

Situation

Bently Heritage is a family-owned and operated distillery in Minden, Nevada. Using only grains that are sustainably grown and harvested on the family ranch, Bently Heritage creates single-estate vodka, gin, and whiskies that are available at select establishments as well as onsite at their tasting room. Tours of the distillery including the stills, bottling line, and barreling room are open to the public.

Challenge

When Bently Heritage graduated from their research and development facility to a full-capacity distillery, they became subject to a whole new set of OSHA standards for process safety. In addition to manufacturing operations, the distillery would be a public venue for tours and tastings, so considerations had to be made during the design process to ensure the safety not only of employees who would be trained on worksite hazards, but for visitors who would undergo no such training. Since the distillery was to be housed in historic landmark, turn-of-the-century flour mill and creamery buildings, safety concerns arising from the existing structures also needed to be taken into account.

“We were looking for specialty consulting to address process safety management compliance and help us evaluate and remediate hazards as we began the design and buildout of our distillery.”

Larry Vincent | Director of Construction, Bently Heritage

Process Hazard Analysis (PHA) With ground scheduled to break on their distillery, Bently Heritage hired H&A to work with UK-based distillery design specialists Briggs of Burton, design-build engineering firm Haskell, and general contractors Miles Construction to conduct a PHA. This involved thoroughly evaluating every aspect of the distillery’s design to anticipate and control hazards involved in the distilling process. Schematics that included each component, including valves, pipes, tanks, boilers, and stills, were scrupulously examined by H&A’s experts and safety precautions were incorporated into the design prior to buildout. Design adjustments were also made to better ensure the safety of tour groups as they proceeded through the facility. Since the two greatest dangers posed by distillery operations are chemical exposure and fire, the H&A consulting team consisted of experts in toxic and reactive chemicals and fire protection.

Lockout/Tagout Bently Heritage maintains all of its equipment in-house and certain practices and procedures must be followed to disable machinery or equipment, thereby preventing the release of hazardous energy while employees perform servicing and maintenance activities. H&A drafted equipment-specific lockout/tagout safety procedures and trained the maintenance staff on safe upkeep.

Arc Flash Analysis In collaboration with its partner NEI Electric Power Engineering, H&A conducted an arc flash analysis and live electrical safety program for Bently Heritage employees. This included identifying the potential of hazardous arc flashes in equipment, determining safe working distances and appropriate personal protective equipment (PPE), and implementing warning labels. H&A also conducted hands-on employee training on the complex equipment involved in distillery operation.

“Distilleries can contain an enormous volume of flammable liquids, so it was important to analyze hazards inherent to the distilling process and also consider spacial relation to electrified equipment that could react and cause explosion and fire. The Bently Heritage team really took the training to heart and showed a personal commitment not only to the safety of employees and visitors but to protecting this incredible asset to the town that the Bently family has created.”

Mike Rose, CSP, CHMM | Senior EHS Consultant, H&A

Results

Bently Heritage’s Mill and Creamery buildings are now operating at full capacity and the tours and tasting room opened to the public in February 2019. Vodka and gin are in full production, with both American and single malt whiskies aging in a rickhouse that recreates the weather in Ballindalloch, Scotland and a second aging facility that imitates Louisville, Kentucky. The distillery has generated local employment and an influx of tourists to this small town in the Carson Valley, at the foot of the Sierra Nevada mountains.

“Our relationship with the H&A team was positive from our first contact. Naturally we like to work with people who are professional, efficient, and knowledgeable, but it’s equally important that they fit into our culture, which values cooperation, attentive listening, and genuine comfort with collaboration. Our careful vetting process netted us the results we were looking for. H&A developed an excellent rapport both with our employees and the engineering and construction firms we hired and their high caliber of work merits an ongoing partnership.”

Larry Vincent | Director of Construction, Bently Heritage