NORCAL VALUATION
902 Hemenway St. | Winters, CA 95694
530.219.7900 v | 866.421.1108 f
jack@norcalvaluation.com | www.norcalvalution.com

An Overview of the California Air Resources Board Diesel Regulations

By Jack Young ASA CPA
Owner, NorCal Valuation

In 1998, reacting to California's overall poor air quality, the federal government threatened to cut off or reduce the state's allocation of federal highway funds as allowed through the US Federal Clean Air Act, which, overhauled with the Clean Air Act Amendments of 1990, mandates that every state meet the National Ambient Air Quality standards. In response, the California Air Resources Board (CARB) in September 2000, adopted the Diesel Risk Reduction Plan (Diesel RRP or Plan). RRP recommends many control measures to reduce risks associated with diesel particulate matter (PM) and achieve a goal of 75 percent PM reduction by 2010 and 85 percent by 2020. These CARB regulations may be a harbinger of national change as many other states, also out of compliance with the Federal Clean Air Act, are poised to adopt similar diesel emission rules.

Regulatory Implications

RRP addresses nearly every size and application of diesel-powered equipment operated in the state in order to reduce oxides of nitrogen (NOx) and diesel PM. CARB's regulations impose aggressive NOx and PM emissions reduction targets to any person or entity that sells, leases, owns, purchases, or operates any diesel-powered equipment over 25 horsepower.

These regulations control California industries from commercial trucking to agriculture and marine, including sales and operation of equipment such as off-road vehicles and stationary equipment. Even operators with one diesel engine and sellers of such assets (auctioneers and equipment dealers) will eventually be affected. As a result, the value of all diesel-powered equipment is likely to be materially influenced as it becomes obsolete and illegal to operate in the state. As you can imagine, the financial weight of such regulations could be far-reaching and will be discussed later in this article.

Appraisers should be aware that these rules apply to all diesel equipment being operated in the state of California regardless of its base of operation. This includes interstate trucks, trains and marine equipment.

The diesel emission regulations issued by CARB are as vast and varied as the many different ways that diesel engines are used. Consequently, CARB regulations, while created to regulate types of equipment, have been primarily implemented by equipment use, or industry, which of course includes the various types of equipment.

CARB categorizes equipment type by “mobile vehicles and equipment” and “stationary engines and portable equipment.”

Mobile Vehicles and Equipment includes *off-road:* cargo handling equipment in ports and rail-yards, locomotives, construction equipment; *on-road:* heavy-duty trucks, busses for public transit, schools and shuttles; and *marine:* commercial harbor craft, recreational craft, commercial marine vessels.

Stationary Engines and Portable Equipment includes stationary engines such as those used in emergency-standby generators, prime generators, and agricultural irrigation pumps, construction equipment, portable equipment, such as portable generators and pumps, and transportation refrigeration units (TRUs).

Although regulations assigned per the above categories, implementation of regulations has been rolled out much more along industry lines, with municipalities, marine industry and construction among the first to be regulated. Also underway is implementation for agriculture. While CARB has not yet implemented regulation for agricultural equipment (mobile, stationary or portable), such regulation is inevitable.

As an interim measure CARB has developed a phase-in period for effected equipment which gradually increases the requirements until 2023 when almost all engines manufactured prior to 2010 will be illegal to operate in the state of California. During this phase-in period, older engines can be retrofitted with a PM filter (at an approximate cost of $15,000 per unit). In addition, operators with 3 or fewer diesel engines (a category that includes almost 50% of the affected diesel engines in California) are given an additional grace period to report compliance.

Once again, the status of agricultural equipment relative to the 2023 date is unclear at this date. Does the 2023 compliance date for all engines also include agricultural equipment? It’s interesting to note that John Deere will introduce a tier-4 tractor engine this fall.

Due to the complex nature of these regulations and the fact that they continue to evolve, it would not be prudent to print a detailed summary of specific regulations here. For complete up-to-date details of the regulations please go to http://www.arb.ca.gov/diesel/diesel.htm or call (866) 6DIESEL (634-3735).

Financial Implications

Opinions of economic effect appear just as diverse as the regulation itself. I interviewed many players in the diesel engine marketplace and could not find a consensus of opinion about the financial weight of the regulations.

The representative that I spoke with at Ritchie Brother in Dunnigan, CA, claims that the auction company has seen no change in the price of diesel-powered equipment relative to CARB regulation. They claim that they have compared auction results with those outside of the state of CA and have not seen a material difference in the sales prices of similar assets. One explanation offered is that any pressure from CARB regulations has been offset by demand in Asia, India and other points in the mid- and far-east. Others in the retail heavy truck industry concur with this claim.

Some industry organizations, on the other hand, feel quite confident that CARB regulations will have a negative financial influence on their industries.

The Construction Industry Air Quality Coalition (www.ciaqc.com), on the other hand, estimates a 20% reduction in fleet size, which would reduce the ability to perform construction work. This would significantly reduce asset values which would, in turn, significantly reduce the collateral available to support performance bonds. Without performance bonds, a company's ability to continue construction would diminish dramatically.

While not providing facts and figures, the Associated General Contractors of America (www.agcsd.org) states in unequivocal terms: "The rule was written in a manner that the industry needed to bear an enormous financial burden while cleaner diesel equipment was being developed and built by the equipment manufacturers."

Driving toward a Cleaner California (www.drivecleanca.org: a coalition of truck owners, farmers, construction contractors and other business and community leaders) estimates that these regulations could negatively affect (reduce) the more than 1.5 million trucks and buses in use on roads, highways and farms.

WHAT IS AN APPRAISER TO DO?

As CARB regulations continue to unfold, evolve and create consequences, appraisers must continue to provide appropriate and accurate valuations that involve industries, businesses and individuals bounded by these regulations. Given that no one is certain how these regulations effects the value of equipment, the appraiser would be advised to tread carefully. When valuing equipment effected by these regulations, it is critical to use comparable sales that closely reflect the engine types, location and transaction dates that are most like the Subject Assets. As an additional measure, I have inserted the following paragraph into any report that includes diesel engine equipment:

> *It should be noted that recent regulation by the California Air Resource Board have begun to limit or disallow the use of many diesel powered on-road and off-road vehicles as well as all diesel powered stationary and portable equipment operated in the state of California that does not meet the new emission standards. This will significantly affect the value of any diesel powered equipment not meeting the new emission standards of the effected equipment operated with-in the state of California.*

About the Author: Jack Young ASA, CPA

Jack Young is an Accredited Senior Appraiser with the ASA and the owner of Norcal Valuation (www.norcalvaluation.com) headquartered in the Sacramento Valley of California. Jack is the Chapter Secretary of the Northern California Chapter of the ASA.

Jack received his B.S. Accountancy, Arizona State University in 1988. While in college, he worked at Phoenix regional CPA firm, Price, Kong & Company, preparing monthly financial statements and performing tax work. Upon graduation he went on to work in the audit department of international CPA firm KPMG in their Sacramento, California office. While at KPMG, Jack worked in the industries of banking, insurance, manufacturing, agriculture and distribution to name a few. Subsequent to working at KPMG Jack worked as a financial analyst in the insurance and international micro-finance industries.

Before earning his appraisal accreditation, Jack worked for many years as an auctioneer and auction manager of business assets, machinery, equipment and personal property.