DEF is a household word for almost everyone in America that owns and operates a new truck with a 2010 motor or newer. This is because the government, under the Clean Air Act law, requires diesel exhaust emissions meet standards which clean up the nasty pollutants that diesel motors have to mitigate. The engineering, science and money that went into the development of this wonderful system are impressive. The government, the truck manufacturers and motor manufacturers accomplished this goal together. The air is cleaner.

All a truck operator has to do is keep the small DEF tank, usually found next to the trucks saddle tank, replenished with product on a regular basis. The system does the rest!

Not so simple.

Diesel Direct has been following the development of this new technology for several years. At the end of 2011 we launched our program to provide customers with DEF in various quantities such as packaged goods, drums and totes. In addition to the traditional methods of distribution, we developed our own fleet of specialized on site delivery vehicles just to service truck fleets properly.

We have learned a great deal in the past year.

Our greatest surprise – we discovered no proper training is provided to fleet operators and their drivers. New trucks are delivered without the proper precautions for the handling of DEF, avoiding the contamination of the product and, most importantly, what not to do when filling the DEF tank. I would like to share some of what we have learned the past year.

The most common mistake made is when the driver pours DEF into the trucks saddle tank. Ammonia and water is a deadly combination for a diesel motor. In a matter of a few short miles, tens of thousands of dollars’ worth of damage will likely be incurred from this simple mistake.

The driver may lack training, be distracted or just rushing through their route. But the driver is the source of most of the common mistakes we have seen with DEF. A few more thoughts:

- Windshield washer fluid in the DEF Tank. The small blue cap on top of the small DEF tanks can lead an untrained driver to think that’s where he adds windshield washer solution. Not a good outcome.
- Diesel in the DEF Tank. Untrained drivers sometimes think that the "other tank" is a backup reserve diesel fuel tank and they try to squeeze diesel fuel in even though diesel fuel nozzles don’t fit the small opening in the DEF tank. Somehow the driver gets some fuel in and the results are disastrous.
- DEF in the driver's eyes. We have seen workman’s comp complaints from drivers trying to pump DEF into the tank and the splash back squirts corrosive ammonia into
the eye. People forget that the product is two thirds ionized water and one third pure Ammonia. The product must be handled with gloves and protective eye glasses.

Contamination is another area that has not been addressed properly to fleet operators. We have seen mechanics use the draw tube and pumps they use on DEF drums to transfer diesel fuel from one container into another, then place the contaminated tube and pump back into the DEF drum. Result? Contaminated DEF product that winds up in a truck and then ruins the vehicles catalytic converter.

Another area of confusion regarding DEF is the understanding of how the system works. It is true that a minimum safe level of DEF must remain in the DEF tank or the trucks computer system will bring the trucks speed to a five mile an hour crawl; however, there is a long process before that event happens. Untrained divers panic and think they need to add DEF on a constant basis. When trucks are slip seated the odds are greater that one of the previously mentioned mistakes will occur risking significant exposure by expensive human error.

Training, training, and more training are essential to a successful safe program for handling DEF.

Since 2011 Diesel Direct has invested significant resources training our refuelers from coast to coast, innovating DEF delivery through specialized vehicles and electronically capturing the information needed to assure proper maintenance of DEF vehicles. We do this for the sole purpose of providing on site DEF to our customers safely and accurately with a full computerized tally of usage for every truck we touch. We confidently provide a cost effect service that is nearly invisible and moves the liability and risk of DEF to us. Whether you have a site with three DEF equipped vehicles or two hundred, we can handle the task. Our service is offered coast to coast parallel with our fuel distribution operations directly to you.

DEF is here to stay. Its benefits to the environment and the operational system being deployed are too compelling for any of us to think otherwise. If you believe refueling and DEF maintenance are your core strengths, we implore you to train the drivers over and over again. But, if you believe the risks and complexities which we are seeing materialize in engine and catalytic converter repairs across the nation are not your core focus, please give us a call because it is our core focus.

Dan Abrams, President, Diesel Direct, Inc.

Dan founded Diesel Direct in 1998 and has over 30 years experience in the truck fleet and construction industries.

Prior to founding Diesel Direct, Abrams owned and operated several full service truck leasing companies. He was the Executive Vice President and a shareholder of United Truck Leasing. During his tenure, United grew to be one of the nations largest full service Truck Lessor's, operating over 4,000 pieces of equipment from 24 company domiciles in 12 states. He was also the creator of a trade group called Amtralease, which was a nationwide network of truck lessors that provided fuel, and services for its members across America. Today, Amtralease is known as AmeriQuest Transportation, which is a powerful trade cooperative for independent leasing companies in America.

Mr. Abrams also designed and manufactured a unique line of small concrete batch plants, using his Mechanical Engineering education. He is a board member of the Massachusetts Environmental Law Enforcement agency responsible for Boating and Recreational Vehicle Safety. He resides in the Boston area.