Shell Exploration & Production

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September 10, 2012

Re: Shell Offshore Inc.
Conical Drilling Unit *Kulluk* – Beaufort Sea
Update to July 3, 2012 Application for Permit Modification
OCS Permit to Construct and Title V Air Quality Operating Permit No. R10OCS030000

Shell Offshore Inc. (Shell) submits this update to the July 3, 2012 Title V Application for Permit Modification for the Conical Drill Unit *Kulluk*. This request updates that application in the following ways:

Withdrawal of two parts of the July 3 request:

1) Attachment 1, Request No. 13, Conditions F.3.4 and F.4.4 – Shell withdraws its request that these conditions be deleted.

2) Attachment 2, Section 6, Condition F.4.7 – Shell withdraws its request for this condition to be added.

Although Shell addressed monitoring of the operation of CDPF units in its July 3, 2012 application, Shell at this time requests that the same CMS monitoring methods used for OxyCats as listed in the current permit continue to be used for OxyCats in configurations with and without particulate filters.

Although several of the OxyCat units have been upgraded to CDPFs, which contain an oxidation catalyst and a particulate filter, Shell wishes to continue to use the CMS system for all OxyCats and CDPFs as required currently for OxyCats in the existing permit. Thus, Shell is withdrawing its July 3 request to shift to monitoring of some CDPFs with HiBACK units.

Corrections to July 3 summary tables:

Attachment 2, Table 3 and Table 4 – Shell requests that these tables be updated.

The application to revise the minor permit contained two information summary tables, Tables 3 and 4. Shell updates those tables here and the updated tables are attached. The information added is highlighted in blue font.

These updates will result in no changes in emission units, control devices or emissions, and no changes in the Title V Minor Permit Application forms, or Title V Operating Permit Minor Revision Approval Checklist submitted July 3, 2012. Therefore only the administrative form is included herein.

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this submission are true, accurate, and complete. Please contact Pauline Ruddy (907-771-7243) or Chris Lindsey (907-771-7262) if you have any questions.

Thank you,

Susan Childs
Alaska Venture Support Integrator, Manager

Attachments:

Table 3 Measurements Included in the CMS with Thresholds
Table 4 Specifications of Sensors, Signal Processing and Transmittal

Cc:

Natasha Greaves, EPA Region 10
Krishna Viswanatha, EPA Region 10
Pauline Ruddy, Shell
Chris Lindsey, Shell
Lance Tolson, Shell

OMB No. 2060-0336, Approval Expires 6/30/2015

Federal Operating Permit Program (40 CFR Part 71)

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Childs (First) Susan (MI) ____

Title Alaska Venture Support Integrator, Manager

Street or P.O. Box 3601 C Street, Suite 1334

City Anchorage State AK ZIP 99503 - ____

Telephone (907) 646 Ext. ____ Facsimile (907) 770 - 7145

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) Susan Childs

Name (typed) Susan Childs Date: 9 / 10 / 2012

Table 3 Measurements Included in the CMS with Thresholds (updated September 5, 2012)

Parameter	Range of Proper Operation	Sampling Frequency	Permit Condition
SCR Inlet temperature	90% or greater than average inlet temperature established during most recent emission testing	At least every 15 minutes	F.3.2 & 3.7
SCR Urea flow	Flow must exist	At least every 15 minutes	F.3.2 & 3.7
SCR NO_x emission concentration	150% or less than most recent stack test measurement (in ppm)	Once per week	F.3.6 & 3.7
OxyCat and CDPF Inlet temperature	90% or greater than average inlet temperature established during most recent emission testing	At least every 15 minutes	F.4.2 & 4.7
OxyCat and CDPF CO emission concentration	120% or less than most recent stack test measurement (in ppm)	Once per week	F.4.6 & 4.7

Table 4 Specifications of Sensors, Signal Processing and Transmittal (updated September 5, 2012)

Vessel / Emission Unit	Parameter	Model Number	Performance Criteria	Specification	Signal Processing and Transmittal
Kulluk / K1A – 1D SCR & CDPF	Inlet temperature	Tempco P/N TTM00015. K type thermocouple	Range: 100 – 400C Precision: +/- 7C*	Range: 0 – 1260 C Transmitter accuracy: 0.2% of span which is 2.5C***	Signal from SCR processor to ADM. Then interrogated by AQ computer & sent to office by internet daily.
Kulluk / K1A – 1D SCR	Urea Flow on/off	Grundfoss DME 60 metering pumps	Differentiate between flow and no flow	Accuracy: 1% No-flow defined as < 5% of max which is < 3 l/hr	Signal from SCR processor to ADM. Then interrogated by AQ computer & sent to office by internet daily.
Kulluk / K1A – 1D SCR & CDPF	NO_X and CO conc.	Testo 350	Provided in ASTM 6522-00	Provided in Attachment A	Manual recording, scan sent to office by internet weekly.
Kulluk / K-2A – 2Z K-4A – 4C CDPF	Inlet temperature	Tempco P/N TTM00015. K type thermocouple	Range: 100 – 400C Precision: +/- 7C*	Range: 0 – 1260 C Transmitter accuracy: 0.2% of span which is 2.5C***	Signal from SCR processor to ADM. Then interrogated by AQ computer & sent to office by internet daily.
Kulluk / K-2A – 2Z K-4A – 4C CDPF	CO conc.	Testo 350	Provided in ASTM 6522-00	Provided in Attachment A	Manual recording, scan sent to office by internet weekly.
Fennica/Nordica (ice mgmt.) / P&G SCR & OxyCat	Inlet temperature	Endress & Hauser PT 100	Range: 100 – 400C Precision: +/- 7C*	Range: 50 to 650C Sensitivity is 1 ohm per 3 degrees C**	Analog signal transmitted to ADM. Then interrogated by AQ computer & sent to office by internet daily.
Fennica/Nordica (ice mgmt.) / P&G SCR	Urea Flow on/off	Burkert S-051 with electronics by SE-56	Differentiate between flow and no flow	Accuracy: 0.8% reading No-flow defined as < 5% of max which is < 3 l/hr	Analog signal transmitted to ADM. Then interrogated by AQ computer & sent to office by internet daily.
Fennica/Nordica (ice mgmt.) / P&G SCR	NO_X and CO conc.	Testo 350	Provided in ASTM 6522-00	Provided in Attachment A	Manual recording, scan sent to office by internet weekly.
Aiviq (AHTS) / P&G SCR & CDPF	Inlet temperature	Tempco P/N TTM00015. K type thermocouple	Range: 100 – 400C Precision: +/- 7C*	Range: 0 – 1260 C Transmitter accuracy: 0.2% of span which is 2.5C***	Analog signal transmitted to and digitized in DEC Marine PLC. Then interrogated by AQ computer & sent to office by internet daily.
Aiviq (AHTS) / P&G SCR	Urea Flow on/off	Grundfoss DME 60 & 150 metering pumps	Differentiate between flow and no flow	Accuracy: 1% No-flow defined as < 5% of max which is < 3 l/hr	Analog signal transmitted to and digitized in DEC Marine PLC. Then interrogated by AQ computer & sent to office by internet daily.
Aiviq (AHTS) / P&G SCR & CDPF	NO_X and CO conc.	Testo 350	Provided in ASTM 6522-00	Provided in Attachment A	Manual recording, scan sent to office by internet weekly.

*range determined by operating range of engine exhaust, precision determined from Stack Test Method 2A and based on 2% of minimum absolute temperature

**ASTM E1137 standard platinum PT100

*** http //www tempco com/sensors/Style_TTM htm

AQ – Air quality