federal Enforceability
		TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
Crude Bin Ventilation Baghouse	8073											0.13	0.53	0.13	0.53	0.13	0.53			FE
Soda Ash Bin Baghouse	8074											0.03	0.11	0.03	0.11	0.03	0.11			FE
Kiln Feed (Calciner Surge) Bin Baghouse	8075											0.13	0.53	0.13	0.53	0.13	0.53			FE
Flash Cooler Baghouse	8076											0.13	0.52	0.13	0.52	0.13	0.52			FE
Second Stage Dryer Baghouse	8077											0.38	1.53	0.38	1.53	0.38	1.53			FE
Packing Station Baghouse	8078											0.09	0.38	0.09	0.38	0.09	0.38			FE
Refeed Station Baghouse	8079											0.11	0.45	0.11	0.45	0.11	0.45			FE
Flash Dryer Baghouse	391814											0.21	0.85	0.21	0.85	0.21	0.85			FE
1st Stage (Flotation) Dryer Baghouse	8082											0.05	0.19	0.05	0.19	0.05	0.19			FE
350 (1st Stage Dryer) Scrubber	106243							0.10	0.38											FE
Acid Demisting Scrubber	8083																			
	106242									0.00	0.00									
Kiln (Calciner) Exhaust Baghouse												0.03	0.12	0.03	0.12	0.03	0.12			FE
370 (Calcining and Leaching) Scrubber	391804							0.26	1.03											FE

E DE-PERMITTED EQUIPMENT

1 4 Dry End Baghouse

Device ID #	**000112**	***Device Name***	**4 Dry End Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	JM Open	*Operator ID*	4DBH
Model		*Serial Number*	
Depermitted		*Facility Transfer*	
Device Description	General Process Descrip: SC production collection Pos./Neg: Pos. Number of Socks: 330 Bag Diam. (in): 9.0 Bag Length (ft): 57.0 Total Cloth Area: 44320 Est Air Flow: 44320 Est. A/C Ratio: 1.0 Fabric Material: orlon Cleaning Method: reverse air.		

2 6 Dry End Ventilation Baghouse

Device ID #	**000125**	***Device Name***	**6 Dry End Ventilation Baghouse**
Rated Heat Input		*Physical Size*	18661.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6DVBH
Model	Polyester	*Serial Number*	
Depermitted		*Facility Transfer*	
Device Description	Production Line 6 Ventilation line 6 dry end packing equip., bagwash, 6 AS, 6P SB, blowoff booth, 6P1 and 6AS bulk packing units; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 48.0; Total Cloth Area: 18661; Est. A/C Ratio: 1.0; open		

3 6 Super Fine Super Floss Baghouse

Device ID #	**000126**	***Device Name***	**6 Super Fine Super Floss Baghouse**
Rated Heat Input		*Physical Size*	8812.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6SFSF
Model	Orlon	*Serial Number*	
Depermitted		*Facility Transfer*	
Device Description	Super fine product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 55.0; Total Cloth Area: 8812; Est. A/C Ratio: 1.0; open		

4 Snow Floss Plant Baghouse

Device ID #	**000133**	***Device Name***	**Snow Floss Plant Baghouse**
Rated Heat Input		*Physical Size*	12978.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	SFPBH
Model	Orlon	*Serial Number*	
Depermitted		*Facility Transfer*	
Device Description	Snow Floss Plant product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 54.0; Total Cloth Area: 12978; Est. A/C Ratio: 1.0; open		

air pollution control district
SANTA BARBARA COUNTY

PERMIT EVALUATION FOR
AUTHORITY TO CONSTRUCT 15804

1.0 BACKGROUND

1.1 General: Imerys mines and processes diatomaceous earth (DE) at its Lompoc Plant. Imerys operates multiple product lines each with "wet end" and "dry end" processing. Wet diatomaceous earth crude is surface mined, crushed, milled, and dried and/or calcined at high temperatures. The dried product is classified into a variety of grades and bagged, or bulk loaded for shipment to distributors and customers. The Imerys Facility ID is 0012 and the Stationary Source ID is 1735.

The application for the project was submitted by Imerys on October 22, 2021, and deemed complete by the District on April 18, 2022.

1.2 Project Description: California Assembly Bill 617 (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 large facilities that participate in the California Greenhouse Gas (GHG) Cap-and-Trade system such as Imerys. The PM control devices at Imerys, which include baghouses, cyclones and wet scrubbers, are subject to the Best Available Retrofit Control Technology (BARCT) requirements of AB 617. The District determined that BARCT for PM control devices included the following:

- All baghouses with a cumulative filter surface area greater than 7,500 square feet are subject to an exhaust concentration limit of 0.005 gr/dscf and must install District approved Baghouse Leak Detection Systems (BLDS). Performance tests are required at least once every 5 years to ensure these baghouses comply with the respective exhaust concentration limits.

- Weekly Method 22 visible emissions monitoring requirements for all other PM control devices unless the control device is equipped with a BLDS or meets any other exemption in Condition 3.a.iii.

- No visible emissions from all PM control devices except spray booths and associated filters.

- Removal of all open sock baghouses.

- Removal or retrofit of all manual shaker baghouses.

On October 22, 2021 Imerys submitted the application for ATC 15804 to implement these BARCT requirements.

2.0 ENGINEERING ANALYSIS

2.1 Equipment/Processes: In order to meet the AB 617 BARCT requirement, Imerys submitted the application for ATC 15804 to implement the following changes at their facility by the AB 617 implementation date of December 31, 2023:

a. Elimination of four open sock baghouses. Imerys elected to remove these baghouses from service in lieu of complying with the BARCT requirements for these units by the implementation date.

- 4 Dry End BH (Device ID 112)
- Snow Floss Plant BH (Device ID 133)
- 6 Dry End Ventilation BH (Device ID 125)
- 6 Super Fine Super Floss BH (Device ID 126)

b. Rerouting 7,500 SCFM of process air flow that was controlled by the 6 Dry End Ventilation and 6 Super Fine Super Floss baghouses to BH578 (Device ID 119). The most recent source test data from BH578 demonstrated compliance with BARCT requirements. Imerys indicated that the BH578 has sufficient permitted capacity to handle the additional flow. The District imposed a condition to monitor the air flow to the 578 BH to ensure the change will not exceed the baghouses' s permitted air flow limit of 31,500 scfm.

c. Installation of a baghouse leak detection system (BLDS) on four baghouses with cumulative filter surface areas greater than 7,500 square feet by the implementation date. In addition, any new baghouses proposed for installation after this permit's issuance date with cumulative filter surface areas greater than 7,500 square feet will require BLDS prior to operation.

- Baghouse BH777 (Device ID 1107
- Mill Vent Baghouse 1178BH (Device ID 102)
- 345BH (Device ID 108)
- Silicate Plant Ventilation BH (Device ID 142).

d. Implementation of a zero visible emissions requirement for all PM control devices and a 0.005 gr/dscf exhaust concentration limit for all baghouses with cumulative filter surface areas greater than 7,500 square feet by the implementation date or upon installation of the BLDS, whichever is sooner.

e. Addition of weekly Method 22 visible emissions monitoring of all PM control devices by the implementation date, unless the control device is equipped with a District approved BLDS or meets any of the exemption criteria in Condition 3.a.iii.

f. Prohibition on the installation of any new manual shaker baghouses and requirements that the existing manual shaker baghouses be kept in a non-operational state in lieu of complying with BARCT requirements. Prior to operation of these existing manual shaker baghouses, Imerys will be required to replace or retrofit the units with at least automated shaker baghouses.

g. Revisions to the existing source test schedule and requirements for all baghouses with cumulative filter surface areas greater than 7,500 square feet. These baghouses must be tested at least once every 5 years to ensure compliance with BARCT requirements. The Mill Ventilation Baghouse and Silicate Plant Ventilation Baghouse are now required to be tested at least once every 5 years per Table 9.9. No changes to the source test schedule for BH 777 and 345BH was necessary in Table 9.9, as these baghouses are already required to be tested annually under PT-70 PTO 5840-R6. The source test requirements for all baghouses with cumulative filter surface areas greater than 7,500 square feet was revised to also require reporting of the exhaust concentration limits in gr/dscf as detailed in Table 9.12.

h. The District determined that installation and operation of a District approved BLDS on a PM control device subject to a no visible emissions standard is more stringent than, and ensure compliance with, the 7% and 10% baghouse opacity limits and associated monitoring requirements of NSPS Subpart OOO. Section 60.674(d) of NSPS Subpart OOO, allows the use of an approved BLDS in lieu of quarterly Method 22 visible emission inspections.

In addition to the periodic monitoring requirements of NSPS Subpart OOO, PT-70 PTO 5840-R6 requires a daily visible emission check and quarterly Method 9 opacity inspection on various baghouses to ensure the baghouse remains in compliance with the permitted opacity limits. As a BLDS provides continuous and instantaneous readings of the baghouse exhaust concentrations and is designed to alarm before the presence of visible emissions in the stack, the District determined that installation of a District approved BLDS on a baghouse provides a more stringent monitoring routine than periodic visible emission observations from a trained observer.

As a result, Condition 2.j was included in this permit to exempt any PM control device equipped with a District approved BLDS and subject to a no visible emissions standard, from the daily visible emission check, quarterly Method 22 evaluation and quarterly Method 9 visible emission inspection requirements listed in conditions C.6.(c)(iv), C.6.(c)(v) and C.6.(c)(vii) of PT-70 5840-R6 and any reevaluations thereof.

2.2 Emission Controls: The equipment covered by this permit action are all emission control equipment. See Part-70/PTO 5840-R6 and Part II for details on this emission control equipment.

2.3 Emission Factors: All baghouses with cumulative filter surface areas greater than 7,500 square feet are required to meet an exhaust concentration limit of 0.005 gr/dscf no later than December 31, 2023. No changes to the emission factors listed in PT-70 PTO 5840-R6 were made for all other PM control devices.

2.4 Reasonable Worst Case Emission Scenario: See PT-70 5840-R6 for details on the worst-case emission scenario.

2.5 Emission Calculations. Tables 5.3 and 5.4 define the worst-case short term and long-term emissions from the PM control devices at Imerys.

2.6 Special Calculations: There are no special calculations.

2.7 BACT Analyses: The Imerys facility is subject to BACT for PM and PM10. However, this permit action does not involve any additional process or emission control equipment, and the current BACT requirements are unaffected by this permit action.

2.8 Enforceable Operational Limits: The permit has enforceable operating conditions that ensure the BARCT requirements are implemented at the facility by the appropriate implementation dates.

2.9 Monitoring Requirements: Monitoring of the equipment's operational limits are required to ensure that these are enforceable. This includes weekly Method 22 visible emission inspections for all PM control devices not equipped with BLDS, as well as monitoring requirements to ensure all BLDS systems remain operational in accordance with manufacturer recommendations.

2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the District.

3.0 REEVALUATION REVIEW (not applicable)

4.0 REGULATORY REVIEW

4.1 Partial List of Applicable Rules:

Rule 101.	Compliance of Existing Facilities
Rule 201.	Permits Required
Rule 202.	Exemptions to Rule 201
Rule 205.	Standards for Granting Permits
Rule 301.	Circumvention
Rule 302.	Visible Emissions
Rule 303.	Nuisance
Rule 304.	Particulate Matter - Northern Zone
Rule 306.	Dust and Fumes - Northern Zone
Rule 309.	Specific Contaminants
Rule 801.	New Source Review
Rule 802.	Nonattainment Review
Rule 803.	Prevention of Significant Deterioration
Rule 810.	Federal Prevention of Significant Deterioration
40CFR60 Subpart OOO	Standards of Performance for Non-metallic Mineral Processing Plants

4.2 Rules Requiring Review:

4.2.1 40 CFR Part 60 {*New Source Performance Standards*}: NSPS Subpart OOO applies to crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins and enclosed truck or rail car loading stations at nonmetallic mineral processing plant constructed, reconstructed or modified, as defined by the standard, after August 31, 1983. Section 60.674(d) of this subpart allows a BLDS to be used in the place of quarterly Method 22 tests and sets standards for such a system.

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

The Imerys stationary source potential to emit exceeds the Rule 802 emission offset threshold for ROC, NOx, SOx, PM and PM_{10}. This project however does not authorize an increase in permitted emissions.

7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

8.0 CEQA / LEAD AGENCY

This project is exempt from CEQA pursuant to the Environmental Review Guidelines for the Santa Barbara County Air Pollution Control District (revised April 30, 2015). Appendix A (*District Projects Exempt from CEQA* and *Equipment or Operations Exempt from CEQA*} provides an exemption specifically for projects undertaken for the sole purpose of bringing an existing source into compliance with newly adopted regulatory requirements of the APCD or any other local, state or federal agency. No further action is necessary.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was not required.

10.0 PUBLIC and AGENCY NOTFICATION PROCESS/COMMENTS ON DRAFT PERMIT

10.1 This project was not subject to public notice.

10.2 Draft comments and District responses may be found in the permit attachment.

11.0 FEE DETERMINATION

Fees for this permit are assessed under the cost reimbursement provisions of Rule 210.

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

William Sarraf	6/6/2022	David Harris	6/6/2022
Engineering Supervisor	Date	Division Manager	Date

13.0 ATTACHMENTS

A. Draft comments and District response

ATTACHMENT
Response to Comments

Imerys had the following comments on Draft ATC 15804:

1. **BLDS Alarm Alleviation Requirement:** Condition 2.c. and 2.b. are different however they serve the same purpose. The likelihood of not identifying issues that cannot be alleviated within 3 hours while developing the AB617 Compliance Plan for the first time is high and there could be non-technical issues that affect the ability to alleviate issues within 3 hours e.g. need to use a contractor due to maintainers skilled on that specific issue being out with COVID. While such issues can be identified in future iterations of the plan, the price for each plan amendment will be an NOV.

   Imerys proposes changing Condition 2.c so that it requires investigation of the cause of the alarm to be completed within three hours and elimination of the cause to be completed within 24 hours. Elimination of the cause within 24 hours is consistent with Condition 3.b.

   District Response: The 3-hour window for units with a BLDS is based on the conditions incorporated by the U.S. EPA into NSPS Subpart OOO, as amended in 2009. In order to comply with NSPS Subpart OOO requirements that allows the use of a BLDS in lieu of quarterly Method 22 visible emissions inspections. NSPS Subpart OOO Section 60.674(d)(3) requires the operator of any unit using a BLDS in lieu of quarterly Method 22 inspections, to initiate procedures to determine the cause of every alarm within 1 hour of the alarm and the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Section 60.674(d)(3)(i) –(vi) of NSPS Subpart OOO provides a list of potential corrective actions that would satisfy the requirement.

   The 3-hour window is considered reasonable for most larger units since they would have adequate time to finish an operating cycle or shift. In most cases, the necessary corrective action will include shutting down the equipment so maintenance personnel can safely access and inspect the baghouse filters. Shutting down the equipment within the 3-hour period will satisfy the requirements of the condition even if additional maintenance activities take longer than 3 hours to complete.

   The 3-hour window provides a practical balance between the need to limit excessive PM emissions from the unit and the operating needs of the facility. However, it may be infeasible for some equipment to shutdown within the 3-hour window. For these situations, NSPS Subpart OOO Section 60.674(d)(2)(vi) authorizes the District to approve requests for additional time allowances for certain units in a site specific monitoring plan (AB617 Compliance Plan), as long as the plan indicates the specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

   Any equipment which cannot be shutdown within 3-hours after an alarm state occurs and is not listed in the AB617 Compliance Plan as allowing additional time to alleviate the alarm state would be in violation of Condition 2.c.i. and the NSPS Subpart OOO. No changes were made to the conditions.

2. **Weekly Method 22 Reporting**: Imerys proposes changing Condition 5.a to require having the Method 22 records available upon request. The number of sheets of paper that will be required to be scanned, copied and submitted per year may exceed 500.

   District Response: The condition has been modified to instead require a summary log to be submitted in lieu of the full Method 22 inspection report for each visible emissions inspection that was conducted. The summary log can be in a format of Imerys choosing, such as a spread sheet tabulation, as long as the summary log includes all of the following information:

   - *Date and time of each weekly Method 22 observation.*
   - *Process unit(s) being observed including Device ID.*
   - *Whether visible emissions occurred, or acknowledgement that control device was not operated during the week and as a result no Method 22 inspection was conducted.*

   If the summary log entry for any unit's weekly Method 22 visible emissions inspection indicates visible emission were present, only then would the District require that the complete Method 22 inspection record be scanned and submitted as an attachment to the summary log. These changes would reduce the need to scan, copy and submit full Method 22 inspection records in the CVR except in cases where visible emissions were observed. Full records of each weekly Method 22 inspection would still need to be maintained and submitted to the District upon request however.

3. **Alarm Activation Requirement for BLDS:** Would it be possible to clarify Condition 3.b.9? Giving random examples, in absolute terms, 5% of 8,760 hours is greater than 5% of say 50 hours. The initial set of baghouses that will be fitted with BLDS run most of the time but this condition can start producing unintended results at lower run time.

   Also, should there be instrumentation faulting alarms, how would they be expected to be accounted for?

   District Response: The requirement is based on the actual operating hours of the PM control device and is designed to ensure that the PM control device is operated in such a way as to minimize alarm states. If the alarm state for a PM control device exceeds 5% of the operating hours in a continuous 6 month rolling period, then the equipment that vents to the PM control device must be shutdown and any necessary action taken to eliminate the elevated emissions from the PM control device. These actions could include, but are not limit to, increasing the maintenance/inspection frequency of the PM control device to reduce the amount of time emissions exceed the alarm threshold, changes to the bag replacement schedule to ensure bags are being replaced on a more frequent basis, changes to the BLDS Process Monitoring Calibration and Maintenance Plan to set notification procedures for operators prior to emissions exceeding the alarm state so the equipment can be preemptively shutdown and inspected.

Alarm states that exceed 5% of the operating time of PM control devices which operate at lower annual run times would still require Imerys to ensure PM control devices are operating properly prior to start-up and during their limited operation to minimize alarm states.

The District acknowledges that there may be times in which the BLDS monitoring equipment fails and maintenance or replacement would be required. The draft permit which was issued did not provide allowances for BLDS downtime due to BLDS failures. Condition 3.b.10 and 3.b.11 were included as part of the final permit issuance to allow for a certain amount of downtime for each BLDS without requiring the PM control device or the PM emitting process to be shut down immediately upon BLDS failure. If a BLDS fails, Imerys is required to implement daily visual emission checks within 24 hours in accordance with Condition C.6.(c)(iv) of PT-70 PTO 5840-R6 Part 1 or C.1(c)(ii) of PT-70 PTO 5840-R6 Part 2 (whichever is applicable to the PM control device in question) until such time that the BLDS resumes normal operation. Condition 3.b.10 further requires that the BLDS be maintain and operated to ensure sufficient up-time in order to meet a minimum quarterly Data Recovery Efficiency (DRE) of 90%. DRE is calculated by dividing the BLDS uptime each quarter by the operating hours of the PM control device. BLDS downtime records and quarterly DRE% reporting requirements were added to the final permit to ensure these conditions are enforceable.

ATTACHMENT C

District Board Resolution for Assembly Bill 617
Particulate Matter Control Devices

June 16, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

IN THE MATTER OF ASSEMBLY BILL 617 – PARTICULATE MATTER (PM) CONTROL DEVICES	APCD RESOLUTION NO. 22-06

RECITALS

WHEREAS, Santa Barbara County is designated nonattainment for the state ozone standard and the state standard for particulate matter less than 10 microns in diameter (PM_{10}).

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 schedule for the implementation of Best Available Retrofit Control Technology (BARCT) on or before January 1, 2019, and the schedule must provide for the implementation of BARCT by the earliest feasible date, but in any event, not later than December 31, 2023; and

WHEREAS, the Assembly Bill 617 BARCT Rule Development Schedule, as adopted by the Board on December 20, 2018, included a commitment to conduct rulemaking procedures in order to evaluate and implement BARCT at the six industrial sources in Santa Barbara County that were subject to the California Greenhouse Gas Cap-and-Trade Regulation as of January 1, 2017.

WHEREAS, draft Rule 363 – Particulate Matter Control Devices was included as a measure to be evaluated on the Assembly Bill 617 BARCT Rule Development Schedule.

WHEREAS, only one facility within the District's jurisdiction currently has equipment subject to draft Rule 363 – Particulate Matter Control Devices.

WHEREAS, District staff performed a detailed analysis of available particulate matter control devices and the expected costs to fully meet all BARCT requirements being evaluated under the draft Rule 363.

WHEREAS, the affected Assembly Bill 617 Industrial Source that would be subject to the draft Rule 363 has voluntarily submitted an Authority to Construct application to incorporate all BARCT standards for Particulate Matter Control Devices into its Permit to Operate for the

applicable existing equipment, resulting in enforceable conditions that ensure compliance with all BARCT standards for Particulate Matter Control Devices no later than December 31, 2023.

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

1. Based on the information recited above, a rule development proceeding for Particulate Matter Control Devices is no longer necessary to satisfy the AB 617 BARCT requirements.
2. This action is exempt from the California Environmental Quality Act (CEQA) because it is not a project pursuant to CEQA Guidelines section 15378(b)(5).

//

//

//

//

//

//

//

//

//

//

PASSED, APPROVED AND ADOPTED by the Air Pollution Control District Board of the Santa Barbara County, State of California, this 16 day of June, 2022, by the following vote:

Ayes: Williams, Hartmann, Lavagnino, Nelson, Sierra, Perotte, Julian, Osborne, Rowse, Infanti.

Noes: None.

Abstain: Waterfield.

Absent: Hart, Clark.

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT

By _____
Chair

Date _____

ATTEST:

AERON ARLIN GENET
Clerk of the Board

By _____
Deputy

APPROVED AS TO FORM:

RACHEL VAN MULLEM
Santa Barbara County Counsel

By _____
Jennifer Richardson (May 4, 2022 17:02 PDT)
District Counsel