



# News Flash

an e-newsletter from Michigan's commercial fuels + environmental services experts

## Cold War: Diesel vs. Winter

You already know it. Diesel fuel can freeze (or gel) and when it does it's no fun. Here's some information on why that happens and what you can do to avoid diesel problems in cold weather.

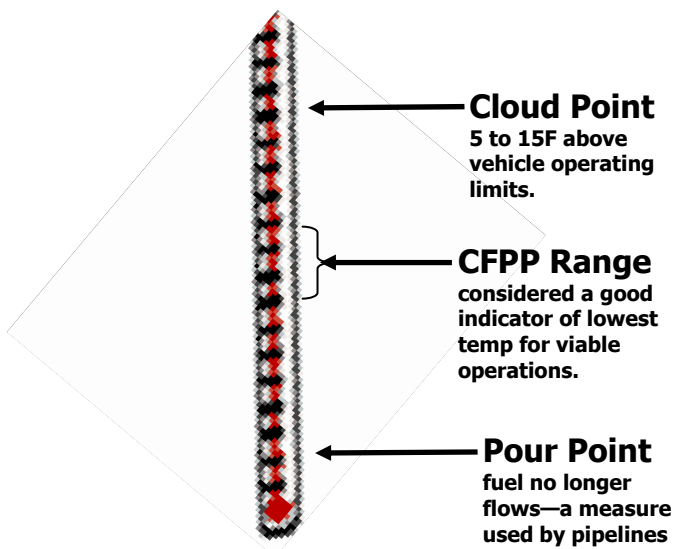
All middle distillate fuels, like regular No. 2 diesel used in your trucks and tractors, precipitate paraffin wax when they are cooled to a low enough temp. This means that when diesel gets real cold, it's no longer able to dissolve the waxy components in the fuel, they bind together, and then drop out of solution as a solid wax.



### How will your diesel perform in the cold?

Diesel fuel is refined to meet the specification ASTM D975. However, the fuel spec does not mandate cold flow properties. Instead, it merely recommends some parameters based on geography. In Michigan, the

coldest months are January and February. For these months it is recommended that your diesel be able to operate at temps roughly as low as -10F. Measuring these temps is achieved with a variety of testing methods. The three most common are: **Cloud Point**—the temp at which wax crystals become visible in the fuel; **CFPP** (Cold Filter Plugging Point)—the temp at which wax crystals have attached together in sufficient quantities to plug a test filter; and **Pour Point**—the temp at which the fuel is frozen solid and won't move.





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## Diesel vs. Winter (continued from cover page)

### Best Practices—diesel cold flow solutions that work

- **Use a good base fuel.** Crystal Flash diesel fuels are winterized from the refiner and further treated with additive to help cold flow.
- **Step up to a premium diesel.** Crystal Flash offers several premium diesel options that can further enhance cold weather operability. Example: *Crystal Flash Diesel Plus* is a premium diesel with outstanding cold flow properties. It contains wax modifiers that drastically reduce the size of filter plugging crystals by preventing their adhesion to each other. It also contains water dispersion and jet fuel de-icers to prevent problems associated with water and fuel icing. It's worth noting that No. 1 diesel can also serve as a cold flow improver. However, we typically recommend fuel additives like *Diesel Plus* instead because they add valuable benefits to your fuel and do not decrease the energy content like No. 1 diesel will.
- **Maintain your storage tanks.** Storage tanks are notorious for developing various problems that can affect diesel fuel. Water is the most common problem — it gets into diesel tanks through snow, rain, and condensation from temp changes. Be sure to check your tanks for water at least once per year. If contaminated, remove the water by draining or pumping it out.



*Contact your Crystal Flash sales rep for a winter solution that best meets your needs, or call us at 1-877-233-3423.*



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