



# Cannabis in Vermont

An Overview of the Fire Safety Regulatory Process

# Introductions

- ▶ Landon Wheeler, *Asst. State Fire Marshal - Regional Manager*
  - ▶ 15 years of service w/DFS
  - ▶ Prior fire service background
  - ▶ Lead contact for the hemp permitting process at DFS
  - ▶ Regional Manager - Springfield Regional Office
- ▶ Ben Moffatt, *Asst. State Fire Marshal - Regional Manager*
  - ▶ 4 years of service w/DFS
  - ▶ Prior engineering background
  - ▶ Lead contact for the hemp permitting process at DFS
  - ▶ Regional Manager - Barre Regional Office
- ▶ Division of Fire Safety - Who are we?
  - ▶ Our mission

# What We Regulate

- ▶ 20 VSA 2730 Defines Public Buildings Regulated by Fire Safety
  - ▶ Buildings other than single-family owner-occupied dwellings.
  - ▶ Agricultural buildings
  - ▶ Mercantile occupancies on farm that sell products principally produced on the farm.
- ▶ Statutes Modified Under the Hemp Bill
  - ▶ Agricultural buildings where two or more persons are employed, or occasionally enter as part of their employment, and where the associated extraction of plant botanicals utilizing flammable, volatile, or otherwise unstable liquids, pressurized gases, or other substances capable of combusting or whose properties would readily support combustion or pose a deflagration hazard.
  - ▶ Change was made to address on farm hemp processing facilities otherwise previously exempt as agricultural operations

# Codes, References & Standards Applicable to the Industry

## Applicable Standards

- ▶ 2015 Vermont Fire & Building Safety Code (DFS Rules)
- ▶ NFPA 1 Fire Code, 2015 (each individual risk)
- ▶ NFPA 101 Life Safety Code, 2015 Edition
- ▶ International Building Code, 2015 Edition
- ▶ International Plumbing Code, 2018 Addition
- ▶ 2010 ADA Standards for Accessible Design (2012 Vermont Access Rules)
- ▶ NFPA 30, flammable liquid
- ▶ NFPA 70, National Electrical Code (NEC)
- ▶ NFPA 36, Solvent extraction
- ▶ NFPA 90A, 90B Mechanical Ventilation

# The Fire Safety Permitting Process - Hemp

## ▶ The Steps!

- ▶ Contact is made with a regional office (4 regional offices).
- ▶ Preliminary meetings are scheduled between the owner, engineer or design team and a Division plan reviewer. A designer of record is required due to hazard.
- ▶ DFS Personnel describe at length the required submittal documentation
- ▶ Engineered documents (required) are developed and submitted for processing & review by an Asst. State Fire Marshal/plan review specialist.
- ▶ Once the review is completed a permit is issued and the applicant may begin construction or fit-up of the proposed facility.
- ▶ Field inspections are conducted at regular intervals throughout the construction/fit-up process.
- ▶ A final inspection is completed and occupancy is granted to operate as permitted. Changes to this process require additional documentation and permitting.

# Type of Processes

- ▶ Indoor Growing
  - ▶ Ventilation, irrigation and application of pesticides
- ▶ Drying
  - ▶ Drying, trimming and processing of raw flower, stalks or other plant materials including extraction or terpenes.
- ▶ Extraction
  - ▶ Mechanical or chemical processing using flammables or compressed gasses.
- ▶ Distillation
  - ▶ Distilling of extracted medium. (oils, cake or waxes)
- ▶ Analytics
  - ▶ Laboratory analysis of products.
- ▶ Hazardous Materials Storage
  - ▶ Various quantities of flammable or otherwise hazardous materials being stored
  - ▶ State Hazmat Team coordinates storage registration through the Federal Tier II Community Right-to-Know Act (EPCRA).

# Lessons Learned

- ▶ Insufficient supply of adequately qualified design professionals across the State.
- ▶ Out-of-State Design professionals not licensed to perform design services in Vermont
- ▶ Lack of UL listed equipment intended for specific usage in the industry (much of the equipment is modified lab equipment)
- ▶ New technology & processes are constantly evolving (proprietary)
- ▶ Existing buildings being converted to industrial usages containing hazardous processes.
- ▶ Mixed/Multiple use buildings not intended for industrial processes.
- ▶ Scale of operations varies tremendously
- ▶ Complaints, specifically odors
- ▶ Disposal of spent biomass containing hazardous materials
- ▶ Complicated review process based upon project complexities (40-60 hrs)

# Outreach & Education

- ▶ Fire Safety has worked with various State agencies to provide education and outreach to applicants with the intent of clarifying the regulatory process.
- ▶ DFS has provided in-house training to Division Staff on the specific hazards and processes.
- ▶ Provided interagency training to State Police personnel on hazard mitigation including the Fire & Explosion Investigation Unit and Clandestine Lab Teams.
- ▶ Provided training opportunities to engineers and architects through the International Code Councils - Vermont Chapter. (Steve Thomas - Colorado industry expert - CEU Based)
- ▶ We actively work with and offer outreach to both NFPA and the ICC for the development of National Standards pertaining to hemp processing and building codes.
- ▶ DFS has worked with UVM Extension to provide outreach to growers and processors.



# Conclusion & Questions

- ▶ This has been a very brief overview of our process.
- ▶ The commercial hemp industry has required us to learn on the fly and educate ourselves to the multitude of hazards present with these operations. This has been a multiple year process.
- ▶ We are glad to provide additional feedback, resources or testimony as need be to the Board.

Thank You for Your Time!