

# MARIJUANA FACILITIES

MARIJUANA STAKEHOLDERS

Bureau of Fire Services

Fire & Life Safety Requirements

JANUARY, 2021

**LARA**

LICENSING AND REGULATORY AFFAIRS



# Objectives

Plan Review Process

BFS Marijuana Plan Review Application

Marijuana Plan Review Basics

Marijuana Plan Review Pitfalls

Marijuana Inspection

# Reference Materials

Medical Marijuana Facilities Licensing Act, (MMFLA)

2016 PA 281, MCL 333.27101

Michigan Regulation and Taxation of Marijuana Act, (MRTMA)

2018 IL 1, MCL 333.27957 and 333.27958, and Executive  
Reorganization Order No. 2019-2, MCL 333.27001

NFPA 1, 2018 – Fire Code

NFPA 101, 2018 – Life Safety 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

NFPA 704 - Standard System for the Identification of the Hazards  
of Materials for Emergency Response.

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Bureau of Fire Services Plan Review Consultant

Master of Architecture

NFPA & State of Michigan Certified Fire Inspector I

# Facility Types

## **MEDICAL**

Growers

Class A = 500 plants

Class B = 1,000 plants

Class C = 1,500 plants (stackable License)

Processors

Provisioning Centers

Safety Compliance (Testing Labs)

Secured Transporters

## **RECREATIONAL (ADULT-USE)**

Growers

Class A = 100

Class B = 500

Class C = 2,000 (stackable License)

Excess Grower (stackable License)

Processors

Retail Centers

Safety Compliance (Testing Labs)

Secured Transporters

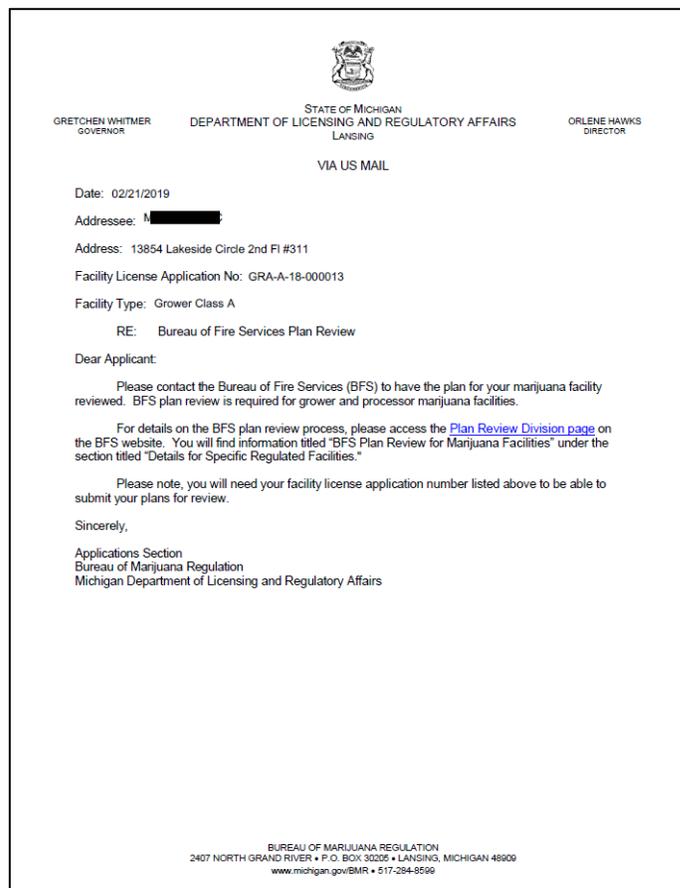
Microbusinesses

Consumption Establishments



# Plan Review Process

# Plan Review Process



Approval from the Marijuana Regulatory Agency (MRA)

At Completion of MRA Step 2

Letter sent from MRA informing you to Submit to the Bureau of Fire Services (BFS)

# Plan Review Process

Submit Electronic **Application** for  
BFS Fire Safety Plan Review

Complete by ACCELA

Online portal for submittals

FAQ available at [www.Michigan.gov/lara](http://www.Michigan.gov/lara) - Fire Services

# Plan Review Process

After Electronic Submittal of Application,  
BFS will check the input

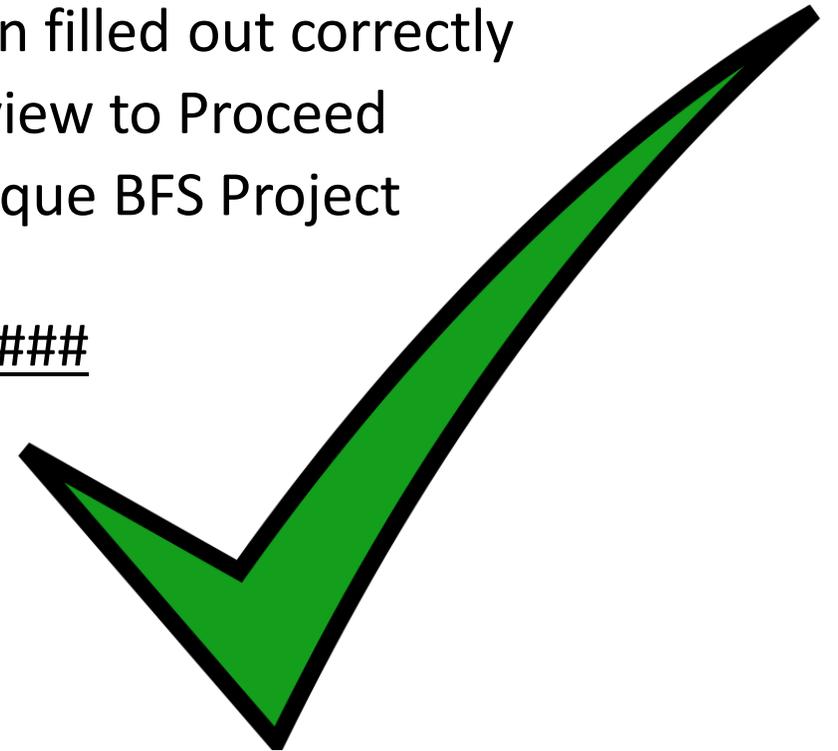
Are drawings submitted correctly?

Is all the information filled out correctly

Mark it for Plan Review to Proceed

Project given a new unique BFS Project  
Number

EX. PR2021BFS-#####





**APPROVED**

# Plan Review Process

Plan Review

Review Plans

Produce Plan Review Letter

Uploaded to Project File

Approved Contingent or  
Disapproved

System Automatically Pushes  
Information to Submitter

# Plan Review Process

## 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 and Verified upon field inspection.

## If Disapproved

### Read the Plan Review Letter

Correct or address the items in **BOLD** and/or “special attention to”

Resubmit required materials

# Plan Review Process

## Inspection

Inspector will be assigned to the Facility

Inspector will make contact to schedule an inspection.

If **NEW** construction inspection typically occurs at 50% and final benchmarks



# BFS Electronic Application Submittal

Home BCC Licenses BCC Permits **Plan Review** Fire Services OLSR

Create an Application **Search Applications**

Once Registered and Signed in  
Click on "Plan Review" then on "Create an Application"

# BFS Electronic Application Submittal

- Read through the information
- select that you have read and accepted the terms
- click "Continue Application"

Click [here](#) to see detailed instructions on how the plan files should be formatted. **PLEASE READ THESE INSTRUCTIONS**

If you would like to contact one of the Bureau's directly, please select an email address below.

BCC at: [BCCplanreviewcodemail@michigan.gov](mailto:BCCplanreviewcodemail@michigan.gov)

BFS at: [BFSPlanReview@michigan.gov](mailto:BFSPlanReview@michigan.gov)

HFES at: [LARA-BCC-HFES@michigan.gov](mailto:LARA-BCC-HFES@michigan.gov)

#### LARA Systems Use Notification

The Michigan Department of Licensing and Regulatory Affairs(LARA) computer information systems are the property of the State Of Michigan and subject to state and federal laws, rules and regulations. The systems are intended for use only by authorized persons and only for official state business.

Systems users are prohibited from using any assigned or entrusted access

I have read and accepted the above terms.

**Continue Application »**

# BFS Electronic Application Submittal

- Enter the Facility and Applicant information
  - Please be sure to fill out ALL required information.
  - Put your MRA Facility Number in with the Detailed Description.
  - Applicant will be the person that will receive all ACCELA notifications, including the Plan Review Letter

updating fire alarm and suppression system. BSMK  
License # GRA-X-XX-XXXXXX

## Project/Facility Location

REQUIRED

If you have a known project/facility address, please enter the individual address fields. For a project/facility with no address please enter as much location information you can provide, utilizing the Address Line 1 and 2 fields.

Street No.: 3101 Street Name: TECHNOLOGY Street Type: BLVD

Address Line 2:

City: LANSING State: MI Zip: 48910

County: INGHAM Township: CITY OF LANSING

Clear

## Applicant

REQUIRED

Select from Account Add New Contact Look Up

# BFS Electronic Application Submittal

To enter an Applicant

- Click “Select from Account”
- Select a Mailing Address for Applicant, click Continue. A Green Check Mark and “Contact Added Successfully” will appear if done correctly

## Applicant

REQUIRED

Select from Account

Add New Contact

Look Up

**Select Contact from Account**

Andrea M. Keown  
Applicant

Select contact addresses for this contact to attach to the record.  
Required contact address type(s):Mailing

Showing 1-1 of 1

<input type="checkbox"/>	Address Type	Address	Status
<input checked="" type="checkbox"/>	Mailing	3101 Technology Blvd.	Active

[Continue](#) [Discard Changes](#)

## Applicant

REQUIRED

✔ Contact added successfully.

**Andrea M. Keown**  
keowna@michigan.gov  
Primary phone:517-241-8847  
Secondary Phone:  
[Edit](#) [Remove](#)

▼ Contact Addresses

Add Additional Contact Address

To edit a contact address, click the address link.  
Required contact address type(s):Mailing

Showing 1-1 of 1

Address Type	Recipient	Address	Start Date	End Date	Phone	Fax	Primary	Status	Action
Mailing		<a href="#">3101 Technology Blvd.</a>					No	Active	<a href="#">Actions</a> ▼

# BFS Electronic Application Submittal

- 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

These you can leave blank

## Architect/Engineer/Certified Firm

Add New

Look Up

Continue Application »

Save and resume later

# BFS Electronic Application Submittal

## Step 1: Facility/Contact > Application Information

\* indicates a required field

### 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

Once a payment method is selected it will not be able to be modified.

\* Payment Method:

Paper Check

Continue Application »

Save and resume later

- Select “**Bureau of Fire Services Plan Review**”
- **ALWAYS** select **Paper Check** as your payment method.
- Once you continue, you can not modify your payment method.
- NOTE: BFS Marijuana Construction Plan & Spec Plan Review does NOT require a fee.

# BFS Electronic Application Submittal

- 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”

## Step 2: Review

[Continue Application »](#)

[Save and resume later](#)

Please review all information below. Click the “Edit” buttons to make changes to sections or “Continue Application” to move on.

### Record Type

#### Plan Review

#### Project Information

[Edit](#)

Facility Name / Project: Dunder Mifflin, LLC

Detailed Description: Complete renovation of facility. Work involves relocating walls, new finishes, new ceiling layout, updating fire alarm and suppression system. BMR License # GRA-X-XX-XXXXXX

#### Project/Facility Location

[Edit](#)

3101 TECHNOLOGY BLVD  
CITY OF LANSING  
LANSING INGHAM MI 48910  
3101 TECHNOLOGY BLVD

#### Applicant

[Edit](#)

Individual  
Andrea M. Keown  
3101 Technology Blvd, Suite H.  
Lansing, MI, 48910

Primary Phone: 517-241-8847  
E-mail: keowna@michigan.gov

#### Owner/Parent Corp

[Edit](#)

#### Architect/Engineer/Certified Firm

[Edit](#)

#### Application Information

[Edit](#)

##### PLAN TYPE

Bureau of Construction Codes Plan Review:	No
Bureau of Fire Services Plan Review:	Yes
Health Facilities Plan Review:	No
Barrier Free Design Rule Exception:	No
Child Care Center:	No
Child Caring Institution (CCI):	No
Children's Camp or Adult Foster Care Camp:	No

#### EXPENDITURES

[Edit](#)

Estimated Capital Expenditure (Including Construction Costs, Professional Fees, and Fixed Equipment): 500000

#### Custom Fields

##### PAYMENT METHOD

[Edit](#)

Payment Method: Paper Check

[Continue Application »](#)

[Save and resume later](#)

# BFS Electronic Application Submittal

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

[Home](#) [BCC Licenses](#) [BCC Permits](#) **[Plan Review](#)** [Fire Services](#) [OLSR](#)

[Create an Application](#) [Search Applications](#)

## Plan Review

<a href="#">1 Facility/Contact</a>	<a href="#">2 Review</a>	<b><a href="#">3 Associated Forms</a></b>	<a href="#">4 Pay Fees</a>	<a href="#">5 Record Issuance</a>
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### 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](#)

# BFS Electronic Application Submittal

- 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 MRA Facility Number

## Step 1: Application Information > Application Information

\* indicates a required field.

### Application Information

#### PROJECT INFORMATION

\* Estimated Project Cost:  \$

Estimated Capital Expenditures:

#### FACILITY INFORMATION

\* Facility Type:

Select Facility Type from Drop Down menu

Fire Department:

#### BFS PLAN REVIEW TYPE

Addendum / Bulletin:

Bulletin #:

Clean Agent:

Consultation:

Construction Plans/Specs:

Only select Construction Plans/Specs

Door Locking:

Fire Alarm:

Hood Suppression:

Modification Request:

Sprinkler:

BMMR Facility Number: \*

# BFS Electronic Application Submittal

- Select Construction Type from drop down menu
- Enter Sprinkler System information
- Payment Method will already be populated

## PLAN REVIEW INFORMATION

New Building:	<input type="text" value="Square Footage"/>
Addition:	<input type="text" value="Square Footage"/>
Alteration:	<input type="text" value="Square Footage"/>
Construction Type:	<input type="text" value="--Select--"/>
Number of Occupants:	<input type="text"/>
Area/Floor:	<input type="text" value="Square Footage"/>
Number of Floors:	<input type="text"/>
Sprinkler System:	<input type="text" value="--Select--"/>
Sprinkler System Limited Area Description:	<input type="text"/>

## Payment Method

### PAYMENT METHOD

* Payment Method:	<input type="text" value="Paper Check"/>
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[Continue Application »](#)

[« Back to Associated Forms](#)

[Save and resume later](#)

# BFS Electronic Application Submittal

There is NO FEE for MRA Facilities for BFS Construction Plan & Spec Review.

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 MRA Facility was selected

You will need to go back to Associated Forms to correct this issue.

Home BCC Licenses BCC Permits **Plan Review** Fire Services OLSR

Create an Application Search Applications

### Fire Safety Plan Review

1 Application Information	2 Documentation	3 Review	4 Associated Forms
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**Step 1: Application Information > Payment Information** \* indicates a required field.

#### Payment Amount

**PAYMENT AMOUNT**  
-Please send check for the amount listed in the 'Total Fees' area below.

Check should be made payable to 'State of Michigan' and sent along with a printed copy of the record receipt to the following address:

State of Michigan - LARA  
P.O. Box 30700  
Lansing, MI 48909

Total Fee:  ← **Fee should always be \$0.00**

[Continue Application »](#) [« Back to Associated Forms](#) [Save and resume later](#)

# BFS Electronic Application Submittal

- Uploading Plan Drawings
  - Most Incomplete submittals happen because PDF's are not:
    - FULLY Flattened – No Layers, Comments or bookmarks
    - In Landscape format (NOT Portrait)
    - Or there are no drawings at all.

After reading the Instructions, click "Add"

## Step 2: Documentation > Documents

\* indicates a required field.

### Attachment

Please read all instructions before uploading documents.

Important note: AutoCAD 2016 and newer version users will need to change their AutoCAD setting to "EPDFSHX=0" before saving and uploading a document.

Each plan (or plan set) must be saved in **PDF format**. Please flatten the drawing layers in your CAD program before creating the PDF. For plan review projects where the page count is up to 75 pages, creating a single PDF document is acceptable and the file name should be unique and descriptive of the project itself. For larger projects that exceed 75 pages we recommend grouping and submitting plans in smaller sets. **Please do not include any symbols, spaces, or unnecessary punctuation in the document file name.**

**Pages must all be in landscape format and viewable without rotation.** Failure to submit correctly oriented plans may result in a "hold" being placed on the submittal which will delay review. Plans must be saved and submitted at 100% scale, in black and white only, and cannot be password protected or locked. Scanned drawings in PDF format can be submitted, but are required to be legible and must follow all submittal requirements. Each sheet containing scaled drawings must include a scale of known dimension.

Revisions and resubmissions must match up exactly to the original submittal and file name, and contain the same page order. Do not reorder, extract, or insert pages in the middle of your corrected plan sets. Any pages added to the document set need to be after the final original page. Rearranging, extracting, or inserting pages out of order will result in delays for completing your plan review. If pages are removed from the scope of work, simply mark those pages accordingly. Do not remove any such pages. Resubmitting the pages in the original order ensures that the plan reviewers comments and sketches are properly carried forward to the newer submittal/version by the electronic plan review software. This allows for more accurate and expedited document reviews.

To address plan review deficiencies, applicants must resubmit a complete set of plans through the Accela Citizens Access (ACA) portal. Once the plans have been processed, the 'Resubmit' action becomes available in the Attachments section of the appropriate record in ACA. Plan sets addressing correction requests must be resubmitted through the 'Resubmit' link associated with the plans in order to avoid processing delays.

For more extensive instructions, click [here](#)

The maximum file size allowed is 100 MB.  
html,htm,mhtml,mime are disallowed file types to upload. If this record is under Plan Review, new files cannot be uploaded. BCC Plan Review will not allow new file upload after Issuance or Closure.

Name	Type	Description	Size	Document Status	Action	Latest Update	Status Date	Upload Date	Virtual Folders
No records found.									

Select from Account

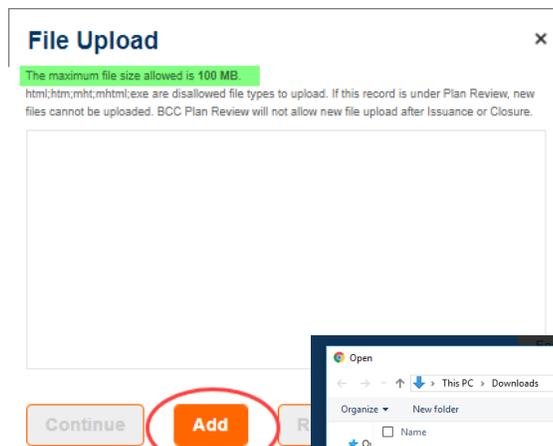
Add

Continue Application »

« Back to Associated Forms

Save and resume later

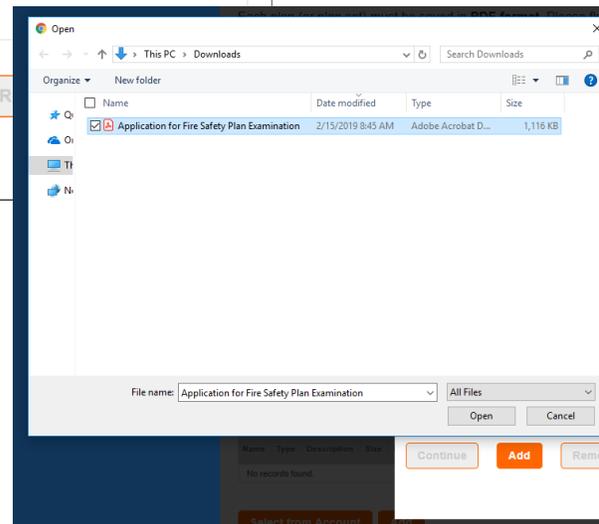
# BFS Electronic Application Submittal



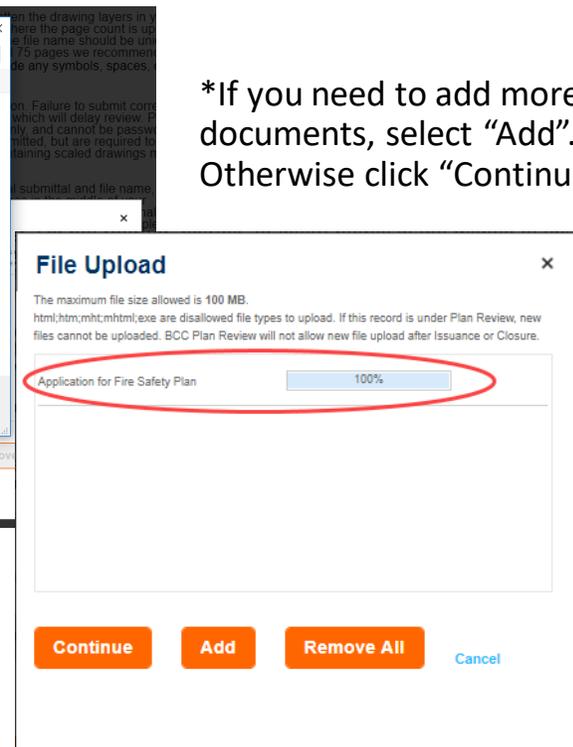
A small box will open, select Add

NOTE: Read over the documents instruction

Special Attention to flatten files, no layers, no bookmarks, no periods in the file name, landscape orientation



Select the document you wish to upload



\*If you need to add more documents, select "Add". Otherwise click "Continue".

# BFS Electronic Application Submittal

Once all documents are uploaded

Select the Document Type from the drop-down menu;

Addendum  
Letters  
Miscellaneous  
Plans  
Specifications

Enter a Description for each

Click "Save" then

"Continue Application"

The screenshot displays a web interface for submitting documents. It features two entries, each with a 'Type' dropdown menu, a 'File' upload section with a progress bar, and a 'Description' text area. The first entry has 'Plans' selected as the type and 'Application for Fire Safety Plan Examination.pdf' as the file. The second entry has '--Select--' as the type and 'Plan Review Checklist.pdf' as the file. At the bottom, there are buttons for 'Save', 'Select from Account', 'Add', 'Remove All', 'Continue Application', and 'Back to Associated Forms'. A 'Save and resume later' button is also present in the bottom right corner.

\* Type: Plans Remove

File: Application for Fire Safety Plan Examination.pdf 100%

Description: Plans for Review

\* Type: --Select-- Remove

File: Plan Review Checklist.pdf 100%

Description: Indicate submittal version

Save Select from Account Add Remove All

Continue Application » « Back to Associated Forms

Save and resume later

# BFS Electronic Application Submittal

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

The screenshot shows a web interface with a navigation menu at the top: Home, BCC Licenses, BCC Permits, Plan Review (highlighted), Fire Services, and OLSR. Below the menu is a light blue bar with two buttons: 'Create an Application' and 'Search Applications'. A green success message box contains the text: 'The attachment(s) has/have been successfully uploaded. It may take a few minutes before changes are reflected.' Below this is a section titled 'Fire Safety Plan Review' with a progress bar. The progress bar has four steps: '1 Application Information', '2 Documentation' (highlighted with a blue underline), '3 Review', and '4 Associated Forms'.

**Step 2 : Documentation > Documents**

# BFS Electronic Application Submittal

The bottom of the next page will list the documents.

The maximum file size allowed is 100 MB. html;htm;mht;mhtml;exe are disallowed file types to upload. If this record is under Plan Review, new files cannot be uploaded. BCC Plan Review will not allow new file upload after Issuance or Closure.

Name	Type	Description	Size	Document Status	Action	Latest Update	Status Date	Upload Date	Virtual Folders
Application for Fire Safety Plan Examination.pdf	Plans	Plans for Review	1.09 MB	Uploaded	<a href="#">Actions</a> ▼	02/26/2019	02/26/2019	02/26/2019	
Plan Review Checklist.pdf	Plans	Plans for review	81.80 KB	Uploaded	<a href="#">Actions</a> ▼	02/26/2019	02/26/2019	02/26/2019	

Select from Account

Add

Continue Application »

« Back to Associated Forms

Save and resume later

Click Continue Application

# BFS Electronic Application Submittal

This will take you to a final review page.

Look over all information, make any edits,  
then click “Continue Application”.

Home BCC Licenses BCC Permits **Plan Review** Fire Services OLSR

Create an Application Search Applications

Fire Safety Plan Review

1 Application Information	2 Documentation	3 Review	4 Associated Forms
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**Step 3: Review**

[Continue Application »](#) [« Back to Associated Forms](#) [Save and resume later](#)

Please review all information below. Click the “Edit” buttons to make changes to sections or “Continue Application” to move on.

**Record Type**

Fire Safety Plan Review

**Application Information**

PROJECT INFORMATION		<a href="#">Edit</a>
Estimated Project Cost:	500000	
Estimated Capital Expenditures:	500000	
FACILITY INFORMATION		<a href="#">Edit</a>
Facility Type:	BMMR Mixed Licensed	
Fire Department:	Lansing	
BFS PLAN REVIEW TYPE		<a href="#">Edit</a>
Addendum / Bulletin:	No	
Bulletin #:		
Clean Agent:	No	
Consultation:	No	
Construction Plans/Specs:	Yes	
Door Locking:	No	
Fire Alarm:	No	
Hood Suppression:	No	
Modification Request:	No	
Sprinkler:	No	
BMMR Facility Number:	GRA-X-XX-XXXXXX	

# BFS Electronic Application Submittal

Back at the Associated Forms page,  
click “Continue to Payment”

Home BCC Licenses BCC Permits **Plan Review** Fire Services OLSR

Create an Application Search Applications

### Plan Review

1 Facility/Contact	2 Review	<b>3 Associated Forms</b>	4 Pay Fees	5 Record Issuance
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**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	<a href="#">View</a>	<a href="#">Remove</a>
---	----------------------	------------------------

[Continue to Payment »](#)

[Save and resume later](#)

# BFS Electronic Application Submittal

You've successfully submitted a Facility for Plan Review!

If you click on the **BFS number**, it will take you to the Project Record Page.

Home BCC Licenses BCC Permits **Plan Review** Fire Services OLSR

Create an Application Search Applications

1 Select item to pay 2 Payment information 3 **Receipt/Record issuance**

### Step 3: Receipt/Record issuance

#### Receipt

Your submittal has been successfully received.

Your application will be reviewed. Please check your account for updates regarding the status of this application and for any additional actions required from you to move forward with the plan review process by Searching Applications and selecting this record number.

Once your application is approved you will be notified by the department.

If you selected to pay by paper check, please print the Summary-Invoice page and mail a copy with your check.

See invoice for mailing information.

[Print Plan Review Summary/Invoice](#)

3101 TECHNOLOGY BLVD, LANSING MI 48910

PR2019PR-000021

← Pay no attention to this number [View Summary](#)

PR2019BFS-000020

← **This is your BFS Project Number** [View Summary](#)

[Print Plan Review Summary/Invoice](#)

# BFS Electronic Application Submittal

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

- Check the Status
- Upload any additional Information
- Request an Inspection

The screenshot displays the BFS Electronic Application Submittal interface. The navigation bar includes Home, BCC Licenses, BCC Permits, Plan Review (highlighted), Fire Services, and OLSR. Below the navigation bar are links for Create an Application and Search Applications. The main content area shows details for Record PR2019BFS-000020: Fire Safety Plan Review, with a Record Status of Fees Due. A dropdown menu for Record Info is open, showing options: Record Details, Processing Status, Documents, Inspections, and Valuation Calculator. Red arrows point from the dropdown options to red text labels: Processing Status to 'Check the status', Documents to 'Upload any additional documents', and Inspections to 'Request an Inspection'. The Record Details section includes Applicant information (Individual, 3101 Technology Blvd, Suite H, Lansing, MI, 48910) and Project Description (Dunder Mifflin, LLC, Complete renovation of facility). A button for Print Plan Review Summary/Invoice is visible at the bottom.



# BFS Marijuana Plan Review Basics

# Bureau of Fire Services Marijuana Unit Plan Review

Adam Dailide: [dailidea@michigan.gov](mailto:dailidea@michigan.gov)

Robert Stewart: [StewartR4@michigan.gov](mailto:StewartR4@michigan.gov)

# Jurisdiction

The Bureau of Fire Services (BFS) is only one Authority Having Jurisdiction (AHJ) involved with the licensing and approval for these facilities.

The Marijuana Regulatory Agency (MRA)  
Local Municipality or County or State  
(Depending on Delegation\*)

The Bureau of Construction Codes (BCC)

Building

Electrical

Mechanical

Plumbing

\*Refer to the Bureau of Construction Codes' Statewide Jurisdiction list to find the appropriate building/electrical/mechanical/plumbing AHJ. (found on their website at [www.michigan.gov/bcc](http://www.michigan.gov/bcc))

The Bureau of Fire Services (BFS) inspectors on a final inspection will look for and verify that the local jurisdiction has given final approval.

These would include but not limited to:

Architectural

Mechanical

Electrical

Plumbing

Acceptance Testing Verification

Fire Alarm

Fire Sprinkler

# Jurisdiction

NOTE: A Certificate of Occupancy is typically a tangible item accepted by our inspectors, but some type of confirmation is required from the local jurisdiction with dates that match current work.

# Industrial Occupancy

## 6.1.12.1\* Definition

An occupancy in which products are manufactured or in which processing, assembling, mixing, packaging, finishing, decorating, or repair operations are conducted.



# Industrial Occupancy

Facilities will be viewed as **NEW INDUSTRIAL** if:

New Construction

Existing Building that was not occupied 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 was previously occupied as INDUSTRIAL



# Sprinkler

- 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.**

# BFS Marijuana 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))

# BFS Marijuana Plan Review Basics

The Operations in any combination of Grower, Processor, Microbusiness, Consumption and/or Marijuana sales location shall comply with the requirements of *Rule 4 in the Marijuana Operations Rules*. Including but not limited to the following:

- Have distinct and identifiable areas with designated structures that are on the same parcel or contiguous parcel and specific to the marijuana license
- Post each marijuana license on the wall in its distinct area and as provided in these rules.
- Obtain any additional inspections and permits required for local or state building inspection, fire services, and public health standards.
- Operation of a marijuana license at the same location that includes a licensed marijuana sales location shall have the entrance and exit to the licensed marijuana sales location and entire inventory physically separated from any of the other licensed marijuana businesses so that individuals can clearly identify the sales entrance and exit.



# BFS Plan Review Pitfalls

# BFS Plan Review Pitfalls

GROW FACILITY

Multiple occupancies shall be in accordance with *Section 6.1.14 of NFPA 101*.  
Refer to *Section 36.1.3.1 of NFPA 101*.

Separate the Occupancies with a fire barrier using  
**“Separated Occupancy”**

Comply with the most restrictive requirements of the occupancies using  
**“Mixed Occupancy”**

- 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 End Corridors shall not exceed **50 feet**
- Facility must provide:
  - Portable Fire Extinguishers
  - Emergency Lighting
  - Exit signage

# BFS Plan Review Pitfalls

PROCESSOR FACILITY

Multiple occupancies shall be in accordance with *Section 6.1.14 of NFPA 101*.  
Refer to *Section 36.1.3.1 of NFPA 101*.

Separate the Occupancies with a fire barrier using  
**“Separated Occupancy”**

Comply with the most restrictive requirements of the occupancies using  
**“Mixed Occupancy”**

- Common Paths of Travel shall be limited to
  - 50 feet** (unsprinklered)
  - 100 feet** (Sprinklered)
- Dead End Corridors shall not exceed **50 feet**
- Hood or Enclosure for
  - LPG Extractions shall be classified as **Class 1, Division 1**
  - Alcohol Extractions shall be classified as **Class 1, Division 2**
- Facility must provide:
  - Portable Fire Extinguishers
  - Emergency Lighting
  - Exit signage



# BFS Plan Review Pitfalls

FUMIGATION

**Any marijuana growing facility that is fumigated shall comply with all of the requirements of *Section 38.5.4 of NFPA 1*.**

- Sources of ignition shall be shut off during the fumigation activity and remain shut off until the required ventilation is completed.
- The AHJ and fire department shall be notified in writing not less than 48 hours before the building, structure, or space is to be closed in connection with the utilization of any toxic or flammable fumigant.
- Notification, as required by *38.5.4.3.1*, shall include the following:
  - (1) The location of the enclosed space to be fumigated or fogged
  - (2) The occupancy
  - (3) The fumigants or insecticides to be utilized
  - (4) The person or persons responsible for the operation
  - (5) The date and time at which the operation will begin
- Fumigation for marijuana growing, processing, or extraction facility includes the production or use of sulfur dioxide. Refer to *Section A.38.5.4.1 of NFPA 1*.

**DANGER**

**SULFUR  
DIOXIDE**

# BFS Plan Review Pitfalls

SULFUR BURNERS



Sulfur helps overcome common plant diseases such as mold, especially powdery mildew by changing the pH on the surface of the plants. A Sulfur Vaporizer (Burner) melts the sulfur at just the right temperature. As the Sulfur evaporates it leaves particles of sulfur all over any surfaces preventing the fungi from growing.

- Sulfur when burned creates SO<sub>2</sub> (Sulfur Dioxide)
- SO<sub>2</sub> reacts with water to form H<sub>2</sub>SO<sub>3</sub> (Sulfurous Acid)
- At room temperature, so<sub>2</sub> is a nonflammable, colorless gas that is heavier than air. Its strong, pungent odor and irritating properties usually provide adequate warning of its presence.
- Although SO<sub>2</sub> does not burn in air, cylinders of compressed liquid can explode in the heat of a fire.
- SO<sub>2</sub> dissolves in water or steam to form sulfurous acid. Liquid SO<sub>2</sub> corrodes iron, brass, copper, and some forms of plastic and rubber. Many metals, including zinc, aluminum, cesium, and iron, incandesce and/or ignite in unheated sulfur dioxide. SO<sub>2</sub> reacts explosively when it comes in contact with sodium hydride. SO<sub>2</sub> ignites when it is mixed with lithium acetylene carbide diamino or lithium acetylide ammonia.
- Sulfur dioxide is heavier than air; thus, exposure in poorly ventilated, enclosed, or low-lying areas can result in asphyxiation.
- Symptoms of exposure include irritation eyes, nose, throat; rhinorrhea (discharge of thin nasal mucus); choking, cough; reflex bronchoconstriction; liquid: frostbite
- There is no antidote for sulfur dioxide. Persons who have inhaled large amounts of sulfur dioxide might need to be hospitalized. After a serious exposure, damage to the lungs can occur, causing asthma, pneumonia, and bronchitis. Permanent damage to the lungs is possible. Even relatively short exposure to sulfur dioxide may lead to respiratory depression and subsequent death.

# BFS Plan Review Pitfalls

EXTRACTION

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.

Refer to *Section 38.6.1.1.2 of NFPA 1.*

Prior to operation of the extraction equipment, the designer of record for the equipment shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis.

Refer to *Section 38.6.1.5.6.1 of NFPA 1.*



# BFS 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**”

# BFS 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.



# BFS Plan Review Pitfalls

COMBUSTIBLE MATERIALS

Noncombustible materials are those that will not ignite, burn, support combustion, or release flammable vapors when heated.

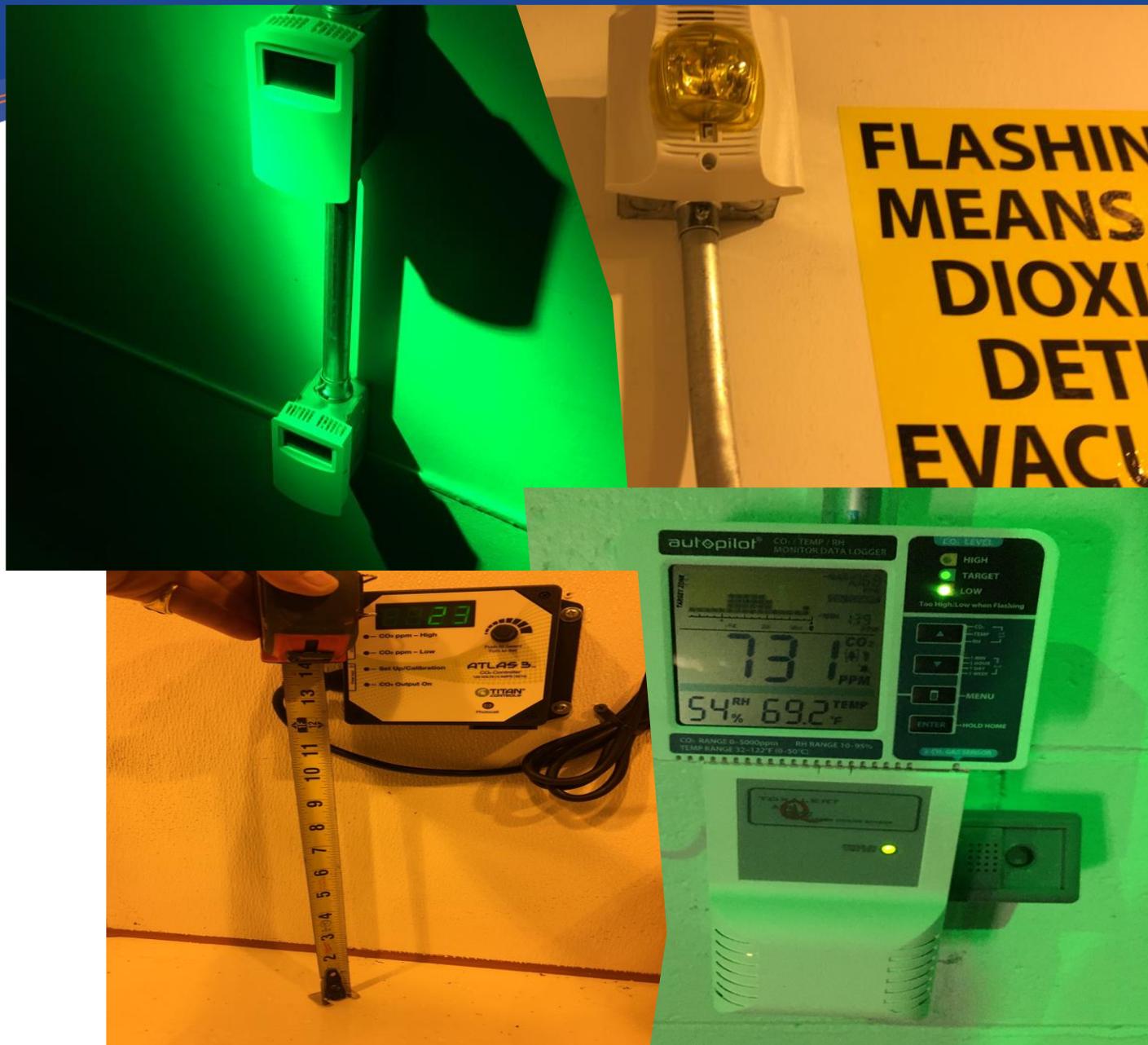
Ex. Masonry, Stone, Steel

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.

# BFS Plan Review Pitfalls

CARBON DIOXIDE GAS



FLASHING  
MEANS  
DIOXI  
DETE  
EVACU

autoPilot<sup>®</sup> CO<sub>2</sub> TEMP / RH  
MONITOR DATA LOGGER

CO<sub>2</sub> LEVEL  
HIGH  
TARGET  
LOW

Too High/Low when Flashing

73.1 CO<sub>2</sub> PPM  
54% RH 69.2 TEMP

CO<sub>2</sub> RANGE: 0-5000ppm RH RANGE: 10-95%  
TEMP RANGE: 32-122°F (0-50°C)

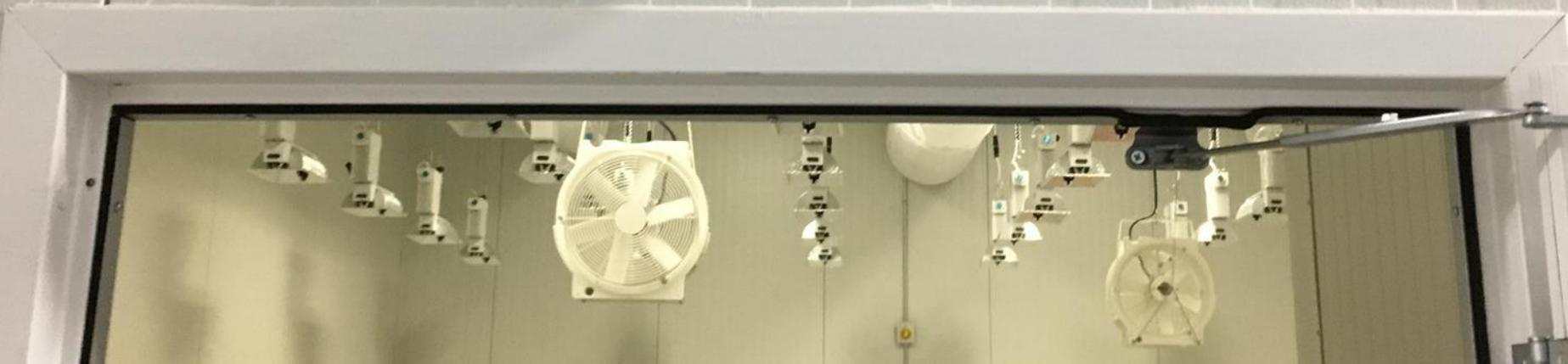
23

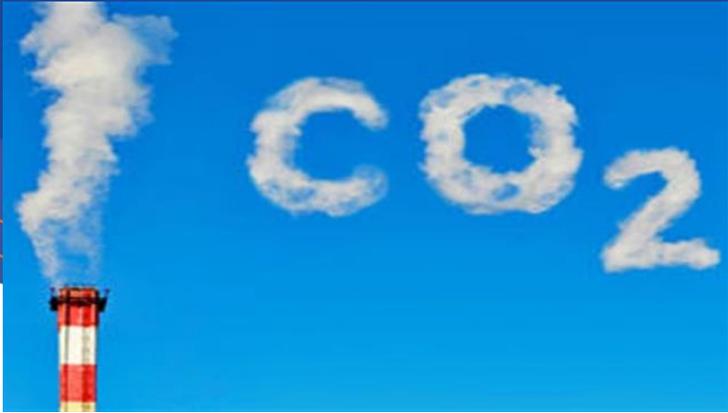
ATLAS 5  
CO<sub>2</sub> MONITOR

CO<sub>2</sub> ppm - High  
CO<sub>2</sub> ppm - Low  
Set Up/Calibration  
CO<sub>2</sub> Output On

13 12 11 10 9 8 7 6 5 4 3 2

**FLASHING LIGHT  
MEANS CARBON  
DIOXIDE LEAK  
DETECTED –  
EVACUATE ROOM**





# BFS 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 (CO<sub>2</sub>) 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.

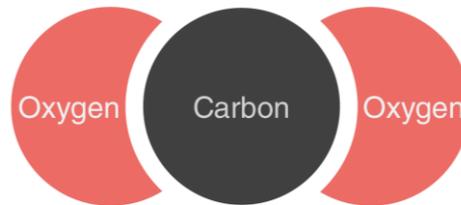
**NOTE: SECURED TO OUTLET OR HARD WIRED**

- The threshold for activation of the low-level alarm shall not exceed a carbon dioxide concentration of 5,000 ppm TWA (9,000 mg/m<sup>3</sup>). 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 is installed.
- 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 (CO<sub>2</sub>) gas concentration  
in this area can cause suffocation.**



# BFS Plan Review Pitfalls

CARBON DIOXIDE GAS

- CO2 enrichment usually less than 2000 ppm
  - Can be piped in from outside bulk tank
  - Portable tanks
  - CO2 burners – Verify Compliance with Michigan Mechanical Code
  - Supplied from building mechanical equipment
- Need to have local, county or state mechanical inspector's approval for supply and piping



# BFS Plan Review Pitfalls

## MEZZANINES

Not less than two means of egress shall be provided from every story or section, and not less than one exit shall be reached without traversing another story. Refer to *Section 40.2.4.1.1 of NFPA 101*.

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.

# BFS Plan Review Pitfalls

ADDITIONAL PLAN REVIEWS

Have conducted, in addition to any inspections required under the acts and these rules, fire safety inspections that are required if any of the following occur:

- (i) Modifications to the grow areas, rooms and storage, extraction equipment and process rooms, or marijuana-infused product processing equipment within a marijuana business.
- (ii) Changes in occupancy.
- (iii) Material changes to a new or existing cultivator, producer, or marijuana microbusiness establishment including changes made prelicensure and post-licensure.
- (iv) Changes in extraction methods and processing or grow areas and building structures.

# BFS Plan Review Pitfalls

PHASED PROJECTS

Documentation per phase will require a separate BFS application/submittal and BFS project number. Please note that Phased Projects or multiple projects at the same facility will require extra coordination. Proper documentation of what is included in each phase is required.

**NOTE: BFS Marijuana Unit will require complete fire safety inspection approval on a phase before another inspection can occur for other phases.**



# BFS Marijuana Inspection

# BFS Marijuana Inspectors

Melissa Bodnar-Brazil: [BodnarM1@michigan.gov](mailto:BodnarM1@michigan.gov)

James Bradford: [Bradfordj@Michigan.gov](mailto:Bradfordj@Michigan.gov)

Don Carter: [CarterD25@michigan.gov](mailto:CarterD25@michigan.gov)

Paul Dove: [DoveP1@Michigan.gov](mailto:DoveP1@Michigan.gov)

John Hager: [HagerJ@Michigan.gov](mailto:HagerJ@Michigan.gov)

Ron Rybak: [RybakR@michigan.gov](mailto:RybakR@michigan.gov)

# BFS Marijuana Inspection

INSPECTORS

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*.

A BFS inspection may be conducted at any reasonable time to ensure fire safety compliance as provided in *Rule 8 and subrule (5) of this rule*. A BFS inspection may be annual or biannual and may result in the required installation of fire suppression devices or other means necessary for adequate fire safety pursuant to state standards. Refer to *Rule 8 in the Marijuana Operations Rules*.

# BFS Marijuana Inspection PREPARATION

## 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.**

**Provide to Field Inspector prior to scheduling final inspection.**

## Second

Walk-Through the Facility / Virtual Tour

Questions may be asked, please have someone who knows the answers available.

## Third

Inspection report will be produced and Uploaded to Project File.

# BFS Marijuana Inspection CODE

If there are differences between codes.....

Apply the Most stringent Code requirement

## Example

Michigan Building Code allows 75' common path of travel in Unsprinklered Industrial buildings

NFPA only allows 50' common path of travel in Unsprinklered Industrial buildings

NFPA is more stringent, so that code applies

# BFS Marijuana Inspection

GROW FACILITY

## **Indoor Grow Facility**

Classified as Industrial – General Purpose  
Windowless Jungle  
Heavy Electrical Load  
Maximized Growing for Square Footage  
Rooms broken down into different operations

- Flower
- Vegetation (Veg)
- Clone
- Mother
- Drying

# *NFPA 704 Placards*



# BFS Marijuana Inspection

OTHER 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 (Temporary Use Only)

Water tanks and Chemicals

Light hangers

Sulfur burners

Hazmat – fertilizers and pesticides

Secured access

Fire protection systems

Dry rooms

Interior finish / Plastic hanging

# BFS Marijuana Inspection

PROCESSOR FACILITY

Most Hazardous Area in Marijuana Industry

Windowless

Extraction - Resin

Distillation

Post Oil Processes

Packaging

Typical Solvents Used in Extraction

LPG

Alcohol

CO2

Cold Water

Solventless

# BFS Marijuana Inspection EXTRACTION

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.

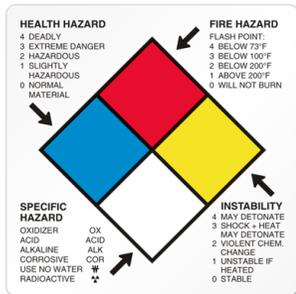
Refer to *Section 38.6.1.1.2 of NFPA 1.*

Prior to operation of the extraction equipment, the designer of record for the equipment shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis.

Refer to *Section 38.6.1.5.6.1 of NFPA 1.*

# Solvents

- With the solvent, the extraction machine will ground the cannabis granularly.
  - It is like using an espresso machine to produce finely ground substance that will allow you to push the solvent or liquid evenly through.
- Typical Solvent Categories
  - LPG
    - Butane
    - Benzene
    - Hexane
  - Alcohol
    - Ethanol
    - Methanol
    - Isopropanol
  - CO2
  - Solventless
    - Ice Water
    - Pressure



# BFS Marijuana Inspection

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 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

# BFS Marijuana Inspection

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

# BFS Marijuana Inspection

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

# BFS Marijuana Inspection

OTHER CONCERNS

Need for extraction equipment Designer of Record's 3rd party peer review report.

Need for Designer of Record or qualified 3rd party engineering Field Verification report.

Need for Extraction equipment operator training records

# BFS Marijuana Inspection

SAFETY COMPLIANCE FACILITY

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

# BFS Marijuana Inspection

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

# BFS Marijuana Inspection

PROVISIONING CENTER / RETAILER

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

# BFS Marijuana Inspection

PROVISIONING CENTER/  
RETAILER - 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.

# CODE SPOTLIGHTS

Additional information on specific topics available upon request.

Including:

- CS 704
- CS Aisle Width
- CS Approval Process
- CS Carbon Dioxide
- CS Common Path of Travel
- CS Cryogenic Fluids – Nitrogen
- CS Emergency Lighting
- CS Exit Signs
- CS Extraction Rooms
- CS Fire Extinguishers
- CS Flammable Liquids
- CS Hoop Houses
- CS Interior Finish
- CS Intumescent Paint
- CS Jurisdiction
- CS Kitchens
- CS Micro Businesses
- CS Multi-Use
- CS Occupancy
- CS Outdoor Grow
- CS Permanent Membrane Structures
- CS Power Taps
- CS Processor – Alcohol
- CS Processor – CO2
- CS Processor – Equipment
- CS Processor – LPG
- CS Processor – Staff
- CS Processor
- CS Residential
- CS SDS
- CS Spray Foam
- CS Sprinkler
- CS Sulfur Burners
- CS Transfilling

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QUESTIONS?