

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners **Date:** May 11, 2012

Thru: Bridget C. Bohac, Chief Clerk
Zak Covar, Executive Director

From: Susana M. Hildebrand, P.E.
Chief Engineer

Subject: Consideration of a Petition for Rulemaking

Docket No.: 2012-0751-RUL

Project No.: 2012-029-PET-NR

Who Submitted the Petition:

A petition was submitted by Baker Botts L.L.P. on behalf of Halliburton Energy Services, Inc. (Halliburton). The petition was received April 5, 2012.

What the Petitioner Requests:

In 2010, Halliburton installed a stationary, reciprocating internal combustion engine (known as the Drawworks Engine) at its Carrollton Plant North Test Well. The Drawworks Engine is used exclusively to lift and lower casing into the test well for purposes of employee training and down-hole product testing, and is not associated with oil or gas production. The Drawworks Engine is in limited service, operating an average of 1.58 hours per day (576 hours per year) and due to the nature of its use, the Drawworks Engine is in an idle state for more than 85% of its operating hours. At the time it was installed, the Drawworks Engine met the Tier 3 emission standards for non-road engines in 40 Code of Federal Regulations (CFR) §89.112(a), Table 1.

Halliburton is requesting a partial exemption from the rules in 30 Texas Administrative Code Chapter 117, Subchapter D, Division 2 that limit nitrogen oxides (NO_x) emissions from minor sources in the Dallas-Fort Worth 1997 eight-hour ozone nonattainment area (DFW area). The requested exemption is narrowly tailored and applies only to engines that are used exclusively for product testing and personnel training, operate in limited service, and meet applicable federal emission standards. Halliburton is also requesting revisions to the monitoring and recordkeeping requirements to reflect the new category of exempt engines. Additionally, Halliburton is requesting explicit confirmation in the preamble to the proposed rule, or in the rule itself, that "product testing" as used in the new exemption is distinct from engine "testing" as used in §117.2130(c) to ensure that the Halliburton Drawworks Engine is not subject to the use restrictions in §117.2130(c).

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Halliburton's suggested rule revisions are as follows.

§117.2103. Exemptions.

(10) new, modified, reconstructed, or relocated stationary diesel engines placed into service on or after June 1, 2007, that:

(A) are used solely for product testing and personnel training;

(B) operate less than 1,000 hours per year, based on a rolling 12-month average;
and

(C) meet the corresponding emission standard for non-road engines listed in 40 CFR §89.112(a), Table 1 (October 23, 1998) and in effect at the time of installation, modification, reconstruction, or relocation. For the purposes of this subparagraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title and 40 CFR §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title, a used engine from anywhere outside that account.

§117.2135. Monitoring, Notification, and Testing Requirements.

(e) Run time meters. The owner or operator of any stationary diesel engine claimed exempt using the exemption of §117.2103(5), (8), ~~or (9)~~, or (10) of this title shall record the operating time with a non-resettable elapsed run time meter.

§117.2145. Recordkeeping and Reporting Requirements.

(b) Records for exempt engines. Written records of the number of hours of operation for each day's operation must be made for each engine claimed exempt under §117.2103(5), (8), ~~or (9)~~, or (10) of this title or §117.2130(b)(3) of this title.

Recommended Action and Justification:

Staff recommends approval of the petition. The Halliburton Drawworks Engine operates in unique service, for a limited number of hours each year, and meets the Tier 3 emission standards for non-road engines listed in 40 CFR §89.112(a), Table 1 effective at the time of installation. The suggested exemption is narrow in scope and consistent with the similar existing exemptions for stationary diesel engines located at minor sources.

The unique service of the Drawworks Engine makes ongoing testing to demonstrate compliance with the Chapter 117 NO_x emission limits impractical and comparatively more expensive than the stationary engine testing envisioned at adoption of the rule. To comply with the Chapter 117 testing requirements, Halliburton must arrange for both emissions testing equipment (a normal and expected expense) and for the rental, transport, and use of a dynamometer, which is typically used by engine manufacturers for testing purposes. Preparing the engine for installation of the dynamometer and returning the engine to operational status subsequent to the emissions testing presents significant safety hazards associated with the removal of the drive train and transmission, removal of the torque converter, and the placement and use of non-dedicated hoisting equipment on the rig floor.

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Performing a compliant emissions test of the Drawworks Engine takes three to four days to complete whereas typical testing on stationary engines only requires approximately a half day. Additionally, engines used to raise and lower down-hole equipment in actual oil and gas operations in the field, which the Drawworks Engine is designed to simulate, are typically not subject to similar Chapter 117 testing requirements because those engines are typically not installed at a location long enough to trigger the definition of a stationary internal combustion engine in §117.10 and are exempt from the rule. The Drawworks Engine is subject to Chapter 117, Subchapter D, Division 2 because the equipment has been made stationary to provide testing and training facilities for sources that are actually exempt from the rule.

The requested partial exemption will not adversely impact the DFW area's progress in attaining the 1997 eight-hour ozone National Ambient Air Quality Standard. Based on February 2012 emissions test results and a limit of 1,000 hours of run time per year, the Drawworks Engine has maximum potential annual NO_x emissions of 0.87 tons per year and is well below the emission standards established in the Chapter 117 minor source NO_x rules. Halliburton's suggested exemption criteria require compliance with the same federal standards in 40 CFR Part 89 to ensure that the requested exemption will not result in backsliding. The NO_x emission limits for stationary diesel engines in §117.2110 were derived from the Tier standards in 40 CFR Part 89. Therefore, the suggested exemption should not result in additional NO_x emissions in the DFW area.

If the petition is approved by the commission, staff will initiate a rulemaking project for the commission's consideration to amend the appropriate sections of Chapter 117, Subchapter D, Division 2 as suggested by the petitioner. Additionally, sections not specifically referenced by the petitioner may need to be amended to ensure consistency within the division in providing the requested exemption.

Applicable Law:

Texas Government Code, §2001.021 establishes the procedures by which an interested person may petition a state agency for the adoption of a rule and 30 Texas Administrative Code §20.15 provides such procedures specific to the commission.

Other laws applicable to the rules the petition affects include Texas Water Code (TWC), §5.102, concerning General Powers, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; and §382.012, concerning State Air Control Plan,

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which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

Also, Texas Clean Air Act; §382.016, concerning Monitoring Requirements; Examination of Records, authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; and §382.021, concerning Sampling Methods and Procedures, authorizes the commission to prescribe the sampling methods and procedures.

Agency contacts:

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Attachment

Petition

cc: Chief Clerk, 2 copies
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