

ODOR MITIGATION PLAN For California Erudite Ventures Cannabis Dispensary at 3059 Coffee Lane City of Santa Rosa. CA

Prepared by: Paul Miller, M.S., Principal and Senior Air Quality Scientist Dan Jones, Air Quality Associate RCH Group, Rancho Cordova, CA August 19, 2019

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Purpose/Context of the Odor Mitigation Plan

This Odor Mitigation Plan presents the features of the odor control systems for the proposed cannabis dispensary at 3059 Coffee Lane in Santa Rosa that will include cannabis storefront retail and delivery. The Odor Mitigation Plan is intended to provide guidance to on-site personnel to ensure the successful mitigation of odors from any operations at the business location. This Odor Mitigation Plan will be maintained on-site and revised as necessary to reflect any changes in the design or operation of this site. In addition, this Odor Mitigation Plan will be reviewed annually to determine if any revisions are necessary.

Site Operations

The business will be the location of cannabis storefront retail and delivery. The cannabis products will arrive at the site individually packaged in airtight and child-proof containers. On-site activities will include delivery order acceptance and fulfillment, route dispatch, inventory receipt and stocking, retail sales, and general business functions.

An effective Odor Mitigation Plan must address all activities that occur in the building. The business will include a Foyer security check/express order room, one restroom, a large retail room, an Inventory Vault, a Receiving and Delivery Area, an IT Room, a cash room, and other administrative areas. See **Figure 1**, the Proposed Main Floor Plan.

Odor Mitigation and HVAC Systems

There will be two HVAC systems to provide air conditioning and odor control (mitigation) for the building. **Figure 2** is the Odor Mitigation and HVAC flowchart for the Retail Storefront and Delivery uses. This system includes a 5-ton HVAC unit with pressure and humidity controls and an Air Scrubber to eliminate exhaust odors. This is a four zone system with all exhaust air treated by the Air Scrubber.

Figure 3 is the Odor Mitigation and HVAC flowchart for the Inventory Vault and Office and Customer Service. This system includes a 5-ton HVAC unit with pressure and humidity controls and an Air Scrubber to eliminate odors. This is a two zone system with all exhaust air treated by the Air Scrubber. Zone 2 (Inventory Vault Area) will be kept under negative air pressure to ensure all exhaust air goes through the Air Scrubber (with a carbon filter).

Both HVAC units will use negative pressure to bring any odors into the Air Scrubber on the path to the HVAC exhaust. Areas with the greatest odor potential will use the negative pressure to control air flow. Both HVAC units are five ton, 60,000 BTU/hr., 230-volt single phase units to be installed on the rooftop. Both systems will feature a humidification unit, a centrifugal exhaust blower and a make-up air unit. Air movement shall occur through spiral 22-gauge ventilation exposed duct system. All supply air will have registers and diffusers.

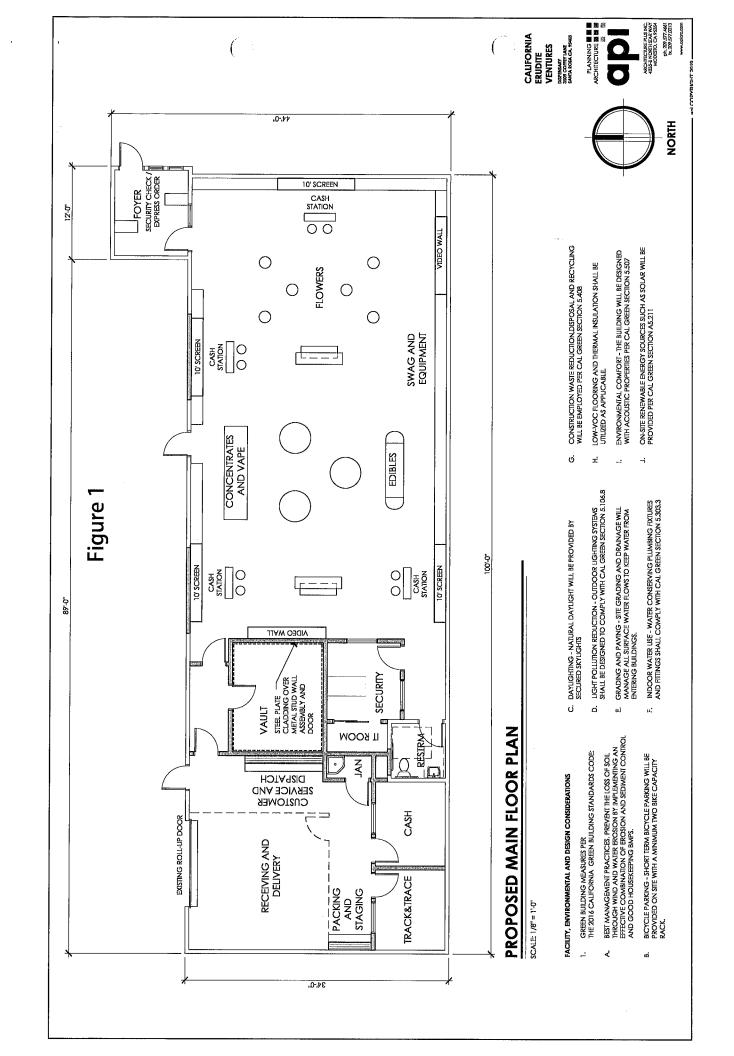
Activated carbon filters are considered the best filters (and most commonly used filters for this purpose) to remove cannabis odors. Odor control will be managed through two sets per system of charcoal filtration. Both systems will feature in-line "bullet" style 6" x 36" charcoal filters and air from both systems will be sent through an Electrocorp carbon industrial grade Air Scrubber.

Each room will be zoned out facilitating the capacity to maintain individual temperatures. The storage area will be on a timed make up air schedule by use of an enthalpy control where the percentage of make-up air can be dictated. Volume dampers will be installed to control the flow volume and static pressure.

Key Odor Control Features

The key odor control features at the business will include:

- The business will have no windows and limited doors.
- All product will be appropriate packaged or containers to minimize odors
- Negative pressure will be maintained in the areas with highest odor potential
- All exhaust air will go through the Air Scrubber before leaving the building
- Employee training
- Complaint response procedures
- Contingency procedures
- Adaptive management to upgrade odor control processes



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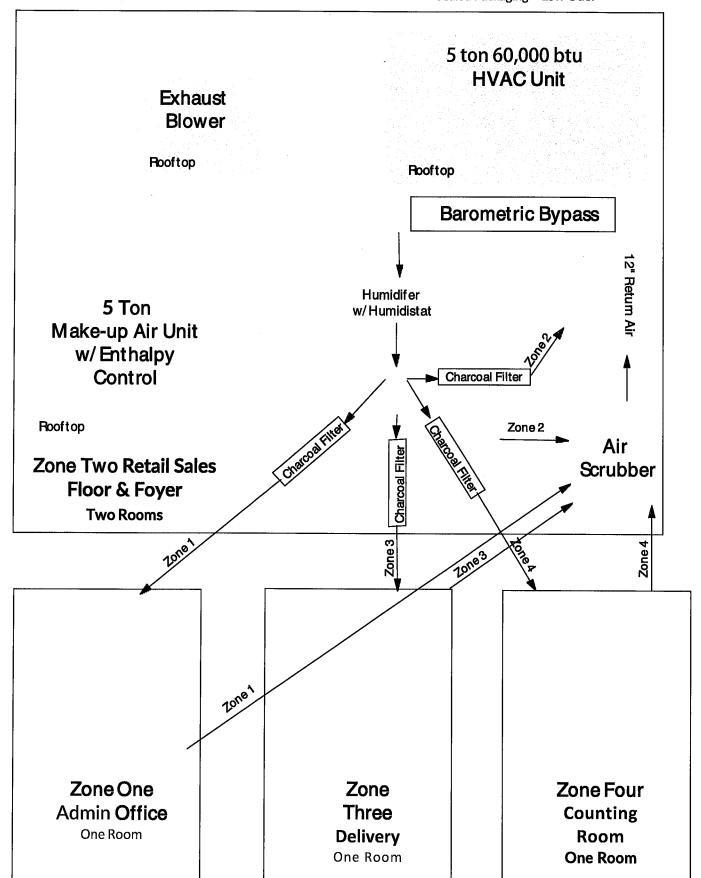
Figure 2

Of Mitigation & HVAC Flowchart

Use #1

Retail Storefront & Delivery

Total Coverage 2,000 Sq. Ft. +/-Sealed Packaging = Low Odor



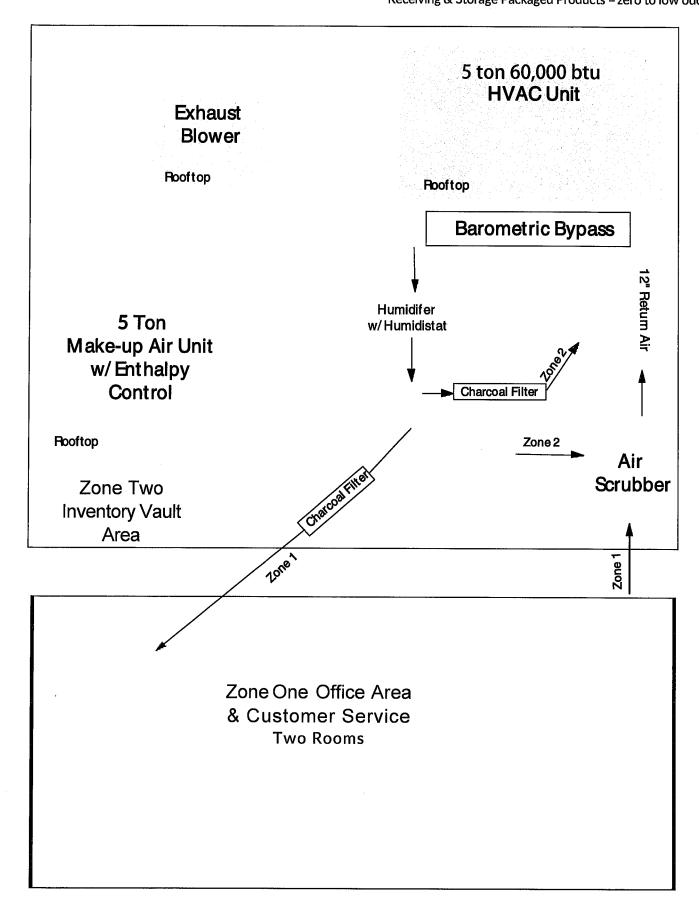
3059 Coffey Lane
Santa Rosa CA.
Final requirements may differ slightly

Figure 3

Odor Mitigation & HVACFlowchart

Use #2 Invento, , Vault & Office

Total Coverage 500 Sq. Ft. +/
Receiving & Storage Packaged Products = zero to low odor



I. Operation Processes and Maintenance Plan

In order to minimize the development of conditions that could lead to odor problems, the business will include the following operational processes and Maintenance Plan:

A. Operation Processes

Daily Survey

Each day a trained designated employee will qualitatively evaluate any on-site odors and record the results in an Odor Logbook. The survey will include review of the odor control systems (as possible) including the air scrubber and negative pressure system (checking to ensure that negative building pressure is being maintained in the negative pressure areas [the Inventory Vault and any other potentially odorous areas]). If objectionable on-site odors are detected, or odor control equipment is not functioning properly, the trained designated employee will take appropriate actions.

Product Handling

The facility will handle stocked inventory.

Stocked inventory - Cannabis products will be individually packaged in airtight and child-proof containers (may not be opened or tampered with by law). To control odors, the Inventory Vault will be maintained under negative building pressure and exhaust air will be pulled through the Air Scrubber.

Retail Area – Most products in this area will be individually packaged in airtight and child-proof containers. Some flower product may be opened for inspection, and then resealed. Odor from this activity should be monitored to assure it is not an odor impact. Odor from this activity would be exhausted through the Air Scrubber.

Unsalable Product

Unsaleable inventory consists of any product(s) that is unsuitable for retail or medicinal sale. All unsaleable inventory be destroyed in accordance with State and local regulation. The sources of unsaleable inventory are as follows:

- Expired Item(s) that have exceeded the expiration date printed upon the item by the vendor or item(s) aged to the maximum date allowed by State schedule.
- Defective Item(s) determined to be unsuitable for sale due to poor quality, open/torn packaging or any other noticeable defect.
- Misc. Item(s) that require destruction for any reason other than those listed.

Odor Control

• A designated and locked storage area and lot specific container shall be maintained and secured for the collection of unsaleable item(s).

- The Unsalable Product storage area in the vault will be checked during the daily odor survey to assure it is not the source of any odors.
- The vault area will be maintained under negative building pressure so that air leaves the vault through the Air Scrubber.
- The "Cannabis Waste" processing will include procedures to minimize odors.

On-site or Off-site Odors

Employees are the first line of defense in identifying potential odor impacts. Employees must be alert to any odors at all times.

If questionable or objectionable on-site or off-site odors are detected by site personnel, operations personnel will implement the following protocol:

- 1. Investigate and determine the likely source of the odor.
- 2. Assess the effectiveness of available on-site management practices to resolve the odor event and immediately take steps to reduce the odor-generating capacity of on-site product.
- 3. Determine if the odor traveled off-site by surveying the site perimeter and noting existing wind patterns.
- 4. Record the event for further operational review.

Complaint Response Protocol

If a complaint is received, designated site personnel will:

- 1. Obtain date and time, location, name and phone number of the complainant, and nature or characteristics of the odor and record that information along with the business responder's name in the Odor Logbook.
- 2. Proceed to the location of the complaint to verify that the business is indeed responsible for the odor.
- 3. If it is determined that the business is responsible for the odor complaint, implement operational changes to minimize/eliminate the odors.
- 4. Modify daily operations as necessary based upon conclusions of the odor complaints. This includes modification of the Operation Processes and Maintenance Plan.

B. Maintenance Plan

Routine Maintenance of Engineering Controls

The facility will keep a Maintenance Log with all equipment maintenance recommendations/requirements. The site supervisor will be responsible for assuring that the maintenance is up to date. Maintenance will include such regular items as the periodic changing of the carbon filter media in the Air Scrubber.

The Maintenance Log will have contact information for each of the engineering controls that make up the two Odor Mitigation and HVAC systems (see **Figures 2 & 3**). The contact information will be office number, cell number and email contact for the technicians that can maintain/repair each of the engineering controls.

II. Personnel Odor Control Training

Personnel will be trained to know the facility odor operational processes and maintenance plan, product handling procedures and contingency actions. Handling procedures to minimize the production of odors will be stressed. The Odor Mitigation Plan will be kept in the Management Room on the upper floor, available to all company staff. Annual review and training will ensure continued safe operations of the facility and compliance with regulations.

Both initial employee training and annual review will cover the following topics.

- Handling of the products
- Maintaining negative pressure in designated areas
- Exhausting air through the Air Scrubber
- Complaint Response

III. Annual Review of the Odor Mitigation Plan

The Odor Mitigation Plan will be reviewed annually by the site supervisor(s) and revised as necessary.

A copy of this Odor Mitigation Plan will be kept in the Management Office. The Odor Mitigation Plan will be revised within 30 days to reflect significant changes to operations that affect the Odor Mitigation Plan.

Preparer Qualifications

Paul Miller, M.S., Managing Principal and Senior Air Quality Scientist

Paul Miller is an environmental professional with more than 30 years of experience in providing services and products to government agencies and private sector corporations. Paul's technical areas of expertise include CEQA project management and technical analyses in the areas of odors, air quality, indoor air quality, greenhouse gases, noise, solid waste, integrated waste management, energy, and hazardous materials. Paul has consistently been involved in analyzing odors in CEQA documents for all types of projects since 1989. These CEQA documents have analyzed new landfills, landfill expansions, Materials Recovery Facilities (MRFs), solid waste transfer stations, compost facilities, anaerobic digester facilities, wastewater treatment plants, cannabis dispensaries. Paul has managed odor impact analyses for several cannabis dispensary projects throughout California. Paul is an accredited by the California Air Resources Board as a Lead Greenhouse Gas Verifier of Emissions Data Reports for Mandatory Reporting.

Dan Jones, Air Quality Associate

Dan Jones is an environmental professional with five years of experience in providing environmental services and products to government agencies and private sector corporations. Dan's technical areas of expertise include CEQA project management and document preparation and technical analyses in the areas of odors, air quality, greenhouse gases/climate change, health risk assessment, and noise. Dan has been integral in the preparation of over 100 CEQA documents and technical studies supporting such documents. Dan has performed odor impact analyses for several cannabis dispensary projects throughout California. Dan is an accredited by the California Air Resources Board as a Greenhouse Gas

Verifier of Emissions Data Reports for Mandatory Reporting.

Certification

We certify that compliance with the Odor Mitigation Plan would mitigate potential odor impacts from the proposed operations.

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