

KICK-OFF AND GENERAL BREWERY OPERATION QUESTIONNAIRE:1) **FACILITY & BUSINESS OPERATIONS:**

- a. Zoning Regulations:
 - i. Current zoning district:
 - ii. Do you know your local building and site design requirements:
 - iii. Are there special permits in place:
- b. Facility Conditions:
 - i. Use group (Factory, storage, office, etc.):
 - ii. Building clear heights (by area):
 - iii. Facility sprinkler protection:
 - iv. Predetermined areas of expansion:
 - v. Slab thickness:
 - vi. Roof load rating:
 - vii. Other important considerations:
- c. Employees Counts:
 - i. Total # of employees:
 - ii. # of production employees:
 - iii. # of packaging employees:
 - iv. # of specialty employees (labs, logistics, sales, etc):
 - v. # of office employees:
 - vi. # of employees per shift / # of shifts per day:
 - 1. Brewing:
 - 2. Packaging:
 - 3. Other:
- d. Office/Employee Accommodations:
 - i. # of offices or workstations:
 - ii. # and size of conference rooms:
 - iii. # of plant level workstations and offices:
 - iv. # of break rooms by operational function:
- e. Tap Room and Visitor Accommodations:
 - i. Visitor occupancy (# of visitors at one time):
 - ii. Tap Room accommodations:
 - 1. Size of bar (# of seat accommodations):
 - 2. Type of seating:
 - 3. Live music:
 - 4. Retail beer sales:
 - 5. Merchandize sales:
 - 6. Food (snacks, pub fare or full kitchen):
 - iii. Outdoor services:
 - iv. Other special accommodations:

2) GENERAL UTILITY:

- a. Water:
 - i. Approximate volume (gallons) per day/per week/per year:
 - ii. Water use ratios (domestic, cleaning, production):
 - iii. Water quality requirements (well/municipal):
 - 1. Do you know your water profile:
 - 2. Do you have filtration requirements:
 - 3. Other:
 - iv. Incoming water main size:
 - 1. Temperature (seasonal range):
 - 2. Flow (GPM):
 - 3. Pressure (PSI):
- b. Wastewater:
 - i. Trench/floor drain preferences:
 - ii. Approximate water to wastewater ratios:
 - iii. Municipal sewer/septic system/holding tank:
 - iv. Discharge specifications:
 - 1. PH:
 - 2. BOD:
 - 3. TSS:
 - 4. Other:
 - v. On-site treatment:
 - 1. Type of pretreatment:
 - 2. Balancing:
 - 3. Digester:
 - 4. Other:
- c. Facility Fuel Type/s (Gas, Propane, oil, etc):
 - i. On-site storage or municipal:
 - 1. Size of municipal connection or storage tank:
 - ii. Service provider:
 - iii. Annual average consumption:
- d. Boiler & Steam System:
 - i. Facility heating system provided by:
 - ii. Steam supply (header size):
 - 1. Boiler size (HP, pressure, BTU's, etc.):
 - 2. Boiler make/model/age:
 - 3. Do you have chemical treatment equipment:
 - 4. Do you have water softener equipment:
 - iii. Is condensate returned and (header size):
 - iv. Process loads:
 - 1. Brewhouse:
 - 2. Cellar:
 - 3. CIP:
 - 4. Packaging:
 - 5. Other:

- e. Refrigeration:
 - i. Refrigerant media (glycol, ammonia, etc.):
 - ii. Chiller make/model/age:
 - iii. Chiller size (tonnage, HP, BTU):
 - iv. Chiller location:
 - v. Glycol supply & return:
 - 1. Header size
 - 2. Flow rate:
 - 3. Pressure:
 - 4. Temperature
 - vi. Type of distribution piping (CPVC, Cool-Fit, SS, other):
 - f. Power:
 - i. Service provider:
 - ii. Primary service size (amperage/voltage/phase):
 - iii. Connected loads and available capacity:
 - iv. Voltage availability (220v. / 480v / etc.):
 - v. Do you have back-up power:
 - 1. What operations are connected:
 - g. Compressed Air:
 - i. Air compressor make/model/age:
 - ii. Compressed air header size:
 - iii. Air compressor size (HP/PSI):
 - iv. Filtered air:
 - v. Type of distribution piping (copper, aluminum, other):
 - h. CO₂, Nitrogen or other Gas:
 - i. Receiving methods:
 - ii. Supplier:
 - iii. Storage volume:
 - iv. Storage locations:
 - v. Gas distribution header sizes:
 - vi. Type of distribution piping (copper, braided hose, etc.):
 - vii. Own or lease:
- 3) PRODUCTION:
- a. Grain Handling (square footage of area):
 - i. Bags/super sacks/bulk:
 - ii. Quantities of grain storage types:
 - iii. # of on hand grain varieties:
 - iv. Auger specifications (chain, screw, etc.):
 - v. Type of mill:
 - vi. Size of grist case:
 - b. Production Volume (square footage of area):
 - i. Annual production volume (Bbl's):
 - ii. Annual growth rate (%):
 - iii. Seasonal fluctuation (peak production months):

- iv. Production Brewhouse:
 - 1. Brewhouse batch capacity:
 - 2. # of vessels (Mash, Lauter, Kettle, WP, etc.):
 - 3. Heat source (Steam, Electric, Other):
 - 4. Brews per day:
 - 5. Brews per week:
 - 6. Shifts per day:
 - 7. Shifts per week:
 - 8. HLT size:
 - 9. CLT size:
- v. Pilot System:
 - 1. Brewhouse batch capacity:
 - 2. # of vessels (Mash, Lauter, Kettle, WP, etc.):
 - 3. Heat source (Steam, Electric, Other):
 - 4. Brews per day:
 - 5. Brews per week:
- c. Tank Cellar (square footage of area):
 - i. Fermentation Tanks:
 - 1. # of FV's (list by size):
 - 2. Optimal height to width ratio (or current):
 - 3. Average FV residency time:
 - 4. Average short residency time & % of total:
 - 5. Average long residency time & % of total:
 - 6. Average holding temperature:
 - 7. Crash to temperature:
 - 8. Time to crash a tank:
 - 9. Approximate idle time (time clean before filled):
 - ii. Brite/Packaging Tanks:
 - 1. # of BT's (list by size):
 - 2. Average BT residency (time before packaged):
 - 3. Average holding temperature:
 - 4. Approximate idle time (time clean before filled):
 - 5. # of tanks (or volume) emptied during a packaging shift:
 - iii. Yeast Storage and Handling:
 - 1. # of yeast strands:
 - 2. Yeast storage tank sizes:
 - 3. Type of yeast propagation equipment:
 - 4. Yeast filtration/collection process:
 - iv. General Cellar Information:
 - 1. Average FV:BT tank ratio (# FV's to every BT):
 - 2. Do you have any specialty tank design requirements:
 - 3. List Specialty vessels/equipment:
 - a. Hop cannon:
 - b. Beer filtration:
 - c. Clarifier/centrifuge:

- d. Specialty Production Requirements:
 - i. Barrel Age Program (square footage of area):
 - 1. # of barrels in holding:
 - 2. Length of aging:
 - ii. Wild/Sour Program (square footage of area)
 - 1. Do you require a segregated control space:
 - iii. Swing panels & hard pipe or Pump carts & hoses:
 - iv. How do you CIP (manual connections, CIP cart, CIP skid, etc.):
 - e. Labs (quantity and square footage):
 - i. QA/QC requirements:
 - ii. Number of labs by operational function:
 - iii. Specific equipment needs:
- 4) PACKAGING:
- a. Packaging Line Equipment (square footage of packaging areas):
 - i. Draft line equipment make, model & rated speed:
 - 1. Automated system (Wash, Rinse, Fill, Etc.):
 - 2. 1/5 or 1/6 Bbl kegs per hour:
 - 3. 1/2 Bbl kegs per hour:
 - 4. % of total production draft:
 - a. % of total draft production in 1/5 or 1/6 Bbl:
 - b. % of total draft production in 1/2 Bbl:
 - c. % of total draft production in other size:
 - ii. Can Line equipment make, model & rated speed:
 - 1. Depalletizer:
 - 2. Water or air rinser:
 - 3. Filler/Seamer:
 - 4. Fill detection/rejection:
 - 5. Can date coder:
 - 6. Warmer/Pasteurizer (post leak detection):
 - 7. Can washer & blower/dryer:
 - 8. Can labeler/sleever:
 - 9. Carrier Applicator:
 - 10. Carton erector and packer (carton coder):
 - 11. Carton check/reject:
 - 12. Tray erector and packer (tray coder):
 - 13. Tray check/reject:
 - 14. Palletizer:
 - 15. Maximum rated line speed:
 - 16. Actual recognized line speed:
 - 17. % of total production in cans:
 - a. % of total can production in 12oz.:
 - b. % of total can production in 16oz.:
 - c. % of total can production in 19.2 oz.:
 - d. % of total can production in other can size:

- iii. Bottling line equipment make, model & rated speed:
 - 1. Depalletizer:
 - 2. Water/Air Rinse:
 - 3. Filler/Crowner (corker):
 - 4. Fill detection/rejection:
 - 5. Bottle date coder:
 - 6. Warmer/Pasteurizer (post leak detection):
 - 7. Bottle washer & blower/dryer:
 - 8. Bottle labeler (# of labels and locations on bottles):
 - 9. 6-pack erector:
 - 10. Case erector:
 - 11. Tray erector:
 - 12. Bottle packer:
 - 13. Case coder:
 - 14. Case check/reject:
 - 15. Palletizer:
 - 16. % of total production in bottles:
 - a. % of total bottle production in 12 oz.:
 - b. % of total bottle production in 22 oz.:
 - c. % of total bottle production in other size:
- iv. Pack Sizes & Ratios:
 - 1. Cans/bottles/draft (Complete For Each):
 - a. % 4-Packs:
 - b. % 6-Packs:
 - c. % 12-Packs:
 - d. % 15-Packs:
 - e. % 18-Packs:
 - f. % 24-Packs:
 - g. % Loose Pack:
 - h. % Other Pack Type:
 - i. % of each Pack Size by Pack Type (Carrier/Carton/Etc.):

5) MATERIAL HANDLING:

- a. Finished product (ambient or cooler storage):
 - i. # of on hand can pallets and SKU's:
 - ii. # of on hand bottle pallets and SKU's:
 - iii. # of on hand draft pallets and SKU's:
- b. Ambient Storage (square footage & total pallet capacity):
 - i. Lbs. of grain storage (bags, super sacks, silo, etc):
 - ii. # of corrugate pallets and SKU's:
 - iii. # of labels and SKU's:
 - iv. # of bulk can pallets (blank, printed, other):
 - v. # of bulk glass pallets:
 - vi. # of empty keg pallets:
 - vii. Point of Sale and merchandise storage (POS):

- c. Cooler Storage (square footage and total pallet capacity):
 - i. # of pallets or bags of hops:
 - ii. # of pallets or units of other ingredients:
 - iii. # of finished product pallets in cooler:
 - 1. Cans:
 - 2. Bottles:
 - 3. Draft:
 - iv. Specific Cooler Requirements:
 - 1. Dedicated ingredient cooler:
 - 2. Dedicated finished product cooler:
 - 3. Dedicated draft system cooler:
- d. Distribution Model:
 - i. Self-distribution:
 - ii. Local route truck or van:
 - iii. Distributor (full size truck):
 - iv. Regional, state, national or international:
- e. Shipping & Receiving:
 - i. # of inbound trucks per day by type:
 - ii. Average time at dock by type:
 - iii. Normal dock timing (morning, evening, all day, etc.):
 - iv. Average number of pallets per truck by type:
 - v. # of outbound trucks per day by type:
- f. Fork Truck Equipment:
 - i. Quantity:
 - ii. Make/manufacturer:
 - iii. Electric/gas powered:
 - iv. Sit Down/Stand Up/ Walk Behind:
 - v. Maximum lift height:
 - vi. Rent/Own:
- g. General Pallet Information:
 - i. Floor stack, pallet racking or mix:
 - ii. Types of pallets (GMA, wood, plastic, etc):
 - iii. # of empty pallets on hand:
 - iv. Pallet stack heights by pallet type:
 - v. Units per pallet by pallet type
 - vi. Pallet sizes (LxWxH) and weights by pallet type:
 - vii. Pallet types:
 - 1. Ambient storage pallet:
 - 2. Cooler storage pallet:
 - 3. Bulk can pallets:
 - 4. Bulk glass pallets:
 - 5. Draft pallets:
 - 6. Finished can pallets:
 - 7. Finished bottle pallets:
 - 8. Finished draft pallet:

6) GENERAL CONSIDERATIONS:

- a. Known Future Expansion Areas:
 - i. Utilities areas and equipment:
 - ii. Planned utility redundancy:
 - iii. Tap room seating and services:
 - iv. Production areas and equipment:
 - v. Packaging areas and equipment:
 - vi. Known new package offerings:
 - vii. Production/packaging automation:
 - viii. Warehousing and storage capacity:
 - ix. Distribution:
 - x. Leveraging or offering contract brewing/packaging:
- b. List all anticipated future equipment:
 - i.
 - ii.
 - iii.
 - iv.
 - v.
- c. List all anticipated future considerations:
 - i.
 - ii.
 - iii.
 - iv.
 - v.