



SIGNIFICANT ASPECT CONTROL SHEET

Significant Aspect	Company vehicle use during construction activities
Aspect owner and team	All company vehicle drivers

Condition N = normal operation A = abnormal operation and E = emergency situation

Impact (6.1.2)	Cause	N	A	E
Emissions CO2 to atmosphere	Vehicle operations	X		X

Legal Requirements (6.1.3) *See link below.*

[Inspection, repair, and maintenance Federal regulations](#)

396.17- Periodic inspection applies

Operational Control procedure for this aspect (8.1)

Vehicle service and inspections

Vehicles and trailers exceeding 10,000 lbs, - [DOT inspections](#) to be completed at the prescribed frequency of 12 months. Responsibility for completion rests with site management

Vehicles less than 10,000 lbs, - subject to service checks specified by the vehicle

Vehicle performance reviews

The CEO completes periodic review of company vehicle performance including fuel consumption, usage, removal and scrapping and potential replacement. Consideration is given to potential fuel economy offered by new models as well as fitness for purpose.

DOT Better Fuel economy tips for company vehicle users

Getting Better Fuel Economy

Forces that negatively impact fuel economy.

- ✘ Rolling resistance is a combination of tire design, construction, alignment, and proper air pressure.
- ✓ Drivers can help themselves by ensuring proper air pressure is maintained.
- ✘ Aerodynamic drag is caused by three main factors, which are speed, coefficient of drag, and frontal area.
- ✓ The driver can only control speed
- ✘ Acceleration is the major user of energy.
- ✓ Drivers can control how quickly they accelerate.
- ✘ Idling is also a major factor in fuel economy and is easy to cure.

- ✓ Drivers should shut down whenever they can.

Several states are writing or currently have legislation in place prohibiting idling beyond 3-5 minutes.

Rolling resistance can decrease fuel economy by 3 to 5 percent. A tire that is 20 psi low on air can cause a loss in fuel economy of about 3 percent. Having tires that are out of alignment can contribute to the problem, too. Each axle that is out of alignment compounds the problem further. The easiest thing a driver can do to solve these issues is to keep all tires at proper inflation and check for uneven wear, indicating an alignment problem.

Aerodynamic drag reduces fuel economy by forcing the engine to work harder to maintain a certain speed. Large conventional-cab trucks have more drag than the new aerodynamic models being offered. Having a large gap between the tractor and the trailer also causes drag. Speed however, plays the most important role in aerodynamic drag. Drag increases exponentially with speed, meaning that if you are traveling 65 mph, your drag is 40 percent greater than if you were going 55 mph, even though you are going only 18 percent faster. Studies have shown that traveling 65 mph rather than 55 mph only adds 5 to 8 mph onto the average speed but consumes 18 percent more fuel. Drivers should be mindful of their speed and slow down whenever feasible. Setting the cruise control is one tool that can greatly aid in increasing fuel economy. Acceleration consumes energy. Accelerating smoothly and using progressive shifting can help the engine work easier, thus reducing fuel consumption.

Idling seems to be a sore subject with some drivers, but the reality of it is that idling uses fuel and shortens service life of the engine. Idling is necessary when temperatures are at the extremes, but when you drive through a truck stop on a beautiful fall evening with the temperatures around 65, you will still see the majority of trucks idling. To aid in cutting expenses, some companies are installing auxiliary power units to provide temperature control and electrical power. Using industry averages, most tractors consume slightly more than a gallon of fuel an hour at idle, which equates to approximately \$5,000 worth of fuel annually. Combine that with savings from the other areas mentioned, and that can add up to a significant amount of money.

Emergency Planning procedure for this aspect (8.2)

None

EMS Records for this aspect

Vehicle inspection, maintenance and service records specifically related to 8.1 compliance

Record of Revisions				
Issue No.	Date	Approver(s)	Description	Consequence
1				
2				
3				
4	7/5/18	Dave Jones		
5	6/11/20	Dave Jones	Placed in QEMS Wiki page. Add Change Control table with Consequence of Change and Approver column per QP01 - 6.1.10.2.	Wiki provides better way of communicating QEMS to employees. Meets change control requirements of ISO 9001, Section 6.3.