

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Wednesday, February 15, 2017 11:29 AM
To: Dave Kubeczko - DNR
Subject: FW: <EXTERNAL> SandRidge Exploration & Production LLC, Rabbit Ears 0681 23 Pad, SWNE Sec 23 T6N R81W, Jackson County, Form 2A#401101898 Review

Categories: Operator Correspondence

Scan No. 2108058

RULE 604.c.(2). MITIGATION MEASURE BMPs

2A#401101898

From: Spence Laird [mailto:slaird@sandridgeenergy.com]
Sent: Wednesday, January 25, 2017 2:22 PM
To: Dave Kubeczko - DNR
Subject: RE: <EXTERNAL> SandRidge Exploration & Production LLC, Rabbit Ears 0681 23 Pad, SWNE Sec 23 T6N R81W, Jackson County, Form 2A#401101898 Review

Dave, Please see below BMP's for the items you highlighted. I think this was the last items needed before you could finalize on your end. Let me know if you need anything else from me.

I still don't have a copy of the BLM approval yet but as soon as I do, I'll forward to you.

Thank you!



From: Dave Kubeczko - DNR [mailto:dave.kubeczko@state.co.us]
Sent: Sunday, January 22, 2017 9:46 PM
To: Spence Laird
Cc: Laci Bevans
Subject: <EXTERNAL> SandRidge Exploration & Production LLC, Rabbit Ears 0681 23 Pad, SWNE Sec 23 T6N R81W, Jackson County, Form 2A#401101898 Review

Operator shall also adhere to the BMPs listed on the Operator BMP/COA Tab as well as to the following rule: **Rule**

604.c.(2). A. thru W.:

604. SETBACK AND MITIGATION MEASURES FOR OIL AND GAS FACILITIES, DRILLING, AND WELL SERVICING OPERATIONS

c. Mitigation Measures. The following requirements apply to an Oil and Gas Location within a Designated Setback Location and such requirements shall be incorporated into the Form 2A or associated Form 2 as Conditions of Approval.

(2) Location Specific Requirements – Designated Setback Locations. Subject to Rule 502.b., the following mitigation measures shall apply to any Well or Production Facility proposed to be located within a Designated Setback Location for which a Form 2 Application for Permit to Drill or Form 2A Oil and Gas Location Assessment is submitted on or after August 1, 2013: In particular, the operator should provide site-specific BMPs and/or mitigation measures for the following items **highlighted in yellow**:

A. Noise. – SandRidge constructs all production equipment /facilities to be no louder than 75 dbs off the pad. Lastly, Monthly AVO (Audio, Visual & Olfactory) inspections will be implemented.

B. Closed Loop Drilling Systems – Pit Restrictions. – SandRidge always only uses Closed loop drilling systems with enclosed steel pits.

C. Green Completions – Emission Control Systems. - Flash gas and breathing losses from all production tanks are incinerated within an enclosed combustor rated to 95% or greater destruction efficiency.

D. Traffic Plan.

E. Multi-well Pads.

F. Leak Detection Plan - SandRidge contracts a licensed and bonded Environmental company to conduct reoccurring leak detection and repair (LDAR) inspections at all applicable facilities using an infrared camera. Inspections are done on a regular basis as per the requirements and inspection schedule listed in Colorado Regulation 7 Section XVII.F. Individual facility emissions have been evaluated to determine the appropriate inspection frequency. In addition to the reoccurring infrared camera inspections, SandRidge conducts monthly audio, visual and olfactory (AVO) inspections at all facilities as per the requirements in Colorado Regulation 7 Section XVII.F.4.c Table 4. Lastly, Monthly AVO (Audio, Visual & Olfactory) inspections will be implemented

G. Berm construction. SPCC

SandRidge contracts a licensed and bonded Environmental company to manage our Spill Prevention, Control & Countermeasures (SPCC) plan. The plan is prepared in accordance with Code of Federal Regulations Chapter 40, Section 112.7 and 112.9 as applicable for onshore production facilities. All onshore production facilities that store 1,320 gallons of petroleum, oils, or lubricants on site in containers 55 gallons or greater are subject to these regulations. As part of the process, the SPCC plan is updated any time a new facility is built or any existing facility is modified (potential for discharge affected). SandRidge gathers this information by having personnel take measurements of the containment enclosing the stored media.

H. Blowout preventer equipment (“BOPE”).

I. BOPE testing for drilling operations.

J. BOPE for well servicing operations.

K. Pit level indicators.

L. Drill stem tests.

M. Fencing requirements. - Barbed-wire fences are installed around the property line along with cattle guards at each exposed entrances to prevent grazing cattle and other wildlife from entering location.

N. Control of fire hazards. - Tank battery equipment (vessels, tanks, heaters, etc.) is spaced with minimum distance requirements per 605(a) Series COGCC guidance. All instrumentation and electronics within enclosures is Class I/Div. I or intrinsically safe.

O. Loadlines.

P. Removal of surface trash. - Caged trash trailers will be used on location for disposing of trash. Routine dumping of trailer will occur.

Q. Guy line anchors.

R. Tank specifications. - Production tanks are foam insulated steel and coated internally for produced water storage built to appropriate API and NFPA Code 30 standards. Tanks are grounded via steel lugs to a grounding grid to discharge static buildup. Thief hatches are weighted Enardo-type with oil catchpans (“slobber boxes”) to alleviate dripping during tank gauging operations. Tanks are appropriately marked with NFPA chemical labels.

S. Access roads. - Posted speed limits (10 mph) on all lease roads and pads to reduce dust. Primary access roads are improved with road base per DOT technical specification standards to alleviate erosion/rutting during periods of wet weather.

T. Well site cleared.

U. Identification of plugged and abandoned wells.

V. Development from existing well pads.

- **W. Site-specific measures.** - Pre-disturbed land (re-purposed gravel pit) was selected for pad construction to minimize surface disturbance impact to the area.

Please respond to this email indicating that you have read the policy and rules concerning venting and flaring and will adhere to both; and provide site-specific BMPs addressing nuisance issues and provide to COGCC (an example of site-specific BMPs for guidance has been attached to this email). COGCC would also appreciate your concurrence with attaching the COAs to the Form 2A prior to passing the OGLA review. In addition, could SandRidge provide COGCC with the COAs and wildlife stipulations that BLM has attached to this location (or when you receive them if the federal APDs have not yet been approved). If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist
Western Colorado



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