



“ For a relatively low nitrogen stream, an efficient solution is required in order to minimize compression requirements and reduce operating expenses, due to the larger volumes of sales gas related to low inlet nitrogen content. For this client, BCKK was able to engineer the best solution in the market, relative to both capital costs and operating expenses using our patented Nitech™ technology. ”



PROJECT SPECIFICATIONS

Plant Location:	Paden, OK
Facility Size:	48 MMSCFD
Gas Source:	Conventional low-BTU gas
Plant Type:	Nitech™ NRU
Inlet Gas Compositions:	6 - 9% N ₂
Project Type:	EP plus fabrication of the NRU cold boxes
Completion:	May 2008

PROJECT DESCRIPTION

An existing facility with NGL and condensate extraction, the Nitech™ NRU is located in Paden, OK, east of Oklahoma City. For this particular facility, condensate, NGL, carbon dioxide and water are removed upstream of the NRU. In November, 2006, BCKK designed and constructed a Nitech™ NRU to remove nitrogen from a slip stream of facility gas.

Implementing BCKK's design allowed the client to more economically market their natural gas product. The Paden NRU utilizes BCKK's Nitech™ NRU technology in order to reduce the nitrogen levels below the pipeline requirements. The facility was designed to process a portion of the total volume of available higher nitrogen gas to less than 1.0 mole % nitrogen, then blending this low nitrogen stream with the remaining higher nitrogen gas that bypasses the NRU. The total blended stream meets the pipeline specification of 3.0 mole % nitrogen. By bypassing a substantial amount of gas, the capital cost and operating costs were reduced. Additional equipment purchased and installed included an amine unit and associated compression. BCKK assisted the client with specification of the amine unit and compressors. NG Resources completed the fabrication of the NRU cold boxes. The NRU was installed at the Paden Facility by a third party construction company and continues to operate today.