



# Den Hartog

INDUSTRIES, INC.

March 2, 2011

To Whom It May Concern:

## NOx Abatement in Diesel Engines Using SCR Technology

### DHI Application Information

Effective January, 2010 the EPA will implement regulations affecting diesel engines manufactured for use in the USA. This regulation requires the use of SCR (Selective Catalytic Reduction) technology and introduces DEF (Diesel Exhaust Fluid) in to the exhaust gases to meet the EPA requirement for NOx levels. This regulation will be applicable to all diesel-powered products.

DEF is a chemical solution consisting of 32.5% + or – 0.7% of chemically pure urea mixed with deionized water and has been classified as a non-hazardous chemical.

DHI offers effective storage solutions for DEF with our broad line of polyethylene tanks.

The following specifications apply to all DHI tank products:

1. Vertical Tanks are designed in accordance with ASTM D-1998 standards and are in compliance with ISO 22241-3, section 4.1.2. Tanks available for transportable applications are designed according to established engineering practices and tested.  
Only virgin polyethylene is utilized with densities ranging from .938 to .944 depending upon the size of tank. Standard specific gravities are 1.6 to 2.0 depending upon tank size and configuration specified. Other specific gravities are available upon request.
2. Lids are manufactured from high-grade injection molded polypropylene.
3. Fittings are available in high-grade injection molded polypropylene or machined type 316 stainless steel. Gaskets are available in Santoprene or EPDM.
4. Installation – reference the DHI Applications Guideline Manual for recommendations regarding handling, installation, plumbing, venting and site requirements.
5. DEF temperature exposure should be limited to between 15F to 85F to prevent freezing or loss of properties.

Sincerely Yours,

Robert E. Hardy  
Director of Engineering

3/2/11

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