15-091

**1. State Building Code to be Amended:**

 [ ]  International Building Code [ ]  State Energy Code

 [ ]  ICC ANSI A117.1 Accessibility Code [ ]  International Mechanical Code

 [ ]  International Existing Building Code [ ]  International Fuel Gas Code

 [ ]  International Residential Code [ ]  NFPA 54 National Fuel Gas Code

 [x]  International Fire Code [ ]  NFPA 58 Liquefied Petroleum Gas Code

 [ ]  Uniform Plumbing Code [ ]  Wildland Urban Interface Code

 **Section(s): Chapter 38 (NEW)**

(e.g.: Section: R403.2)

 **Title: Marijuana Processing or Extraction Facilities**

 (e.g: Footings for wood foundations)

**2. Proponent Name (Specific local government, organization or individual):**

 **Proponent: Shawn Shepherd**

 **Title: Deputy Fire Marshal**

 **Date: 2/27/2015**

**3. Designated Contact Person:**

 **Name: Shawn Shepherd**

 **Title: Deputy Fire Marshal**

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**4. Proposed Code Amendment**. Reproduce the section to be amended by underlining all added language, striking through all deleted language. Insert new sections in the appropriate place in the code in order to continue the established numbering system of the code. If more than one section is proposed for amendment or more than one page is needed for reproducing the affected section of the code additional pages may be attached. (Examples on the SBCC [website](https://fortress.wa.gov/ga/apps/sbcc/Page.aspx?nid=191))

 **Code(s)** \_\_\_IFC\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Section(s)** \_\_\_Chapter 38 **(NEW)**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Enforceable code language must be used; see an example [by clicking here](https://fortress.wa.gov/ga/apps/SBCC/File.ashx?cid=1803).

 Amend section to read as follows:

Chapter 38

Marijuana Processing or Extraction Facilities

**SECTION 3801 GENERAL**

**3801.1 Scope**. Marijuana processing or extraction facilities shall comply with this chapter and the International Building Code. The use, storage and handling of hazardous materials in these facilities shall comply with this chapter, other applicable provisions of this code and the international Building Code.

**3801.2 Application.** The requirements set forth in this chapter are requirements specific only to marijuana processing and extraction facilities and shall be applied as exceptions or additions to applicable requirements set forth elsewhere in this code.

**3801.3 Multiple Hazards.** Where a material, its use or the process it is associated with poses multiple hazards, all hazards shall be addressed in accordance with Section 5001.1 and other material specific chapters.

**3801.4 Existing buildings, existing processing, and extraction areas.** Existing buildings, processing areas, and extraction area, shall comply with this chapter.

**3801.5 Permits**. Permit shall be required as set forth in Section 105.6 and 105.7.

**3802. DEFINITIONS**

**Marijuana extraction facility (MEF):** a building or portion thereof used for the extraction process of marijuana. This includes portion of the facilities that are exterior to a building or outside.

**Marijuana extraction equipment (MEE):** equipment or appliances used for the extraction of botanical material such as essential oils, from marijuana.

**Marijuana extraction room (MER):** The room or space in which the solvent is above 70 degrees or pressurized above 1atm after the solvent has been discharged from its original container.

**3803 GENERAL SAFETY PROVISIONS**:

**3803.1 Location.** Marijuana processing shall be located in a building complying with the International Building Code. The location of marijuana extraction shall be located within a building and in a room dedicated to the extraction process. The extraction room shall not be used for any other purpose including storage.

**3803.2 Staffing.** The extraction process shall be continuously staffed by personnel training in the extraction process and all emergency procedures. Records of staff training on both the extraction process and associated emergency procedures shall be maintained.

**3803.3 Systems, equipment and processes.** Systems, equipment, and processes shall be in accordance with Sections 3803.3.1 through 3803.3.3.9

**3803.3.1 Application.** Systems, equipment and processes shall include, but no limited to vessels, chambers, containers, cylinders, tanks, piping, tubing, valves, fittings, pumps and ovens.

**3803.3.2 General requirements.** In addition to the requirements in Section 3803.3 systems, equipment and processes shall also comply with Section 5003.2, other applicable provisions of this code, the International Building Code, and the International Mechanical Code.

**3803.3.3 Additional requirements for Marijuana Extraction.** In addition to the requirements of Section 3803.3, marijuana extraction systems, equipment and process shall comply with this section.

**3803.3.3.1 General requirements.** The requirements set forth in Section 5003.2 shall apply to vessels, chambers, containers, cylinders, tanks, piping , tubing, valves, fittings, pumps, and ovens used in the extraction process.

**3803.3.3.2 Systems and equipment.** Systems or equipment used for the extraction of marijuana/cannabis oils and products from plant material shall be performed using equipment that has been listed for the specific use. A technical report as detailed below shall be prepared and submitted to the fire code official for review and approval for systems and equipment used for the extraction of marijuana/cannabis oils and products from plant material that is not listed for the specific use. The firm or individual performing the performing the engineering analysis for the technical report shall be approved by the fire code official prior to performing the analysis.

**3803.3.3.2 Change of extraction medium.** Where the medium of extraction or solvent is changed from the material indicated in the technical report or as required by the manufacturer, the technical report shall be revised at the cost of the facility owner, submitted for review and approval by the fire code official prior to the use of the equipment with the new medium or solvent. If the original Engineer of Record is not available, then new Engineer of Record shall comply with Section 3803.3.3.3.1.

**3803.3.3.3 Required technical report.** The technical report shall be submitted for review and approval by the local fire code official prior to the equipment being located or installed at the facility.

**3803.3.3.3.1 Approved Engineer of Record.** Where a technical report is conducted to be submitted for review and approval by the fire code official to meet the requirements of 3803.3.3.2, the report shall be stamped and sealed by a currently licensed professional engineer in the State of Washington. Prior to submittal, the engineer shall submit educational background and professional experience specific to the review and approval of systems, equipment and processes with like hazards of those associated with marijuana extraction systems.

**3803.3.3.3.2 Content of technical report and engineering analysis.** All, but not limited to, the items listed below shall be included in the technical report.

1. Manufacturer information.
2. Engineer of Record information
3. Date of review and report revision history.
4. Signature page, to include report author, date, signature and the engineer performing the peer check of the report, date and signature.
5. Model and serial number of the item evaluated.
6. Methodology of the engineering technical review of the process and equipment design used to determine minimum safety requirements. Methodology shall consider the basis of design, and shall include a code analysis and code path to demonstrate the reason as to why specific code or standards are applicable or not.
7. Equipment description. A list of every component (clamp, fittings, hose, quick disconnects, gauges, site glass, gaskets, valves, pumps, vessels, containers, switches, etc.) of the equipment, indicating the manufacturer, model number, material, and solvent compatibility.
8. Type of process proposed to include a schematic diagram of the process. Schematic diagram shall start at raw product and end a finished product. All primary components of the process equipment shall be identified and match the aforementioned list, operating temperatures and pressures shall be identified.
9. Structural analysis of the vessel(s) if exposed to pressure other than standard atmospheric pressure. Analysis shall include purchased and fabricated components.
10. Structural analysis for the frame system supporting the equipment.
11. Process safety analysis of the entire process from raw material to finished product.
12. Comprehensive process hazard analysis considering failure modes and points throughout the process. Should include review of emergency procedures as related to the equipment or process.
13. Review of the assembly instructions, operational and maintenance manuals provided by the manufacturer.
14. Report shall include findings and observations of the analysis.
15. List of references used in the analysis.

**3803.3.3.3.3 Building analysis.** If the technical report indicates specific requirements for the location, room, space or building, where the extraction process is to occur, the Engineer of Record shall review the construction documents of such location, room, space or building and provide a report of their findings and observations to the fire code official.

**3803.3.3.3.4 Site Inspection.** Prior to operation of the extraction equipment, if required by the fire code official, the Engineer of Record shall inspect the site of the extraction process once equipment has been installed for compliance with the technical report and the building analysis. The Engineer of Record shall provide a report of findings and observations of the site inspection to the fire code official prior to the approval of the extraction process.

**3803.3.3 Construction requirements**

**3803.3.3.1 Location.** Marijuana extraction shall not be located in any building containing a Group A, E or I occupancy.

**3803.3.3.1.1 Extraction room.** The extraction equipment and process shall be located in a room dedicated extraction.

**3803.3.3.2 Egress.** Each marijuana extraction room shall be provided with at least one exit, swinging in the direction of travel, and provided with panic hardware.

**3803.3.3.2.1 Facility egress.** The marijuana extraction room shall not be located along an exit, or along the egress path from another portion of the building unless separated from the exit in accordance with the International Building Code.

**3803.3.3.3 Ventilation.** Each marijuana extraction room shall be provided with a dedicated ventilation systems complying with Section 5004.3.

**3803.3.3.4 Control area.** Each marijuana extraction room shall be considered a single control area and comply with Section 5003.8.3.

**3803.3.3.5 Electrical Requirements.** Electrical equipment within the extraction room shall be Class I, Division 2 and shall be installed in accordance with Washington State electrical code.

**3803.3.3.6 Interlocks.** The marijuana extraction equipment shall be interlocked such that the equipment will not operate unless the ventilation provisions of this chapter are operating.

**3803.3.3.7 Emergency power.** An emergency power system shall be provided for marijuana extraction system. The emergency power system shall be designed to supply power automatically to required electrical systems when the normal power supply is interrupted.

**3803.3.3.7.1 Required electrical systems.**

1. Marijuana extraction process equipment.
2. Extraction room lighting
3. Extraction room ventilation system
4. Solvent gas detection system
5. Emergency alarm systems
6. Fire alarm system
7. Automatic fire extinguishing systems.

**3803.3.3.8 Continuous gas detection system.** For extraction processes utilizing gaseous hydrocarbon solvents a continuous gas detection system shall be provided. The gas detection threshold shall be no greater than 25% of the LEL/LFL limit of the materials. The gas detection system shall be interlocked with the equipment so as to shut down the equipment is activated.

**3803.3.3.9 Fire protections systems.** The marijuana extraction room shall be provided with an automatic fire extinguishing system, a manual and automatic fire detection system. The fire extinguishing system shall be installed in accordance with Section 903.2.5 and in accordance with the solvent used in the process. The fire detection system shall be installed in accordance with Section 907.2.5 and in accordance with the solvent used in the process. Notification of the operation of either fire protection system shall activate the occupant notification system throughout the building.

1. **Briefly explain your proposed amendment, including the purpose, benefits and problems addressed.** Specifically note any impacts or benefits to business, and specify construction types, industries and services that would be affected. Finally, please note any potential impact on enforcement such as special reporting requirements or additional inspections required.

 Washington State developed legislation for the processing of marijuana/cannibis using an extraction process (WAC 314-55-104), the Fire Code Official is required to approve the operation and maintenance of the equipment used. This proposal clarifies the provision of the room in which the process occurs, and the engineering analysis used in lieu of providing equipment listed for the use. At the time of this proposal, there are no listing agencies testing or creating the standards to do the testing against.

1. **Specify what criteria this proposal meets.** You may select more than one.

[ ]  The amendment is needed to address a critical life/safety need.

[x]  The amendment is needed to address a specific state policy or statute.

[ ]  The amendment is needed for consistency with state or federal regulations.

[ ]  The amendment is needed to address a unique character of the state.

[ ]  The amendment corrects errors and omissions.

1. **Is there an economic impact:** [ ]  Yes     [x]  No

Explain:

There is no significant economic impact to this proposed change to the Fire Code based on the language included in WAC 315-55-104. This proposal establishes the minimum requirements that Fire Code Officials can approve extractors.

If there is an economic impact, use the Table below to estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. If preferred, you may submit an alternate cost benefit analysis.

|  |  |  |  |
| --- | --- | --- | --- |
| Building Type | Construction[[1]](#footnote-1) | Enforcement[[2]](#footnote-2) | Operations & Maintenance[[3]](#footnote-3) |
| Costs | Benefits[[4]](#footnote-4) | Costs | Benefits4 | Costs | Benefits4 |
| Residential |  |  |  |  |  |  |
|  Single family |  |  |  |  |  |  |
|  Multi-family |  |  |  |  |  |  |
| Commercial/Retail |  |  |  |  |  |  |
| Industrial |  |  |  |  |  |  |
| Institutional |  |  |  |  |  |  |

Please send your completed proposal to: sbcc@ga.wa.gov

All questions must be answered to be considered complete. Incomplete proposals will not be accepted.

1. $ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs

that impact the total cost of the construction to the owner/consumer. [↑](#footnote-ref-1)
2. Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and other action required for enforcement. [↑](#footnote-ref-2)
3. Cost to building owner/tenants over the life of the project. [↑](#footnote-ref-3)
4. Measurable benefit. [↑](#footnote-ref-4)