Flare Camera Surveillance Tower Construction

CLIENT: CONFIDENTIAL
MARKET: Natural Gas & LNG
LOCATION: Confidential
SERVICES:
- Project Management
- Structural Engineering
- Construction • Procurement
- Safety Services

COMPLETED: 2023
VALUE CLASS: $376K

ABOUT: *The Client is the first of its kind in the United States as an LNG export facility and is recognized as one of the most technically advanced and environmentally sensitive LNG facilities in the world. While working at the forefront of America's energy independence, LNG from the facility is also used to supplant coal-burning power plants and otherwise support energy needs in 28 different countries, playing a role in reducing global emissions.*

PROJECT DETAILS

The Client needed to be able to monitor the facilities gas flares to safely ensure their continuous operations. After finding unacceptable lead times on pre-fabricated monopoles, TAI Structural Engineering pivoted and designed two steel trussed towers to cut the schedule in half.

TAI-SCI fabricated the galvanized steel towers with a 4' square base tapering to a 2' square top at 80' tall. Each tower was constructed of (5) pre-welded assemblies, consisting of 4" schedule 80 pipe columns and 2" schedule 40 horizontal and diagonal bracing. The assemblies were then galvanized and shipped directly to the Client site. This allowed for improved quality control, faster, safer installation and limited disruption to facility operations.

TAI assigned a construction manager to oversee the fabrication and erection process. The construction manager additionally monitored and maintained safe contractor installation activities, procured all materials, and delivered the completed project ahead of the projected schedule.

Mounted camera.

Mounted camera facing structure to monitor gas.

Welder working on the towers in the TAI-SCI Shop.

Towers being readied for transport to the site.

Towers assembled and shipped.

Anchorage system.

Cranes lift piece number 4 of 5 in place.

Operator bolts assemblies into place.

Final piece of tower secured in place.