

Offshore gas cooling

CUSTOMER
Offshore platform

SECTOR
Oil and gas

LOCATION
Gulf of Mexico, USA



119°F

INITIAL TEMPERATURE

108°F

TEMPERATURE
AFTER COOLING

7 DAYS

INSTALLATION TIME

50%

INCREASE IN
PRODUCTIVITY

The challenge

Design an explosion-proof cooling system

A Gulf Coast oil platform had a critical problem with the temperature of the gas flowing into its pipelines and was having to scale back to compensate. Hot summer temperatures and a third well being brought on line were the main contributing factors.

When they called us for a rapid response the temperature was already at 119°F (48.5°C) – only one degree within the safe limit of 120°F (48.9°C). Any design we came up with had to take into consideration the platform's size, high-pressure gas flow, significant power limitations, and small footprint. It also had to be explosion-proof.

The impact

Temperatures lowered and production increased

Our prompt response meant that our customer had an operational system within seven days. The temporary closed-loop chiller system managed seasonal temperature limitations so that discharge temperatures were reduced by 10 percent to a safe level of 108 °F (42.2°C), which allowed gas flow to be increased by 50 percent.

The design met the specific requirements and footprint of the platform and all units were explosion-proof. The success of the temporary chiller package meant the customer was able to significantly increase production and avoid a big hit to their financial bottom line.

The solution

A chiller package that we operated round-the-clock

Knowing this was an extremely time-sensitive matter we were up and running within two hours of the phone call. We marshalled our resources, assessed the situation and mobilized a fleet of chiller units. Our technicians then designed a closed-loop chilled water system that could be hooked up to our customer's exchanger.

The entire design and installation took just seven days and knocked the gas temperature back to 108°F (42.2°C), a move that allowed the platform to ramp up production. All equipment was tested against requirements before shipping and again when we had it installed on site, and we also provided round-the-clock staffing to operate the equipment.

