Biofuel Plant Profitability Though Contract Drafting: A Blueprint for Success

by Buck S. Beltzer

According to the U.S. Department of Energy,[1] between 2001 and 2005, biodiesel production increased 1,000% and ethanol production increased 220%, a trend that will certainly continue as the United States strives for energy independence. Biofuel plant construction has similarly boomed in recent years, despite a seemingly constant number of contractors. As a result, contractors have enjoyed bargaining power over plant owners and have been able to negotiate favorable Engineer-Procure-Construct contracts.

Biofuel plant owners know that access to raw materials, water, and rail, along with the ability to profitably dispose of distillers grains, and negotiating favorable prices for each, frame the potential profitability of a biofuel plant. But just as crucial to profitability is a successful construction project, built to meet the owner's expectations of output, quality, and efficiency. Such performance standards can be realized only through careful contract drafting.

Performance Specifications Distinguished from Design Specifications.

Because biofuel plants are complex and often technologically advanced, owners and contractors typically narrow the project scope by using performance specifications instead of design specifications. Performance specifications seek to ensure that the plant meets or exceeds the owner's output expectations while not exceeding the owner's utility consumption expectations. As the Federal Circuit Court of Appeals stated, "[p]erformance specifications set forth an objective or standard to be achieved, and the [contractor] is expected to exercise his ingenuity in achieving that objective or standard of performance, selecting the means and assuming a corresponding responsibility for that

[1] http://www.eere.energy.gov/afdc/data/fuels.html

selection. Design specifications, on the other hand, describe in precise detail the materials to be employed and the manner in which the work is to be performed. The contractor has no discretion to deviate from the specifications, but is required to follow them as a road map." *P.R. Burke v. U.S.*, 277 F.3d 1346, 1357 (Fed. Cir. 2002).[2] As a result, it should follow, in EPC contracts where performance specifications set the standard, the EPC contractor assumes the risk of non-performance. Process plant owners should be aware, however, that EPC contractors can, through clauses addressing testing and warranty, make an end-run around the performance specifications and place the risk of performance back on the owner.

Do Contractors Really Assume Performance Risks?

Biofuel process plants often define performance expectations in terms of physical output requirements. As an example, consider a clause requiring, at a minimum, "__ undenatured gallons of Ethanol per hour (average) based on a minimum feedstock specification of __ lb/bushel test weight corn containing a maximum of __% moisture (by weight), a minimum of __% dry starch (by weight) and a max of __% foreign material (by weight)."

The critical missing component of the above clause is time. EPC Contractors are justifiably reluctant to warrant long-term reliability of a process plant. As a result, EPC contracts often limit such output requirements to a certain number of days or weeks, called the performance test period. Of course, owners are well-served to negotiate a performance test period that is as long as possible. Regardless, the performance test period's short duration (relative to the plant's life), combined with EPC contractors'

[2] Also see Blake Constr. Co. v. United States, 987 F.2d 743, 745 (Fed. Cir. 1993) (quoting J.L. Simmons Co. v. United States, 188 Ct. Cl. 684, 689 (1969))

substantial knowledge of plant operations, provide the contractor an opportunity to adjust plant controls to ensure conformance during the performance test period even though the plant may not perform as expected on a long-term basis. Thus, despite performance tests and performance specifications, the process plant owner remains at risk for plants that do not meet long-term performance objectives.

Protect Long-Term Performance Through Warranty and Scope Provisions.

Warranty and scope of work provisions are crucial to ensuring a biofuel plant's long-term profitability. The owner must require, at a minimum, new equipment and materials of a specific quality, and hold the contractor to specific workmanship standards. Further, requirements concerning design capacity and quality control and assurance, among others, provide owners a foothold to ensure the plant meets long-term output goals. Equally important is a complete and specific project definition. A carefully drafted scope of work and/or set of special conditions can help bridge the gap between performance test guarantees and long-term output requirements. For instance, tank capacity, piping size, and standards for centralized plant control systems, among others, further shape the contractor's performance and likelihood of project success.

Further, plant owners should pay special consideration to clauses that:

- set expectations concerning cost and performance of re-work prior to final completion;
- specifically set forth protocols and methods for completing and satisfying performance test guarantees;
- address performance of warranty work after completion due to deficient materials and labor;

- specifically define the type and number of spare parts provided to the owner at final completion; and
- set unit prices or labor rates for work performed outside of project warranties.

Without a successful construction project, a biofuel plant's access to raw materials, water, and rail are meaningless. Through careful drafting, biofuel plant owners can increase the likelihood of construction project success, ensuring the plant meets the output requirements necessary for profitable operations.