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BEFORE THE  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:	)	
	)	DOCKET NO. CAA-10-2013-0132
Shell Offshore Inc.,	)	
	)	<b>CONSENT AGREEMENT AND</b>
	)	<b>FINAL ORDER</b>
	)	
	)	
Respondent.	)	

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**I. STATUTORY AUTHORITY**

1.1. This Consent Agreement and Final Order (“CAFO”) is issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency (“EPA”) by Section 113(d) of the Clean Air Act (“CAA”), 42 U.S.C. § 7413(d).

1.2. The Administrator has delegated the authority to issue the Final Order contained in Part V of this CAFO to the Regional Administrator of EPA Region 10, who has redelegated this authority to the Regional Judicial Officer in EPA Region 10.

1.3. Pursuant to Section 113(d) of the CAA, 42 U.S.C. § 7413(d), and in accordance with the “Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties,” 40 C.F.R. Part 22, EPA issues, and Shell Offshore Inc. (“Respondent”) agrees to issuance of, the Final Order contained in Part V of this CAFO.

## **II. PRELIMINARY STATEMENT**

2.1. In accordance with 40 C.F.R. §§ 22.13(b) and 22.18(b), issuance of this CAFO commences this proceeding, which will conclude when the Final Order contained in Part V of this CAFO becomes effective.

2.2. The Administrator has delegated the authority to sign consent agreements memorializing settlements between EPA and the party against whom an administrative penalty is proposed to be assessed pursuant to CAA Section 113(d), 42 U.S.C. § 7413(d), to the Regional Administrator of EPA Region 10, who has redelegated this authority to the Director of the Office of Compliance and Enforcement, EPA Region 10 (“Complainant”).

2.3. Part III of this CAFO contains a concise statement of the factual and legal basis for the alleged violations of CAA together with the specific provisions of CAA and the implementing regulations that Respondent is alleged to have violated.

## **III. ALLEGATIONS**

3.1 Respondent is a Delaware corporation and a "person," as that term is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

3.2 Pursuant to the authority of Section 328 of the CAA, 42 U.S.C. § 7627, and Title V of the CAA, 42 U.S.C. §§ 7661-7661d, EPA issued to Respondent Outer Continental Shelf Permit to Construct and Title V Air Quality Operating Permit No. R10OCS030000 to authorize air emissions associated with exploratory oil and gas drilling operations in the Beaufort Sea from the Kulluk Conical Drilling Unit (“Kulluk”) and its fleet of associated vessels (“Associated Fleet”). The permit was revised on September 28, 2012 (as so revised, the “Permit”).

3.3 Respondent reported that it operated the Kulluk and the Associated Fleet as an OCS Source, as that term is defined in the Permit (“OCS Source”), between September 26, 2012 and November 8, 2012 (the “2012 Drilling Season”), that it ceased operating as an OCS Source on November 8, 2012, and that it does not intend to operate the Kulluk and the Associated Fleet as an OCS Source in 2013. Thus, Respondent is not currently operating under the Permit.

3.4 During and subsequent to the 2012 Drilling Season, Respondent submitted to EPA Excess Emission/Permit Deviation Reports identifying excess emissions and permit deviations under the Permit during the 2012 Drilling Season.

3.5 On January 10, 2013, EPA issued to Respondent a Notice of Violation for violations of the Permit under Section 113(a) of the CAA, 42 U.S.C. § 7413(a).

3.6 Respondent reported that total calculated NO<sub>x</sub> emissions during the 2012 Drilling Season were approximately 5 percent of the maximum allowable annual emissions under the Permit.

### **Violation 1**

3.7 Condition B.2.2.1 of the Permit requires Respondent, within 30 days of the Kulluk becoming an OCS Source or within 30 days of startup of an emission unit, whichever is later, to observe exhaust from each emission unit for 18 minutes following 40 C.F.R. Part 60, Appendix A-4, Method 9, adopted by reference in 18 Alaska Administrative Code (“AAC”) 50.040(a) (“Method 9”).

3.8 Condition B.2.2.2 of the Permit requires Respondent, after the first Method 9 observation referred to in Condition B.2.2.1 of the Permit, to perform an 18-minute Method 9 observation at least once in each calendar month that the emission unit operates.

3.9 Condition B.13.2 of the Permit requires Respondent to observe, record, and report the exhaust from Unit K-8 (Incinerator) using the visible emissions monitoring, recordkeeping, and reporting requirements in Conditions B.2 through B.4.

3.10 Respondent did not perform either one or both of the required Method 9 observations for the following emission units on the Kulluk during the 2012 Drilling Season: K-1A – K-1D (Kulluk Electricity Generation Engines), K-4A – K-4C (Deck Crane Engines), K-5A – 5D (Heaters and Boilers), K-6 (Emergency Generator Engine), K-7B (Emergency Anchor Lifting Crane Engine); and K-8 (Incinerator).

### **Violation 2**

3.11 Condition D.11 of the Permit states that Respondent shall direct exhaust from each of the following emission units to an operating oxidation catalyst or Catalyzed Diesel Particulate Filter (“CDPF”) control device at all times: Kulluk Electricity Generation Engines (Units K-1A – 1D); Kulluk Mudline Cellar Hydraulic Power Units (“MLC HPU”) Engines (Units K-2A – 2Z); Kulluk Deck Crane Engines (Units K-4A – 4C); Icebreaker No. 1 Propulsion Engines and Generator Engines (Units IB1-1A – 1Z); and Icebreaker No. 2 Propulsion and Generator Engines (Units IB2-1A – 1Z).

3.12 At certain times during the 2012 Drilling Season, the exhaust from the emission units identified in paragraph 3.11 above was directed to a CDPF that failed to reach the required minimum operating temperature or was not otherwise operating.

### **Violation 3**

3.13 Condition A.18.3.1 of the Permit states that Respondent shall report all other excess emissions and deviations not addressed in Conditions 18.1, 18.2, 18.3.2, and 18.3.3 of the

Permit within 30 days after the end of the month during which the emissions or deviation occurred.

3.14 On December 18, 2012, Respondent reported a deviation from a condition in the Permit (Condition D.5.4) that occurred on October 15, 2012.

#### **Violation 4**

3.15 Condition D.6.1.1. of the Permit states that, during “Drilling Activity,” combined emissions of nitrogen oxides (“NO<sub>x</sub>”) from Units K-1A – K-1D (Kulluk Electricity Generation Engines) shall not exceed 19.0 pounds per hour (“lb/hr”).

3.16 Condition D.6.1.2. of the Permit states that, during all times other than “Drilling Activity,” combined emissions of NO<sub>x</sub> from Units K-1A – K-1D (Kulluk Electricity Generation Engines) shall not exceed 13.4 lb/hr.

3.17 “Drilling Activity” is defined in the Permit to include “MLC Drilling Activity” and “Well Drilling Activity;” “MLC Drilling Activity” is defined in the Permit as any time when any MLC HPU Engine or MLC air compressor engine is operating; and “Well Drilling Activity” is defined in the Permit as any time when the top drive is engaged and turning the conventional rotary bit.

3.18 Excess Emissions Reports submitted by Respondent to EPA identify periods when Units K-1A, K-1B, K-1C, and/or K-1D (Kulluk Electricity Generation Engines) operated when the urea feed pump for such units was not operating.

3.19 At certain times during the 2012 Drilling Season, combined emissions of NO<sub>x</sub> from Units K-1A – K-1D (Kulluk Electricity Generation Engines) exceeded 19.0 lb/hr during “Drilling Activity” and 13.4 lb/hr during times other than during “Drilling Activity.”

Respondent reported that 97 percent of the reported NO<sub>x</sub> exceedances were attributable to data

loss due to a computer malfunction and 3 percent were due to startup periods, each requiring the use of uncontrolled emission rates to calculate emissions.

#### **Violation 5**

3.20 Condition A.18.2 of the Permit requires Respondent to report any exceedance of an emission limit within two working days after the event commenced or was discovered.

3.21 On October 9, 2012, Respondent reported emissions in excess of the emission limit in Condition D.6.1.2.1 of the Permit had occurred and that Respondent had discovered the occurrence of these excess emissions on October 1, 2012.

#### **Violation 6**

3.22 Condition D.6.7.1.1 of the Permit states that combined NO<sub>x</sub> emissions from Units K-7A – K-7D5 (Seldom Used Sources) shall not exceed 0.4 lb/hr.

3.23 On September 26, 2012, NO<sub>x</sub> emissions from Unit K-7B (Kulluk Emergency Anchor Lifting Crane Engine) alone exceeded 0.4 lb/hr. Respondent reported that it operated the 158 horsepower Anchor Winch for approximately 2 hours upon arriving at the drill site.

3.24 On November 7, 2012, NO<sub>x</sub> emissions from Unit K-7B (Kulluk Emergency Anchor Lifting Crane Engine) alone exceeded 0.4 lb/hr. Respondent reported that it operated the Anchor Winch for approximately 2 hours when departing from the drill site and that based on fuel consumption, the two events resulted in total excess emissions of 3.8 pounds of NO<sub>x</sub>.

#### **Violation 7**

3.25 Condition D.10 of the Permit states that exhaust from each of the following emission units shall be directed to an operating Selective Catalytic Reduction (“SCR”) control device unit at all times: 10.1. Kulluk Electricity Generation Engines (Units K-1A – K-1D); 10.2.

Icebreaker #1 Propulsion and Generator Engines (Units IB1-1A – IB1-1Z); and 10.3. Icebreaker #2 Propulsion and Generator Engines (Units IB2-1A – IB2-1Z).

3.26 At certain times during the 2012 Drilling Season, the exhaust from Kulluk Electricity Generation Engines (Units K-1A – K-1D) was directed to an SCR unit when the urea pump was not on or when the SCR unit was not otherwise operating.

3.27 At certain times during the 2012 Drilling Season, the exhaust from Icebreaker #1 (Nordica) Propulsion and Generator Engines (Units IB1-1A – IB1-1Z) was directed to an SCR unit when the urea pump was not on or when the SCR unit was not otherwise operating.

3.28 At certain times during the 2012 Drilling Season, the exhaust from Icebreaker #2 (Aiviq) Propulsion and Generator Engines (Units IB2-1A – IB2-1Z) was directed to an SCR unit when the urea pump was not on or when the SCR unit was not otherwise operating.

#### **Violation 8**

3.29 Conditions E.1.9., E.2.2.2, and F.4 of the Permit require that emission test reports, documentation of each emission unit specific test-derived emission factor resulting from the emission test, and the related monitoring plan be submitted to EPA within 45 days of completing the emission test.

3.30 Final emission test report results, documentation of each emission unit specific test-derived emission factor resulting from the emission test, and the related monitoring plans were not submitted to EPA within 45 days of an emission test. Respondent reported that while it submitted preliminary results on time, it could not submit final test results within 45 days because the testing lab needed more time to stabilize the test samples in accordance with the applicable testing standard.

### **Violation 9**

3.31 Condition F.4.6 of the Permit requires Respondent to monitor and record carbon monoxide (“CO”) emissions (parts per million or “ppm”) from the exhaust of each oxidation catalyst or CDPF once per week using a portable CO monitor that meets the requirements of EPA Other Test Method (“OTM”) 13.

3.32 Between September 25 and November 1, 2012, Respondent conducted weekly stack gas sampling of the oxidation catalyst controls on the Kulluk Deck Crane Engines (Units K-4A – K-4C) upstream of the catalyst exhaust rather than from the catalyst exhaust as required by Condition F.4.6 of the Permit.

### **Violation 10**

3.33 Condition E.2.3. of the Permit requires Respondent to conduct the stack test of an incinerator while operating within 10% of the maximum rated capacity of the incinerator.

3.34 The incinerator was not operating within 10% of the maximum rated capacity at all times during the required stack testing. Respondent reported that inherent safety systems (a lock on the charging door at higher temperatures) limited the charging rate during testing, affecting the ability to operate within 10% of the maximum rated capacity at all times.

### **Violation 11**

3.35 Condition F.2.5.1 of the Permit requires Respondent to report as a permit deviation under Condition A.17 or A.18 any periods during which the exit temperature of an incinerator is 90% or less than the most recent average exit temperature reported pursuant to Condition F.2.5.1 of the Permit.

3.36 At certain times Respondent did not report as a permit deviation periods of operation during the 2012 Drilling Season during which the exit temperature of an incinerator



was 90% or less than the most recent average exit temperature reported pursuant to Condition F.2.5.1 of the Permit.

#### IV. CONSENT AGREEMENT

- 4.1. Respondent admits the jurisdictional allegations of this CAFO.
- 4.2. Respondent neither admits nor denies the specific factual allegations contained in this CAFO.
- 4.3. In light of the nature of the violations, Respondent's actions to address and correct the violations, Respondent's compliance monitoring system, and Respondent's willingness to settle this matter without litigation and in accordance with the *Clean Air Act Stationary Source Civil Penalty Policy*, EPA has determined, and Respondent agrees, that an appropriate penalty to settle all of the alleged violations under this CAFO is three hundred and ninety thousand dollars (\$390,000).
- 4.4. Respondent agrees to pay the total civil penalty set forth in Paragraph 4.3 within 30 days of the effective date of the Final Order contained in Section V of this CAFO.
- 4.5. Payment under this CAFO must be made by a cashier's check or certified check payable to the order of "Treasurer, United States of America" and delivered to the following address:

U.S. Environmental Protection Agency  
Fines and Penalties  
Cincinnati Finance Center  
P.O. Box 979077  
St. Louis, MO 63197-9000

Respondent must note on the check the title and docket number of this action.

- 4.6. Respondent must serve photocopies of the check described in Paragraph 4.5 on the Regional Hearing Clerk and EPA Region 10 at the following addresses:

Regional Hearing Clerk  
U.S. Environmental Protection Agency  
Region 10, Mail Stop ORC-158  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

John Keenan  
U.S. Environmental Protection Agency  
Region 10, Mail Stop OCE-127  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

4.7. If Respondent fails to pay the penalty assessed by this CAFO in full by its due date, the entire unpaid balance of penalty and accrued interest shall become immediately due and owing. If such a failure to pay occurs, Respondent may be subject to a civil action pursuant to Section 113(d)(5) of the CAA, 42 U.S.C. § 7413(d)(5), to collect the assessed penalty under the CAA. In any such collection action, the validity, amount, and appropriateness of the penalty shall not be subject to review. If Respondent fails to pay any portion of the penalty assessed by this CAFO in full by its due date, Respondent shall also be responsible for payment of the following amounts:

4.7.1. Interest. Any unpaid portion of the assessed penalty shall bear interest at the rate established pursuant to 26 U.S.C. § 6621(a)(2) from the effective date of the Final Order, provided, however, that no interest shall be payable on any portion of the assessed penalty that is paid within 30 days of the effective date of the Final Order.

4.7.2. Attorneys Fees, Collection Costs, Nonpayment Penalty. Pursuant to 42 U.S.C. § 7413(d)(5), if Respondent fails to pay the assessed penalty and interest on a timely basis, Respondent shall also be required to pay the United States' enforcement expenses, including but not limited to attorneys fees and costs incurred by the United States for collection proceedings, and a quarterly nonpayment penalty for each quarter

during which such failure to pay persists. Such nonpayment penalty shall be ten percent of the aggregate amount of Respondent's outstanding penalties and nonpayment penalties accrued from the beginning of such quarter.

4.8. The penalty described in Paragraph 4.3, including any additional costs incurred under Paragraph 4.7, above, represents an administrative civil penalty assessed by EPA and shall not be deductible for purposes of federal taxes.

4.9. The undersigned representative of Respondent certifies that he or she is authorized to enter into the terms and conditions of this CAFO and to bind Respondent to this document.

4.10. Except as described in Subparagraph 4.7.2, above, each party shall bear its own costs in bringing or defending this action.

4.11. Respondent expressly waives any right to contest the allegations and waives any right to appeal the Final Order set forth in Part V.

4.12. The provisions of this CAFO shall bind Respondent and its agents, servants, employees, successors, and assigns.

4.13. The above provisions are STIPULATED AND AGREED upon by Respondent and EPA Region 10.

DATED:

3 Sep 2013

FOR RESPONDENT:

Peter E. Slaiby

Peter E. Slaiby  
Attorney-in-Fact  
Shell Offshore Inc.

DATED:

9/4/2013

FOR COMPLAINANT:



EDWARD J. KOWALSKI, Director  
Office of Compliance and Enforcement  
EPA Region 10


**V. FINAL ORDER**

5.1. The terms of the foregoing Parts I-IV are ratified and incorporated by reference into this Final Order. Respondent is ordered to comply with the terms of settlement.

5.2. This CAFO constitutes a settlement by EPA of all claims for civil penalties pursuant to CAA for all of the violations alleged in Part III. In accordance with 40 C.F.R. § 22.31(a), nothing in this CAFO shall affect the right of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law. This CAFO does not waive, extinguish, or otherwise affect Respondent's obligations to comply with all applicable provisions of CAA and regulations promulgated or permits issued thereunder.

5.3. This Final Order shall become effective upon filing.

SO ORDERED this 3<sup>rd</sup> day of September, 2013.

  
M. SOCORRO RODRIGUEZ  
Regional Judicial Officer  
U.S. Environmental Protection Agency  
Region 10

Certificate of Service

The undersigned certifies that the original of the attached **CONSENT AGREEMENT AND FINAL ORDER, In the Matter of: Shell Offshore Inc., DOCKET NO.:** CAA-10-2013-0132, was filed with the Regional Hearing Clerk and served on the addressees in the following manner on the date specified below:


The undersigned certifies that a true and correct copy of the document was delivered to:

Julie Vergeront  
Office of Regional Counsel  
U.S. Environmental Protection Agency  
Region 10, Mail Stop ORC-158  
1200 Sixth Avenue, Suite 900  
Seattle, WA 98101

Further, the undersigned certifies that a true and correct copy of the aforementioned document was placed in the United States mail certified/return receipt to:

Lance Tolson  
Senior Legal Counsel  
Shell Oil Company  
WCK 3182  
200 North Dairy Ashford  
Houston, Texas 77079

DATED this 5<sup>th</sup> day of September, 2013.

  
Signature

Candace Smith  
Regional Hearing Clerk  
EPA Region 10