

The Future of Controlled Climate Environments

Code and Policy

Evaluating baseline standards
without appropriate data

Overview

- ❖ Introduction and background
- ❖ Industry History
- ❖ Existing Risks
- ❖ Comparable Industries
- ❖ Looking to the Future

Background

- ❖ GroTec Builders launched in 2016 as an effort to bring more standardization to cannabis facilities.
- ❖ After walking through numerous facility builds we recognized that one of the largest challenges was a lack of process
- ❖ As CEO Anya has focused on partnering w many like minded organizations
- ❖ She participates in writing code, is on the TAC w RII and has launched a campaign aimed at bringing responsibility to an immature industry

Industry History

- ❖ The cannabis market has grown out of a strong and long standing black market
- ❖ Black market facility standards and principles have continued to set the precedent for this now legal industry
- ❖ Black market building standards were and still are whatever is fastest and cheapest

Industry History

- ❖ OSB walls painted white
- ❖ Residential HVAC units
 - ❖ Undersized, not intended to run 24/7, terrible efficiency, waste of constant replacement
- ❖ Questionable electrical
 - ❖ Many examples of utilities not being engaged appropriately
- ❖ Poor insulation / organic materials
 - ❖ Materials not suited to constant exposure to moisture foster bacterial growth
- ❖ Cross contamination from outside air

Industry History

- ❖ Legislative focus has been on product distribution and public use
- ❖ Packaging labels, distribution security, monitoring product staying on the legal market
- ❖ Facility standards have yet to be addressed
- ❖ We take for granted that they are up to the same standards of other consumable products but they are not

Existing Risks

- ❖ With no federal involvement it has been left to each state individually to determine how they are going to oversee these facilities
- ❖ Outside of the monitoring of already produced product and how it travels through the market, no state has set any facility oversight

Existing Risks

- ❖ -failure to engage necessary utilities leading to lack of resource availability
- ❖ -failure to address proper permitting
 - ❖ examples of structural additions w no structural review
 - ❖ examples of lack of sufficient electrical service
 - ❖ examples of possible environmental consequences / city water contamination
- ❖ -structural safety, electrical safety, contamination
- ❖ Building code has been slow to address this industry as unique - attempting to apply codes from various other industries to address the risks being discovered

Existing Risks

- ❖ Processing standards exist for all consumable products regulated by the FDA and Health Department
- ❖ This ensures minimal opportunities for contamination

Existing Risks

- ❖ Lack of Federal oversight means little to no processing regulation leaving open multiple opportunities for product contamination

Existing Risks

- ❖ Controlled climate environments is a fast growing new sector
- ❖ All the health and safety standards previously applied to processing consumable products now need to be applied to producing them as well

Comparable Industries

- ❖ **Commercial kitchens**
 - ❖ Bound to building standards such as washable walls and ceilings, required grease traps, separate hand sinks and other health code regulations
- ❖ **Packaging facilities**
 - ❖ Also bound to building standards that ensure no contamination and work protocols that do the same
- ❖ **Clean rooms / pharmaceutical laboratories**
- ❖ All of these indoor consumable product facilities have standard code and maintenance requirements aimed at protecting both consumers and producers.

The Future

- ❖ The key to a solid foundation is data
- ❖ Resource consumption is on track to break the bank
- ❖ We have an opportunity while gathering it to invest in efficiency and standardization
- ❖ Vested agencies need to join, to invest in a sound and sustainable industry

The Future

❖ Where we are

- ❖ with no current standards and such wide variance it is challenging to pinpoint important markers
- ❖ we are still guessing at “best practices” and struggling to find those willing to implement them
- ❖ risk on all sides is real - understand the producers perspective, understand the utilities perspective

❖ Gathering baseline data

- ❖ getting buy in from utilities and efficiency programs is critical
- ❖ getting buy in from growers is a necessity
- ❖ realizing just how young this industry is will hopefully inspire willingness among all parties to generate this information

The Future

- ❖ As each state adopts this industry they have a chance to learn from previous mistakes and embrace the opportunity to set the bar higher
- ❖ Working together to collectively craft legislation, energy policy and facility standards is the most important step towards an industry we can all be proud of