

Mod3_1 Food Safety & Refrigeration Concepts

Included
Refrigeration & Certifications
-Food Safety
-Beer/Tobacco
-HACCP Plans

Refrigeration

1st Thing

- Find your Refrigeration contractor, Electrician, and Plumber
- Warehouse can provide refrigeration help but you really want to consult with the person who will be installing and maintaining your equipment PRIOR TO finalizing your purchasing decisions
- Partner with a “General Contractor” for general construction needs

Opening Date

- Opening date is driven by refrigeration completion
 - Refrigeration to temp (degrees) ~2 weeks prior to opening day
 - Refrigeration timeline influenced by Refrigeration contractor, receiving your physical equipment, electrical and plumbing updates made to your building

Store Layout

- Establishes refrigeration and shelving needs
- Inventory layout tells you how many doors of
 - Refrigerator
 - Frozen
 - Ice Cream
- **Template:** Mod3_2 Planning Layout

Refrigeration Connection to Plumbing / Electrical

- Send them both your case specs for your refrigeration units
- They will need to come onsite to perform their analysis of what updates are needed based on your case specs
- Remember to get time and money included in their quote

- Time can be hard to estimate, which is fine, have them walk you through the variables that will influence their timeline
- Put this in writing, especially the finalized version right before they begin work

Refrigeration Temperature Monitoring

- VERY important to hopefully minimize inventory loss in the event you have refrigeration go down
- Manual Temp Checks
 - **Template: Mod3_3 Temp Check Log**
 - Frequency of your checks depends on
 - Your required frequency for your Food Safety certification
 - More frequently if you prefer, depends on if you have Automatic monitoring or not
- Automatic 24/7 Monitoring
 - Example: Einstein
 - Einstein system holds temperature thresholds you program for where you want each case to maintain
 - Einstein monitors the Right Now temperature on all sensors
 - Einstein trips an alarm if any of the cases step outside their temperature threshold (colder or warmer)
 - Security System Required
 - Example: ADT
 - “Refrigeration” is a zone on your security system
 - Landline may be Required for the Security System
 - Einstein allows your refrigeration contractor to monitor your case performance remotely
 - This troubleshooting may give them enough information to walk you through a “fix” over the phone

Refrigeration Units

- Individual Units or Integrated System
 - Individual units each with their own power cord and compressor
 - Pros
 - Cheaper to buy / install
 - Minimal to no building updates needed
 - Short timeline to purchase and have in place
 - Cons
 - Overtime the compressors make more and more noise and become loud
 - Older models use more electricity
 - Will add to the heat load in the store and AC has to compensate for the increased heat
 - Size and space constraints determined by the unit
 - Limited or no automatic monitoring capability

- Integrated Refrigeration System
 - Pros
 - Compressors can be outside or somewhere dedicated where the noise won't be a nuisance
 - Redundancy is an option with more than one unit for walk-ins or using a compressor bank that serves the entire store
 - Size and space of refrigeration designed and built to suit the store
 - Extensive automatic monitoring and alarm capabilities
 - Cons
 - More expensive up front
 - Professional refrigeration technician required for maintenance and repair in most cases
 - Long timeline to design, purchase, and install equipment
- Used or New
 - Used Equipment
 - Pros
 - Cheaper
 - Short timeline
 - Cons
 - Potentially need more frequent maintenance
 - Energy needs higher in older equipment
 - May not be ideally suited for the store
 - New Equipment
 - Pros
 - More energy efficient
 - Can purchase exactly what is needed/desired for the store
 - Cons
 - More expensive up front
 - Long timeline

Used Equipment - Where to Find

- Facebook Groups
 - Kansas Grocery Equipment & Supply
 - The Rural Grocery Network
 - Free Grocery Resources
 - *Search "Grocery" or "Restaurant Equipment" to find others
- Christopher Sales, and other similar companies in your area
- Restaurant Equipment resale
- Ask your Warehouse for existing stores who may be selling equipment

Certifications

Licensing Guide

- Kansas Dept of Ag [for Grocery + Retail Stores](#)
 - Covers tobacco, beer, lottery, fuel, pharmacy, etc.
- Find one specific to your state and if not, the Kansas one can get you started

Food Safety Certification

- Define range of services
- Highly Recommend getting the highest level risk certification - preparing ready to eat food
 - Strict hygiene protocols between raw and ready to eat
 - Surfaces, handwashing, knives, etc.
- Planning Inspection
 - Schedule for ASAP once you have your services defined
 - Factor planning inspection report into the requirements for your contractors so they can include in their quotes
- FREE Food Safety Training by State Dept of Ag
- Meat Grinding
 - **Template: Mod3_4 Grinding Log Template**

Beer / Tobacco / Lottery / Fuel / etc. License

- Selling regulations
 - **See Licensing Guide by Kansas Dept of Ag [for Grocery + Retail Stores](#)**
 - Find one specific to your state and if not, the Kansas one can get you started

Fire Code

- Schedule walk through with City Fire Chief
 - Same as Food Safety Planning Inspection, schedule ASAP to review your services with them and make sure you're building something that will work in the end
 - Have them make you aware of any rules / regulations your space is subject to
- Fire Extinguishers - buy / install prior to opening

HACCP Plans

- Vac Packing machine requires specific approval to use per food item
 - Seafood, chicken, beef, pork, deli meats, cheeses, marinated specialty items, etc.
- Vac Packing things you don't have a HACCP plan for will cause the food safety inspector to throw away those items automatically
 - Vac Packing - can make people sick if it's done wrong
- Temperature Checks - depends on Ops so check with your state licensing requirements
 - **Template: Mod3_3 Temp Check Log**