



E15 Storage Tank or Dispenser Conversions

E0 to E10 storage and dispensing systems being converted to E15 must meet the following requirements:

Plan review and notification

Plan review and an onsite inspection by the department are required for facilities converting to store and dispense ethanol-based fuels.

- At least 15 business days prior to commencing the conversion, Part I of the Storage Tank Alternative Fuel Installation/Conversion Application (form [TR-WM-132](#)) must be submitted to the plan review unit at the Department of Agriculture, Trade and Consumer Protection (DATCP). The form must be completed by a DATCP certified tank system installer or professional engineer. Installation plans do not need to be submitted for a conversion, only Part I of the form.
- After DATCP approval of Part I, conversion can commence.
- During the conversion process, Part II of form TR-WM-132 must be completed by the owner/operator and retained on site for DATCP inspector review.
- At least 5 days prior to commencing normal fueling operations using ethanol-blended fuel, the owner/operator must notify the weights and measures petroleum inspector responsible for inspecting the facility. A map of weights and measures petroleum inspectors can be found at: https://datcp.wi.gov/Documents/WM_Gen_Insp_Territories.pdf
- A copy of Part II of form TR-WM-132 and a registration change form must be submitted to DATCP by the owner/operator. Use form [TR-WM-137](#) for underground tanks, form [TR-WM-118](#) for aboveground tanks.

Specific equipment requirements

- Listed equipment: Equipment used for dispensing ethanol-blended motor fuel must be listed or recognized by the manufacturer as being compatible with ethanol-blended fuel, except where otherwise approved in writing by the department.
- Dispenser nozzles and hoses: Dispensers that are installed on or after February 1, 2009, must use a separate fueling nozzle and hose for dispensing ethanol-blended motor fuels of more than 10% ethanol by volume.
- In-line filters: A 1- or 2-micron in-line filter shall be used for dispensing ethanol-based fuel.
- Lined tanks: Tanks with linings regulated under Wis. Admin. Code s. ATCP 93.530 may not be used to store ethanol-blended fuels.

BUREAU OF WEIGHTS & MEASURES

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RESOURCES

More information on applicable Wisconsin laws can be found at these links:

Wis. Admin. Code ATCP 93
http://docs.legis.wisconsin.gov/code/admin_code/atcp/090/93/VI/680

Form TR-WM-118
<https://datcp.wi.gov/Documents/TR-WM-118.pdf>

Form TR-WM-132
<https://datcp.wi.gov/Documents/TR-WM-132.pdf>

Form TR-WM-137
<https://datcp.wi.gov/Documents/TR-WM-137.pdf>

Compatibility of materials

Equipment used to store or dispense fuel consisting of more than 10% ethanol by volume may not contain or consist of any of the following materials:

- Zinc, lead, aluminum or alloys containing these metals, such as brass or terne. (Terne-plated steel and lead-based solder are commonly used in equipment that handles gasoline. These materials will dissolve when in contact with high concentrations of ethanol.)
- Cork, leather or natural rubber.
- Polymers such as polyurethane, polyvinyl chloride, polyamides, or methyl-methacrylate plastics.

Materials that have been shown to be generally compatible with high concentrations of ethanol include unplated steel, stainless steel, black iron, bronze, Neoprene rubber, Buna-N, polypropylene, nitrile, Viton, Teflon, thermoset reinforced fiberglass and thermoplastic piping material.

Most metal storage tanks and pipe are compatible with ethanol. However, some fiberglass storage tank systems manufactured before 1992 might not be compatible with higher levels of ethanol. The tank manufacturer and installation contractor should be consulted for additional information on the reuse of underground storage tanks.

Cleaning the tank

- Storage and dispensing systems containing fuel with an octane rating less than the converted fuel must be emptied of all product before conversion.
- If another type of fuel was stored in the tank, the tank must be cleaned in accordance with API 2015 or another method approved by the department, before introducing the ethanol-blended fuel.
- All cleaning work must be performed by a certified tank cleaner unless specifically approved by the department based on an alternate cleaning method.

Tightness testing

A precision tightness test must be performed on the tank and piping in accordance with Wis. Admin. Code s. ATCP 93.515(4) before placing the tank system back into service.

See our Alternate Fuel Labeling: E15 fact sheet for more information on E15 signage requirements: <https://datcp.wi.gov/Documents/AlternativeFuelLabelingE15.pdf>