

## **GUIDELINES FOR BLENDING FLEX FUELS**

Below are listed guidelines for the blending of Flex Fuels. E10 and E85, whether blended or not, must meet the appropriate ASTM standards. Blends between E10 and E85 must be able to meet the content that is labeled. The following requirements must be met:

### **1. Suitability of equipment.**

- a. Device must have NTEP certificate.
- b. Must operate within flow rates established by manufacturer.
- c. Dispenser and meter must be compatible for flex fuels.
- d. Comply with all applicable requirements of NIST Handbook 44.

### **2. Labeling of dispenser and Storage Tanks.**

- a. E-10 and unlead 87 must be labeled with octane rating (yellow background).
- b. Flex fuels E20-, E30, and E-85 no octane rating allowed on device.
- c. Flex fuel blends must be labeled with "orange" labels and warning labels.  
"Warning" Contains 20% Ethanol. **For Use in Flexible Fuel Vehicles (FFV) only.**
- d. Storage tanks must be permanently labeled identifying the fuel contained in the tank. Storage fill lid should also be color coded. White lid unlead 87, orange lid E-100.

### **3. Proper dispensing of fuels.**

- a. E-100 should only be used as a blend stock with E-20 or greater ethanol blend. It should not be offered as a fuel itself.
- b. Flexible Fuel that is greater than 10 percent Ethanol should be dispensed from a hose separate of the E10 or unlead. Equipment normally used is 3 plus 1 blenders or 4 plus one blenders.
- c. All dispensers must be accurate and the blend ratios correct.

### **4. Ethanol Issues.**

- a. Flex fuel dispensers must be equipped with an ethanol rated filter (10 micron).
- b. Storage tanks and lines used to store E-100 must be cleaned prior to start up.

### **5. Fuel Quality Standards.**

- a. Unleaded 87 octane and E-10, must meet ASTM standards, D-4814.
- b. E-85 must meet ASTM standards, D-5798.
- c. E100 must meet ASTM D-4806.
- d. E-20, E30 or other blends will be monitored for percent of blends.

**Stations will be subject to frequent inspections for accuracy and fuel quality**