



DEF Nozzle Cleaner

District 2

Problem:

Many dump trucks and other equipment require Diesel Exhaust Fluid as part of necessary emission controls. DEF is 67% deionized water and 33% urea. The urea in DEF can cause crystals to build up on the nozzle if it is not kept clean. When a nozzle that has urea crystals on it is used to fill the DEF tank, contamination may occur, causing the DEF system to fail and requiring replacement at a cost of approximately \$1,500.



Solution:

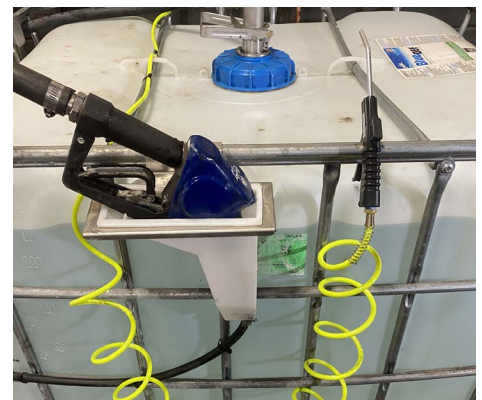
A warm water wash is the most efficient way to rinse DEF from the nozzle after use to keep it clean and free of crystals. To facilitate this practice, a small hot water heater and sprayer were installed at the tank and pump location to rinse the nozzle off after each use. This makes it convenient for employees to properly clean the DEF pump nozzle and keep the equipment in good condition, thereby minimizing any emission system repairs.



Urea from DEF can build up on nozzles in the form of crystals. These crystals can then contaminate the DEF tank.



The DEF nozzle cleaner is conveniently positioned near the tank and pump.



The warm water wash easily rinses DEF from the nozzle, keeping it free of crystals and other contamination.