

Defining Ethanol's "Cost-of-Production" – What's Included?

Arbitration, United States

By John B. O'Brien, P.E.

The United States Government's Renewable Fuel Standard (RFS) mandates the use of increasing volumes of ethanol in the nation's gasoline supply. When the RFS was initially enacted in 2005, many gasoline suppliers were concerned about their ability to obtain sufficient ethanol volumes to meet their RFS obligations. As a result, some suppliers entered into long-term contracts with producers to secure such supplies.

A large independent gasoline retailer executed a long-term contract with an ethanol production facility to purchase all of the plant's annual output. The contract called for the ethanol price to be determined by a formula based on the ethanol facility's actual "cost-of-production," plus a margin to recoup the plant's investment. Initially, the formula price resulted in the retailer paying less than the open market price for ethanol. However, as the ethanol market matured and new production volumes came onstream, the formula price began to exceed the market price. The retailer ceased to lift the contracted volumes, claiming that



the formula price did not accurately reflect the producer's true cost-of-production, as intended, and filed for arbitration.

Baker & O'Brien was engaged as an expert witness in the arbitration to examine the original bases for the formula price and to ascertain whether any adjustments were warranted. Early in our investigation, we determined that, among other issues, one of the key factors in the dispute was that the calculation of the formula price did not take into account revenues received from the ethanol facility's sale of distillers' dry grains with solubles (DDGS)—an ethanol plant by-product that is used as an animal feed supplement. Ignoring the DDGS revenues resulted in an ethanol formula price that was inconsistent with the generally accepted industry definition of "cost-of-production."

Baker & O'Brien testified in the arbitration, and the results of our investigations were entered into the record that the arbitrators used in reaching their decision.

Off-Specification Gasoline—Finding the Source and the Solution

Jury Trial, United States

By Scott Jensen



Refiners take great precautions to ensure that every gallon of gasoline reaching consumers meets stringent product quality specifications. Occasionally, however, an upset in refinery operations can result in

off-specification product being unknowingly delivered into the downstream distribution system, affecting retailers and/or consumers. In such cases, quick identification and correction of the source of the problem is essential.

A large refiner–marketer received complaints of filter problems at both gasoline retail sites and in consumers’ vehicles. Initial investigations identified “caustic entrainment” as the likely source of the problem. During refining, gasoline components are sometimes “washed” with an aqueous caustic solution to remove potentially harmful sulfur compounds. The caustic solution forms a separate aqueous phase which is removed by gravity settling. On rare occasions, if too much caustic is

used, the aqueous solution may form an emulsion and become “entrained” (i.e., carried along) with the gasoline. This entrained material can sometimes contain small quantities of dirt, rust, and grime as it moves through the distribution system, causing reduced fuel flow (or even plugging) through filters designed to protect against such materials. It is not always possible to detect low levels of caustic entrainment through routine product sampling.

A class action lawsuit was filed against the refiner for replacement of filters and tanks. Baker & O’Brien was engaged as an expert to review the gasoline production and testing records, to identify the source of the contamination, and to explain what steps the refiner had taken to prevent such future incidents. An expert report was prepared and a deposition taken. The refiner settled with the plaintiffs prior to trial.

LPG Contamination in a Pipeline – Who’s to Blame?

United States

By Peter Halliday

Customers that burn liquefied petroleum gas (LPG), or use it as feedstock in petrochemical operations, are very sensitive to potential contamination of the product with heavier hydrocarbons. The latter can lead to upsets and operating problems with equipment designed specifically for LPG. Although LPG is often transported by road or rail, there are a few long–distance LPG pipelines—and the operators must be alert to the potential for off-specification product being delivered into the system by their shippers.



Following numerous reports from customers regarding off-specification product over a period of weeks, an LPG pipeline operator was forced to shut the pipeline down for maintenance and cleaning that lasted almost two months. Initial laboratory reports suggested the presence of a certain class of heavy hydrocarbons, which pointed to a limited number of the otherwise numerous suppliers into the system. When one of the larger suppliers reported a potentially related operating incident, the pipeline operator initiated a legal claim against the supplier for liability, unrecovered costs, and lost profits. In its defense, the supplier alleged that any relationship between its “incident” and the contamination was inconclusive.

Baker & O’Brien was engaged to offer an expert opinion as to the likely source of the contamination. Our report examined the specific contaminants found, when they were first observed, how their level increased or diminished along the pipeline with time, and the likely contaminant ingress points. Our findings proved instrumental in the pipeline operator and propane supplier achieving a settlement.

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

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