

Dave Kubeczko - DNR

From: Dave Kubeczko - DNR
Sent: Thursday, September 18, 2014 4:57 PM
To: Dave Kubeczko - DNR
Subject: FW: Black Hills Plateau Production LLC, DeBeque Station Water Management Facility Site, SESW Sec 29 T8S R97W, Mesa County, Form 2A#400556701; Form 15#400639898 Reviews

Categories: Operator Correspondence

Scan No 2107106

CORRESPONDENCE

2A#400556701

15#400639898

From: Donahue, Jessica [mailto:Jessica.Donahue@blackhillscorp.com]

Sent: Thursday, September 18, 2014 4:40 PM

To: 'Dave Kubeczko - DNR'

Subject: RE: Black Hills Plateau Production LLC, DeBeque Station Water Management Facility Site, SESW Sec 29 T8S R97W, Mesa County, Form 2A#400556701; Form 15#400639898 Reviews

Dave,

Black Hills agrees to all these stipulations. Do you know when an approval may come through? We'd like to begin construction next week.

Thank you,
Jessica

-----Original Message-----

From: Dave Kubeczko - DNR [dave.kubeczko@state.co.us]

Sent: Thursday, September 18, 2014 02:59 PM Central Standard Time

To: Donahue, Jessica; dpearson

Subject: Black Hills Plateau Production LLC, DeBeque Station Water Management Facility Site, SESW Sec 29 T8S R97W, Mesa County, Form 2A#400556701; Form 15#400639898 Reviews

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Jessica and Drew,

I have been reviewing the DeBeque Station Water Management Facility Site **Form 2A** (#400556701) and DeBeque Station Pit No. 1 **Form 15** (#400639898). COGCC would like to attach the following conditions of approval (COAs) based on the information and data Black Hills has submitted on or attached to the Form 2A and the Form 15 prior to passing the Oil and Gas Location Assessment (OGLA) review.

General Site: The following conditions of approval (COAs) will apply:

Planning: The following conditions of approval (COAs) will apply:

COA 91 - Notify the COGCC 48 hours prior to start of pit site construction, pit liner installation, start of hydrostatic test, start of pit use, and pipeline testing using the Form 42. Black Hills will also need to notify the

COGCC 48 hours prior to start of all hydraulic stimulation operations for nearby well pad locations that will use fluids from and return fluids to this pit using the Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

In addition, this location has been designated a “sensitive area” due to proximity to downgradient surface water (366’), presence of numerous other natural drainages nearby, and proximity to an irrigation canal located less than 2000’ from the pit site.

COA 82 - Operator must implement all operations detailed in the operating plan, pit liner installation specifications, and all other attachments to the Form 15 and Form 2A in accordance with the 900-Series Rules.

COA 9 - Groundwater Testing: Prior to pit operations, operator shall sample the following water wells (two upgradient and three downgradient) that have been identified by COGCC as being acceptable locations. The initial samples shall be collected prior to pit construction. Follow up sampling shall occur yearly during pit operations and continue for three years after pit closure:

UPGRADAIENT WELLS:

- 1) Permit No. 292780- -Red Rock gathering Company LLC; commercial well; TD - 430’ bgs; screened interval – 370’ to 410’ bgs; SWL - 36’ bgs; pumping rate – 5 gpm; formation - bedrock; located approximately 1307’ to the north-northwest (upgradient);
- 2) Permit No. 279019-Heidel, Kim; domestic well; TD - 344’ bgs; screened interval – 244’ to 344’ bgs; SWL - 106’ bgs; pumping rate – 1.5 gpm; formation - bedrock; located approximately 2673’ to the west (upgradient);

DOWNGRADIANT WATER WELLS:

- 3) Permit No. 45327-Cox, Harry; domestic well; TD - 304’ bgs; screened interval – 220’ to 270’ bgs; SWL - 27’ bgs; formation - bedrock; located approximately 2817’ to the southeast (downgradient);
- 4) Permit No. 52442-MH-Bluestone Water Conservancy District; monitoring well/dewatering well; TD - 30’ bgs; screened interval – 10’ to 30’ bgs; SWL - 10’ bgs; pumping rate – 5 gpm; formation - alluvium; located approximately 5876’ to the east-southeast (downgradient);
- 5) Permit No. 52440-DW-Bluestone Water Conservancy District; dewatering well; TD - 30’ bgs; screened interval – 10’ to 30’ bgs; SWL - 10’ bgs; pumping rate – 5 gpm; formation -alluvium; located approximately 5998’ to the east-southeast (dowgradient);

The groundwater samples will be analyze for pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO₃), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime forming), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Field observations such as odor, water color, sediment, bubbles, and effervescence shall also be documented. The location of the sampled Water Sources shall be surveyed in accordance with Rule 215.

Documented refusal to grant access by well owner or surface owner (for water well), or if no water wells or springs are located/identified within approximately 1.5 miles, shall not constitute a violation of this COA.

COA 32 - Surface water samples (one upstream and one downstream from the multi-well pit location) from the unnamed intermittent streams located approximately 366 feet to the south and 513’ to the east of the location (if water is present), shall be collected prior to pit use and every 12 months (until pit closure) to evaluate potential impacts from pit operations. At a minimum, the surface water samples will be analyze for pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO₃), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime forming), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Field observations such as odor, water color, sediment, bubbles, and effervescence shall also be documented. The location of the sampled Water Sources shall be surveyed in accordance with Rule 215.

COA 42 - Within 6 months of approval of the Form 2A and Form 15 for Pit 1 (no later than March 31, 2015), operator must submit a completed Form 28 Permit for the DeBeque Station Centralized E&P Waste Management Facility that includes the required information for all three proposed pits as well as all ancillary facilities and equipment at this location in accordance with **Rule 908. CENTRALIZED E&P WASTE MANAGEMENT FACILITIES**. Failure to do so will result in enforcement action (which may include a Cease and Desist Order from the COGCC and an issuance of a Notice of Alleged Violation [NOAV] with fines of up to \$15,000.00 per day).

COA 43 - The Conditions of Approval (COAs) that will be attached to the Form 28 Permit (that will be submitted within 6 months of approval the Form 2A and Form 15 for Pit No. 1) for the entire Centralized E&P facility will also apply to these Form 2A and Form 15 permits for this Pit No. 1 location. The COAs for the Form 28 may supersede and/or update these existing COAs.

COA 44 - After approval of the Form 2A and Form 15 permits, and prior to start of pit site construction (blade to the ground), adequate financial assurance per Rules 704 and 908.11.g.(1)B. for Pit 1 are required. At a minimum, the cost estimate amount shall be equivalent for the cost of construction of this phase. When the operator submits the Form 28 for this facility, a revised Pit Closure, Remediation, and Reclamation Cost Estimate for the entire location will be required and additional financial assurance will be needed prior to construction of the additional pits and facilities.

Pit Site Construction: The following conditions of approval (COAs) will apply to the pit site location:

COA 23 - Operator must ensure secondary containment for any volume of fluids contained at pit site during 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. All BMPs at the pit site location shall be stabilized, inspected at regular intervals (at least every 14 days and after precipitation events), and maintained in operational condition.

COA 76 – Due to the very fine-grained nature of surface soils and materials in the area, strategically apply fugitive dust control measures, including enforcing established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.

COA 24 - Operator shall stabilize exposed soils and slopes as an interim measure during operations at this pit site.

COA 58 - Berms or other containment devices around crude oil, condensate, and produced water storage tanks shall be constructed to be sufficiently impervious (corrugated steel with poly liner) to contain any spilled or released material.

COA 6 - Additional containment shall be required where temporary or permanent pumps and other necessary equipment or chemicals are located.

COA 74 - Operator will use adequately sized (per COGCC and SPCC rules) containment devices for all chemicals and/or hazardous materials stored or used on location.

COA 40 - No oil is permitted on the surface of fluids stored in the pit. Operator will implement measures to ensure that adequate separation of hydrocarbons from the influent occurs to prevent accumulation of oil on the surface of stored fluids. Operator shall also employ a method for monitoring buildup of phase-separated hydrocarbons on the surface of stored fluids. Any oil detected on the surface shall be removed within 24 hours.

COA 81 - The pit will be operated in accordance with the operations plan submitted and any revisions with the Form 28 for the E&P Facility.

Pit Construction: The following conditions of approval (COAs) will apply to both the Form 2A and the Form 15 Earthen Pit Permit for the pit:

COA 47 - The multi-well pit must be double-lined as shown on the Construction Layout Drawings and the liners must be in compliance with **Rule 904. PIT LINING REQUIREMENTS AND SPECIFICATIONS**; including Rule 904.d. which states liner thickness, anchoring, and foundation requirements; and Rule 904.e. which states that the pit will have a leak detection system.

COA 66 - Delivery and vacuum truck hoses shall 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 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 either draining the pit for repair or commencing operations. Operator shall notify the COGCC 48 hours prior to start of the hydrotest using the Form 42. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit via Form 4 Sundry. A successful hydrotest must be completed prior to using the pit to store E&P waste.

COA 51 - Operator shall submit a Colorado P.E. approved/stamped as-built drawing (at a minimum including plan view and cross-sections) of the multi-well pit within 14 days of construction completion certifying the volume of the pit, and the available freeboard.

COA 52 - 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 (P.E.), 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 P.E., or their agent. The entire base of the pit must be in cut. Operators must submit a P.E. approved/stamped as-built drawing (plan view and cross sections) of the pit within 14 days of construction.

COA 59 - The multi-well pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed.

COA 19 - The operator shall submit, and receive approval of, a reuse and recycling plan per Rule 907.a.(3), prior to any offsite reuse/recycling of pit fluids.

COA 27 - The multi-well pit shall be closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels. The operator shall submit a Form 27 for COGCC review and approval prior to commencing pit closure activities. The operator shall also submit a Notice of Completion for COGCC review and approval within 30 days of concluding pit closure activities.

Material Handling and Spill Prevention: The following conditions of approval (COAs) will apply to both the Form 2A and the Form 15 Pit Permit for any temporary surface pipelines (poly or steel) and permanent buried pipelines (poly or steel) that are used either at the pit site or at nearby well pad locations that will use fluids from and return fluids to this pit during completion operations:

COA 45 - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration or repair of the pipeline network.

COA 49 - Operator must visually inspect the entire length of the surface pipeline to ensure integrity. Operator shall conduct daily inspections of surface poly pipeline routes for leaks during active transfer of fluids and implement best management practices to contain any unintentional release of fluids along all portions of the surface pipelines where temporary pumps and other necessary equipment are located. Operator will endeavor to minimize surface disturbance during pipeline monitoring. In addition, pump stations along the surface poly or steel pipeline route will be continuously monitored when operating in order to swiftly respond to such a failure.

COA 54 - Operator must ensure no release of fluids at all stream, intermittent stream, ditch, and drainage crossings. For these crossings: operator will ensure appropriate containment by either installing over-sized pipe "sleeves" which extend the length of the crossing and beyond to either lined catchment basins or to a distance deemed adequate to capture and/or divert any possible release of fluids and prevent fluids from reaching the stream or drainage; or installing catchment basins with diversion/secondary containment structures that would be sized to contain the volume of fluid that might be released between the surface water and the closest shut off mechanism. Pump stations along the surface poly pipeline route will be continuously monitored when operating in order to swiftly respond to such a release. Another option would be to install over-sized pipe "sleeves" which extend the length of the crossing and installing shut off valves on either side of crossing instead of catchment basins.

COA 55 - Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.

Drilling/Completions: The following conditions of approval (COAs) will apply for nearby well pad locations that will use fluids from and return fluids to this pit:

COA 91 - Notify the COGCC 48 hours prior to start of all hydraulic stimulation operations for nearby well pad locations that will use fluids from and return fluids to this pit using the Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

COA 25 - Flowback and stimulation fluids from the wells/pads being completed using fluids from this pit (if applicable) must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) located on the well pad; or into tanker trucks for delivery back to this pit. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area constructed to be sufficiently impervious to contain any spilled or released material.

COGCC would appreciate your concurrence with attaching these COAs to the Form 2A and Form 15 permits prior to passing the OGLA review. These COAs will also become part of the Form 28 Permit. If you have any questions, please do not hesitate to call me at [\(970\) 309-2514](tel:9703092514) (cell), or email. Thanks.

Dave

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



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