

## E85 Infrastructure Meeting #3 Jan 9, 2007 Summary

In attendance:

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Ruth	Strauss	DENR Underground Storage Tank NCDENR Underground Storage	919-733-1330	<a href="mailto:ruth.strauss@ncmail.net">ruth.strauss@ncmail.net</a>
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A 1-05-07 draft of the revised UST- 20 form was presented by DENR for comment by the group. For biodiesel blends greater than 20% and ethanol blends greater than 10% the following criteria must be met:

- For equipment with have manufacturer approved compatibility , copies of manufacturer approval must be provided by UST owner operator
- For components that are not UL listed or manufacturer approved a compatibility analysis can be conducted by a Professional Engineer (PE)
- For unlined steel tanks and steel piping Manufacture or PE approval is not required

There was significant discussion about E85 equipment components such as probes, pipe dope, sump pumps and ball floats. . A point was made that state government regulators allowed a 10 year phase for new federal regulations that required corrosion protection, spill overfill and leak detection and asked if we could adopt a similar approach for E85 installations. More time is needed for compliance. E85 marketers requested a minimum of a 2 year compliance window for existing E85 instalations. Most current and future E85 installations will be retrofits and marketers do not often have records or “ as builts” on all the installation components.

Iowa allows for certified E85 installers to certify the compatibility of an installation. NC does not have certified installers. A suggestion was made to allow NC E85 infrastructure owner/operators to self certify and put stringent fines if there are ever any leaks.

After much discussion it was agreed that written comments on the revised form and any requested changes will be considered by DENR. DENR would like to finalize the form

which will be required for all E85 and biodiesel USTs shortly thereafter, as well as work on a “best practices” document for potential installations. **Contact Ruth Strauss and /or Michael Phelps for a copy of the new draft UST 20 form and/or to provide comment and suggestions for change regarding its content. DENR is requesting written comments on:**

- **Concerns about specific component compatibility that is being required through the new UST 20**
- **Timeline for compliance ( how much time should be allowed for existing station compliance)**

**Comments will be accepted through February 9<sup>th</sup> .**

NC PMA’s Tim Laughlin, PE is willing to work with NC marketers to assess compatibility of current and future installations. See following from 1-18-07 email describing services offered:

*I have estimated the cost to certify new installations (after 10-1-06) dispensers for NC Office of State Fire Marshal requirements at \$1500.00 not to exceed. These dispensers will have to be upgraded to Clean Fuel USA specifications or have UL E-85 certified prior to the ban. Any dispensers not meeting prior UL certifications or upgraded to Clean Fuel USA specs, engineering will cost more. This is for Dispensers ONLY and certification will be temporary until UL completes new E-85 dispenser standard. All Dispenser owners will receive electronic version of the PEI RP-500-05 “**RP for Inspection and Maintenance of Motor Fuel Dispensing Equipment**” 2005. They will be required per the certification to fill out Daily, Monthly & Annual Appendixes.*

II) *For NC DENR Hazardous Waste Section Form #20, any existing facilities may be required to have a ethanol “compatibility analysis performed” on any fluid handling material(s). The assumption is that if the material is sent to a testing lab for life cycle product testing, this could cost several thousand dollars and take much time. I do not believe DENR wishes to have laboratory testing of unproven materials since it would be more economical to replace questionable components/materials to meet their requirements. **DENR should provide a broader definition and the details of Compatibility Analysis. This could affect cost greatly.***

*However, if the material in question has already been product tested, we could be able to supply the proper paper work from manufacture. If no manufacturing data is known, we could determined the type of chemical/material(s) the components were made from, we could then established its chemical resistance properties from published technical data.*

*For unknown and reasonably inaccessible materials, (i.e. buried piping connection joints) we would have to provide for reasonable assumptions and risk that industry standard practices were followed (PEI, API & Manufacture Requirements) in the construction process. This would allow provisions to follow industry standard construction materials and practices to generate a starting point for E-85 compatibility analysis. DENR should feel confident that in the case of unknown materials, that a risk*

*matrix would be developed to show high risk to low risk of ethanol compatibility. In some cases, engineering may have to consider 100% ethanol compatibility due to water phase out conditions.*

*You can see that a lot of various product data would have to be generated, analyzed, verified and cataloged. Some of this is already done for us. Based on discussions with other engineers, petroleum equipment contractors and suppliers, I estimate that existing facilities to meet DWQ Form #20 engineering cost not to exceed \$5,000.00 per site.*

*If owners and operators of existing facilities have excellent construction records, provide to engineering complete data sets (as listed on Form #20) of all fluid handling components, including part numbers and serial numbers, a lot of the field work can be omitted, thus saving at least 50% on engineering cost.*

*III) If the any organization needs an overall "master list" of manufacturer certifications and a draft indexing this material and putting it in a workable form, then I figure somewhere around \$2,200 would be fair. This could facilitate Owners of facilities to fill out DENR form #20 on their own. In my brief search on the internet, I could not find any master list of E-85 approved equip. & materials.*

It is clear that the costs to retrofit existing gasoline dispensers and tanks to E85 will rise significantly in NC. Those interested in learning more about E85 and related infrastructure issues are encouraged to attend the :

**E85 Fleet Workshop  
January 25 1:00 pm -4:30 pm  
Wake County Commons Building  
4011 Cayra Drive, Raleigh**

There is no charge to attend. Register online at <http://www.trianglecities.org/fleet07.htm>