



the **Phoenix** narrator

NEWS YOU CAN USE ABOUT TANKS, ENCLOSURES, PACKAGING AND FUEL MANAGEMENT SYSTEMS

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Ethanol Issues

Currently the implementation of legislation requiring the increased use of ethanol blends for fueling is resulting in mandatory use of 10% ethanol for vehicle fueling. Recently the fuel terminals in Port Everglades, that service most of South Florida, announced that only ethanol-blended fuel would be available.

If you have a fuel storage system for non-diesel fuels there are some issues that may affect your system. 10% Ethanol (E10) can have potential adverse effects on storage tank systems because ethanol has a greater affinity for water than for gasoline and will separate (phase separation) from the gasoline to mix with any water present. This water/ethanol mixture can cause tank corrosion. Additionally, aged seals or gaskets may need to be replaced. Phase separation with E10 creates two liquid layers to form within the tank: a lower layer of water and ethanol and an upper layer of gasoline with a small amount of ethanol. When this separation occurs it is possible to deliver a blend of ethanol and water that would adversely affect vehicle performance.

Tank owners have a greater potential for corrosion problems as water and contaminants enter the fuel system, and since tanks are vented to the atmosphere, water from humidity and dust and contaminants present in the air are assured. Soft metals are the most vulnerable, as well as elastomers, polymers, rubber, polyurethane, and also some glues and pipe sealants. At a minimum, tanks should be thoroughly cleaned,

de-watered, and inspected before filling with E10.

E85 Ethanol

E85 is typically 85% ethanol and 15% unleaded gasoline. E85 can only be used in "flex-vehicles" that are designed and manufactured to use E85. If however, you have or are planning to acquire a fleet of flex-vehicles and therefore need to store E85 in your tank system, there are many more issues relating to tank corrosion and materials compatibility. In fact, UL previously suspended authorization to use UL markings (listing or recognition) on components for fuel-dispensing devices that specifically reference compatibility with alcohol-blended fuels containing greater than 15% alcohol. As a result, the acceptability of dispensing equipment for E85 fuel is at the discretion of the AHJ (Authority Hav-

ing Jurisdiction). Your Phoenix Products sales or service professional can assist you with any questions you may have regarding ethanol usage in your storage tank system.

AST Inspection Standards

Standards referenced in NFPA 30 (2008) call for periodic inspections of aboveground tanks. The standards suggest monthly and annual inspections of double-wall AST's under 5,000 gallons by the owner or the "owner's inspector." For double-wall AST's over 5,000 gallons, the standard calls for monthly and annual inspections by the owner or "owner's inspector" as well as periodic formal third party inspection by a certified inspector.



Phoenix Products' Petroleum Recycling Services

group provides fuel management services including inspections, tank cleaning, fuel treatment, and tank maintenance and repair. For more information, visit our website www.phoenixprods.com.

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