

ENERGY EXPERT: ISSUES IN FOCUS

A quarterly review of disputes and complex issues in the hydrocarbon production and processing industries.

Baker & O'Brien, Inc.

www.bakerobrien.com

October 2020

Quantifying Refinery and Petrochemical Business Losses: What is the Correct Methodology?

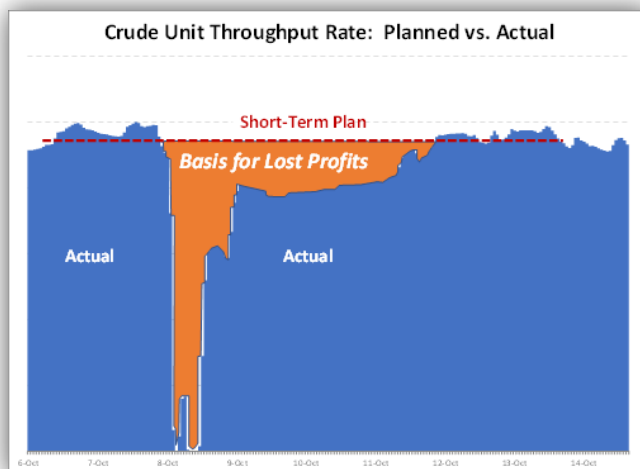
Litigation, North America

By Kevin G. Waguespack

A large petroleum refinery experienced an emergency power outage that caused an abrupt shutdown, equipment damage, and a prolonged time to restart the refinery and return to normal operation. Baker & O'Brien was engaged to review the resultant damages claim.

In such events, petroleum refineries and petrochemical plants, both of which have continuous process plant operations, incur losses that typically fall into the following categories: (1) lost processing profits; (2) increased commercial costs related to distressed sales of feedstocks and emergency purchases of products; (3) increased vessel demurrage costs; (4) equipment cleaning/repair/replacement costs; and (5) additional costs for labor overtime charges required for restart. In our experience, the lost processing profit is typically the largest category of damages.

Feedstock purchases and sales of commodity products are often transacted on a relatively short-term basis. Also, production is not usually planned to meet specific customer orders but to supply fungible products to sell into markets that are liquid in nature. Due to the nature of these operations, it is important to rely on the correct methodology for calculating lost profits.



Most parties and experts agree on the fundamental proposition, i.e., to quantify the damages that, if awarded, would place the plaintiff in the same position it would have been but for the incident. However, computing lost profits for a refinery or petrochemical plant requires a fundamental understanding of several factors, including: (1) the plant's economics (pricing) at the time of the incident; (2) the validity and achievability of the "production plan" that forms the basis for damages; and (3) the typical on-stream performance of the plant. Other factors also typically come into play, such as impact to the market resulting from the plant outage – i.e., is the claim inflated due to market effects directly resulting from the outage. The above factors are often the main points of contention due to the complexities inherent in linear program models and the dynamic nature of commodities market pricing.

Baker & O'Brien submitted an expert report that outlined the categories of loss and quantified the damage amounts, which would appropriately place the refiner in the same position as if the loss had not occurred.

Gas Processing Plant – Extreme Climate Construction Dispute Leaves One Party in the Cold

Arbitration, North America

By Bill Jackson



Construction projects in severe climates and/or remote locations require specific project management and planning expertise, as unexpected problems in such locations can magnify schedule and cost consequences. Owners and contractors must fully understand and make concerted efforts to plan for these potential contingencies. Schedules for engineering and procurement must be realistic so drawings and materials are not delivered too late, possibly missing tight weather windows for construction. Manpower and logistics must be well planned to ensure that the necessary on-site skilled labor and equipment are present when prefabricated assemblies require installation.

Baker & O'Brien was engaged to assist with a dispute concerning a greenfield gas processing plant located in a remote and extreme climate location. The owner engaged an engineering firm to design a modular plant consisting of large prefabricated process modules which, when assembled together, constituted a large portion of the entire plant's equipment and piping. Separately, the owner hired a contractor to construct the plant on site. The owner was responsible for procurement by providing to the contractor all materials, equipment, and modules to the contractor.

The project suffered a late start and was completed behind schedule and over budget, leading to a dispute between the owner and the contractor. Baker & O'Brien was engaged to offer expert opinions on: (1) the project personnel capabilities and preparation for working in an extreme climate; and (2) the quality of the fabrication and construction work in relation to standard of care obligations and normal industry practice.

In performing the assignment, we assessed: (1) the mitigation plans to recover from a late start; (2) the reasons for field modifications, rework and repairs, and their consequences; (3) the logistics plans of both owner and contractor and to assess the reasons behind shortages of supplies and equipment during construction; (4) site incentives and living conditions; and (5) labor productivity. Our findings were presented to the arbitration tribunal in an expert report and oral testimony.

Negative Project Outlook Hits Shareholder Value: What was Known and When?

Securities Class Action, Litigation, North America

By Shawn McDonald

A publicly-traded chemical company (Owner) planned to expand its existing plant facilities. The Owner hired contractors to: (1) relocate, refurbish, and reassemble used process equipment; (2) construct two new process units; and (3) engineer and construct utilities and infrastructure facilities.

As a public company, the Owner reported its progress and outlook for the project to its stockholders and the financial markets. These reports included forecasts of the cost and schedule for the project. The Owner ultimately reported that project costs would greatly exceed the budget and operations would be delayed by nearly a year. A group of stockholders filed a securities class action lawsuit against the Owner alleging that it had misrepresented the true cost and progress of the project, which resulted in a decline in market capitalization. In its

defense, the Owner claimed that it had relied on its contractors' representations of costs and progress for the project.



Baker & O'Brien was engaged as a technical expert to advise on project management and progress reporting activities. We investigated: (1) project execution plans; (2) the project management responsibilities of the Owner and contractors; (3) the original project budget and schedule; (4) progress measurement; and (5) progress reporting. Based on these investigations, we assessed whether

the contractors' progress reporting was reasonably aligned with the Owner's contemporaneous reports to its stockholders.

Consulting Support for Complex Commercial Disputes

When faced with complex commercial disputes in the energy-related industries, clients often turn to Baker & O'Brien for its independent and objective support. For over 20 years, the firm's consultants have employed their engineering knowledge, industry experiences, and commercial acumen to provide assistance on a wide range of matters. Our project experience includes disputes involving operational incidents, standards of care, asset valuation, commercial supply terms, product quality, large engineering and construction projects, and intellectual property.

Our clients include many of the world's largest law firms, insurance providers, and operating companies. Law firms rely upon Baker & O'Brien to evaluate

technical and commercial aspects of a case and provide expert testimony. Our analyses, conclusions, and expert testimony have been heard by judges, juries, and arbitration panels around the world. On insurance matters, clients rely upon Baker & O'Brien's assistance for investigation of industrial accidents and quantification of resultant property damage and business interruption losses. We are also called upon to assist insurers in subrogation actions by evaluating causation theories and claims for damages.

We welcome the opportunity to discuss our qualifications in more detail as they relate to your specific area of interest.

Dallas Corporate Office



12001 N. Central Expressway
Suite 1200
Dallas, TX 75243
Phone: 1-214-368-7626

Houston



1333 West Loop South
Suite 1350
Houston, TX 77027
Phone: 1-832-358-1453

London



146 Fleet Street
Suite 2
London EC4A 2BU
Phone: +44-20-7373-0925

Baker & O'Brien, Inc. is an independent, professional consulting firm specializing in technology, economics, and management practice for the international oil, gas, chemical, and related industries.

www.bakerobrien.com