



H.B. Case No.:	<u>2020-12-R</u>
Petitioner:	<u>Imerys Filtration Minerals, Inc.</u>
Permit No.:	<u>5840-R6</u>
Date Rec'd:	<u>5/11/2020</u>
Time Rec'd:	<u>1731 hours</u>
Filing Fee Paid:	<u>\$633.00</u>

PETITION FOR VARIANCE

Type of Variance Requested:	
Emergency _____	Interim _____ 90-Day _____ Regular <u> X </u>
Length of Variance Requested:	Start Date <u>Saturday 6/20/2020</u>
	End Date <u>Friday 6/19/2021</u>
¹ A 90-Day or Regular Variance must be filed concurrently with an Interim Variance	

1. PETITIONER INFORMATION

A. Please provide the name, address and phone number of the Petitioner.

Name: Imerys Filtration Minerals, Inc.
Address: 2500 Miguelito Road
Lompoc, CA 93436
Phone Number: 805-737-2440

B. Please provide the name, address and phone number of the person authorized to receive correspondence regarding this Petition if different from response in 1.A.

Name: Vindi Ndulute
Address: Imerys Filtration Minerals, Inc.
2500 Miguelito Road
Lompoc, CA 93436
Phone Number: 805-737-2440

C. The Petitioner is (please check one):

- 1) An Individual ()
- 2) Partnership ()
- 3) Corporation (X)
- 4) Public Agency ()
- 5) Other Entity (please describe)

2. Location of equipment for which the variance is requested if different from response in 1.A.

Same as 1.A.

3. List any District permits that are applicable to the equipment subject to this variance request.

Permit to Operate 5840, Part 2, Conditions 9.C.3.(a), 9.C.3.(b).(v), Rule 361 Compliance – Package Boiler. The Package Boiler (Device No. 8923) is subject to the existing unit requirements of District Rule 361.

4. Briefly describe the equipment that is the subject of this Petition.

APCD Device No. 8923, Celpure Package Boiler. Imerys' key product is "Celpure," a "high-purity filtration aid" which is made of specially treated diatomite, and is used for, among other things, solid/liquid separation and harvesting of antibodies in biotechnology and pharmaceutical applications. Celpure serves critical medical and healthcare needs, and now is playing an important role in the plasma therapeutics industry with efforts underway to develop antibody treatments for COVID-19. Celpure is only manufactured at the Imerys Facility in Lompoc, and the Celpure Package Boiler is the critical unit required for making this product – the product simply cannot be manufactured without this equipment.

5. FINDINGS REQUIRED FOR THE GRANTING OF A VARIANCE

In order for the Hearing Board to grant a variance to a Petitioner authorizing the operation of a source in violation of any rule, regulation or order of the District, the Hearing Board is required to make "findings" in accordance with the requirements specified in California Health and Safety Code §42352, et. seq. and District rules and regulations. The Hearing Board's variance decision will take into consideration information you provide in this Petition. Please ensure your responses are complete and thorough. Please use additional pages as necessary.

A. Please state 1) what District rule, regulation or order you either are or will be in violation of, and 2) the date said violation will or did occur. Include as appropriate the applicable permit conditions for which variance relief is being sought.

The Celpure Package Boiler has a maximum rated heat input capacity of 3.78 MMBtu/hr and is fueled exclusively by Public Utilities Commission (PUC) quality natural gas. APCD Rule 361 applies to any boiler, steam generator, or process heater with a rated heat input capacity greater than 2 MMBtu/hr and less than 5 MMBtu/hr. The Celpure Package Boiler is subject to Rule 361.

Rule 361 was revised in June 2019 and the Celpure Package Boiler was identified as an Assembly Bill 617 (AB617) Best Available Retrofit Control Technology (BARCT) Industrial Unit. Rule 361, Section L.2 specifies that on or before June 20, 2020, the owner or operator of any

AB 617 Industrial Unit shall operate in compliance with the emission standards in Rule 361, Section D.3.

Rule 361, Section D.3 requires emission limits of 9 ppm NOx and 400 ppm CO at 3% O2 for units fueled by natural gas. The conversion from ppm to lb/MMBtu is shown in Attachment 1, and the respective lb/MMBtu emission limits are 0.0110 lb/MMBtu NOx and 0.2965 lb/MMBtu CO.

The Celpure Package Boiler permitted emission limits per PTO 5840-R6, Part 2, Condition 9.C.3.(a) are based on the permitted emission factors of 0.098 lb/MMBtu NOx and 0.0824 lb/MMBtu CO. Attachment 2 includes PTO 5840-R6, Part 2, Tables 5.1 and 5.2 showing the permitted operating equipment description and emission factors.

As of June 20, 2020, Imerys will be in violation of PTO 5840, Part 2, Condition 9.C.3.(b).(v), Rule 361 Compliance – Package Boiler; APCD Rule 361.D.4, Boilers, Steam Generators, and Process Heaters (Between 2-5 MMBtu/hr); and APCD Rule 206, Conditional Approval of Authority to Construct or Permit to Operate. Variance relief is being sought for these permit conditions until Imerys can procure and install a compliant Celpure Package boiler.

- B. Please describe how compliance with the District rule, regulation or order listed in Section A above is beyond your reasonable control. In addition to any other relevant factors, please include in your discussion 1) what actions you have taken to comply or seek a variance, which were timely and reasonable under the circumstances.

Compliance with the emission standard is beyond Imerys' reasonable control. Achieving the Rule 361 emission limit requires replacement of the Celpure Package Boiler. Imerys has submitted a permit application to the APCD for a new Celpure Package Boiler that will meet the emissions limit of 9 ppm NOx at 3% O2. Imerys is working with APCD to receive this permit in a timely manner and Imerys legal and project management teams are working to confirm the contracts and ensure the new boiler will be received and commissioned before the end of the variance period.

In order to demonstrate how diligently Imerys has acted, some historical context is warranted. As described above, the Celpure boiler was identified as AB 617 BARCT equipment in 2018. AB 617 required Air Districts to adopt an expedited schedule for the implementation of the BARCT that had been identified. Accordingly, in late 2018, the District prepared an implementation schedule that contained three new rules and the modification of three existing rules – including Rules 342 and 361 – in order to satisfy the AB 617 requirements. Each of these rules then had to go through the District's established public process before their ultimate adoption in 2019.

In 2018, Imerys had been planning to replace the boiler to comply with the then-applicable effective dates for new emissions limits in Rule 361. In that iteration of the rule (prior to the 2019 amendments) Imerys was subject to a deadline of January 30, 2019 to apply for an Authority to Construct (ATC) permit for a compliant boiler (prior-Rule 361, Section K.4.a.). However, with the 2019 amendments to Rule 361 pending, the District informed Imerys on December 18, 2018, that it would not enforce the January 30, 2019 deadline to apply for an ATC until the amendments to Rule 361 (with new compliance deadlines) were adopted.

The amended Rule 361, adopted June 2019, set forth a deadline applicable to Imerys of June 20, 2020 to operate a compliant boiler. Separately, other boilers at the facility would have a new compliance deadline in 2023. Aware of these deadlines, Imerys initially planned to employ, by June 2020, an existing boiler to support the Celpure system while it developed a comprehensive boiler strategy for its facility to be employed by 2023.

From mid-2019 through early 2020, Imerys investigated the engineering and operations considerations that would be required to implement that strategy. Toward that end, in January 2020, Imerys submitted a permit application to utilize the Silicates Boiler #2 to provide the necessary steam to the Celpure system while the existing Celpure Package Boiler was

decommissioned by the June deadline. The Silicates Boiler #2 would support the Celpure Plant until the development and implementation of the comprehensive boiler strategy, which would incorporate a new Celpure Package Boiler at a later date. (This timeframe also coincided with the massive, global reorganization of Imerys which led to changes within the company that added complications to the investigation that was underway.)

However, only recently – after submission of the Silicates Boiler #2 application in January 2020 – did it become apparent that the planned use of the Silicates Boiler #2 to support the Celpure package plant would ultimately be infeasible from a technological and operational standpoint. Though investigated, workarounds to challenges like the Silicate Boiler #2's high pressure and remote location proved insurmountable for longer-term use. Accordingly, Imerys immediately began preparing an application for a new, compliant Celpure Package Boiler which it submitted on May 1, 2020. Imerys has been in communication with District staff over the past several months regarding these developments.

Additionally, the current worldwide COVID-19 pandemic has caused both supply chain disruption and impacted personnel access to the project site by project team members. As an essential business supplying products used in the medical field, Imerys Lompoc facility has met the stringent standards required for certification as a pharmaceutical-grade manufacturing facility. Imerys takes very seriously the mandates from federal, state, and local authorities issued during the pandemic, and has also implemented its own best practices in order to ensure the safety of Imerys employees and the integrity of its products and facility. This has meant, for example, disallowing visits from out-of-area vendors unless they have sufficiently been quarantined (which, for practical purposes means few vendor visits from engineering resources). It has impacted the ability to do certain scheduled work because social distancing could not be adequately maintained. It has also meant that Imerys' own employees from other facilities with unique expertise have been limited in their ability to travel to the facility. In short, the pandemic has added a layer of complication to every aspect of operation, but Imerys continues to operate and meet its obligations, regulatory and otherwise, with the highest level of diligence and care.

As briefly described above, the Celpure Package Boiler is a critical component of Imerys' manufacture of its key product, Celpure. Celpure is a state-of-the-art, high-purity filtration aid made of specially treated diatomite, and is used for solid/liquid separation in biotechnology and pharmaceutical applications, including blood plasma fractionation and as a filtration-boosting process aid for harvesting and clarifying antibodies and proteins. With the onset of the COVID-19 pandemic, Celpure is being used on the front lines, and Imerys anticipates that demand will only increase because high-purity filtration aids (HPFA) like Celpure are necessary for the development of a COVID-19 vaccine.

Specifically, the plasma therapeutics industry is making a fast-track effort to develop antibody treatments for Covid-19 using what is referred to as convalescent plasma. This is the plasma collected from people who have recovered from coronavirus and thus may have a higher concentration of antibodies. Many of these development activities will use Celpure Plant HPFA products as an integral part of the fractionation and purification processes. These antibodies treatments are then transferred to new patients, which may help their immune system respond to the disease and increase their chances of recovery.

Imerys is the sole producer of this unique product and has no competitors who could fill the gap if production ceases or slows. The product comes solely from Imerys' state of the art, pharmaceutical-grade certified facility in Lompoc. The Celpure Package Boiler is the critical unit required for making this product – Celpure simply cannot be manufactured without that unit. It is therefore crucial that the Celpure plant continue to operate uninterrupted.

- C. Please describe how you would be impacted if you were required to immediately comply with the District rule, regulation or order the subject of this variance request. In addition to any other

relevant factors, please discuss why such impacts would result in 1) an arbitrary or unreasonable taking of property, or 2) the practical closing and elimination of a lawful business.

If Imerys were required to immediately comply with the District rule, the entire Celpure facility would need to be shut down. As described above, the Celpure Package Boiler is critical to the Celpure plant operations, which if not allowed to operate would mean substantial daily lost revenue from cessation of Imerys' key product, along with the potential to lay off 19 employees who are working at a facility that is not only considered to be "essential" under the Governor's order, but who are manufacturing products that are being used to help develop a COVID-19 vaccine and provide other important medical services.

In addition to present revenue losses, if Imerys cannot operate Celpure, future losses may occur due to long term or permanent loss of customers if orders cannot be filled and/or potential unknown damages from breaches of contracts. Any shutdown in production could lead to the elimination of future business because customers would be forced to develop new technologies and methodologies (or, more likely, many customers would, themselves, shut down, as discussed below). Shutting down the Celpure Plant would cause far-reaching and lasting economic harm to Imerys employees and Imerys.

Finally, in addition to direct harm to Imerys, if Imerys cannot operate the Celpure Plant, there will be a significant downstream effect in the biopharmaceutical industry that is relying on the continued production of this critical high-purity filtration aid. This ripple effect would start with the likely closure of Imerys' customers who rely on Celpure, which is a necessary product enabling the collection of plasma and harvesting antibodies for the eventual development of a COVID-19 vaccine as well as other important medical treatments. Ultimately, the effects would be directly felt by members of the public seeking medical services that employ Imerys' high-purity filtration aid products. In these unprecedented times, such a factor warrants consideration by the Board.

- D. If you were required to immediately comply with the District rule, regulation or order the subject of this variance request, please describe what impact, if any, that would have on air contaminants.

Imerys has submitted a permit application to the APCD for a new Celpure Package Boiler that will meet the emissions limit of 9 ppm NOx at 3% O2. Imerys legal and project management teams are working to confirm the contracts and ensure the new boiler will be received and commissioned before the end of the variance period. The current worldwide COVID-19 pandemic has caused both supply chain delays and issues with the travel to the project site by project team members and engineering resources support, as described above.

If Imerys were required to immediately comply with the District rule, the corresponding benefit in reducing pollution would be a reduction in emissions of 7.89 lb/day NOx as explained in section E below. Imerys will achieve an equivalent or greater daily emission reduction in NOx by reducing the operations of the Silicates Boiler #2 (Device No. 82) and the Silicate Plant Conveyor Dryer (Device No. 143) to the maximum extent feasible during the variance period.

- E. Please describe what consideration you have given to curtailing operations in lieu of obtaining a variance.

Imerys has considered curtailing operations at the Celpure Plant; however, as discussed above, any unscheduled system downtime causes economic harm to the company. Moreover, as described above, Imerys cannot reduce production of its Celpure product or it risks not being able to meet customer obligations and, importantly, reduction in production could have real-world medical impacts on Imerys customers and, ultimately, patients seeking healthcare. Imerys is working to receive and commission the new Celpure Package Boiler before the end of the variance period.

The potential excess emissions from the Celpure Package Boiler are estimated as follows:

$(\text{heat input capacity}) * (\text{current emission factor} - \text{Rule 361.D.3 emission factor}) * (24 \text{ hr/day}) = \text{lb/day NOx}$
 $(3.78 \text{ MMBtu/hr}) * (0.098 \text{ lb/MMBtu NOx} - 0.0110 \text{ lb/MMBtu NOx}) * (24 \text{ hr/day}) = 7.89 \text{ lb/day NOx}$

Although it is not practical to limit operations of the Celpure plant, during the variance period, Imerys is planning to reduce the operation of the Silicates Boiler #2 and the Silicate Plant Conveyor Dryer to the maximum extent feasible. The last source test of the Silicates Boiler #2 in June 2018 showed actual emissions of 8.15 lb/day NOx. The last source test of the Silicates Conveyor Dryer in October 2019 showed actual emissions of 7.97 lb/day NOx. Copies of the source test results are included as Attachments 3 and 4. Each day that the Silicates Boiler #2 or the Silicates Conveyor Dryer does not operate is an emission reduction of 8.15 lb/day NOx or 7.97 lb/day NOx, respectively. If the Silicates Boiler #2 and Silicate Plant Conveyor Dryer are both down on the same day, it will be a decrease of 16.12 lb/day NOx emissions.

- F. Please describe what steps and measures you will take to reduce excess pollutant emissions the maximum extent feasible during the requested variance period.

During the variance period, Imerys will limit operations of the Silicates Boiler #2 and the Silicate Plant Conveyor Dryer as much as operationally feasible. Any downtime of the Silicates Boiler #2 is a decrease of 8.15 lb/day NOx emissions and any downtime of the Silicate Plant Conveyor Dryer is a decrease of 7.97 lb/day NOx. If the Silicates Boiler #2 and the Silicate Plant Conveyor Dryer are both down on the same day, it will be a decrease of 16.12 lb/day NOx emissions.

Imerys anticipates that the new Celpure Package Boiler will be commissioned well before the end of the requested variance period. Imerys submitted the application for the Celpure Package Boiler on May 1, 2020; the District has up to 6 months to issue the permit but Imerys has requested it be expedited. Engineering/specifications work must be completed prior to placing the purchase order (estimated to be in August). Imerys' understanding at this time is that the equipment will be manufactured in and shipped from Kansas, although this information could change. Imerys anticipates, based on communications with vendors, that ordinarily it would take approximately 3 months to manufacture, deliver, and install the Celpure Package Boiler, although the pandemic makes this timing uncertain. Additionally, if social distancing requirements are still in place, this will delay installation because certain aspects of the installation require multiple technicians and engineers onsite working in close proximity to one another. Ultimately, Imerys intends to procure and install the Celpure Package Boiler well before the end of the variance period, but requests the one-year period to allow for complications and delays given the uncertainty caused by the ongoing pandemic.

- G. If requested to do so by the District, please describe how you will monitor or otherwise quantify and report to the District any pollutant emissions associated with the granting of your variance.

Imerys will monitor operations and quantify and report excess emissions based on the difference between the currently permitted emission limits for the Celpure Package Boiler and the APCD Rule 361 emission limits. Imerys will maintain these records and provide them to the District if requested.

As explained in Item 5.E, excess emissions are estimated as 7.89 lb/day NOx. Imerys has calculated the estimated expected excess emissions as $(154 \text{ days}) * (7.89 \text{ lb/day NOx}) / 2000 \text{ lb/ton} = 0.61 \text{ tons NOx}$. Imerys has calculated the estimated possible worst case excess emissions as $(364 \text{ days}) * (7.89 \text{ lb/day NOx}) / 2000 \text{ lb/ton} = 1.44 \text{ tons NOx}$.

6. SUPPLEMENTAL FINDINGS IF APPLYING FOR AN EMERGENCY VARIANCE PURSUANT TO RULE 506 (EMERGENCY VARIANCE FOR BREAKDOWNS)

-----Item #6, Not Applicable-----

A. Please provide the date and time the breakdown was reported to the District

Date: _____ Time: _____

B. Breakdown number (as provided by the District): _____

C. Please provide a description of the "breakdown condition", including equipment involved and the cause to the extent it is known.

D. Please describe why the continued operation of your facility in a "breakdown condition" is not likely to cause an immediate threat or hazard to public health or safety and will not interfere with the attainment or maintenance of any primary national ambient air quality standard.

7. Will the operation of the equipment subject to this variance result in violation of District Rule 303, Nuisance?

Due to the location of the equipment at the Imerys Lompoc Stationary Source, operation of the equipment subject to this variance will not result in a violation of Rule 303.

8. Please state whether or not any civil or criminal case involving the equipment subject to this variance is pending any court.

To the best of Imerys' knowledge, there is no known civil or criminal case involving the equipment subject to this variance.

The undersigned is authorized to submit the above Petition on behalf of the Petitioner and further states under penalty of perjury that the above Petition, including any attachments and the items therein set forth, are true and correct.

DATE: May 11, 2020
Rev 05/13/2020

SIGNATURE:



TITLE: EHS Manager

PRINT NAME: Vindi Ndulute

Variance Filing Fees: All variance Petitions must be accompanied by the requisite filing fee at the time of filing or include a letter from the Petitioner on company letterhead authorizing the District to debit the filing fee from the company's reimbursable account. You may also pay your filing fees by credit card using the attached form. Current variance filing fees may be found under Rule 210, schedule F, Sections 12a and 12b at <http://www.sbcapcd.org/fees.htm>

Credit Card Payment: The Variance Filing Fee may be paid with a credit card. Please use APCD Form -01C to pay via credit card. The form may be downloaded at: <http://www.sbcapcd.org/eng/dl/dl01.htm>