MARIJUANA FACILITIES

STAKEHOLDER MEETING
March 12, 2019
Agenda

Plan Review Process
BFS Application Submittal
Plan Review Basics
Plan Review Pitfalls
Break
Inspection
Q & A
Reference Materials

Medical Marijuana Facilities Licensing Act,
2016 PA 281, MCL 333.27101

NFPA 1, 2018 – Fire Code

NFPA 10 – Standard for Portable Fire Extinguishers
NFPA 55 – Compressed Gases and Cryogenic Fluids Code
NFPA 91 – Standard for Installation of Blower and Exhaust Systems
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Bureau of Fire Services Plan Review Consultant

Master of Architecture
NFPA & State of Michigan Certified Fire Inspector I
PLAN REVIEW
PROCESS
Plan Review Process

• First
  – Approval from Bureau of Marijuana Regulation (BMR)
  • At Completion of BMR Step 2
  – Letter sent from BMR informing you to Submit to the Bureau of Fire Services (BFS)
Plan Review Process

- **Second**
  - Submit **Application** for Fire Safety Plan Examination (FORM 979)
    - 2 Options
      - Complete by Hardcopy
        - Mail into BFS
      - Complete by ACCELA
        - Online portal for submittals
Plan Review Process

• Third
  – After Submittal of Application, BFS will check the input
    • Are drawings submitted correctly?
    • Is all the information filled out correctly
    • Mark it for Plan Review to Proceed
  – Project given a new unique BFS Project Number
    • EX. 2019BFS-000000
Plan Review Process

• Fourth
  – Plan Review
    • Review Plans
    • Produce Plan Review Letter
      – Uploaded to Project File
    • Approved Contingent or Disapproved
    • Push Information to Submitter
Plan Review Process

• Fifth
  – If Disapproved
    • Read the Plan Review Letter
    • Correct or address the items in **BOLD** and/or “special attention to”
    • Resubmit required materials
  – If Approved Contingent
    • Read the Plan Review Letter
    • Ensure your Construction Manager is aware of the requirements in the letter.
    • Approval is contingent on the comments contained in the letter.
Plan Review Process

• Sixth
  – Inspection
    • Inspector will be assigned to the Facility
    • Inspector will contact to schedule an inspection.
      – If NEW construction typically at 50% and final benchmarks
BFS APPLICATION SUBMITTAL
BFS APPLICATION SUBMITTAL

• Who has submitted to BFS through the ACCELA system online?
Submitting a Facility for BFS Plan Review
Once Registered and Signed in

- Click on “Plan Review” then on “Create an Application”

- Read through the information, select that you have read and accepted the terms, and click “Continue Application”
• Enter the Facility and Applicant information
  – Please be sure to fill out ALL required information.
  – Put your BMR Facility Number in with the Detailed Description.
  – Applicant will be the person that will receive all ACCELA notifications, including the Plan Review Letter
Submitting a Facility for BFS Plan Review

- To enter an Applicant
  - Click “Select from Account”

  **Applicant**
  
  REQUIRED

  - Select a Mailing Address for Applicant, click Continue. A Green Check Mark and “Contact Added Successfully” will appear if done correctly.
Submitting a Facility for BFS Plan Review

• You can leave the Owner/Parent and Architect/Engineer/Certified Firm sections blank or fill them out. It is your choice. Our preference would be to have these fields filled out.

• Click “Continue Application”.

**Owner/Parent Corp**

To add new contacts, click the Select from Account or Add New button. To edit a contact, click the Edit link.

- Select from Account
- Add New Contact
- Look Up

**Architect/Engineer/Certified Firm**

- Add New
- Look Up

These you can leave blank

[Continue Application »]
Submitting a Facility for BFS Plan Review

Application Information

Plan Type
- Bureau of Construction Codes Plan Review
- Bureau of Fire Services Plan Review
- Health Facilities Plan Review
- Barrier Free Design Rule Exception
- Child Care Center
- Child Caring Institution (CCI)
- Children's Camp or Adult Foster Care Camp

Expenditures
- Estimated Capital Expenditure (Including Construction Costs, Professional Fees, and Fixed Equipment)
  - $500000.00

Custom Fields

Payment Method
- Paper Check

- Select “Bureau of Fire Services Plan Review”
- Enter Expenditures Amount
- ALWAYS select Paper Check as your payment method. Once you continue, you can not modify your payment method.
• Step 2 is just a Review Page.

• Make any modifications you may need in this area by clicking “Edit” next to the section.

• Click “Continue Application”
Submitting a Facility for BFS Plan Review

- Click “Open” to take you to Step 1 of the Associated Forms

**Step 3: Associated Forms**

Plan Review Forms

Listed below are the items added to this record. You must fill out an associated form for each item before this record can be submitted.

Added Items:

- Fire Safety Plan Review Dunder Mifflin, LLC

Open  Remove
Submitting a Facility for BFS Plan Review

- EPC will already be populated from previous page
- Select your Facility Type
- Enter the nearest Fire Department to the Facility
- Select Plan Review Type (ONLY select Construction Plans/Specs)
- Put your BMR Facility Number
Submitting a Facility for BFS Plan Review

- Select Construction Type from drop down menu
- Enter Sprinkler System information
- Payment Method will already be populated
Submitting a Facility for BFS Plan Review

There is NO FEE for BMR Facilities. If you get to this page and a fee is generated that means 1 of 2 things;

– An additional Plan Review Type was selected
Or
– A Facility other than a BMR Facility was selected

You will need to go back to Associated Forms to correct this issue.
Submitting a Facility for BFS Plan Review

- Uploading Plan Drawings
  - Most Incomplete submittals happen because PDF’s are not:
  - FULLY Flattened – No Layers or Comments
  - In Landscape format
  - Or there are no drawings at all.

After reading the Instructions, click “Add”
Submitting a Facility for BFS Plan Review

A small box will open, select Add. Select the document you wish to upload. Select the document you wish to upload.

*If you need to add more documents, select “Add”. Otherwise click “Continue”. 
Submitting a Facility for BFS Plan Review

Once all documents are uploaded

- Select the Document Type from the drop-down menu;
  - Addendum
  - BFS 12A
  - Letters
  - Miscellaneous
  - Plans
  - Project Inspection Report
  - Specifications

**Plans and Letters are the most commonly selected**

- Enter a Description for each

- Click “Save” then “Continue Application”
Submitting a Facility for BFS Plan Review

The attachment(s) has/have been successfully uploaded.
It may take a few minutes before changes are reflected.

The top of the next page will let you know the documents were uploaded successfully.

The bottom of the next page will list the documents.

Click Continue Application
Submitting a Facility for BFS Plan Review

This will take you to a final review page.

Look over all information, make any edits, then click “Continue Application”.
Submitting a Facility for BFS Plan Review

Back at the Associated Forms page, click “Continue to Payment”
You’ve successfully submitted a Facility for Plan Review!

At the bottom you will see two project numbers,
(PR2019PR-000000) Parent Record
(PR2019BFS-000000) BFS Project Number

Only use the BFS project number when requesting status updates

If you click on the BFS number, it will take you to the Project Record Page.
Submitting a Facility for BFS Plan Review

By selecting the Record Info Drop-Down Menu you will be able to:

• Check the Status
• Upload any additional documents
• Request an Inspection
PLAN REVIEW

BASICS
Plan Review Basics

- The Bureau of Fire Services (BFS) is only one Authority Having Jurisdiction (AHJ) involved with the licensing and approval for this facility. Coordinate all final approvals through the Bureau of Marihuana Regulation (BMR).
  • Examples:
    - The Bureau of Marijuana Regulation (BMR)
    - The Bureau of Construction Codes (BCC)
      • Electrical
      • Mechanical
      • Plumbing
    - Local Municipality or County
Plan Review Basics

- 6.1.12.1* Definition

**Industrial Occupancy**
- An occupancy in which products are manufactured or in which processing, assembling, mixing, packaging, finishing, decorating, or repair operations are conducted.
Plan Review Basics

• Facilities will be viewed as **NEW INDUSTRIAL** if
  – New Construction
  – Existing Building that **was not** classified as INDUSTRIAL previously
    • For *new construction*, provide plans and specifications bearing the seal of an architect or engineer licensed in the State of Michigan as required by the *Occupational Code, PA 299 of 1980*

• Facilities will be viewed as **EXISTING INDUSTRIAL** if
  – Existing Building that **was** previously used as INDUSTRIAL
Plan Review Basics

• SPRINKLERS
  – New industrial occupancies, other than low-hazard industrial occupancies, shall be protected by an approved automatic sprinkler system in accordance with NFPA 13 in any of the following locations.
    • Throughout all industrial occupancies 3 or more stories in height,
    • Throughout all industrial occupancies exceeding 12,000 sq. ft. in fire area,
    • Where the total area of all floors, including mezzanines, exceeds 24,000 sq. ft.
Plan Review Basics

• **FIRE ALARM AND SPRINKLER REVIEWS**
  – Evaluation of the required fire alarm and automatic sprinkler systems is not included in this BFS Plan Review.
    • Submit shop drawings to the appropriate electrical/mechanical AHJ.
    • Refer to the Bureau of Construction Codes’ Statewide Jurisdiction list to find the appropriate electrical/mechanical AHJ (local, county or State).
      – (found on their website at [www.michigan.gov/bcc](http://www.michigan.gov/bcc))
Plan Review Basics

- The Operations in any combination of Grower, Processor and/or Provisioning Center shall comply with the requirements of Rule 32 in the Medical Marihuana Facilities Rules. Including but not limited to the following:
  • Have distinct and identifiable areas with designated structures that are contiguous and specific to the state operating license
  • Have separate entrances and exits, inventory, record keeping and point of sale operations, if applicable.
  • Post the state operating license on the wall in its distinct area and as provided in these rules.
PLAN REVIEW

PITFALLS
Plan Review Pitfalls

• GROW FACILITY
  – If the Grow is Shared with a Provisioning Center in the same building, the 2 facilities must be fire separated by a 2-HOUR barrier.
    • Industrial General Purpose to Mercantile requires 2-hour separation
  – All Egress Doors shall be side hinged or pivot-swinging
  – Common Paths of Travel shall be limited to
    • 50 feet (unsprinklered)
    • 100 feet (Sprinklered)
  – Dead Ends shall not exceed 50 feet
  – Facility must provide:
    • Portable Fire Extinguishers
    • Emergency Lighting
    • Exit signage
Plan Review Pitfalls

• PROCESSOR FACILITY
  – If the Processor is Shared with a Provisioning Center in the same building, the 2 facilities must be fire separated by a 2-\textsc{hour} barrier.
    • Industrial General Purpose to Mercantile requires 2-hour separation
  – Common Paths of Travel shall be limited to
    • 50 \textit{feet} (unsprinklered)
    • 100 \textit{feet} (Sprinklered)
  – Dead Ends shall not exceed 50 \textit{feet}
  – Hood or Enclosure for LPG Extractions shall be classified as Class 1, Division 1
  – Facility must provide:
    • Portable Fire Extinguishers
    • Emergency Lighting
    • Exit signage
Plan Review Pitfalls

• EXTRACTION ROOMS
  – For other than CO2 and nonhazardous extraction process, the marijuana extraction equipment and process shall be located in a room of noncombustible construction dedicated to the extraction process and the room shall not be used for any other purpose.
Plan Review Pitfalls

• NONCOMBUSTIBLE MATERIALS

• Noncombustible materials are those that will not ignite, burn, support combustion, or release flammable vapors when heated.
  – Ex. Masonry, Stone, Steel

• While these materials cannot be ignited or will not support combustion, they may react to heat in a manner that could affect structural stability.
  – Ex. Unprotected steel is noncombustible material, but expands significantly when heated.
Plan Review Pitfalls

• EXTRACTION ROOMS
  – The Occupancy of buildings or portions of buildings where the growing or processing of marijuana occurs shall be in accordance with Chapter 6 and the applicable building code.
    • Extraction Rooms will be considered **Industrial – Special Purpose**.
      – Separate the Extraction room with a 1-hour fire barrier using **“Separated Occupancy”**
      – Comply with the most restrictive requirements of the occupancies for the entire facility using **“Mixed Occupancy”**
Plan Review Pitfalls

• EXTRACTION ROOMS
  – For extraction rooms using **hazardous materials**, each room shall be provided with at least one exit access door complying with the following:
    • The door shall swing in the direction of egress travel
    • The door shall be provided with a self-closing or automatic closing device
    • The door shall be equipped with panic or fire exit hardware.
Plan Review Pitfalls

• CARBON DIOXIDE GAS
  – Marihuana facilities utilizing liquefied Petroleum or Carbon Dioxide Gas must have proper detection and alarm systems as required by rule and the NFPA.
    • Carbon Dioxide (CO2) sensors shall be provided within 12 in. (305mm) of the floor in the area where the gas is most likely to accumulate or leaks are most likely to occur.
    • The threshold for activation of the low-level alarm shall not exceed a carbon dioxide concentration of 5,000 ppm TWA (9,000 mg/m3). When carbon dioxide is detected at the low-level alarm, the system shall activate a signal at a normally attended location within the building.
    • Activation of the gas detection systems shall initiate an audible alarm within the room or area in which the system was installed. Activation of gas detection system shall also sound a local alarm to notify persons responsible for system operation of a hazard condition in the area in which the system in installed.
Plan Review Pitfalls

- CARBON DIOXIDE GAS
Plan Review Pitfalls

• CARBON DIOXIDE GAS
  – A warning sign shall be posted at the entrance to the building, room, enclosure or confined area where the container is located. The warning sign shall be at least 8 in. (200 mm) wide and 6 in. (150 mm) high and state the following:

  CAUTION-CARBON DIOXIDE GAS
  Ventilate the area before entering.
  A high carbon dioxide (CO2) gas concentration in this area can cause suffocation.
Plan Review Pitfalls

- COMMON PATH OF TRAVEL
  - 3.3.66 Common Path of Travel. The portion of exit access that must be traversed before two separate and distinct paths of travel to two exits are available.
  - Common Path of Travel to include distance around all obstacles, such as furniture, from a point that a person could physically be standing.
Plan Review Pitfalls

• MEZZANINES
  – A mezzanine having one means of egress, check common path of travel.
  – A mezzanine having two or more means of egress shall not be required to open into the room in which it is located if not less than one of the means of egress provides direct access from the enclosed area to an exit at the mezzanine level.

• 3.3.105* Exit. That portion of a means of egress that is separated from all other spaces of the building or structure by construction, location, or equipment as required to provide a protected way of travel to the exit discharge.

• 3.3.107 Exit Discharge. That portion of a means of egress between the termination of an exit and a public way.

• NOTE: Occupant Load may be restricted dependent on layout.
Plan Review Pitfalls

• Additional Fire Safety Plan Review and/or Inspections are required in the following circumstances.
  – Modifications to the grow area, rooms and storage, extraction equipment and process rooms or marihuana-infused product processing equipment within a marihuana facility.
  – Changes in Occupancy
  – Material changes to a new or existing grower or processor facility including changes made pre-licensure and post-licensure.
  – Changes in extraction methods and processing or grow areas and building structures may trigger a new inspection.
Plan Review Pitfalls

• PHASED PROJECTS
  – In the case of a Phased project, a plan review application and submittal is required for each phase of the project.
    • Each Phase will be given its own BFS project number.
    • Drawings should reflect what is included in the existing and current phase.
    – Note: In a 3 phase project, submittals for Phase 3, should also include work already done in Phases 1 & 2 and will be reviewed as an accumulated building.
BREAK

STILL TO COME

Inspection

Q & A
INSPECTION
BUREAU OF FIRE SERVICES
MARIJUANA

INSPECTORS

Paul Dove: DoveP1@Michigan.gov
John Hager: HagerJ@Michigan.gov
James Bradford: Bradfordj@Michigan.gov
Inspection

• BFS Field Inspectors shall have the authority to require evidence to show that other regulatory agencies having jurisdiction over the design, construction, alteration, repair, equipment, maintenance, process, and relocation of structures have been issued appropriate approvals.  Refer to Section 1.12.4.1 of NFPA 1.
Inspection

• First
  – Be Prepared for the Inspection
  – Show the Inspector the approved State or Local Permits for Construction
  – Provide the Inspector with Specifications noted in Plan Review
    • Affidavits, when required due to the absence of an approval label, must be provided to the inspecting officer.
  – Provide the Inspector with Emergency Lighting Point by Point Calculations
    • Point-by-point calculations are required in order to verify compliance.
Inspection

• Second
  – Walk-Through the Facility
    • Questions may be asked, please have someone who knows the answers available.

• Third
  – Inspection report will be produced and Uploaded to Project File.
Inspection

• Codes and References

• NFPA 1, 2018, Specifically chapter 38 and references.

• Additional NFPA referenced Codes and Standards.

• Local jurisdictional applicable code requirements also apply.

• If there are differences………
  – Apply the Most stringent requirement
Inspection
Types of Marijuana Facilities

• Growers
• Processors
• Provisioning Centers
• Safety Compliance (Testing Labs)
• Secure Transporters
GROW

- Class A Licenses — 500 plants
- Class B Licenses — 1000 plants
- Class C Licenses — 1500 plants
  - *Class C Licenses are permitted to have stacked licenses
Grow Facilities

• Classified as Industrial - General Purpose occupancy, NFPA 1, 2018

• Required 2-hour separation from Mercantile or Business

• Plan review required by BFS and local AHJ

• Rooms broken down to different operations:
  – Flower, Veg, Clone, and Mother rooms

• Must have Certificate of Occupancy from AHJ
Hazards of CO2 Enrichment

- CO2 enrichment usually less than 2000 ppm
- Can be piped in from outside bulk tank
- Portable tanks
- CO2 burners
- Supplied from building mechanical equipment
FLASHING LIGHT MEANS CARBON DIOXIDE LEAK DETECTED – EVACUATE ROOM
Other Grow Concerns

Fumigation

– Signage
– Watch personnel
– Written notification
– Sources of ignition
– Occupant removal
– Maintenance of openings
– Venting and clean-up
More Grow Operation Concerns.....

- Aisle width
- Spray on foam insulation – NFPA 286 test - intumescent paint or drywall protection
- Emergency lighting – point by point calculations (required)
- Power taps – UL1363/1363A
- Extension cords
- Water tanks and Chemicals
- Light hangers
- Sulfur burners (not permitted)
- Hazmat – fertilizers and pesticides
- Secured access
- NFPA 704 Placards
- Fire protection systems
- Dry rooms
- Interior finish / Plastic hanging
PROCESSOR
Processing Facilities

- Extract resin or create infused products for sale
- Most hazardous area of marijuana industry
- Common extraction methods are:
  - LPG Extraction
  - Alcohol or other solvent extraction
  - CO2 extraction
  - Miscellaneous methods
LPG Extraction

- Butane & Pentane is most commonly used
- Has to be done in closed loop extraction machine system
- Extraction machine has to be in C1D1 booth or lab hood
- Booth or hood shall have interlocking features
- Shall have gas monitoring set to 25% LEL/LFL
- Shall have automatic suppression system in booth/hood along with duct work
LPG Extraction

- LPG containers shall not be stored in extraction rooms
- Transfilling shall take place outside
- NFPA 704 placard on entrance doors
- Shall have an automatic emergency power system installed
- Used plant material must be allowed to off gas in booth/hood
C1/D1 Hood
Ventilation Test
Flammable Liquid Extraction

• Most common solvents are ethanol, methanol and isopropyl alcohol

• Closed loop system

• Conducted in Chemical Fume Hood-Chapter 7 of NFPA 45 or approved exhaust system – NFPA 91 or Mechanical Code

• Most facilities use C1D2 booth or hood

• Hood or booth have to have interlocking systems

• No fire suppression required in hood or booth unless building is required to be suppressed

• Storage, use, and handling shall comply with NFPA 1, chapter 66

• Heating of flammable or combustible liquids over open flame is prohibited

• Maximum allowable quantities

• Signage, NFPA 704 placard, no smoking, flammable liquids

• SDS
CO2 Extraction

- High Pressure
- Gas detection system required set at 5000 ppm
- Pressure relief devices piped to exterior of building
- Auto calibrating and self-zeroing detectors are prohibited
- No booth or hood requirement
- Signage, NFPA 704 placard, CO2 warning signage
Safety Compliance Facilities

- Classified as business
- Testing labs
- Fume hoods
- SDS sheets
- Flammable liquid storage cabinets & refrigerators
- Flammable liquids refrigerators
- Signage, NFPA 704 placard
- UL 1363/1363A listed power taps
- General inspection practices
SECURE TRANSPORTER
Secure Transporter

- Classified as a Business
- Possible inside storage of vehicles
- Security concerns
- UL 1363/1363A
- Products may be stored up to 48 hours
- General inspection practices
Provisioning Centers

- Classified as a **Mercantile**
  - providing products to card holders and authorized caregivers
- Separation required if attached to a processor or grow
- 2nd floor separation
- Security/roll-up doors/gates/fenced in area/vaults
- Blocked egress
- Large product and cash present
- Situational awareness
- UL 1363/1363A
- General inspection practices
Inspection

• Security
  – Where permitted in *Chapters 11 through 43 of NFPA 101*, horizontal-sliding or vertical-rolling security grilles or door assemblies that are part of the required means of egress shall be permitted with the provisions required by the Code. NFPA 1, 14.5.1.1(3).

  • **NOTE**: Industrial occupancies are not permitted to have security grilles, gates or roll-up security doors on any required means of egress.
RESOURCES

www.Michigan.gov/bfs - Bureau of Fire Services (BFS)


www.nfpa.org – NFPA publications

QUESTIONS?

A Copy of this Presentation will be available as a PDF upon request