



Category: Meeting the Challenge of a Difficult Job – Specialty Contractor

Contractor: Kenny Electric

Project Name: Anadarko Ramsey Gas Plant

Overcoming Complex Challenges with Dedication and Determination

In a ghost town just 80 miles north of Pecos Texas and over 600 miles away from Kenny Electric's home office in Denver, Anadarko Petroleum Corporation outlined an expansion project for their Ramsey Cryogenic Processing Plant in Orla, Texas. Here natural gas is cooled to sub-zero temperatures in order to condense liquids or NGLs (natural gas liquids). At the time, the plant's cryogenic capacity was at 300 MMcf/d which was expected to grow to 500MMcf/d. Development of this plant would also include increasing the amine treating capacity to 2,800 gpm that year.

As a longstanding, trusted contractor of Anadarko, Kenny Electric was initially engaged with the project in August of 2015 when asked to undertake a series of electrical instrumentation installations at the plant. At the time of the expansion, Ramsey was a full functioning plant in which the renovation and construction included an electrical upgrade to the primary electrical feeds for the entire Ramsey plant consisting of a new 21.6kv main control building and switch gear. Construction also involved refeeding cryogenic trains 2,3,4, and 5 and the addition of High Pressure Stabilizer Transformer Primaries which consisted of 500' of duct bank with 5-6" conduits feeding the new Ramsey Train 5 Transformer.

Early on a Thursday morning, the complete dynamic of the project would change when a main inlet valve at the plant caught fire causing an explosion on December 3rd 2015. The blast was heard for up to 25 miles away, while many witnesses explained seeing a fireball that appeared to be coming right at them. What started out as a small fire, quickly escalated to a serious event that many employees say they will never forget to this day. At this time during the project, there were 250 workers on location, 85 of those being Kenny employees. Due to our employee's swift thinking and detailed emergency evacuation plans, **zero** Kenny Electric employees were injured.



Their vigilance in preparing detailed emergency action plans fully prepared them to handle evacuating to 3 distant muster points to avoid the extreme heat from the blast.

As a result of the explosion at the plant and prior to finishing the initial work, Kenny Electric was invited to participate in a new aspect of the project which included a complete rebuild of the natural gas inlet area and slug catcher that had now been required to be relocated. Although our employees were shaken from the blast, their dedication shined through as they waited patiently for the plant to be re-opened so they could get back to work and rebuild the plant.

The added construction involved a new ground up compressor station consisting of three new natural gas compressor engines, new electrical service, new Power Distribution Center (PDC) building, a new slug catcher, three new drain tanks, and two runs of 12-stand, fiber optic cable running five miles to the Ramsey plant. Preceding this upgrade, the ability to shut down the plant was limited to only manual means located 18 miles off location. By tying in the fiber optics to the existing and new compressor stations, the plant could be automatically shut down if another emergency were to occur, ensuring safer processes in the future. Construction activities and electrical tie-ins were coordinated by use of daily SIMOP permits and meetings to allow for work to take place in safety sensitive areas associated with the natural gas production.

While the explosion was a major setback and challenge in itself, many other obstacles presented themselves as the job progressed. With a majority of our employees being far away from home, the Texas heat was not something they were typically used to. Our employees were constantly battling the elements as a large portion of the project occurred during very hot summer conditions where the temperatures approached nearly 120 degrees on many occasions. In order to decrease these exposures, Kenny Electric utilized a pulley system in the cable tray with mechanical means rather than putting increased stress on our employee's bodies. Additionally, cable trays were pre-fabricated allowing to install 60' sections with a crane, again decreasing hazardous exposures to our employees who would have then had to manually install at 10' increments.



Safety concerns on the job were not the only factors that our team had to deal with. Before even arriving on site, our crews traveled 45 miles on US Hwy 285 to get to location from their camp. This small, two lane highway has been known for its hazardous conditions being labeled as one of the most dangerous highways in the state. To mitigate these hazards, our crews adjusted their schedules to avoid being on the road during the more congested times. This meant an earlier start most of the time. In addition to the extreme heat and dangerous roads, unwelcomed critters such as rattlesnakes and tarantulas were strewn across the jobsite. For most, these hurdles would be a deal breaker however our skilled team worked through it. To avoid these hazards, daily toolbox talks and weekly safety meetings became a ritual.

Although the explosion caused a one month delay, the final completion of this project remained on schedule finishing up in December of 2016. What often seemed like unrealistic deadlines, were met every single time by our electricians as they were able to evolve and prioritize at a significantly higher level. In order to meet the changing deadlines, our team adapted with their ability to shift focus and determine priorities. Kenny Electric worked over 100,000 man-hours, with peak manpower at 140 electricians. Through careful planning and coordination our team expertly navigated through the processes of this gas plant while providing the highest of quality in electrical installations. During the course of the entire project, Kenny Electric exemplified pure dedication and determination. It is not every day that you will find a group of people that will work together to rebuild a plant that could have potentially ended their lives. What started as a group of electricians trying to get a job done ended as family with a special bond.



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4





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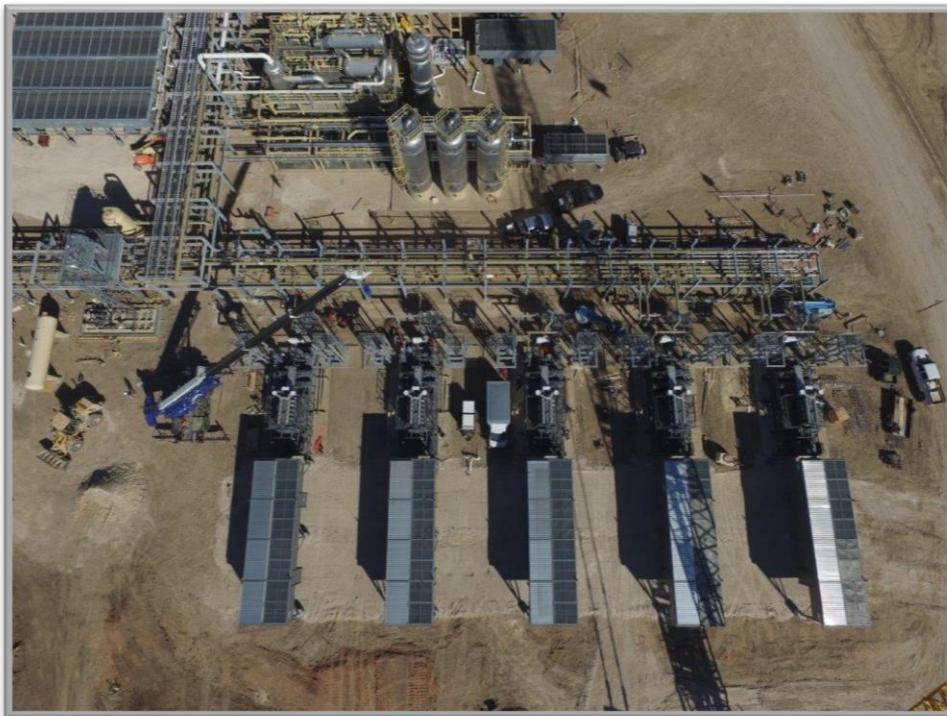




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9

