

## Agilent Technologies: Tank Farm Vapor Suppression

# Competitive Bid

# Tenant Improvements in an Operating Facility



### Agilent Technologies: Tank Farm Vapor Suppression

5555 Airport Blvd.  
Boulder, CO 80301

**Size:** 1,150 SF

#### Construction:

Start: May 2020  
Completed: October 2020

#### Contract Price:

Initial: \$852,374  
Change Orders: (\$2,200)  
Final: \$850,174 NTE

#### Delivery Method:

Competitive Bid

#### Reference:

Brad Wise  
303-704-9928  
Lorri Brovsky  
303-921-7269

#### Design Team:

CRB Architects and Engineers  
11001 West 120th Ave.  
Suite 450  
Broomfield, CO 80021  
303-993-1822

#### Key Staff:

Ryan Brenneman, Project Executive  
Mark McMahon, Project Manager  
Alex Koenigseker, Project Engineer  
Terri Niesent, Project Coordinator  
Clint Lurbe, Superintendent

### Project Description

This project was developed solely for the addition of a dedicated water/ foam/vapor fire suppression system to serve an existing hazardous storage tank farm. The fire suppression system included an automatic Vapor LEL gas detection system, manual release station and deluge foam reporting control panel that interfaced with the main building fire alarm panel. To support the new system a new addition to the existing building was constructed to house a new water service entry and hold the new foam tank and distribution piping. The addition was built on deep caissons, slab on grade and structural framing. A new 6" fire service line was tapped into the existing fire main and brought into the new addition. The wet fire line that served the tank storage area was fed across the roof. The line had to be installed and coordinated with the existing structure for support as well as designed to drain when not in use or inactive to avoid freezing. At the existing tank farm area in which the suppression system served we removed and recoated the containment area with new epoxy.

### Project Challenges

There were several challenges to this project. First, having to serve the new building with a new fire service we needed to coordinate a wet tap of the city water main and coordinate this work as to not disrupt any of the process water needs of the existing building. Secondly, the foam fire suppression system had many control and automation elements that needed to be carefully integrated into the buildings automated control system. Careful and extensive pre-planning meetings occurred to perform pre-tests and verification of these systems while not disturbing ongoing operations of the building processes or personnel. Lastly, careful coordination of actual demonstration of the foam system with the local Fire Marshal occurred. This testing was also done with much forethought and planning in order to provide sufficient proof of function. The discharge of the foam and water was all captured in the existing tank containment area and was cleaned and evacuated in accordance with all environmental regulations.

