

**STATE OF ALASKA  
ALASKA OIL AND GAS CONSERVATION COMMISSION  
333 West Seventh Avenue  
Anchorage, Alaska 99501**

Re: Safety Valve System Violations  
Sword #1 Well  
PTD 2130800

Other Order No. 102  
Docket No. OTH-13-040  
May 1, 2015

**DECISION AND ORDER**

On December 8, 2014 the Alaska Oil and Gas Conservation Commission (AOGCC) issued a Notice of Proposed Enforcement Action (Notice) to Cook Inlet Energy, LLC (CIE) regarding the Sword #1 well (Sword #1). The Notice was based upon numerous regulatory violations pertaining to Sword #1's safety valve system (SVS) and CIE's failure to provide requested information about CIE's SVS compliance policies. The Notice proposed specific corrective actions and an \$806,000 civil penalty under AS 31.05.150(a).

CIE requested an informal review. That review was held February 17, 2015.

**Summary of Proposed Enforcement Action:**

The Notice identified violations by CIE of 20 AAC 25.265. Multiple violations occurred during and following commencement of production of Sword #1 between November 17, 2013 and March 7, 2014. CIE also violated 20 AAC 25.300 by failing to respond to an AOGCC request for clarification regarding discrepancies between the company's SVS policies and AOGCC regulation. The Notice proposed the following corrective actions be completed by CIE:

- 1) provide AOGCC a detailed description and an example of its regulatory compliance tracking program and a copy of its written management-of-change procedures;
- 2) provide AOGCC evidence that personnel have been trained in AOGCC regulatory requirements. A copy of the training program syllabus is to be included with other appropriate documentation;
- 3) provide the previously requested written explanation regarding the disparity and all actions undertaken by CIE to ensure that CIE complies with its own written program policies and procedures.

For violating 20 AAC 25.265 and 20 AAC 25.300 the AOGCC proposed to impose civil penalties on CIE under AS 31.05.150(a) as follows:

- \$235,000 for the non-complaint SVS at Sword #1. Included is \$25,000 for the initial event and \$210,000 for operating the well with a defeated SVS (42 days at \$5,000 per day).
- \$420,000 for violating the requirement to install a subsurface safety valve in Sword #1 (84 days at \$5,000 per day).
- \$130,000 for violating the requirements to repair or replace and performance test<sup>1</sup> the subsurface safety valve that failed a performance test on February 16, 2014. Included is \$50,000 for the initial event and \$80,000 for the 16 days Sword #1 remained in production without a regulatory-compliant subsurface safety valve.
- \$21,000 for failing to comply with AOGCC's request to provide – by November 15, 2014 – a written explanation regarding a disparity between CIE's written SVS compliance program and the actions it has taken (21 days at \$1,000 per day).

**Well Safety Valve Systems:**

Every oil well is required to be equipped and maintained with a functional SVS. The SVS must be maintained in good operating condition at all times. There are also established specific requirements for testing to verify the SVS integrity. An SVS test must be passed within five days of a well being placed into service.

Completion of Sword #1 was approved by AOGCC on November 1, 2013 (Sundry Approval 313-570). Production commenced on November 17, 2013. Initial inspection on December 11, 2013 revealed Sword #1 had no functional SVS. Specifically, the surface safety valve was defeated and the subsurface safety valve, though installed, was not operational. Records show there had been no performance test of the SVS within five days of production startup. An AOGCC Inspector witnessed the initial performance test of the Sword #1 SVS (excluding the subsurface safety valve, which at the time did not appear to have been installed) on December

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<sup>1</sup> Performance test is defined in 20 AAC 25.265 as including both a "function-test" and a "function pressure-test". A function-test is accomplished by actuating a component to demonstrate its proper functioning without subjecting it to pressure – 20 AAC 25.990(29); a function pressure-test is accomplished by actuating a component and demonstrating its ability to effect a pressure seal – 20 AAC 25.990(28).

13, 2013. Records indicate that the SVS was defeated 42 days between November 17, 2013 and January 5, 2014. The Sword #1 was producing for that entire period. CIE has offered no evidence to the contrary.

Because the AOGCC's Notice proposed a fine for failure to install a subsurface safety valve, CIE clarified that a subsurface safety valve was installed in Sword #1 as part of running the well's tubing string (tubing retrievable subsurface safety valve) which occurred November 12, 2013.<sup>2</sup> However, the subsurface safety valve was not operational and was not even performance tested until February 16, 2014. The only response offered by CIE as to the subsurface safety valve both in its written response to the Notice and during the informal review was repeated references to Sword #1 as an "unconventional completion" which CIE asserts required an alternative SVS:

*"Careful considerations were taken in the planning and design for the initial production from Sword #1 to ensure a safe and successful operation. Given the nature of the unconventional way of producing Sword #1 coupled with the fact that safety valve systems are geared toward more conventional completions, CIE implemented several comparable safety systems in addition to the SVS. These comparable safety systems are equally effective and add additional layers of protection to prevent an uncontrolled release of hydrocarbons to the surface."*

An unconventional completion that requires alternate SVS is not a routine well operation.

CIE mischaracterizes the alleged comparable safety systems as additional layers of protection to prevent an uncontrolled release of hydrocarbon to the surface. What CIE describes in their response would be alternative safety systems since the required SVS components were nonfunctional. They never sought nor received approval from AOGCC as required in 20 AAC 25.265(o)(1). Careful consideration would have included making sure all regulatory obligations were satisfied. CIE acknowledges that the Sword #1 initial SVS performance test was without adequate communication to AOGCC.

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<sup>2</sup> CIE written response to the Notice, dated February 9, 2015

**Failed Subsurface Safety Valve Performance Test:**

In response to the Notice, CIE claims that the subsurface safety valve installed in Sword #1 was made operational on January 17, 2014. An AOGCC Inspector witnessed an unsuccessful performance test of the subsurface safety valve on February 16, 2014 when the subsurface safety valve failed to close. Under those circumstances, the well was required to be shut in unless the valve could be repaired / replaced and retested within 48 hours. Production records indicate that Sword #1 continued to produce without resolving the subsurface safety valve failure until the well was shut in on March 7, 2014.

CIE acknowledges that the Sword #1 subsurface safety valve failed a performance test on February 16, 2014 and that steps were not taken to shut in the well within 48 hours as required. CIE argues that multiple attempts to fix the valve in situ occurred following the valve failure, and it sought a waiver of the requirements to have a subsurface safety valve. No legitimate basis was offered by CIE for granting a waiver of the requirement to have a compliant subsurface safety valve in Sword #1.<sup>3,4</sup>

**Request for Information:**

A written explanation was requested by letter dated September 5, 2014 regarding the inconsistencies in SVS-related actions undertaken by CIE to ensure compliance with AOGCC regulations and CIE's written SVS policies. CIE failed to respond with the required information by November 15, 2014 (due date). In its February 9, 2015 reply to AOGCC's Notice, CIE acknowledges violating 20 AAC 25.300 by failing to provide a timely response. The only explanation offered was a "failure in some parts of CIE's communication" with AOGCC.

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<sup>3</sup> A passing no-flow test is the only basis for removing a required subsurface safety valve from a well's required SVS. Sundry Approval 313-570 required a no-flow test in accordance with 20 AAC 25.265(k) and (l). A no-flow test must be witnessed by an AOGCC Inspector.

<sup>4</sup> CIE argues that they "started to arrange for a no-flow test" after subsurface safety valve repairs failed and requested a subsurface safety valve waiver by email on February 28, 2014. CIE says it volunteered to perform the no-flow test (test was required by Permit to Drill 2130800 to eliminate subsurface safety valve from Sword #1). CIE's request was ten days past the action date for resolving the failed subsurface safety valve. The waiver request was also simultaneous to AOGCC reviewing CIE's request to authorize downhole commingling of production from the Hemlock and Lower Tyonek "G" Oil Zones in Sword #1. Conservation Order 685 (March 5, 2014) authorized the downhole commingling request and would have invalidated any subsurface safety valve waiver granted by AOGCC.

**Mitigating Circumstances:**

The AOGCC has considered the factors in AS 31.05.150(g) and given due consideration to mitigation efforts and background information described in CIE's February 9, 2015 written response to the Notice (and also during the February 17, 2015 informal review). CIE argues that its past safety record (no uncontrolled release of hydrocarbons; no health, safety and environment issues) operating wells with jet pump completions should be considered in determining "whether any violations have occurred" during the operation of Sword #1. However, that is not the subject of this enforcement action. Nor would a great historic safety record exonerate CIE from compliance with AOGCC's clear regulatory standards in 20 AAC 25.265 and 25.300. The violations at issue here depict CIE's lack of understanding of AOGCC regulatory requirements, incomplete applications, and a lack of communication. CIE's documented history of regulatory noncompliance, acknowledged violations, and need to deter similar behavior warrant proceeding with this enforcement.

Regarding the need to deter, CIE has a history of noncompliance involving various parts of its operation that fall under AOGCC jurisdiction. Refer to the attached compliance history 2011 through 2014. Most recently CIE was granted verbal approval to complete Redoubt Unit #9 (Osprey Platform, Cook Inlet) in an alternate manner than described in Sundry Approval 314-574 (dated October 29, 2014). CIE failed to submit the required Application for Sundry Approval (Form 10-403) until discovered as part of a file review by AOGCC in conjunction with a March 23, 2015 request to restart the shut-in well for an extended flow test. Even after commencement of this enforcement action, CIE continues to demonstrate that regulatory compliance remains a challenge.

CIE readily admits the need for an improved understanding of AOGCC regulatory obligations and improved communication of its intentions. Failure to communicate with AOGCC has been identified by CIE as one of the root causes of these violations associated with Sword#1. Failure to communicate and comply with clear regulatory requirements has been a common cause in other recent enforcement actions against CIE, leading to efforts focused on improving the quality of its regulatory compliance program. Several developing efforts were discussed during the informal review held February 17, 2015 including improvement to CIE's Regulatory Compliance

Tracking Program, revised Management of Change procedure that includes a Chain of Command for production practices, and a Well SVS Training Program for personnel responsible for SVS installations.

**Findings and Conclusions:**

The AOGCC finds that CIE violated 20 AAC 25.265 and 25.300 of the regulations. Consideration of the mitigating circumstances outlined above has resulted in some reduction but not elimination of the monetary penalty that was proposed. The proposed corrective actions are deemed appropriate in this circumstance to address and prevent recurrence of the regulatory violation and are retained in the AOGCC's Final Decision.

**Now Therefore It Is Ordered That:**

A civil penalty in the amount of \$446,000 is imposed. The total amount includes:

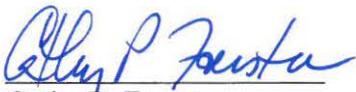
- \$235,000 for the non-complaint SVS at Sword #1. Included is \$25,000 for the initial event and \$210,000 for operating the well with a defeated SVS (42 days at \$5,000 per day);
- \$60,000 for violating the requirement to maintain an operable, tested subsurface safety valve in Sword #1 (12 days at \$5,000 per day);
- \$130,000 for violating the requirements to repair or replace and performance test the subsurface safety valve that failed the initial performance test on February 16, 2014. Included is \$50,000 for the initial event and \$80,000 for continuing to produce Sword #1 without a regulatory-compliant subsurface safety valve (16 days at \$5,000 per day);
- \$21,000 for failing to comply with AOGCC's request to provide – by November 15, 2014 – a written explanation regarding a disparity between CIE's written SVS compliance program and the actions it has taken (21 days at \$1,000 per day).

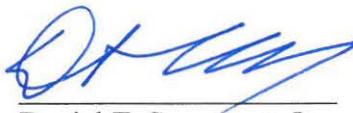
Corrective actions listed in the notice of proposed enforcement were addressed by CIE the February 9, 2015 written response and discussed during the February 17, 2015 informal review. CIE must provide evidence that personnel have been trained in AOGCC regulatory requirements.

Current copies of the training program syllabus and training presentation materials are to be provided no later than May 13, 2015.

As an Operator involved in an enforcement action, you are required to preserve documents concerning the above action until after resolution of the proceeding.

**Done** at Anchorage, Alaska and dated May 1, 2015.

  
Cathy P. Foerster  
Chair, Commissioner

  
Daniel T. Seamount, Jr.  
Commissioner



Attachment

**RECONSIDERATION AND APPEAL NOTICE**

As provided in AS 31.05.080(a), within **20** days after written notice of the entry of this order or decision, or such further time as the AOGCC grants for good cause shown, a person affected by it may file with the AOGCC an application for reconsideration of the matter determined by it. If the notice was mailed, then the period of time shall be **23** days. An application for reconsideration must set out the respect in which the order or decision is believed to be erroneous.

The AOGCC shall grant or refuse the application for reconsideration in whole or in part within 10 days after it is filed. Failure to act on it within 10-days is a denial of reconsideration. If the AOGCC denies reconsideration, upon denial, this order or decision and the denial of reconsideration are **FINAL** and may be appealed to superior court. The appeal **MUST** be filed within **33** days after the date on which the AOGCC mails, **OR 30** days if the AOGCC otherwise distributes, the order or decision denying reconsideration, **UNLESS** the denial is by inaction, in which case the appeal **MUST** be filed within **40** days after the date on which the application for reconsideration was filed.

If the AOGCC grants an application for reconsideration, this order or decision does not become final. Rather, the order or decision on reconsideration will be the **FINAL** order or decision of the AOGCC, and it may be appealed to superior court. That appeal **MUST** be filed within **33** days after the date on which the AOGCC mails, **OR 30** days if the AOGCC otherwise distributes, the order or decision on reconsideration.

In computing a period of time above, the date of the event or default after which the designated period begins to run is not included in the period; the last day of the period is included, unless it falls on a weekend or state holiday, in which event the period runs until 5:00 p.m. on the next day that does not fall on a weekend or state holiday.

**Cook Inlet Energy Compliance History**  
Known as of 4/30/2015

- 6/24/2011 Missing Safety Valve System (SVS) Tests – Kustatan Area Wells
- Well SVS test results for WMRU wells 1A, 2A, 5, 6, Kustatan 1, and WF 3 – all produced during the first six months of the effective date of the readopted SVS regulations (effective 12/3/10) and therefore the SVS should have been tested not later than 6/3/11
  - 12/30/10: CIE provided copy of new regulations, guidance document; request to establish testing months and contact for SVS issues; response due 1/21/11 – no reply
  - 2/11/11: second request for SVS contact and testing months – no reply
  - 6/24/11: letter notifying CIE of missing SVS tests; response due 7/8/11; received response 8/5/11
- 7/29/2011 Missing Reports – CO 644 (Custody Transfer Metering)
- CO 644 (5/6/11) granted conditional approval of coriolis meters for custody transfer measurement at the Kustatan Production Facility subject to: 3<sup>rd</sup> party calibration not more than every 30 days; data and analysis of calibrations provided to AOGCC within 7 days of completion
  - Refer to CO 644 and CO 646 for details about reason for the approval
  - No notice for inspections; no reports; no data provided by CIE; no reply to request dated 7/29/11
  - Notice of Violation sent 12/5/14
- 11/9/2012 Unauthorized Production – Kustatan #1
- Kustatan #1 was determined to be producing up the tubing-casing annulus without AOGCC approval (refer to 20 AAC 25.200(d)); well shut in 11/9/14
  - Also missing 10-407 (Well Completion Report) due within 30 days of completing the well
- 6/6/2013 BOPE Testing Violation
- Failure to test BOPE within 14 days on Miller Rig 35, Redoubt Unit 2A
  - NOV drafted but never sent; non-compliance addressed verbally to CIE
- 12/19/2013 Sword #1 SVS (Defeated SVS; Improper Actions Following Valve Failure)
- Letter initiating investigation of Sword #1 SVS compliance
  - During inspections on 12/11 through 12/13/13, a noncompliant well safety valve system (SVS) was found on the Sword #1; close proximity drilling operations a contributing factor to the seriousness of the incident; surface safety valve (SSV) was found defeated; no subsurface safety valve (SSSV) installed
  - Response due/received 1/31/2014
  - 3/16/14: investigation expanded to include CIE failure to shut in Sword #1 after SSSV did not pass an AOGCC-witnessed performance test on 2/16/14

- AOGCC reply to CIE's email requesting approval to remove SSSV: *"cannot take action on request to removal a required SSSV until an AOGCC-witnessed, passing no-flow test has been performed"*.
- Sword #1 shut in 3/7/14 until SVS brought into compliance
- 3/17/14: meeting with CIE to discuss compliance issues at Sword #1 – failure to install compliant SVS; once installed, failure to maintain a functional, compliant SVS; failure to shut in Sword #1 when SSSV repairs not completed; decisions that are inconsistent with CIE policies that generally follow AOGCC requirements; warned about proper training of personnel, a learn-as-you-go approach for regulatory compliance not accepted by AOGCC
- 9/5/14 letter to CIE - *"significant disparity between CIE's written safety valve system compliance program (previously provided to AOGCC) and the actions it has taken regarding safety valve systems"*; written explanation required
- Response due 11/15/14; no reply

6/1/2014 Failure to Notify of Changes to Approved Permit

- Approved Sundry (10-403) to alter casing velocity string and perforate a new pool in North Fork Unit 14-25
- Testing of lower master valve on production tree failed as part of preparation for well work; CIE developed repair program involving removal of production tree – no AOGCC approval for additional work/changes to approved plan
- Well pressures encountered during unapproved work created serious safety concerns

10/23/2014 Unauthorized Flaring

- CIE obtained AOGCC approval for 72 hours of flaring of Redoubt Unit 3 (RU-3) gas during February 2013 a. Additional flaring of gas from RU-3 production occurred while the Kustatan Production Facility was undergoing a major overhaul between 11/25/13 and 2/28/14.
- Notice of Proposed Enforcement Action dated 10/23/14
- Informal meeting with CIE held 12/1/14
- Other Order 100 issued January 7, 2015 rescinded the civil penalty but required corrective actions

10/23/2014 Failure to Submit Required Sundry Application

- Verbal approval was granted 11/7/14 to complete Redoubt Unit #9 (Osprey Platform) in an alternate manner than described in approved Sundry 314-574 dated 10/29/14
- A revised sundry application was required within 3 days of verbal approval for final approval by AOGCC
- File review conducted by AOGCC 3/23/15 – triggered by request to restart Redoubt Unit #9 for an extended flow test – revealed no sundry application submitted (Sundry application was received 3/24/15)