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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 1, 2010

Mr. Jayson C. Busch
Vice-President
Kern Fuels Research, LLC
180 E. Ocean Blvd., Suite 1010
Long Beach, CA 90802-4711

Re: Alternative Diesel Fuel Formulation Approval Notification

Dear Mr. Busch:

In accordance with the Texas Commission on Environmental Quality (TCEQ) regulations specified under Title 30 Texas Administrative Code (30 TAC) §114.315(c) the TCEQ has approved the alternative diesel fuel formulation for Texas low emission diesel fuel (TxLED) consisting of a minimum of 0.38 milliliters (ml) of Kern Fuels Research LLC (Kern) JC-747 diesel additive per gallon of a biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of diesel fuel as defined under 30 TAC §114.6 that is compliant with the TxLED regulations specified under 30 TAC §114.312 or §114.318. This approval is based upon the following findings.

- The emissions testing performed by the Southwest Research Institute (SwRI) in San Antonio, Texas, from May 17, 2010, to May 25, 2010, was conducted in accordance with the procedures specified under 30 TAC §114.315(c).
- The emissions of nitrogen oxides (NO_x) and particulate matter (PM) from the 21 eligible candidate fuel emissions tests were less than the NO_x and PM emissions from the 21 TxLED reference fuel emissions tests as determined in accordance with the emissions comparison calculations specified under 30 TAC §114.315(c)(5). In addition, the average emissions of total hydrocarbons and non-methane hydrocarbons recorded during the candidate fuel testing did not exceed the test engine's applicable emission standards.
- The comparative analysis of the emission test data from the testing of the Kern JC-747 diesel additive treated biodiesel formulation indicate it has met the conditions specified under 30 TAC §114.315(c)(5) to be approved by the TCEQ as an alternative diesel formulation for TxLED.

This approval only applies to the alternative diesel fuel formulation consisting of a minimum of 0.38 ml of Kern JC-747 diesel additive per gallon of a biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel and as described in the TCEQ's Approval Notification issued under TCEQ assigned identification number: TXLED-A-00022.

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As a TCEQ-approved alternative diesel fuel formulation, diesel fuel producers may use a minimum of 0.38 ml of Kern JC-747 diesel additive per gallon of a biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel for compliance with the TxLED fuel content requirements as provided in the TCEQ regulations under 30 TAC §114.312(f). Producers using this product will be required to comply with the registration requirements specified in the TCEQ regulations under 30 TAC §114.314 and the appropriate monitoring, recordkeeping, and reporting requirements specified in the TCEQ regulations under 30 TAC §114.316.

This approval is subject to the actual emissions performance of diesel-powered engines using a Kern JC-747 diesel additive treated biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel. Evidence that a Kern JC-747 diesel additive treated biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel does not result in emissions that are equivalent to or better than diesel fuel meeting the cetane number, and aromatic hydrocarbons content requirements of TxLED may result in the revocation of this approval or other appropriate enforcement action. This approval is also subject to proper treatment and storage of a Kern JC-747 diesel additive treated biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel.

Kern is required to provide detailed written instructions regarding the specific storage requirements, blending methods, and treatment rate to any producer using this approved alternative diesel fuel formulation for compliance with the TxLED requirements that are necessary to ensure proper emissions performance of the Kern JC-747 diesel additive treated biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel. Improper storage, blending, and/or additive treatment rate of a Kern JC-747 diesel additive treated biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel may result in enforcement action.

Enclosed with this letter is the Approval Notification documenting the TCEQ's approval of the formulation consisting of a minimum of 0.38 ml of Kern JC-747 diesel additive per gallon of a biodiesel/diesel fuel blend comprised of 20 percent or less by volume of ASTM D6751-compliant B100 biodiesel and 80 percent or more by volume of TxLED-compliant diesel fuel.

This letter and the Approval Notification document will be posted to the TCEQ Web site for public notice at the following link:

<http://www.tceq.state.tx.us/implementation/air/sip/cleandiesel.html>.

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If you have any additional questions or need further assistance in regards to this process, please contact Mr. Morris Brown in the TCEQ's Air Quality Planning Section at (512) 239-1438 or mbrown@tceq.state.tx.us.

Sincerely,

A handwritten signature in black ink that reads "Susana M. Hildebrand". The signature is written in a cursive style with a large, prominent 'S' at the beginning.

Susana M. Hildebrand, P.E.

Chief Engineer

Texas Commission on Environmental Quality

SH/MB/kb

Enclosure