

ENERGY EXPERT: ISSUES IN FOCUS

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

Baker & O'Brien, Inc.

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High-TAN Crude Oil – Force Majeure Declaration Leads to Litigation

Litigation, North America

By William Jackson

A producer of high-TAN crude oil entered into a long-term supply agreement with a petroleum refiner to sell its crude oil under a mutually agreed formula price. Prior to the commencement of the supply of crude oil, the refiner made various upgrades, including the installation of corrosion-resistant metallurgy and the addition of facilities to remove excessive salt from the crude. The refiner also planned to reduce the potential harmful effects of the high-TAN material by blending it with less acidic crude oils, as well as through the injection of corrosion-inhibiting chemicals.

After processing the high-TAN crude oil for a number of years, inspection of the facilities revealed higher than expected corrosion damage to the refinery equipment. To prevent further damage, the refiner decided to greatly reduce the processed volumes and declared force majeure under the terms of the supply agreement. The producer rejected the refiner's force majeure declaration, arguing that the refiner had not adequately prepared the refinery for the high-TAN crude oil. The producer's position was that the crude oil quality was known by the refiner in advance and the volumes supplied were consistent with that quality. The producer further implied that unfavorable market price shifts (for the refiner) were the primary motive behind the refiner's actions. The refiner argued that it had acted prudently in upgrading and operating the refinery, and that the rates of corrosion were unexpectedly high. The parties entered into litigation, with the supplier eventually abrogating the agreement when the refiner refused to take the agreed volumes.

Baker & O'Brien was engaged to review the positions of the two parties and provide a written expert report to be entered into evidence. Key issues addressed were: (1) whether the refiner's engineering procedures adequately identified the necessary refinery upgrades given the known qualities of the high-TAN crude oil; and (2) whether the refiner's project execution procedures properly implemented the necessary upgrades. The parties settled the case prior to going to trial.

"High-TAN" Crude Oil

*A crude oil's acidity, as measured by its **total acid number ("TAN")**, is a key consideration for refiners and producers alike. High-TAN crude oil can damage refinery piping and equipment unless relatively expensive high corrosion-resistant metallurgical alloys (e.g., stainless steel) are employed. The potential severity of damage depends on several factors, including the crude oil's particular acidic components, as well as operating temperatures. Producers and marketers of high-TAN crude oil also face challenges because many refineries are not equipped with the proper metallurgy. Thus, high-TAN crude oil is typically price-discounted to incentivize refiners to process it and capture margins at least as attractive as competing grades.*

Third-Party Objective Analysis Clears the Air

Litigation, North America

By Scott Jensen

Petroleum refineries must comply with strict air pollution regulations promulgated by federal, state and local environmental agencies. Any exceedance of such regulations must be immediately reported to such agencies and the refiner may be subject to a “Notice of Violation” (NOV), as well as fines and/or other penalties.

Due to a series of operational upsets, a petroleum refiner repeatedly exceeded its allowable sulfur dioxide (SO₂) emissions. Several NOVs were issued by the environmental agency in charge, and it threatened to issue a consent decree demanding installation of costly new pollution control equipment.

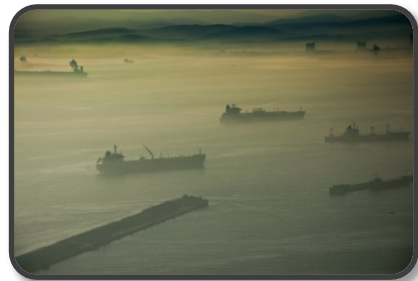


Baker & O’Brien was engaged to independently investigate the causes of the SO₂ exceedance incidents and recommend measures to reduce future upsets and improve SO₂ emission control reliability. Our consultants were able to outline a specific plan to resolve the SO₂ emission issues at a much lower cost than would have been required under the proposed consent decree. They were also able to explain the basis for our conclusions directly to both parties, which helped defuse a lack of trust that had developed between the company and the regulators. Thus, a thorny issue was resolved to the satisfaction of all concerned.

Mother Nature Intervenes and Causes a Business Interruption Claim

Business Interruption Claim, North America

By Dan Finelt



Petroleum refineries depend on timely crude oil deliveries to continuously operate the facilities at planned rates. As coastal refineries typically receive most of their crude oil feedstock via large waterborne vessels, unrestricted waterways are a critical element in the supply chain. Thus, when Mother Nature and/or human error intervene to impede such regular waterborne transit, significant refining losses can result.

Heavy fog in a busy shipping channel contributed to the collision of a barge with a large bulk carrier. A resulting spill caused the channel to be closed for several days, delaying the arrival of several crude oil supply vessels at a major petroleum refinery. Due to the uncertainty concerning the duration of the channel closure, the potential risk of an entire plant shutdown was considered to be high by refinery management. Therefore, in order to mitigate this risk, the decision was taken to reduce crude oil processing rates. As refining economics were very favorable at the time, the refiner filed a business interruption (BI) claim.

Baker & O’Brien was engaged to provide an independent assessment of the reasonableness of the refiner’s actions in support of its BI claim. The claim consisted of three components: (1) losses due to lower crude oil process rates; (2) losses due to lower secondary processing unit rates and yields; and (3) costs related to ship demurrage charges. Our consultants reviewed the information supporting the claim and offered our independent view on the refiner’s actions and quantum of the estimated losses. Our report assisted the parties in negotiation of a mutually satisfactory settlement amount.

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.

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