

Kubeczko, Dave

From: Kubeczko, Dave
Sent: Monday, May 14, 2012 9:48 AM
To: Kubeczko, Dave
Subject: FW: Axia Energy, Bulldog 20-12H-892 Pad, NWSE Sec 20 T8N R92W, Moffat County, Form 2A (#400274343) Review

Categories: Orange - Operator Correspondence

Scan No 2034338 CORRESPONDENCE 2A#400274343

From: Jess Peonio [mailto:jpeonio@axiaenergy.com]
Sent: Tuesday, May 01, 2012 7:24 AM
To: Kubeczko, Dave; LSPermitco@aol.com
Subject: RE: Axia Energy, Bulldog 20-12H-892 Pad, NWSE Sec 20 T8N R92W, Moffat County, Form 2A (#400274343) Review

Axia Energy agrees to the below COA's.

Jess A. Peonio

Sr. Drilling Engineer/Regulatory Manager

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From: Kubeczko, Dave [<mailto:Dave.Kubeczko@state.co.us>]
Sent: Monday, April 30, 2012 4:43 PM
To: LSPermitco@aol.com
Cc: Jess Peonio
Subject: Axia Energy, Bulldog 20-12H-892 Pad, NWSE Sec 20 T8N R92W, Moffat County, Form 2A (#400274343) Review

Lisa and Jess,

I have been reviewing the Bulldog 20-12H-892 Pad **Form 2A** (#400274343). COGCC will attach the following conditions of approval (COAs) based on the data Axia Energy has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review.

1. **Construction (Section 6):** The box answering the question will salt (>15,000 ppm TDS Cl) or oil based muds (OBM) be used? has been marked **Yes**; therefore the following condition of approval (COA) will apply:
COA 11 - A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a drilling pit is constructed, it must be lined. All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in the lined drilling pit, or placed either in containers or on a lined/bermed portion of the well pad; prior to offsite disposal. The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.
2. **Water Resources (Section 14):** Form 2A indicates the distance to the nearest surface water is 400 feet. COGCC guidelines require designating all locations within close proximity to surface water a **sensitive area**.
3. **General:** The following conditions of approval (COAs) will apply:
COA 23 - Operator must ensure 110 percent secondary containment for any volume of fluids (excluding freshwater) contained at well site during drilling and completion operations; including, but not limited to,

construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

COA 5 - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via buried or temporary surface pipelines.

COA 44 - The access road will be constructed as to not allow any sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.

COA 46 - The location is in an area of moderate to high run off/run-on potential; therefore the pad shall be constructed to prevent any stormwater run-on and/or stormwater runoff. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

COA 38 - The moisture content of any freshwater generated drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if the freshwater generated drill cuttings are to be onsite, they must also meet the applicable standards of table 910-1.

COA 47 - A form 15 Earthen Pit Permit must be submitted and approved prior to construction/use of the completions pit.

COA 12 - Any pit constructed to hold oil based muds or salt based fluids and/or cuttings must be lined.

COA 90 - Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the well pad, start of construction of the pit (if different), pit liner installation, and start of fracing operations (via Form 42).

4. **Form 15 Pit Permit COAs:** The following conditions of approval (COAs) will apply to both the Form 2A and the Form 15 Pit Permit:

COA 26 - Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the well pad, start of construction of the pit (if different), pit liner installation, and start of fracing operations (via Form 42).

COA 47 - The completions pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

COA 66 - Delivery and vacuum truck hoses will not be allowed to be placed directly onto the pit liner. Operator will construct a loading/unloading station located next to the pit, to deliver fluids to or remove fluids from the pit by truck. The loading/unloading station shall be designed and utilized to prevent hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The loading/unloading station will be the only permitted access for manual fluids transfers to or from the pit. Vehicles will not be allowed to approach the pit any closer than the loading/unloading station. Each station will have a catch basin in case a leak occurs while operations personnel are connecting or disconnecting hoses. Signs clearly marking the truck loading/unloading station shall be provided and maintained by the operator.

COA 48 - Operator must submit as-built drawings (plan view and cross-sections) of the completion pit within 14 calendar days of construction.

COA 11 - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

COA 22 - After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 70 percent of operating capacity of water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to draining the pit and commencing operations. The leak detection system must also be monitored during the entire test. Operator shall notify the COGCC Oil and Gas Location Assessment

(OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit.

COA 67 - In lieu of conducting an initial hydrostatic test of the pit, the operator can monitor fluid levels in the pit continuously using a minimum of two pressure transducers located at the upgradient and downgradient ends of the pit (based on the original topographic profile). These pressure transducers should be linked to the operator's SCADA system such that they can be remotely monitored. In addition, the pit liner will be marked at the two foot freeboard depth line so that operations personnel (as well as COGCC inspectors) can easily verify that the required fluid free board is being maintained. The electronically collected water level measurement data shall be used to confirm changes in pit inflow and outflow during operations based on estimates from truck and/or pipeline delivery or removal activities. Any abnormalities that are noticed during operations will be reported to the operator's field supervisor immediately so that any necessary follow-up can be scheduled.

COA 25 - Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or pit located on the well pad or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

COA 39 - No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

COA 49 - For pits containing fluids other than freshwater only; the pit must be fenced. If the pit is not drained, or closure has not begun within 30 days after last use for well completion, the pit must be netted. The operator must maintain the fencing and netting until the pit is closed.

COA 27 - Submit additional disposal facilities (wells, pits, etc.), if necessary (i.e., if original disposal option changes), for pit liquid contents to COGCC via a Form 4 Sundry prior to disposal.

COA 28 - Pits used exclusively for drilling shall be closed in accordance with the 1000-Series Rules. Any pit(s) used for purposes other than drilling shall be closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels; with an approved Site Investigation and Remediation Workplan, Form 27.

COA 91 - At the time of pit closure, operator must submit disposal information for solids, if necessary, via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure.

COA 92 - At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to Dave Kubeczko (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure.

COGCC would appreciate your concurrence with attaching these COAs to the Form 2A permit prior to passing the OGLA review. 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

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