Notice of Construction (NOC) Worksheet

pscleanair.org
Puget Sound Clean Air Agency

Applicant: Cloud Bud	**NOC Number**: 11237
Project Location: 20241 269th Ave SE Maple Valley, WA 98038	**Registration Number**: 29914
Applicant Name and Phone: William Cloud, 425-413-7961	**NAICS: 000000**
Engineer: Ralph Munoz	**Inspector**: Manolo Zaldivar

A. DESCRIPTION

For the Order of Approval:
Tier III cannabis production and processing facility consisting of approximately 15,680 square feet of enclosed production units. The enclosed production space consists of 11 production units and 3 drying units, each unit is controlled by a 1680 cfm carbon canister. Covered under this order is also a 36' by 30' greenhouse which can be used for cannabis processing and storage. The greenhouse consists of two rooms, which are both controlled with 1680 cfm carbon canisters while processing cannabis. No extraction is allowed under this order.

Additional Information (if needed):

Cloud Bud has a Tier 3 marijuana producer license with the Liquor & Cannabis Board as shown below.

Tradename	License #	UBI	Street Address	Suite/Rm	City	State	County	ZipCode	PrivDesc	PrivilegeStatus	DayPhone
CLOUD BUD	412129	6033476140010001	20241 269TH AV		MAPLE VA	WA	KING	980388824	MARIJUANA PRODUCER TIER 3	PENDING (ISSUED)	4254137961

CLOUD BUD

LICENSE INFORMATION: New search | Previous search

Entity name: CLOUD BUD, LLC
Business name: CLOUD BUD
Entity type: Limited Liability Company
UBI: 603-347-614 Business ID: 001 Location ID: 0001
Location: Open
Status: To check the status of this company, go to Department of Revenue and Secretary of State

Location address:
20241 269TH AVE SE STE A
MAPLE VALLEY, WA, 98038
View Additional Locations

Mailing address:
PO BOX 21
MAPLE VALLEY, WA, 98038

ENDORSEMENTS

Endorsements held at this location	License #	Count	Details	Status	Expiration date	First issuance date
Marijuana Processor	412129			Active	Nov-30-2016	Nov-30-2014
Marijuana Producer Tier 3	412129			Active	Nov-30-2016	Nov-30-2014
Scale - Small		1		Active	Feb-28-2017	Feb-11-2016

3 Rows

GOVERNING PEOPLE *MAY INCLUDE GOVERNING PEOPLE NOT REGISTERED WITH SOS*

Governing people	Title
CLOUD, SHARON	Manager, Member
CLOUD, SHARON	Manager, Member
CLOUD, WILLIAM	Member
CLOUD, WILLIAM	Member

4 Rows

Information current as of9/28/2016 9:03:04 AM

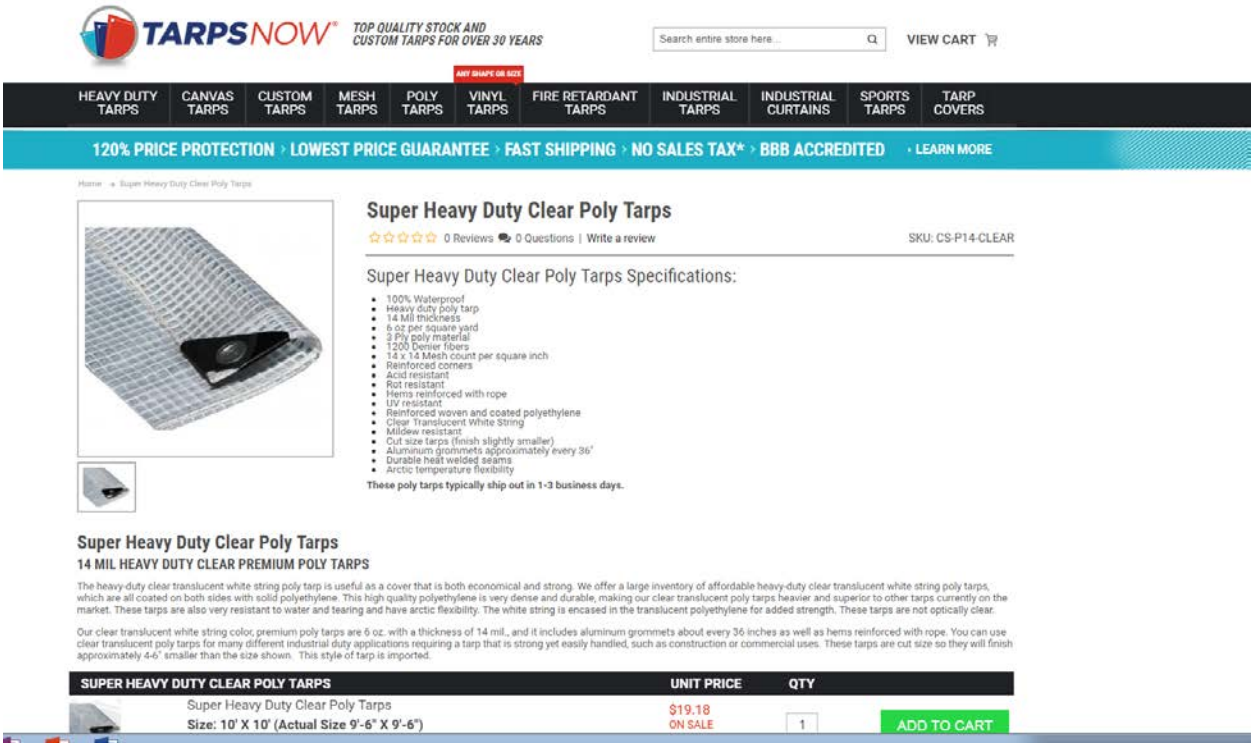
Google Earth view of Cloud Bud facility (project area is indicated by the red outline)

The original site diagram for Cloud Bud included a drawing for 14 outdoor growing/production areas, each 1,260 sq ft. Since original permit application was submitted, Cloud Bud has now modified these areas and will now be enclosed with a poly tarp cover and three of the units will be converted to drying units. The "drying units" will be used for all processing and trimming operations. No processing is currently being conducted in the greenhouse, only storage of cannabis in sealed bags; however, Cloud Bud did request the capability to do some processing in the future (William Cloud – 7/17/18). The two enclosed rooms inside the greenhouse are both equipped with Hydrofarm 1,680 cfm carbon canisters and will operate them if Cloud Bud decides to process cannabis in these rooms.

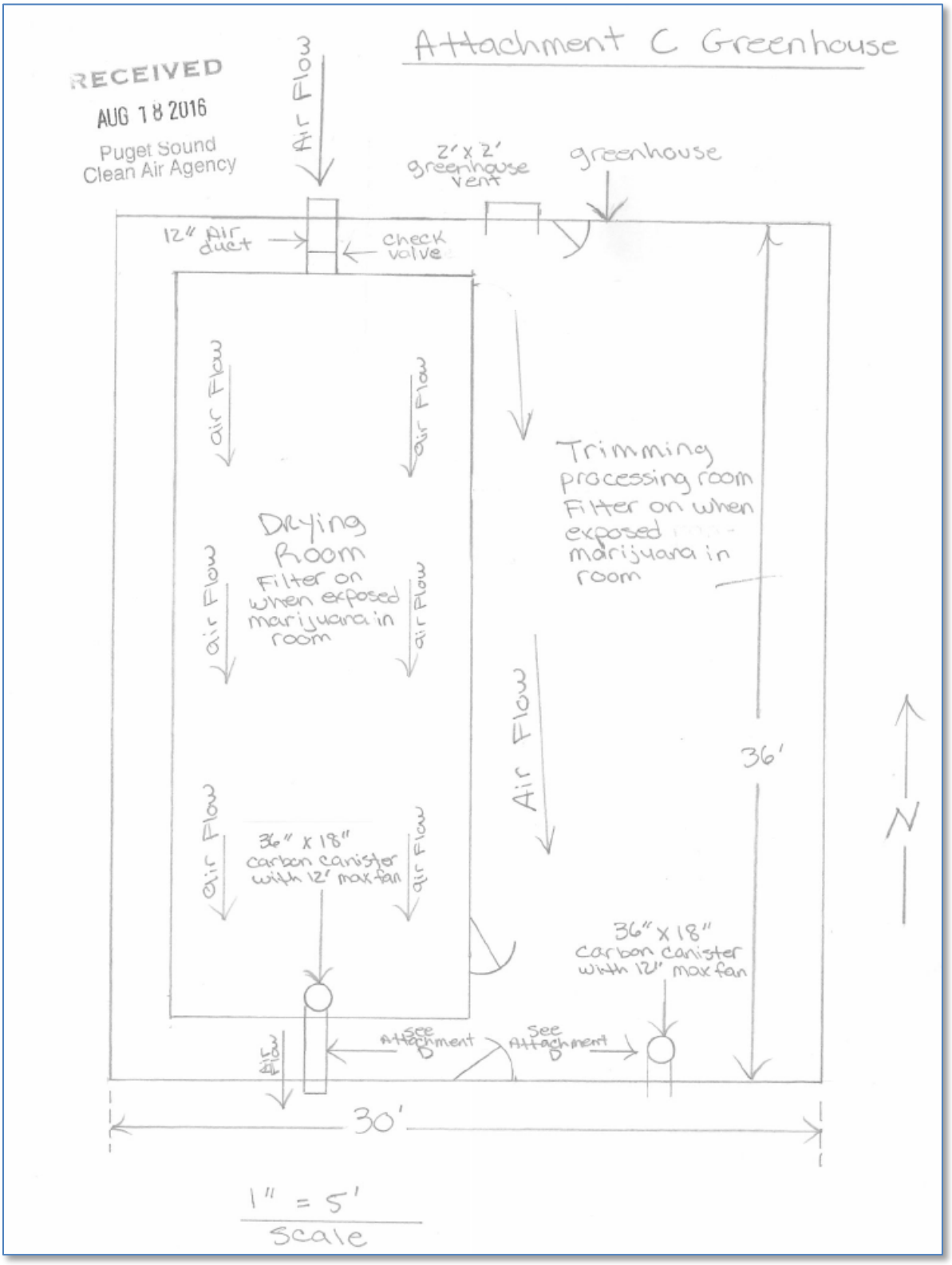
The production and drying unit enclosures will each be equipped with at least two fans, one blowing air in and the other blowing air out. These fans will be rated up to 1680 cfm, and all of the production units will be equipped with Hydrofarm carbon canister units at the exhausts that contain 81.5 pounds of carbon. Each of the units (11 production, 3 drying units) will be totally enclosed with a poly tarp (A sample spec sheet shown below for a 10' x 10' sheet, but Cloud Bud will be using larger tarp). Clear tarp will be used as the enclosure, and the darker shaded tarp will go over the top right before getting dark and for a few hours after the sun comes up. This is done to control the amount of light the plants are getting. A 30' x

45’ poly tarp will be placed on top of the units; two 6’ x 40’ poly tarps will be used on the sides. Finally, the tarp covers will be joined with ball bungies to wrap the bungie cord around the posted steel frames. Cloud Bud will need to ensure these tarp covers are totally sealed once the bungie’s go around the poles, which will be done with masking tape or other adhesive type material.

Sample spec sheet for the poly tarp



Cloud Bud greenhouse layout



As mentioned previously, this greenhouse schematic was the original design plan, which was to be used for drying and trimming. Cloud Bud has now modified their operation to do drying and trimming in the 3 drying units as described above. This greenhouse is currently being used for storage, but does have the capability of processing cannabis. Each of the rooms shown above does have carbon canisters on the exhausts in case Cloud Bud needs to use this greenhouse space in the future.

History:

Cloud Bud submitted their permit application on August 25, 2016 which included outdoor production. Cloud Bud received a notice of violation 3-008688 from the agency for operating without a permit on 6/7/17.

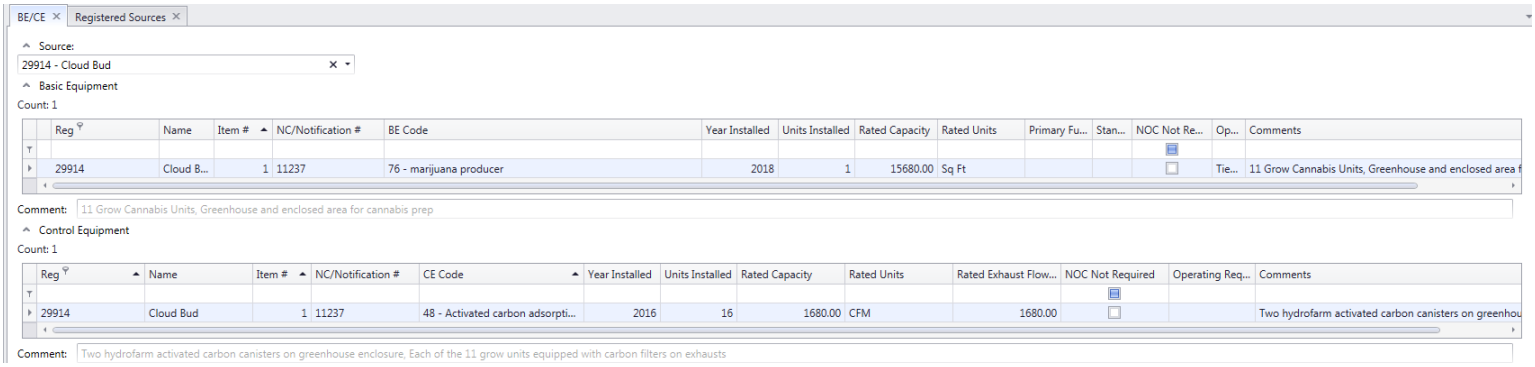
The original permit application requested 14 outdoor production areas, each approximately 1,120 sq ft. The operation was then modified to 11 production units and 3 drying units, each equipped with carbon canisters. The greenhouse was also changed as mentioned above, but Cloud Bud wants to keep the capability of processing cannabis in the greenhouse.

The application listed a total canopy size of 15,680 sq ft; however; the King County CUP application listed the total canopy as 30,000 sq ft.

> 2. On February 26, 2016, Cloud Bud LLC (Applicant) submitted an application to DPER for a CUP to allow approximately 30,000 square feet of marijuana production and a marijuana greenhouse within a fenced area and for the drying, curing, trimming, and packaging of the marijuana. Exhibits A-4[1], D-2. The Applicant intends to grow one crop of marijuana per year during the months of April–October. Exhibit D-2, Finding A, p. 3; Exhibit D-34; testimony of William Cloud and Ty Peterson. Although initial propagation will take place in the greenhouse, the marijuana will be grown primarily outdoors within the fenced area. Exhibit D-2, Finding A, p. 2; testimony of William Cloud.

The CUP was using the maximum amount allowed under the Tier III production license. This permit application and worksheet will evaluate the 15,680 sq ft canopy since this is what was applied for in the permit application.

B. DATABASE INFORMATION



BE/CE | Registered Sources

Source: 29914 - Cloud Bud

Basic Equipment

Count: 1

Reg	Name	Item #	NC/Notification #	BE Code	Year Installed	Units Installed	Rated Capacity	Rated Units	Primary Fu...	Stan...	NOC Not Re...	Op...	Comments
29914	Cloud B...	1	11237	76 - marijuana producer	2018	1	15680.00	Sq Ft				Tie...	11 Grow Cannabis Units, Greenhouse and enclosed area f

Comment: 11 Grow Cannabis Units, Greenhouse and enclosed area for cannabis prep

Control Equipment

Count: 1

Reg	Name	Item #	NC/Notification #	CE Code	Year Installed	Units Installed	Rated Capacity	Rated Units	Rated Exhaust Flow...	NOC Not Required	Operating Req...	Comments
29914	Cloud Bud	1	11237	48 - Activated carbon adsorpti...	2016	16	1680.00	CFM	1680.00			Two hydrofarm activated carbon canisters on greenhou

Comment: Two hydrofarm activated carbon canisters on greenhouse enclosure, Each of the 11 grow units equipped with carbon filters on exhausts

New NSPS due to this NOCOA?	**No**
New NESHAP due to this NOCOA?	**No**
New Synthetic Minor due to this NOCOA?	**No**

No existing NSPS or NESHAPS applicable to this facility.

C. NOC FEES AND ANNUAL REGISTRATION FEES

NOC Fees:

Fees have been assessed in accordance with the fee schedule in Regulation I, Section 6.04. All fees must be paid prior to issuance of the final Order of Approval.

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,150	
Control Equipment (tier 3)	$1,800	
Process Equipment (Cannabis Production)	$600	
SEPA (DNS)	$0	
Public Notice (not including newspaper publication costs)	$700	
Publication costs (unknown at this time)	??	
Filing received		$ 1,150 (4/13/16)
Additional fee received		$3,100 (Paid 7/27/18)
Total	**$**	

On 9/28/16 Alan Butler sent Cloud Bud an invoice for $3,200 which was never paid by Cloud Bud.

William Cloud mailed payment into the agency 7/24/18, payment received 7/27/18 for $3,100 receipt 99648

Invoice needed for Cloud Bud, NOC 11237, Reg No. 29914

Alan Butler
Sent: Wed 9/28/2016 10:20 AM
To: Betsy Wheelock
Cc: Nailah Shami

Betsy: Please prepare and send an invoice for $3,200 for permit review fees to:

William Cloud
Cloud Bud
PO Box 21
Maple Valley, WA 98038

Email address: cloudbud@outlook.com

Fee Description	Cost	Amount Received (Date)
Filing Fee	$ 1,150	
Marijuana (odor generation)	$600	
Controls for marijuana odor (Tier 3)	$1,800	
SEPA (DNS)	$800	
Filing received		$1,150 (8/25/16)
Additional fee received		$3,200 (mm/dd/16)
Total	**$2,550**	**$1,150**

Thank you
ATB

The invoice included charges for SEPA; however, since this date – King County has issued a SEPA determination for which the Agency relied on for this permit application. The total amount actually due at this time (7/18/18) is $3,100.

Registration Fees:
Registration fees are assessed to the facility on an annual basis. Fees are assessed in accordance with Regulation I, Section 5.07.

Registration Applicability		
Regulation I	Description	Note
5.03(a)(5)(A)	Sources with odor control >200 cfm	
5.03(a)(8)(Q)	Marijuana production	

Annual Registration Fee		
Regulation I	Description	Fee
5.07(c)	Base fee	$1,150
	Total =	$1,150

D. STATE ENVIRONMENTAL POLICY ACT (SEPA) REVIEW

The **King County Department of Permitting and Environmental Review (DPER) was** the SEPA lead agency for this project and issued the associated DNS on June 9, 2017. A copy of this DNS is included in the NOC file.

https://www.kingcounty.gov/~/media/independent/hearing-examiner/documents/Cloud%20Bud/Determiniation_of_Non-Significance.ashx?la=en

After this DNS was issued by King County DPER, an appeal was filed on the SEPA Determination on July 3, 2017.

The final report and decision from the hearing examiner was issued on November 7, 2017: https://www.kingcounty.gov/~/media/independent/hearing-examiner/documents/Cloud%20Bud/CDUP160002_CloudBud_CorrectedReport.ashx?la=en

The SEPA DNS was upheld in the hearing, but imposed additional conditions requiring periodic monitoring of the operation to gauge compliance with the conditional use permit (CUP) conditions and a more timely approval on this NOC application, which King county is relying on to mitigate the odor impacts. One of the conditions of the hearing examiner was for the applicant to receive an NOC permit from PSCAA by August 1, 2018: (page 23 CUP)

> 146. The Examiner has revised Conditions 3 and 10 to require that the Applicant obtain the PSCAA NOC by later of August 1, 2018 or, in the event of an appeal(s), within 12 months of the final resolution of any appeal(s).

Another condition of the CUP and the hearing examiner is that Cloud Bud will need to meet BACT, which is no odor at the property boundary:

> 140. Exhibit A-40 is an example of conditions PSCAA imposed on an outdoor marijuana production use in Woodinville. It imposes a condition that no detectable cannabis odor from the facility is allowed outside the facility property line. Although Appellants characterized this condition as a regulatory standard, the Examiner was not able to find an adopted standard in chapter WAC 173-400 or PSCAA's rules requiring that cannabis odor not cross a property line. Nor did Appellants provide a citation to one. Mr. Hess described this condition as BACT. Therefore, the Examiner concludes that PSCAA imposed this condition as BACT.

The requirements of BACT will be evaluated and placed in the air permit for Cloud Bud, and is explained in more detail below in the BACT section.

The final SEPA report and decision was issued on November 7, 2017 by King County DPER (CDUP160002).

E. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REVIEW

Best Available Control Technology (BACT)

New stationary sources of air pollution are required to use BACT to control all pollutants not previously emitted, or those for which emissions would increase as a result of the new source or modification. BACT is defined in WAC 173-400-030 as, "an emission limitation based on the maximum degree of reduction for each air pollutant subject to regulation under Chapter 70.94 RCW emitted from or which results from any new or modified stationary source, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant."

An emissions standard or emissions limitation means "a requirement established under the Federal Clean Air Act or Chapter 70.94 RCW which limits the quantity, rate, or concentration of emissions of air contaminants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment, work practice, or operational standard adopted under the Federal Clean Air Act or Chapter 70.94 RCW."

Best Available Control Technology for Toxics (tBACT)

New or modified sources are required to use tBACT for emissions control for TAP. Best available control technology for toxics (tBACT) is defined in WAC 173-460-020 as, "the term defined in WAC 173-400-030, as applied to TAP."

Similar Permits:

Permitting Action	BACT for Cannabis Production and Processing Operations
NC#10961	▪ All exhaust points (e.g. stacks, vents, windows, doors) associated with an enclosure, building or greenhouse housing cannabis production or processing operations must be designed to continuously control odors and VOCs. Carbon adsorption systems have been installed in all recent permitting actions. ▪ There shall be no detectable cannabis odors at or beyond the property line. Because the issue of olfactory fatigue, a person who has not been exposed to the smell will be required to periodically monitor the air at the property line. ▪ Maintenance of carbon adsorption systems must be implemented according to manufacturer recommendations. At a minimum the carbon units shall be replaced quarterly (as required in the permit conditions)
NC#11076	
NC#11277	
NC#11359	
NC#10835	
NC#10987	
NC#11096	
NC#11209	

Other Regulatory Agencies BACT:

There are a growing number of areas in the country where this type of facility is legal on a state or local basis, but it does remain illegal at the federal level. Air quality regulation of cannabis production is changing across the country as more states have approved recreational and medical cannabis production.

Locations with cannabis odor regulations include the following:

- Denver which adopted an Odor Control Plan requirement in 2016 which requires a plan and also engineering and/or procedural controls for odors from cannabis production (Denver Ordinance Section 4-10).
- The city of Boulder, Colorado, has a regulation which prohibits any odors from recreational cannabis producers and processors outside the facility (City of Boulder Regulation 6-16-8).
- The city of Aurora, Colorado, requires ventilation system to be installed to prevent any odor of cannabis off the premises of the establishment. (City of Aurora Building Division Regulations – Marijuana Related Occupancies, Mechanical Requirement: 1, 17, 19, 29)

- Napa County, California which prohibits outdoor cannabis production because of the odor impacts and requires indoor facilities to be fully enclosed and have ventilation and odor control to avoid nuisance odors (County Ordinance Chapter 8.10)
- In Washington, counties, clean air agencies and the Department of Ecology are regulating, or working towards regulating, cannabis producers in different ways including permitting, regulation by rule, prohibitions on production based on land use, and existing nuisance rules.

Analysis:

The purpose of the BACT review is to demonstrate that Cloud Bud will implement limitations or reductions for all increases in VOC and odor emissions from cannabis production and processing operations. For this permitting action, this project will increase emissions of odors and volatile organic compounds (VOCs). An odor and VOC BACT determination for cannabis production and processing operations has been established by the Agency from recent permitting actions and is discussed and presented below.

Technologies currently used for controlling odors and VOC from cannabis production include carbon canisters, odor masking (which is not allowed under Agency rules), odor neutralizers and ozone generators. There are other odor and VOC control technologies used in other industries including:

- packed bed scrubbers (won't work well on semi volatile organics),
- afterburners (expensive, uses fuel and creates other regulated pollutants),
- biofilters (would require too much room), and
- potassium permanganate filters (more expensive and this level of control is not needed for the semivolatiles at hand).

There is no information available that indicates these technologies are used in the cannabis production industry; so their technical feasibility for odor and VOC control has not been documented.

The Agency has determined that "no odor outside the property line" to be BACT since it is technically and economically feasible and achieved in practice by other sources of cannabis production in the region. The means by which this has been demonstrated is an enclosure with the use of carbon adsorption systems.

Based on existing, readily available information carbon adsorption is effective for controlling odors and VOC and is one of the most common control technologies in commercial cannabis facilities. The Agency has required all of the recent cannabis facilities to have carbon control (see the similar permits list above). This includes carbon canisters on all external vents from the building and internally circulating carbon canisters in many circumstances. The Agency does not believe that outdoor production facilities can continuously achieve "no odor outside the property boundary" without the proper use of an enclosure where emissions are routed to a carbon absorption system. In the specific case of Cloud Bud, the agency has received 11 odor complaints in the year 2017 and 8 so far in the year 2018.

Cloud Bud's original permit application requested 14 outdoor growing units, but an email from William Cloud on 7/12/18, updated this to 11 enclosed production units and 3 enclosed drying units. Each of these units is equipped with both an inlet and an exhaust fan (up to 1680 scfm each), and the exhaust fans are equipped with activated carbon for the control of odors (Hyrdofarm – 39.4 in high x 16.5 in diameter) same size for each units. Each canister contains activated carbon, and is rated for up to 1,680 cfm each.

The carbon canisters feature a 2.5 in bed depth of pelletized virgin-activated carbon and a perforated housing for filtered airflow. Cloud bud also has an indoor processing area located in the greenhouse, where one carbon is attached to the outlet of the drying room and another in the trimming processing room. Both of these rooms are enclosed and currently only used for storage. According to the manufacturers of the canister-type carbon, the carbon canister filters should be replaced yearly. (Source: http://canfilters.com/filters/can-filters/can-100.html)

For now, the Agency believes one carbon at the exhaust of each of these enclosed grow/dry units will be sufficient to control odors. However; Cloud Bud may need to install additional carbon canisters and/or carbon impregnated filters on the enclosures in order to control odors if there are odors detected beyond the property line.

Recommendations:

Permitting Action	BACT for Cannabis Production and Processing Operations
BACT 11237	▪ All exhaust points (e.g. stacks, vents, windows, doors) associated with an enclosure, building or greenhouse housing cannabis production or processing operations must be designed to continuously control odors and VOCs. Cloud Bud must enclose, capture and route all cannabis production and processing emissions to a carbon adsorption system in each of their 11 production units, 3 drying units, and both rooms inside the greenhouse. ▪ There shall be no detectable cannabis odors at or beyond the property line. Because the issue of olfactory fatigue, a person who has not been exposed to the smell will be required to periodically monitor the air at the property line. ▪ Maintenance of carbon adsorption systems must be implemented according to manufacturer recommendations or as needed to meet no odor at the property line. At a minimum the carbon units shall be replaced annually (as required in the permit conditions)

F. EMISSION ESTIMATES

Proposed Project Emissions

The purpose of this section is to identify each regulated air pollutant and present the amounts at which each regulated air pollutant will be emitted. Potential and actual emissions are the same in this case because the Order or Approval for the facility limits the production size to that for which they applied, 15,680 sq ft of canopy size.

Identification of Emissions

All emissions for this project will originate from the biogenic aspect of the production and processing of cannabis.

Emissions from the production and processing of cannabis depend on many factors (e.g. the genetics of the cannabis strain, the maturity cycle of the cannabis and the environment in which the cannabis is grown). For this permitting case, since production of cannabis occurs in a controlled environment, environmental factors will not contribute to significant increases in emissions. The production rooms are designed to maintain constant temperatures.

The emissions are complex mixtures of terpenoid, phenolic, cannabinoid and oxygen-containing compounds. Many compounds have been identified in several studies by looking at the composition of cannabis flowers, stems, leaves, roots and seeds.

Emissions Calculations

Emissions were calculated based on the actual canopy size reported in the application (15,680 sq ft). The Agency calculated emissions in two ways. First from air sample measurements conducted by the Puget Sound Clean Air Agency (the Agency) and second from a paper based on estimated biogenic VOC Emission Rates for Trees/Shrubs (max, as carbon). See spreadsheet below for details.

The first methodology to calculate emissions from the production and processing of cannabis used air sample measurements taken by the Agency with a hand-held FID. The emission calculations use an FID response factor that represents the cannabis emissions profile and corrections to the concentration to mass rate equation.

The second methodology to calculate emissions from the production and processing of cannabis using biogenic VOCs emission database for common U.S. tree and shrub genera and was used in many of the permitting actions listed above in the BACT section.

The VOC emissions estimates from these methods result in emissions ranging from 20.8 to 84 pounds/year using the different methodologies.

11237ram.xlsx

Input in yellow highlighted areas. Other cells calculated.				
NOC #:	**11237**			
Facility Name:	**Cloud Bud**			
Facility yield per year:	600	lb	272.2	kg
Number of Crops/Year:	1			
Yield per Harvest:	600.0	lb	272155	gr
# of Carbon Canisters;	16			
Changeout period:	3	months		
Fan rating	1680	CFM		
Estimated Square Footage of canopy	15680	Sq ft		
Maximum per License	15680	Sq ft		

Summary of VOC Emissions

	Actual	**Potential**
Source	**lb/yr**	**lb/yr**
Emissions based on estimated biogenic VOC Emission Rates for Trees/Shrubs (max, as carbon)	20.8	20.8
Emissions based on measurements of outlet concentrations from the exhaust fans on the carbon filters	84	84

Reporting Status:
With the emissions from this NOC, it is unlikely that the facility will trigger emission reporting requirement per Agency's Regulation I, Section 5.05 (b). The actual emission rate is expected to emit less than:

- 2.5 ton/year of HAP
- 6.25 of Total HAPs
- 25 tons/year of CO, NOx, PM, Sox, or VOC.

G. OPERATING PERMIT or PSD

The Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The facility is not a Title V air operating permit source because post project PTE remains below Title V applicability thresholds and criteria. The source is considered a "**natural minor**".

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability. The facility is not an existing PSD major source and the increase in emissions from this permitting action is below PSD thresholds.

H. AMBIENT TOXICS IMPACT ANALYSIS

TAPs are not identified in the potential emissions increases; therefore, compliance demonstration with Chapter 173-460 WAC (Washington Air Toxics Rule) and PSCAA Regulation 3, Section 2.07 is not required.

I. APPLICABLE RULES & REGULATIONS

1. PUGET SOUND CLEAN AIR AGENCY REGULATIONS

SECTION 5.05 (c): The owner or operator of a registered source shall develop and implement an operation and maintenance plan to ensure continuous compliance with Regulations I, II, and III. A copy of the plan shall be filed with the Control Officer upon request. The plan shall reflect good industrial practice and shall include, but not be limited to, the following:
(1) Periodic inspection of all equipment and control equipment;
(2) Monitoring and recording of equipment and control equipment performance;
(3) Prompt repair of any defective equipment or control equipment;
(4) Procedures for startup, shut down, and normal operation;
(5) The control measures to be employed to ensure compliance with Section 9.15 of this regulation; and
(6) A record of all actions required by the plan.
The plan shall be reviewed by the source owner or operator at least annually and updated to reflect any changes in good industrial practice.

SECTION 6.09: Within 30 days of completion of the installation or modification of a stationary source subject to the provisions of Article 6 of this regulation, the owner or operator or applicant shall file a Notice of Completion with the Agency. Each Notice of Completion shall be submitted on a form provided by the Agency, and shall specify the date upon which operation of the stationary source has commenced or will commence.

SECTION 9.09: General Particulate Matter (PM) Standard. It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:
Equipment Used in a Manufacturing Process: 0.05 gr/dscf

SECTION 9.11: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

SECTION 9.13: It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

SECTION 9.15: It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
(1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
(2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;

(3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or (4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.

REGULATION I, SECTION 9.20(a): It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.

2. WASHINGTON STATE ADMINISTRATIVE CODE

WAC 173-400-040(3): Fallout. No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.

WAC 173-400-040(4): Fugitive emissions. The owner or operator of any emissions unit engaging in materials handling, construction, demolition or other operation which is a source of fugitive emission:

3. FEDERAL

No federal rules or regulations apply to this source at this time.

J. PUBLIC NOTICE

This project meets the criteria for mandatory public notice under WAC 173-400-171(3). Criteria requiring public notice includes, but is not limited to, a project that exceeds emission threshold rates as defined in WAC 173-400-030 (40 tpy NOx, VOC, or SO_2, 100 tpy CO, 15 tpy PM_{10}, 10 tpy $PM_{2.5}$, 0.6 tpy lead), an Order of Approval that includes a WAC 173-400-091 synthetic minor limit, a project that has a toxic air pollutant emission increase above the acceptable source impact level in WAC 173-460-150, or one for which there is significant public interest.

The Agency has concluded there is significant public interest in this facility for several reasons as described below.

The agency has received a number of complaints from citizens around Cloud Bud:

Registered Sources | Complaints and Asbestos

Case #	Case Seq #	Case Type	Received Date	Received Time	Incident Date	Incident Time	Inspector	Location Street	Location C
2018501399	2	Odor	7/8/2018	0812			JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501399	1	Odor	7/7/2018	0755	7/6/2018		JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501375	1	Odor	7/4/2018	1035	7/4/2018	1030	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501353	1	Odor	7/4/2018	1035	7/4/2018	1030	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501326	1	Odor	6/29/2018	0916			JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501325	1	Visible Emission	6/29/2018	0900	6/29/2018	0853	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501195	1	Odor	6/16/2018	2121	6/16/2018	2115	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2018501148	1	Odor	6/9/2018	0703	6/9/2018	0651	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503790	1	Odor	10/7/2017	0912	10/7/2017	0906	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503786	1	Odor	10/6/2017	1559	10/6/2017	1553	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503789	1	Odor	10/6/2017	2106	10/6/2017	1852	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503735	1	Odor	10/2/2017	1949	10/2/2017	1840	JLL - Jessica Landkr...	26429 SE 200th St	Maple Valley
2017503733	1	Odor	10/2/2017	1904	10/2/2017	1900	JLL - Jessica Landkr...	Near the cross of S...	Maple Valley
2017503732	1	Odor	10/2/2017	1858	10/2/2017	1852	JLL - Jessica Landkr...	26435 SE 200th St	Maple Valley
2017503661	1	Odor	9/27/2017	0852	9/27/2017	0847	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503656	1	Odor	9/27/2017	0742	9/27/2017	0534	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503653	1	Odor	9/26/2017	2005	9/26/2017	1955	JLL - Jessica Landkr...	20241 269th Ave SE	Maple Valley
2017503654	1	Odor	9/26/2017	2026	9/26/2017	1645	NDB - Nina Birnba...	200th & 370 the A...	Hobart
2017503633	1	Odor	9/25/2017	2031	9/25/2017	2030	NDB - Nina Birnba...	262 and 208th St	Hobart

On July 19, 2016 and again on Sept 10, 2016 the Agency received an email from Stacy Goodman indicating that she is requesting a public comment period for this project.

For these reasons, this permit will be posted in a local newspaper and the agency website for a mandatory public comment period. No public hearing has been requested at this time (7/16/18).

Placeholder for public notice dates

K. RECOMMENDED APPROVAL CONDITIONS

Standard Conditions:

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the installation address in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.

2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.

Specific Conditions:

3. All exhaust air from the greenhouse drying room and the trimming processing room while processing cannabis shall be vented through Hydrofarm activated carbon adsorption canisters before being exhausted to the outdoor atmosphere or to the inside of the building. The flow rate through each carbon adsorption canister shall not exceed 1,680 cfm and shall contain at least 81.5 pounds of activated carbon. The owner or operator may use an equivalent carbon canister that has at least the same amount of carbon in pounds and does not exceed the allowed flow rate.
4. The owner or operator must totally enclose all 11 production units and 3 drying units to prevent all emissions of cannabis odor. There shall be no gaps or holes in the enclosures, including at all tarp seams, at the ground, between the walls and the roof, or any other location. The grow units and drying units shall remain fully closed to the atmosphere at all times except as allowed by Permit Condition 13.

5. All exhaust exiting each production unit and each drying unit shall be controlled by Hydrofarm activated carbon adsorption canisters before being emitted to the atmosphere. The flow rate through each carbon adsorption canister shall not exceed 1,680 cfm and shall contain at least 81.5 pounds of activated carbon. The owner or operator may use an equivalent carbon canister that has at least the same amount of carbon in pounds and does not exceed the allowed flow rate.
6. Each carbon canister must be designed and equipped with a pre-filter to prevent debris getting into the carbon.
7. Manufacturer specification sheets showing the type of unit, amount of carbon media, and fan used for each carbon canister must be maintained on-site. If requested by the Agency, the owner or operator must provide safe access for inspecting any of the carbon canisters.
8. No detectable cannabis odor from the facility is allowed outside the property line.
9. The owner or operator shall monitor along and outside the property line for detectable cannabis odors from the facility once each calendar week (Sunday through Saturday). For at least one hour immediately prior to monitoring, the person performing the monitoring must remain in an atmosphere free of cannabis odors and may not be inside the facility. If cannabis odors from the facility are detected at or outside the property line during the monitoring or at any other time, the owner or operator shall immediately take corrective action to eliminate the odors. Corrective action includes, but is not limited to: changing out the carbon media or canister(s), adding new carbon adsorption systems, and adjusting or replacing the fan so that the airflow does not exceed the design airflow of a carbon adsorption canister or system. The owner or operator shall monitor along and outside the property line for detectable cannabis odors from the facility after the corrective action has been implemented. If odors are still identified, the owner or operator must continue to take corrective action until no odor is detected at the or beyond the property line.
10. The owner or operator shall have an independent third party who is familiar with cannabis odors monitor along and outside the property line for detectable cannabis odors at least once every three months. For at least eight hours immediately prior to monitoring, the person performing the monitoring must remain in an atmosphere free of cannabis odors and may not be inside the facility. If cannabis odors from the facility are detected at or outside the property line during the monitoring or at any other time, the owner or operator shall immediately take corrective action to eliminate the odors. Corrective action includes, but is not limited to: changing out the carbon media or canister(s) and/or adding new carbon adsorption systems. The independent third party who is familiar with cannabis odors shall monitor along and outside the property line for detectable cannabis odors from the facility after the corrective action has been implemented. If odors are still identified, the owner or operator must continue to take corrective action until no odor is detected at the or beyond the property line.
11. The owner or operator shall keep written and/or digital records of each inspection required by Conditions #9 and #10. Each inspection record must include the date of the inspection, the start and end time of the inspection, the name of the person performing the inspection, a certification that the person performing the inspection remained in an atmosphere free of cannabis odors for the required time prior to the inspection, whether any cannabis odors were detected, the date and time of detection of any cannabis odors, where any cannabis odors were detected, a description of all corrective actions taken, the time and date of the corrective action and the results of the corrective action.
12. The owner or operator shall replace the carbon media whenever required by Conditions #9 or #10, or every 12 months, whichever comes first. The owner or operator shall replace or clean the pre-filter to each carbon canister quarterly. The owner or operator shall record the date and location whenever the carbon media or unit is replaced or if a pre-filter was cleaned or replaced.
13. All entrances to, or other potential openings in the production units, drying units, and the greenhouse shall be closed except when personnel are going in or out.
14. All exterior windows and vents in the facility shall be closed at all times.

15. The owner or operator shall develop and implement a written complaint response plan. The owner shall record the name of the complainant, date and time of the complaint, and the complainant's phone number. The owner or operator shall investigate the complaint and record the results of the investigation including any corrective actions taken for all complaints received regarding odor, visible emissions or other air pollution issues. The complaint response plan and all records made under the plan shall be onsite and available to Agency personnel upon request.
16. All records and information required in this Order of Approval shall be kept in written and/or digital form for at least two years and made available to Agency personnel upon request.

L. CORRESPONDENCE AND SUPPORTING DOCUMENTS

Re: Cloud Bud - Controlling Grow units

Willie Cloud <cloudbud@outlook.com>
Sent: Mon 7/16/2018 11:07 AM
To: Ralph Munoz

When I applied for my NOC two years ago, it was not required to have the units enclosed with clear tarps and carbon filters, therefore I only put them in the drying area in the greenhouse. There are now ll grow units and 3 drying units for a total of 14 units. All will have Hydrofarm 1,680 cfm.

From: Ralph Munoz <RalphM@pscleanair.org>
Sent: Monday, July 16, 2018 7:49 AM
To: Willie Cloud
Subject: RE: Cloud Bud - Controlling Grow units

Thanks so much for all of this info Willie,

Let me make sure I understand. The original permit application requested a total of 14 outdoor grow units, and now you are saying that there are only 11, is that correct? Each grow unit is 27' x 40', 1,120 sq ft?
The grow units will be enclosed in a tarp like structure you sent me in the previous email, where the carbon canister control device will be on the exhaust fans. What kind of carbon units are these ones?
The original permit application only listed 2 carbon units – now There will be 13? (11 from the grow units, and the 2 existing on the greenhouse)? Are they all the same – Hydrofarm 1680 cfm? If not, ill need the spec sheets for the other 11 carbon filters you are using on the grow units.

As an aside, the agency has also had a request from the public to have a public hearing for this NOC. This will add some time to the permitting process, but I am working on getting this out to public notice as fast as possible. We will likely hold the public hearing and public notice periods concurrently.

I will keep you updated on the status of this as we move forward. Hopefully once you answer all my questions above, I will have a worksheet ready for you to review within the next couple of days.

Ralph Munoz
Puget Sound Clean Air Agency
1904 Third Ave. #105
Seattle, WA 98101
(206) -689-4021
Schedule – 6:30am – 3:00pm (M-F)
pscleanair.org
Puget Sound Clean Air Agency

M. REVIEWS

Reviews	Name	Date
Engineer	Ralph Munoz	7/18/18
Inspector	Manolo and Jessica	
Second Review:	Carole Cenci	7/17/18
Applicant Name:	William Cloud	