Alcohol & Marijuana Control Office
550 W 7th Avenue, Suite 1600
Anchorage, AK 99501
marijuana.licensing@alaska.gov
https://www.commerce.alaska.gov/web/amco
Phone: 907.269.0350

Alaska Marijuana Control Board

Cover Sheet for Marijuana Establishment Applications

What is this form?

This cover sheet **must** be completed and submitted any time a document, payment, or other marijuana establishment application item is emailed, mailed, or hand-delivered to AMCO's main office.

Items that are submitted without this page will be returned in the manner in which they were received.

Section 1 – Establishment Information

Enter information for the business seeking to be licensed, as identified on the license application.

Licensee:	Tok Heavenly Cannabis, LLC	**License Number:**	10048		
License Type:	Standard Marijuana Cultivation Facility				
Doing Business As:	TOK HEAVENLY CANNABIS, LLC				
Physical Address:	MP 1308 Alaska Highway				
City:	Tok	**State:**	AK	**Zip Code:**	99780
Designated Licensee:	Joseph Young				
Email Address:	tokheavenlycannabis@gmail.com				

Section 2 – Attached Items

List all documents, payments, and other items that are being submitted along with this page.

Attached Items:	Form MJ-04: Marijuana Cultivation Facility Operating Plan Supplement

OFFICE USE ONLY					
Received Date:		Payment Submitted Y/N:		Transaction #:	

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Operating Plan Supplemental
Form MJ-04: Marijuana Cultivation Facility

What is this form?

This operating plan supplemental form is required for all applicants seeking a marijuana cultivation facility license and must accompany the **Marijuana Establishment Operating Plan (Form MJ-01)**, per 3 AAC 306.020(b)(11). Applicants should review **Chapter 306: Article 4** of the **Alaska Administrative Code.** This form will be used to document how an applicant intends to meet the requirements of those regulations. If your business has a formal operating plan, you may include a copy of that operating plan with your application, but all fields of this form must still be completed per 3 AAC 306.020 and 3 AAC 306.420(2).

What additional information is required for cultivation facilities?

Applicants must identify how the proposed establishment will comply with applicable regulations regarding the following:

- Prohibitions
- Cultivation plan
- Odor control
- Testing procedure and protocols
- Security

This form must be submitted to AMCO's main office before any marijuana cultivation facility license application will be considered complete.

Section 1 – Establishment Information

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License Type:	Standard Marijuana Cultivation Facility				
Doing Business As:	Tok Heavenly Cannabis, LLC				
Premises Address:	MP 1308 Alaska Highway				
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Section 2 – Prohibitions

Applicants should review 3 AAC 306.405 – 3 AAC 306.410 and be able to answer "Agree" to all items below.

The marijuana cultivation facility will not:	Agree	Disagree
Sell, distribute, or transfer any marijuana or marijuana product to a consumer, with or without compensation	✓	
Allow any person, including a licensee, employee, or agent, to consume marijuana or marijuana product on its licenses premises or within 20 feet of the exterior of any building or outdoor cultivation facility	✓	
Treat or otherwise adulterate marijuna with any organic or nonorganic chemical or compound to alter the color, appearance, weight, or odor of the marijuana	✓	

Section 3 – Cultivation Plan

Review the requirements under 3 AAC 306.420, and identify how the proposed premises will meet the listed requirements.

Describe the size of the space(s) the marijuana cultivation facility intends to be under cultivation, including dimensions and overall square footage. Provide your calculations below:

The Cultivation Facility for Tok Heavenly Cannabis (T.H.C.) will have an overall foot print of 16,000 ft2² (100'x160'.) The Facility is divided into two distinct cropping areas, there is a single Propagation & Growing Room and a single Budding Room. The dimensions of the Growing Room will be 28'W x 75'L with a 12'ceiling, equaling 2,100ft² of growing space. The Budding Room will be 100'W x 85'L with a 12' ceiling, equaling 8,500ft². Alongside these two cropping areas will be an area of approximately 5,400ft²; this area will house the Mechanical Room, the Trimming & Packaging Room, Secure Storage Room, Office and a Bath Room within the Secured area of the facility.

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Describe the marijuana cultivation facility's growing medium(s) to be used:

Tok Heavenly Cannabis will propagate & grow using Hydroponic Culture, specifically NFT systems. These systems will be hand crafted and incorporate the features of a classic Nutrient Film Technic system. Seed & cutting propagation will occur via four (2 per Grow Room) Turbo Klone® T-144 air-o-ponic systems. Seedlings & Cuttings are held in the Turbo Klone T-144 with a cut down Oasis Horticube® & neoprene disc or just a neoprene disc respectively. Once rooted, the infant plants are transplanted into a 3" mesh pot with a small amount of Grow Stones® or Hydroton® expanded clay pellets and topped with a 3" neoprene disc, then placed into the Grow Systems, and later transferred to the Bud Systems. Other than this the NFT systems and the nutrient solution are the root medium.

Describe the marijuana cultivation facility's fertilizers, chemicals, gases, and delivery systems, including carbon dioxide management, to be used:

Tok Heavenly Cannabis will utilize commercial hydroponic nutrients in all phases of production, and are delivered via a closed loop system. Water is our base chemical and will be used only after a chemical analysis (lead & arsenic screening) and bacterial screening has been performed; these analyses will be done on an annual basis. Our water will pass through a 5micron then a 1micron particle filters, an Iron filter, and a VIQUA® UV sterilizer before it reaches the storage tanks (temperature buffering.) Phosphoric acid is used to adjust the solutions ph in all cases. The Seedlings & Cuttings will start with a solution of Water, 1-Napthaleneacetic Acid & Indole-3-Butyric Acid (Hormex®.) In both the Grow & Bud Systems a multi-part nutrient solution will be formulated. Our nutrient solutions' base is Jack's Professional® 5-12-26 Hydroponic formulation, used in combination with 15-0-0 Calcium Nitrate and Jack's® MOST (Mix of Soluble Traces) Micronutrient blend to create our grow solution. The flowering solution is the same minus the Calcium Nitrate and using a Calcium/Magnesium amendment as a substitution. In both Grow & Bud Solutions Silica Blast™ a Silica amendment will be used to strengthen the plants' cell walls. Hydroguard®, a Bacillus root inoculant (Bacillus Amyloliquefaciens) will be used to promote a healthier root system by consuming dead organic matter, and improve nutrient uptake by producing high levels of beneficial digestive enzymes. We have no plans for any other additives.

The HVAC system will be equipped with a HEPA filter to exclude pollens, molds and other contaminating particulates from the air entering our Facility. A fresh air exchange will occur hourly via a 35,000cfm "squirrel cage style" exhaust fan equipped with a Lennox Healthy Climate® carbon filter, to capture the aromas of production. The fresh air supply is passive via ductwork originating from the tempered non-growing areas of the facility. Carbon Dioxide is a "heavy gas" and falls out of a cool atmosphere, the CO2 ejected during the air exchange will stay close to the surface and be utilized by the local vegetation, having a positive effect on the ecology. Carbon Dioxide is the only gas we will be manufacturing and using on site. *Carbon Dioxide enrichment will be maintained at 1,000-1,200ppm via Green Air Products® IR-42-MF CO2 Generators controlled by a SPC-2 Set* Point Controllers and fueled with remotely stored LP gas. The CO2 enrichment for the Grow Rooms is via a low mounted, passive vent and a high mounted, photo cell controlled 16" attic fan blowing back into the bud room. Additionally, we may use bottled CO2 in the packaging process of our products as a preservative.

Other chemicals used in our facility would be used for pest management or sanitation purposes. The two great threats to our crops are Spider Mites & Fungus Gnats, our strategy to control these pests is to deter them from entering the facility in the first place. To that end, we will frame the doors and all other wall penetrations with "rough cut 1" x 6" wood collars" to which (during the season) we will regularly spray Cedar Oil to discourage the Fungus Gnats. These Gnats are dependent on pheromones to trigger their mating cycle & locate mates; Cedar Oil masks the pheromones, the Gnats know this and will immediately evacuate the area. If by chance they do enter the building via the front door, they will enter our secured foyer where a timed, metered mister will have treated that area with Pyrethrum (OMRI listed product.) Gnats hate this more than Cedar Oil. If they get past that, they'll have to contend with "Yellow Sticky Traps" (yellow card stock with a nontoxic adhesive coating) at each plant site, for a mechanical control. Spider Mites are controlled best by absolute restriction of access to the facility; failing that, they are easily controlled with Pyrethrum misted into the area. However, this will be deployed only if Mites are found within the facility. At no time will any product be sprayed directly onto any of our plants in the Bud Cycle.

Physan 20™ Greenhouse Disinfectant will be used to disinfect and sanitize the hydroponic systems between crops. Physan 20™ is a broad range disinfectant, fungicide, virucide (E-coli), and algaecide which will control a wide variety of pathogens on hard surfaces and is safe for plants (seeds & bulbs can be dipped before planting to stop damping off.) For all other general cleaning chores, Simple Green Pro 3® will be used; this product is a disinfectant, virucide (E-coli) and fungicide cleaning agent suitable for use in hospitals and food service areas.

Describe the marijuana cultivation facility's irrigation and waste water systems to be used:

Tok Heavenly Cannabis' production model is based on Hydroponic culture, a closed NFT system. Our Grow Systems will utilize 50 gallon tanks with 40 gallons of nutrient solution mixed; our Bud Systems will utilize 100 gallon tanks with 70 gallons of nutrient solution mixed. These nutrient tanks will be changed on a regular 10 day cycle and require about 10-20 gallons of additional water to clean and sanitize. By our calculations, at full production, the facility will generate approximately 9,720 gallons of spent (out of balance) nutrient solution per month, or 116,640 gallons of spent nutrient solution a year. Our intention is to stockpile all of our spent solution in a lined, 24,300ft³ holding pond adjacent to our facility. During the spring and summer months we plan to siphon this stockpiled nutrient solution into a 5,000 gallon water truck, dilute it to <500ppm and spray or flood this resource onto forested and wild berry covered areas on our property, thereby recycling it in lieu of disposal.

Our facility will be equipped with a lavatory plumbed into a DEC approved septic system. Part of our maintenance program will include a monthly dosing of Rid-X® (a bacterial inoculant) to process the material contained within. This is necessary because of the anti-bacterial cleaning products used in the lavatory and other areas of the facility. If necessary, we will have the septic tank pumped by a licensed waste disposal service.

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Describe the marijuana cultivation facility's waste disposal arrangements:

Tok Heavenly Cannabis' Cultivation Plan calls for the immediate disposal of all organic non-product materials generated postharvest. Following 3 AAC 306.740 we will 'give the board notice not later than three days before making the waste unusable and disposing of it.' The organic waste material will be stored in a fully secured structure, roughly described as an armored-up garden shed (steel door, commercial lock, metal roofing clad walls & a designated surveillance camera for it), outside of the Cultivation Facility, until we receive permission to continue with proper disposal. The collected root systems, which consist of the bare roots & the "stump" of the plant, will be mixed with sawdust and taken to a designated area on the other side of the property (≥1,500' away from the facility to avoid attracting Fungus Gnats) and appropriately mulched. The dry materials will be weighed, inventoried and immediately ground via an electric wood chipper, mixed with saw dust and mulched in the same area as the root systems. Our normal procedure will be to separate all waste materials into three groups; (1) recyclable group of root systems, dry non-product plant materials & nutrient solutions (addressed in … cultivation facility's irrigation and waste water systems… above), (2) paper & other combustibles (3) plastics, foils and other noncombustibles, which will be disposed of into our dumpster provided by JD Refuse Service in Tok.

Section 4 – Odor Control

Review the requirements under 3 AAC 306.430, and identify how the proposed premises will meet the listed requirement.

Describe the odor control method(s) to be used and how the marijuana cultivation facility will ensure that any marijuana at the facility does not emit an odor that is detectable by the public from outside the facility:

Tok Heavenly Cannabis' facility cannot guarantee an odorless operation. Our Operational Plan approaches this point in this way: Our facility has a singular exhaust port for an air exchange every hour during the "12hr Working Day." Here we rely on a Lennox Healthy Climate® HEPA charcoal filter in the exhaust ductwork of the Fresh Air Exchange System to capture the normal nominal aromas of production. The exhaust system services the Bud Room directly & the Drying Room when needed. The production process generates noticeable aromas only during two phases. The first is harvest day & on days 3-4 of the drying process, and second is during the trimming & packaging processes. To help mitigate the stronger smell we will place a tray of ONA Gel® in the exhaust system, beyond the charcoal filter and before the actual exhaust fan to help neutralize any noticeable odor.
The location of our facility is segregated from the general public. The facility is located a quarter of a mile from the highway on a cleared, well aerated 50 acre parcel; we believe the air patterns will quickly dissipate any smell in short order. The prevailing wind patterns tend to run east to west & parallel to the Alaska Highway. The village of Tok is Ten miles from our facility and we are certain that any odors generated will dissipate well before reaching Tok.

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Section 5 – Testing Procedure and Protocols

Review the requirements under 3 AAC 306.455 and 3 AAC 306.465, and identify how the proposed premises will meet the listed requirements.

Applicants should be able to answer "Agree" to the item below.

I understand and agree that:	Agree	Disagree
The board will or the director shall from time to time require the marijuana cultivation facility to provide samples of the growing medium, soil amendments, fertilizers, crop production aids, pesticides, or water for random compliance checks	✓	

Describe the testing procedure and protocols the marijuana cultivation facility will follow:

Tok Heavenly Cannabis' facility will on the day of harvest scan into the inventory tracking system the ID codes for each plant harvested and hang the plants in the Curing Room. At this point the designated personnel will take a random sample form each variety of the harvested plants and dehydrate to the testing labs' preferred moisture content. The designated personnel will prepare a signed statement showing that each sample has been randomly selected for testing. They shall make two copies; one for the testing facility and one for our records under 3 AAC 306.755. Once the sample(s) is ready it will be packaged within a purged with CO2 gas and sealed, tamper-evident shipping container. Then we will affix the label in compliance with 3 AAC 306.475 to the shipping container. We will then generate a transport manifest from the inventory tracking system. If the sample is not transported immediately it will be secured in a restricted access area and accounted for in the inventory tracking system as required under 3 AAC 306.730 until it does ship. When the sample ships, in compliance with 3 AAC 306.750, the transport manifest along with the signed statement will remain with the product at all times while being transported, and given to the licensed Testing Facility that receives the shipment. The product from the particular batch will be secured until the Testing Facility results are returned. When the Testing Facility returns the report for that product batch, then we can release that batch for sale in accordance with 3 AAC 306.405.

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Section 6 – Security

Review the requirements under 3 AAC 306.430 and 3 AAC 306.470 – 3 AAC 306.475, and identify how the proposed premises will meet the listed requirements.

Applicants should be able to answer "Agree" to the two items below.

The marijuana cultivation facility applicant has:	Agree	Disagree
Read and understands and agrees to the packaging of marijuana requirements under 3 AAC 306.470	✓	
Read and understands and agrees to the labeling of marijuana requirements under 3 AAC 306.475	✓	

Restricted Access Area (3 AAC 306.430):

	Yes	No
Will the marijuana cultivation facility include outdoor production?		✓

If "Yes", describe the outdoor structure(s) or the expanse of open or clear ground fully enclosed by a physical barrier:

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Describe the method(s) used to ensure that any marijuana at the marijuana cultivation facility cannot be observed by the public from outside the facility:

Tok Heavenly Cannabis' cultivation facility is a completely enclosed structure with no windows. The facility is a quarter of a mile from the Highway. There is no way to observe anything other than the buildings' exterior.

I certify that as a marijuana cultivation facility, I will submit monthly reports to the Department of Revenue and pay the excise tax required under AS 43.61.010 and 43.61.020 on all marijuana sold or provided as a sample to a marijuana establishment, as required under 3 AAC 306.480.

I declare under penalty of perjury that I have examined this form, including all accompanying schedules and statements, and to the best of my knowledge and belief find it to be true, correct, and complete.

Signature of licensee

Joseph Young

Printed name

Subscribed and sworn to before me this 22nd day of March, 2017.

Notary Public in and for the State of Alaska.

My commission expires: [illegible]

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(Additional Space as Needed):