Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 12/06/13

Nason
MECHANICAL SYSTEMS
194 Merrow Road Auburn, Maine 04210
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Bissell Brothers Brewery
One Industrial Way
Portland, ME 04101

September 6, 2013

Attn: Peter Jensen Bissell

Nason Mechanical Systems is pleased to provide the following budget estimate to perform the following scope of work to fit-up Bissell Brothers Brewery in Portland, ME. We will warranty our craftsmanship and all equipment we or our contractors provide for one year from date of system startup. I have put the scope together from notes I wrote down last Thursday August 29th – please let me know if I have forgotten anything, or if I have included something you didn't want us to. We will perform the work on a Time and Material basis.

Assumptions:

A. The boiler is in good working order and has the capacity to produce enough steam for your process.
B. The existing condensate receiver/boiler feed pump is in good working order.
C. The chiller has enough capacity for you process.
D. Existing building ventilation is adequate.

Scope of work includes:

1. Steam piping from the existing boiler header to the following equipment:
    a. (3) steam jackets on the Kettle
    b. (2) steam jackets on the Hot Liquor Tank
2. Condensate piping and steam traps from the two vessels mentioned above and a header drip trap all piped back to the condensate receiver. (Five vessel traps plus one for the header)
3. The steam to the Kettle will be controlled in hand via (3) individual globe valves.
4. Nason will supply a single 120v on/off steam valve to energize both steam jackets in the Hot Liquor Tank. (control by others)
5. One ¾" cold water feed from above the offices to the boiler feed valve. This line will also provide drops to the HLT, HEX and a hosebibb location.
6. One ¾" feed with Tri-clamp fitting from above the offices to the area near the Keg Washer and Canning Line.
7. Provide a 1" copper line from the HEX to the HLT water feed line.
8. Provide and install a 3-bay stainless steel sink with left hand drainboard to the left of the Keg Washer.

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9. Provide and install (3) Ranco NEMA 4 controllers – (one for each of the two Fern and one for the Bright Beer Tank).
10. Install a bypass with throttling valves on the chilled water loop.
11. Tie (2) FV's and (1) BBT into the chilled water system (control valves already in p
12. Top off the glycol in the chilled water system

Scope of work excludes:

- Diagnosis or troubleshooting to startup either the chiller or boiler
- Cutting and patching
- Compressed air piping
- CO2 piping
- Roof penetrations and patching
- Kettle stack
- Off hours work
- Ventilation, comfort heating and cooling
- Line voltage/low voltage electrical wiring
- Pipe insulation

Footnotes:

- Because of the CIP, you may want to consider installing an emergency shower/eyewash station.
- Since you are not using mechanical ventilation, you may want to install a CO2 sensor.

Budget Estimate: $21,000-$24,000

Please don't hesitate to call with any questions.

Thanks for giving us the opportunity to help you with this project.

Sincerely,

Mark Morin