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# **B&W ENERGY** SERVICES & KUWAIT NATIONAL PETROLEUM COMPANY

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B&W Energy Services has expanded into the emerging Kuwait market at the Mina Abdullah and Mina Al Ahmadi Refineries, where we're providing engineered chemical cleaning, steam blowing, AquaLazing and oil flushing services as part of the Clean Fuels Project for the Kuwait National Petroleum Company (KNPC).

The Clean Fuels Project is an effort made by the Kuwait National Petroleum Company to upgrade and modernize two refineries, Mina Abdullah and Mina Al-Ahmadi, as well as build a third new grassroots refinery. B&W will continue supporting the overall KNPC Clean Fuels Project (CFP) with multiple scopes across several "packages." Our involvement includes the MAB2 (Mina Abdullah Refinery) package and the MAA (Mina Al-Ahmadi Refinery) package—the more recent contract awarded to B&W. This expansion highlights B&W's skills as an established and trusted pre-commissioning services provider in the area.

KNPC awarded a \$3.4 billion contract to the Fluor-Daewoo-Hyundai Joint Venture (FDH JV) to design, construct and commission the MAB2 project. A second contract was awarded to the JGC-GS-SK Engineering Joint Venture (JGSK JV) for the MAA package.

“The Clean Fuels Project is an effort made by the Kuwait National Petroleum Company to upgrade and modernize two refineries...”



## B&W'S ROLE IN THE BROWNFIELD STAGE

B&W began steam blow activities of newly installed steam lines in the existing Mina Abdullah refinery brownfield area in Summer 2018. Steam blowing is a specialized method to clean installed lines prior to operation, requiring careful coordination between the project and refinery operations teams. Steam blowing will force high-velocity steam through the refinery's new pipelines.

Various types of steam blows were performed in July. The largest blow was 40 tons per hour, where line temperatures climbed to 450 degrees Celsius. Target plates were inserted into the line to confirm cleanliness, ensuring that high value items downstream, like turbines, could safely be put into operation.

"This project marks the beginning of a long term presence in Kuwait, as the country continues to invest billions into the Clean Fuels Project," said Chris Oakley, Director of Sales & Engineering at B&W. "The joint venture's choice to bring our team into this project highlights the importance of quality, safety and experience required on a project of this magnitude, which we provide again and again for our clients across the globe. We're proud to be a trusted partner for CFP."

### BETTER EQUIPMENT, BETTER PEOPLE

The Mina Abdullah Refinery produces several petroleum by-products, including Naphtha, Kerosene, Low-Sulfur Gas-Oil, Coke, Fuel Oil and Sulfur. The refinery is expected to reach 800,000 barrels per day upon completion.

We are continuing our work for FDH JV on the MAB2 project by AquaLazing the steam systems, feedwater and compressor suction piping. Based on what we have observed so far, we are confident that the durations for steam blows for this

project will be drastically reduced, which will improve critical path schedule.

B&W moved into Kuwait in 2017 to support many upcoming petrochemical and power plant projects. With our award of the MAB2 project, momentum began again with more equipment moved in-country. Followed with the MAA Project award, this progress is a true indication of our ability to support multiple projects in the region at once. With B&W Energy Services already working in Kuwait, this project gives us a greater opportunity to secure several other projects slated in the country.





For more information or to engage B&W, contact **Chris Oakley** at B&W Energy Services by calling **281.534.9300**, emailing [sales@bwenergyservices.com](mailto:sales@bwenergyservices.com) or visit [www.bwenergyservices.com](http://www.bwenergyservices.com).



# REAL IMPACT: MOVING FORWARD

The project's completion will improve conditions for workers and streamline overall refinery output. Construction of the KNPC's third grassroots refinery, Al Zour, is well under way. The Clean Fuels Project furthers KNPC's mission to make a significant investment in its existing facilities, and to expand capacity for new projects in the future.

This project highlights the importance of quality, safety and experience required on a project of this magnitude—key components features that B&W consistently provides across the globe.

