

PETITION FOR A HEARING
BEFORE THE HEARING BOARD OF THE
SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

☒ Northern Region Office
4800 Enterprise Way
Modesto, CA 95356

☐ Central Region Office
1990 E. Gettysburg Ave.
Fresno, CA 93726

☐ Southern Region Office
34946 Flyover Court
Bakersfield, CA 93308

TYPE OF HEARING

FEES (Non-Refundable)

☐ A.	Short Variance (90 Days or Less)	\$ 987.00
☐ B.	Interim & Short Variance	\$1443.00
☐ C.	Emergency Variance	\$ 343.00
☐ D.	Regular Variance	\$1136.00
☒ E.	Interim & Regular Variance	\$1592.00
☐ F.	Appeal Hearing	\$1136.00
☐ G.	Extension of Variance	\$ 456.00
☐ H.	Modification of Variance	\$ 456.00
☐ I.	Modification of Variance Schedule of Progress	\$ 456.00
☐ J.	Product Variance	\$1515.00
☐ K.	Rehearing	\$1136.00
☐ L.	Revocation of Variance	\$ 456.00
☐ M.	Special Hearing	\$1136.00

In addition to the filing fee above, an excess emissions fee will be assessed at the conclusion of the variance at \$3.00 per pound on the excess emissions emitted during the variance period. Additionally, a \$3.75 per pound mitigation fee will be assessed if excess emissions are greater than 2000 pounds.

A. NAME OF FACILITY: Sensient Natural Ingredients LLC

PHYSICAL ADDRESS OF FACILITY: 9984 West Walnut Avenue

CITY: Livingston STATE: CA ZIP CODE: 95334

NAME OF PERSON FILLING OUT PETITION: Paul Nguyen

TELEPHONE: (949) 383-0304 E-MAIL: paul.nguyen@aecom.com

NAME OF PERSON AUTHORIZED TO RECEIVE NOTICES: Mark Halvorsen

MAILING ADDRESS: 2800 W. Higgins Road, Ste. 900

CITY: Hoffman Estates STATE: IL ZIP CODE: 60169

TELEPHONE: (847) 755-5316 E-MAIL: mark.halvorsen@sensient.com

B. TYPE OF ENTITY (Check One)

☒ LLC

☐ Partnership

☐ Corporation

☐ Other Entity

Please include the name, title, and address of officers, if a corporation;
partners, if a partnership; or the person(s) in control, if other entity.

(Attach additional sheets, if needed)

NAME

TITLE

ADDRESS

Aret Meyer

General Manager

151 West Main Street, Turlock, CA 95382

In accordance with State Law, the District will provide assistance to small businesses in preparing and filing the petition for the hearing. Small business has the same meaning as defined in the Small Business Administration, except that no stationary source which is a major source can be a small business.

If you plan on having attendees participate via the video teleconferencing system in a region other than that of which you filed the petition, please check the box(s) below for the region they will be participating:

☐ Bakersfield

☐ Fresno

☒ Modesto

1. Describe the type of business conducted at your facility.

Sensient operates a vegetable dehydration facility in the City of Livingston, California. An aerial map of the facility is provided in Appendix A. The facility operates 24/7 at full production during the harvesting seasons of onions, garlic, and parsley, which is typically between mid-February and mid-November.

This facility employs approximately 450 during full production and is considered one of the largest employers within the region. During off-season, staff is reduced to approximately 150 that are responsible for upkeep, inspection, maintenance, and implementing capital projects to update equipment for the next season.

Raw vegetables are delivered using various modes of transportation and off-loaded at the facility utilizing conveyors and other mechanisms. The produce are stored, washed, dried, then undergoes the dehydration process. This process includes wet processing, soaking, curing, slicing, coring, additional (tube) drying, and dehydration with multiple air pollution control devices (e.g., baghouse, cyclones) to capture regulated pollutants in accordance with applicable San Joaquin Valley Air Pollution Control District regulations and rules.

These dehydrated vegetables are further blended to produce multiple spices for commercial and personal usage.

2. Describe in detail the equipment or activity that is the subject of this petition, what the equipment is used for, and why it is necessary to the operation of your facility. Include all pertinent information necessary to describe the activity including: fuels burned, raw materials processed, product produced, true vapor pressure of all volatile organic compounds, site diagrams, material flow charts, fuel systems, and diagrams of air pollution control systems if necessary. Provide photos as well.

The equipment applicable to this variance hearing are five vegetable dehydrators that recently upgraded to install Low-NOx burners with higher heat ratings. The increase in heat ratings varies from 19% - 37%. This upgrade was mandated due to the significant increase of burner failures over the previous two seasons (2023/2024), which hampered production. The original burners were installed in approximately 2002, which is well past the 20 years life cycle for these type of units. Sensient management and engineering teams held multiple consultations with the OEM dehydrator manufacturer, CPM Proctor Wolverine, and certified burner installer, Heat Transfer Systems, prior to proceeding with the replacement.

During the consultation, Sensient further evaluated ways to recoup this substantial capital improvement and decided this was an opportune time to implement year-round operation and increase production to enlarge their market presence. As such, it was decided to install replacement burners with higher heat ratings to optimize production for efficiency purposes and satisfy projected market demands.

The dehydrators are an integral component of drying vegetables at the ideal, constant temperature across the drying surface area uniformly to produce a high quality end-product. These dryers are internally identified as Dryers nos. 1, 2, 3, 6, and 7. These dryers are 12-foot wide and configured with four different heating stages (i.e., A, B, C, and D). Each stage is programmed to create a unique, proprietary, dehydration environment that complements the previous stage and supports the consequent stages. It should be noted that temperature is a critical parameter of the dehydration process. Approximately 70% of moisture is removed from raw vegetables during the dehydration process. Any out-of-specification can result in one of more of the following: poor product quality, safety hazards, environmental compliance, and potential failures of quality standards for food borne pathogens.

The manufacturer's brochure for the newly installed burners is provided as Appendix B, Honeywell Maxon In-duct Firing Line Burner. A review of this document will provide insight into the complexity of installing and operating these burners. It should be noted that every equipment possesses unique traits (e.g., size, location, disturbance, ambient) that creates atypical situations and require tweaking the installation procedures. Some of the troubleshooting tasks to be considered are as follow:

- 1 - Ideal placement and distances in between the burners along the drying surface to generate constant and uniform heat
- 2 - Proper air flow, distribution, and velocity to optimize natural gas usage
- 3 - Proper gas pressure to each burner to create desirable flame length and height
- 4 - Verifying performance limits to meet criteria pollutant emission limits
- 5 - Adjustment of the fuel/air mixing plates at each location
- 6 - Correct number of gas inlet connection to guarantee proper gas distribution inside the burner manifold
- 7 - Fresh air (21% oxygen) at ambient temperature are fed directly to the burner
- 8 - Proper installation (e.g., manifolding, pipe sizing and length, positioning of burner, flow control valves)
- 9 - Synchronizing all the burners to operate according to proprietary protocols (i.e., heating stages)

3. List all the District Permits to Operate and/or Authorities to Construct and the corresponding permit conditions for which you are requesting variance protection and **explain** how you are violating, or will violate the condition(s). Please list the current version(s).

The permit-to-operate (PTO) and authority-to-construct (ATC) for each of the five dehydrators applicable to this variance are listed below with the ratings for the installed replacement Maxon burner (and previous burner size). The PTOs and ATCs are provided in Appendix C with the potentially affected permit conditions highlighted in yellow. Also, included is a table presenting the differences between the PTOs and the ATCs. **Sensient is seeking protection from enforcement of the following individual permits and conditions related to usage of natural gas during the variance period.**

a – Facility Wide Permit – PTO No. N-1657-0-4 – Permit Condition 5 (Permit Conditions Compliance)

b - Dehydrator No. 1 - ATC No. N-1657-2-9 - 78 MMBtu/hr (65 MMBtu/hr)
Permit condition nos. 9, 10, 11, 12.

c - Dehydrator No. 2 - ATC No. N-1657-3-9 - 82 MMBtu/hr (65 MMBtu/hr)
Permit condition nos. 9, 10, and 11, 12

c - Dehydrator No. 3 - ATC No. N-1657-9-8 - 65 MMBtu/hr (50 MMBtu/hr)
Permit condition nos. 9 and 10, 12

d - Dehydrator No. 6 - ATC No. N-1657-1-8 - 89 MMBtu/hr (65 MMBtu/hr)
Permit condition nos. 6, 8 and 12

e - Dehydrator No. 7 - ATC No. N-1657-22-10 - 83 MMBtu/hr (70 MMBtu/hr)
Permit condition nos. 8 10 and 12

Sensient respectfully request variance protection for the permit conditions described below. There are two sets of permit conditions that requires variance protection; ones that may potentially be violated with the second set that will be violated. Both sets are subsequently described below. To accurately identify impacted permit condition, the following naming convention will be used to abbreviate each permit condition. For example, dehydrator no. 1, permit condition no. 9 will be identified as D1-9. This is universal.

Potential violations:

Permit conditions for D1-9, D2-9, D3-10, D6-8, and D7-10 are almost identical and cites criteria pollutant (i.e., NOx, SOx, PM10, CO and VOC) mass concentration per million Btu (MMBtu). Maxon only guarantees the promised emission rates when the burner is operating within their prescribed performance limits. During the calibration, troubleshooting, and rectifying issues associated with each burner to operate cohesively for each dehydrator to optimize the dehydration process, minimize natural gas usage, and produce a high quality end-product, there may be instances of operating outside of the performance limits for a brief duration. As such, these mass concentration per MMBtu permit conditions could potentially be violated. It is highly unlikely that this will occur, since the modifications are being made by certified Maxon line-burner installers.

Permit conditions for D1-11 and D2-11 refers to a monthly cumulative natural gas limit of 447, 422 MMBtu for both Dehydrators 1 and 2. Monthly natural gas usage is based on an average 12-month rolling total. At the current moment, it has not been a year to determine compliance. However, both units will most likely be in compliance.

Violations that may occur:

Permit conditions for D1-10, D2-10, D3-9, D6-8, and D7-8 set specific daily allowable natural usage with different limits for each dehydrator. The daily limits was not a permit condition for any of the dehydrators with the previous smaller burners, only two units had an annual natural gas limit, which made compliance simple because it was a seasonal operation (i.e., lower annual operation hours).

The higher capacity burners will utilize more natural gas. It should be cognizant that Sensient dehydrates three primary vegetables: onions, garlic, and parsley. All three have different physical characteristics (e.g., moisture content, fiber, size, **total solids**), hence, creating different variables to be assessed during the dehydration process such as ambient temperature, drying temperature, and residence time. As such, the calibration of the equipment requires operating them at various modes at different time of day for extended duration to mimic actual conditions. The simulation will exceed the daily natural gas consumption.

4. List all District Rule numbers, including subsections, for which you are requesting variance protection and **explain** how you are violating or will violate the rule(s).

Rule 2010. Permits Required (Dec. 17, 1992). Subsection 4.1.New Equipment. Explanation: Permit condition(s) may be violated.

Rule 2070. Standards for Granting Applications (Dec. 17, 1992). Subsection 7.0. Operation According to the Permit to Operate Conditions. Explanation: Permit condition(s) may be violated.

Rule 2092. Standards for Permits to Operate (Dec. 17, 1992). Subsections 4.1.2 & 4.1.3. Provide emission offsets for increased emissions. Explanation: Failure to provide emission offsets.

Rule 2201 - New and Modified Stationary Source Review Rule (Aug. 9, 2023). Subsection 1.2 - No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.

Explanation: Sensient's installed replacement burners into the existing dehydrators may result in a net increase in emissions above the allowable daily natural gas usage threshold.

Rule 2520. Federally Mandated Operating Permits (June 20, 2024). Subsections 5.3.2; 5.3.3; & 9.6. Minor or Significant Permit Modifications. Explanation: This is a Title V facility and during the burners pre-replacement process, it was recognized as a minor title V permit modification based on pre-engineering data indicating a net decrease in emissions; however, during the current proof of burners replacement, there may be a net increase, which would be classified as a major Title V permit modification.

Rule 4309. Dehydrators, Dryers and Ovens (December 15, 2005), Subsection 6.1.2 – Compliance Determination. Quantity of Fuel Used

Sensient installed new Low-NOx line-burners to replace existing end-of-life cycle for existing burners that are 20+ years old to minimize failures of burners, which directly impacts production. The new burners require troubleshooting and fine-tuning as described in Item no. 2. This has been on-going for months and while improvements have been made, the synchronizing of the burners for each dehydrator has been complex. During the "proof of concept" process (i.e., adjusting the burners for efficiencies, and reduced emissions as stated in manufacturer's specifications), to simulate typical and atypical seasons and the daily natural gas usage limitations will most likely be exceeded. The frequency of exceedances is unknown.

5. Why is it beyond your reasonable control to comply with the rule(s) and/or permit condition(s)?

Pre-installation engineering calculations indicates that the replacement burners at a higher rating should result in a net decrease of NOx and CO, including a reduction in natural gas usage due to efficiency design.

However, current operation with the replacement burners on the same operation schedule seems to exceed the prescribed daily natural gas limits cited in each permit. These permit conditions restricting daily natural gas usage are limiting Sensient's ability to troubleshoot burner's effectiveness to minimize natural gas usage while adhering to emission standards and able to produce high quality dehydrated vegetables.

Compliance with the existing permit conditions will hamper Sensient's ability to sustain a profitable business. Currently, to ensure compliance, natural gas usage for each unit is monitored closely throughout the 24-hour day. Upon nearing the daily limit, operation staff implements actions to halt operation for several hours. This process varies substantially due to the new burners not having fully completed the commissioning process to fine-tune the line-burners to meet their performance limits, while satisfying the internal dehydration process for quality end-products with acceptable output to generate a profit.

6. What would be the harm to your business if the variance were not granted? Include business closure, economic losses in dollar amounts, breach of contracts, hardships on customers, employee lay-offs, loss of market share to competitors, etc.

To sustain an existing operation while meeting profit margin and preventing loss of perishable crops, the facility necessitates operating at the same schedule prior to the installation of the replacement burners.

If the variance was not granted, Sensient would initially lose out on the investment made to upgrade their existing equipment and sales commitment. Currently, Sensient has invested well over \$2.5 million dollars (i.e., \$2.3 million for the burners and installation; \$300K for fine-tuning by certified installation staff and consultant fees). As with all businesses, a certain profit margin must be achieved to sustain operation, else, hard business decisions must be made, which includes reducing operations and employee lay-offs. In all cases, the liabilities include breach of contracts, customer hardship, loss of market share, loss of field crops and diminishment of Sensient's reputation as quality supplier.

The economic benefit of this project was two fold. The primary benefit is the ability to run the dryers with minimal downtime from burner issues and provide a consistent operating environment with the lowest use of energy. In turn that assures Sensient can meet customer demand and sales commitments. Sensient is the largest US based supplier of dehydrated onions and garlic. Many of our customers rely on US supplied products to avoid food safety risks associated with imported onion and garlic. The second economic benefit is an anticipated reduction in natural gas use and cost due to a more efficient burner and combustion control system.

7. What date, and under what circumstances, did your facility first become aware that it would **not** be in compliance?

The line-burner replacement capital project included all eight dryers. While three units received like-in-kind burners (i.e., same ratings), the remaining five had an increase in ratings ranging from 19%-30%. During the commissioning period of these units, Sensient discovered the net increase of natural gas usage for five of the eight units in approximately July 2025. Sensient staff subsequently communicated the issue with SJVAPCD's compliance officer to determine options and most viable and expeditious approach without suspending operation for extended duration.

8. What actions have you taken since that time to achieve compliance?

It should be recognized that since the inception of this capital project in June 2024, Sensient held multiple discussions with manufacturer's representative including application engineers and certified Maxon line-burner engineers to ensure applicability and viability of installing larger burners. The burners were installed shortly after receiving the ATCs. The installation was completed by trained certified Maxon line-burner staff (Heat Transfer Systems) with input from the dehydrator manufacturer's (CPM Proctor Wolverine) representatives including application/process engineers. During the commissioning of the equipment, which is currently on-going, inefficiencies of burners are creating multiple issues such as incomplete combustion of natural gas, inconsistent heat, slow temperature increase, and unstable operation that could potentially result in out-of-compliance with cited emissions standards (see page 17-19 of Maxon brochure provided in Appendix B).

Without correcting these issues, Sensient's operation would produce less-than-desirable quality end-products and potentially create non-compliance issues with the ATCs. Since recognizing the potential non-compliance issue of insufficient daily gas threshold, Sensient staff held multiple conversations with SJVAPCD permit engineers, Max Boyken and Nick Pierce, and compliance officer Mary Canchola to implement viable action items, with a variance being one and purchasing off-set emission reduction credits (ERCs) to supplement any net increase.

However, to accurately assess the deficiencies including ERCs, these burners require fine-tuning to achieve pre-engineering calculations and assessment indicating a reduction in emissions and similar or less natural gas usage. As such, the manufacturer's engineers, Maxon certified burner installers, and a retired, but seasoned Livingston's operation staff with 40+ years of experience are present regularly to assess and rectify the deficiencies. Sensient is currently working with multiple engineering firms on evaluation and proof of concept activities to establish an overall strategy to improve dryer performance and reduce emissions.

Currently, Sensient has invested well over \$300,000 to identify and troubleshoot the burners. As aforementioned in Item no. 2, there are multiple steps and iterations to fine-tune these burners. It should be recognized that each dehydrator has multiple line-burners and they must work cohesively to produce uniform heat within each of the four heating stages.

9. Explain what options have been evaluated towards curtailment or termination of operations in lieu of obtaining a variance.

Sensient initial capital investment to purchase and install burners is approximately \$2.3 million, with consultant fees of approximately \$300,000 to troubleshoot the burners. The facility has also implemented action items such as hourly monitoring usage of natural gas usage and curtailing the individual unit to remain compliant. Sensient has made a sizable investment at this facility. Without this variance, Sensient may have to shutter the entire facility and risk marring their reputation. Other negative impacts are a reduction in employment of facility workers, local contractors, and service workers such as truck drivers supporting our operation.

As described in Item nos. 5 & 8, Sensient implemented natural gas monitoring procedures to remain in compliant with operating permit conditions and actively retained three knowledgeable consultants to troubleshoot and fine-tune the system. However, the reduced daily operational hours prevents an expeditious solution.

10. Estimate the excess emissions in total pounds over the duration of the variance period.
Estimate the maximum amount of excess emissions that will occur.

Pollutant	Pollutant Limit	Actual Emissions	<i>Excess emissions are those that are in excess of the rules or permit conditions or otherwise lawfully allowed</i>	Total Estimated Excess Emissions
VOC	5679	6233		554
NO _x	11811	12533		721
CO	99125	107077		7952
SO _x	2943	3260		317
PM ₁₀	3098	3434		336
PM _{2.5}	Inc. in PM ₁₀			

Highest Opacity level anticipated: 20 %

11. Show all calculations and provide references for emission factors used in estimating excess emissions.

The actual emissions presented in Item no. 10 are estimated and calculated based on the facility operating 24 hour/7 day periods for the 12 months duration of the variance (projected duration to complete proof of process), burners operating at optimal condition (i.e., after fine-tuning), and emission factors for NO_x and CO are derived from the Maxon burner brochure presented on page 17-19, which is provided in Attachment C. All other emissions estimates based on emissions factors identified in the current ATC's issued to Sensient

A summary of the emissions calculations are presented in Appendix D.

12. Explain how you can reduce or mitigate excess emissions during the variance period. (such as shutting equipment down or reducing production to offset excess emissions)

The facility currently implements reduction in daily hours, which results in reduced output. Both are short-term solutions with a limited time frame. This could lead to a negative profit margin. Sensient will continue to implement equipment monitoring activities to minimize natural gas consumption as recommended by outside consulting engineers during the variance period.

13. If there are excessive hazardous or toxic emissions, attach a health risk assessment and receptor modeling data.

14. Can you monitor or quantify emission levels from the subject equipment or activity during the variance period and make such records available to the District? Source tests, engineering tests, or portable emission analyzers can be utilized.
Yes: ☒ No: ☐ Provide an explanation of your response.

The facility currently collects daily natural gas usage data, which can be used to quantify emissions from each dehydrator. These daily reports can be provided within 14 days of request by the District.

15. How do you intend to achieve compliance with the rules or permit conditions? Include a detailed description of any equipment to be installed and/or modifications to be made, a listing of the dates by which the actions will be completed, and an estimate of the total cost, if available.

As described in Item no. 8, Sensient will continue to operate with restrictive operation to maintain compliance while reducing output to try and recoup the capital investment.

The current consultants will remain until issues have been rectified or alternative solutions are identified and reviewed by Sensient management.

Sensient respectfully requests a variance period of 12 months from the date a decision is rendered. This allows Sensient to continue working towards an effective engineering solution. Once the solution is identified, the variance period also allows time to develop and execute any capital projects and achieve long term compliance. Additionally, this period allows the facility to operate through a full processing and maintenance season to address typical and atypical issues associated with raw materials delivered to the facility.

A Schedule of Increments of Progress pursuant to Rule 5050 –Compliance Schedule is provided in Appendix E along with approximate dates (Gant schedule).

16. State the dates you are requesting the variance to begin and end (the end date should be the date you expect to achieve compliance with the rules, regulations, and permit conditions). Please overestimate the time needed to allow for any contingencies.

Begin variance: April 8, 2026 End variance: April 8, 2027

17. Please state if you need special time designations. For example: "We need 15 non-consecutive days between such and such date."

18. If a variance, or series of variances, is to extend beyond one year, you must attach a Schedule of Increments of Progress pursuant to Rule 5050 –*Compliance Schedule* which must specify certain dates or milestones to be met in achieving compliance.

19. List the names of any District personnel who are familiar with the facility (inspectors, permit engineers, etc.) or with whom facility representatives have had contact concerning this variance petition, or any related NOV or NTC.

Max Boyken; Nick Pierce; Mary Canchola

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete:

Date: 3/24/2026

*Signature: Mark Halvorsen

Title: EHS Director

Print Name: Mark Halvorsen

**must be signed by a responsible official if petitioner is a Title V source*

The original petition in this format, and any attachments must be submitted to the District. Any attachments that are extraordinarily difficult to reproduce, such as full color photographs, must be submitted as six copies. Petitions which are incomplete, illegible, submitted in the wrong format, or without the necessary filing fee will be returned. If you need assistance completing this petition and/or developing a compliance schedule, contact the Compliance Department in your region.

Northern Region Office
(209) 557-6440

Central Region Office
(559) 230-5950

Southern Region Office
(661) 392-5540

You may hand deliver, mail, or email this petition to variance@valleyair.org