

Subject 87B

June 30, 2017

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Power-Operated Dispensing Devices for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil, UL 87B, are being proposed:

1. Revisions to the Long Term Exposure Test

STP BALLOTS AND ALL COMMENTS DUE: JULY 31, 2017

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 87, UL is looking for participants in the AHJ, Commercial/Industrial User, Government, and Testing & Standards interest categories. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 87 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Marcia.M.Kawate@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Revisions to the Long Term Exposure Test

RATIONALE

Proposal submitted by: Randy Moses, Wayne Fueling Systems LLC

I am proposing a change to the conditions surrounding the Long Term Exposure tests to lower the requirements of the testing based on the lack of failures that have been experienced during this lengthy test that requires parts to be tested simply by conditions like changing their shape. In addition, the length of the test is very long and seems to be no longer supported by the results we are seeing, the initial test data, and the subsequent test reviews being performed at UL. I would propose these changes for UL 87A and UL 87B.

PROPOSAL

5.3 Materials - system level

5.3.1 For all materials, gaskets and seals that have been shown to comply with the applicable requirements for static seals in the Standard for Gaskets and Seals, UL 157, along with the exceptions as noted in 5.2.2.1, ~~or with the requirements under material level tests shall be subjected to the system level~~

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~~tests for the applicable components shall be subjected to the system level tests for the applicable component after the requirements of the Long Term Exposure Test, Section 28 shall be waived. Static seals shall be provided in accordance with 28.2.4.~~

26.6 With respect to Long Term Exposure Testing of full hydraulic trees of dispensers, see 26.4, portions of the hydraulic tree that were previously tested at the component level and using suitable metallic material closures need not be subjected to repeated Long Term Exposure testing. This waiver includes new parts that are made of the same material as previously tested components. Hydraulic trees that consist of components or materials that were all previously tested with suitable closures would be considered in compliance without a repeated Long Term Exposure Test. In these cases, the test sequence in Section 27 can be waived, and the High Pressure Leakage Test, Section 29, and the Hydrostatic Strength Test, Section 30, are performed on a sample of the hydraulic tree in the as-received condition.

28.2.4 Any o-rings, gaskets, or other sealing materials, shall be provided and installed by the manufacturer. The dynamic sealing devices shall be the same as those that will be used in the final product installation. Static seals shall be representative of the seals being used in the final product installation. If the sealing device or material is not considered part of the component under test, but will be provided in an end product at the time of installation, a representative seal shall be provided for the test. The testing of the static seals, as part of the assembly under test, is only required in the Long Term Exposure Test to test the surrounding components.

28.3.3 The chamber temperature is increased to $60 \pm 2^{\circ}\text{C}$ ($140 \pm 4^{\circ}\text{F}$). When the chamber reaches this temperature, the exposure period begins. The samples are exposed to the applicable test fluid at $60 \pm 2^{\circ}\text{C}$ for approximately 168 hours. At the end of this duration, the exposure period is halted and the chamber is allowed to cool. The samples are subjected to a 50 psi (347 kPa) pressure for one minute. The fluid is then drained from the samples and discarded. The samples are then immediately refilled with new test fluid and the chamber temperature is allowed to increase to $60 \pm 2^{\circ}\text{C}$ again. The total duration of the test shall equal 1008 2520 hours of exposure at $60 \pm 2^{\circ}\text{C}$.

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