

Objective Criteria Review Memo, HighPoint Operating's Randall Creek 30 SW, Form 2A Document # 401976837

This summary explains how COGCC staff conducted its technical review of the HighPoint Operating Corporation (HighPoint), Randall Creek 30 SW Form 2A, Document #401976837 within the context of SB 19-181 and for the required Objective Criteria. This Form 2A was submitted for a new Oil & Gas Location to drill 16 wells, install 24 oil tanks, six water tanks, 16 separators, eight vapor recovery units (VRU), six volatile organic compound (VOC) Combustors, three lease automatic custody transfer (LACT) units, one pigging station, and one automation system in Weld County, Colorado. This Location meets the following Objective Criteria:

1. (Criteria #5.c) Location lies within a Sensitive Area for water resources.
2. (Criteria #8) Location has hydrocarbon storage or produced liquid in more than 18 tanks or in excess of 5,200 barrels.

COGCC staff met with the Director to discuss the Objective Criteria for the Form 2A with the proposed Best Management Practices (BMPs) and applied Conditions of Approval (COAs). The following sections provide details regarding the evaluation of each criterion.

Criteria 5.c: Oil and Gas Locations within a Sensitive Area for water resources.

Site Specific Description of Applicability of Criteria 5.c: The Location lies within the Crow Creek Designated Groundwater Basin and therefore is a sensitive area by COGCC definition. Estimated depth to groundwater is at 60 feet based on the static water levels reported for the closest water well, Division of Water Resources Permit # 109484--A, in the vicinity of the Location.

Site Specific Measures to Address Criteria 5.c: Based on the technical review, HighPoint will institute the following BMPs on this Location to protect water resources within this Sensitive Area.

- Implement site-specific stormwater control measures in accordance with good engineering practices, including limiting disturbed areas during construction, constructing a perimeter diversion ditch and berm, site grading and use of other structural BMPs such as erosion control blankets, wattles, check dams, and sediment traps constructed along the western, northern, and eastern edges of the spoils and topsoil stockpiles.
- Inspections will be conducted every two weeks at a minimum during construction and after significant precipitation events. Land use is in the Farm Bureau Conservation Reserve Program (CRP) as grassland. Monthly inspections will be conducted post-construction and interim reclamation until vegetation has been re-established.
- A closed loop drilling system and water-based bentonitic drilling fluids will be used and the Operator will not use drilling pits. Drilling fluids and cuttings will be hauled offsite to a permitted spreadfield for disposal. Sand and sediment will be allowed to settle out of flowback and stimulation fluids before they are hauled offsite for disposal.
- Proper loading and transportation procedures will be followed for all materials brought to and from the location. Drip pans and liners shall be used during equipment refueling and maintenance.

- All production facilities will be constructed within lined secondary containment to prevent migration of contaminants into the underlying soils and groundwater. Tanks will either be placed in galvanized metal containment structures, plastic containment structures, or lined (30 mil HDPE) containment with walls constructed of steel. Separators will not have sized secondary containment structures but HighPoint will provide general secondary containment via an earthen perimeter berm.
- Separators will be internally coated and fitted with sacrificial anodes for corrosion protection.
- Storage tanks will be placed inside lined secondary containment. The production facility will have full remote monitoring and shutdown functionality built into the supervisory control and data acquisition (SCADA) system onsite and allow the HighPoint to implement a facility wide remote emergency shut-down (ESD) if necessary.
- Flowlines and pipelines will be constructed of appropriate materials for the proper pressure ratings and fluids they are carrying and will be maintained to prevent corrosion and leaks.
- The lease operator or representative will visit the location routinely, typically daily, to visually inspect all tanks and process equipment for leaks.

The proposed BMPs provide protection of sensitive water resources through each stage of the development process. Some of these BMPs also address Criteria #8 for hydrocarbon storage.

Criteria 8 Oil and Gas Locations with hydrocarbon storage or produced liquid in more than 18 tanks or in excess of 5,200 barrels.

Site Specific Description of Applicability of Criteria 8: A total of 24 oil tanks and six water tanks are proposed for the Location for a total of 30 tanks.

Site Specific Measures to Address Criteria 8: As stated above the facility will have full remote monitoring and shut-down functionality built into the SCADA system to allow for facility wide ESD if necessary. The lease operator or representative will typically visit the location on a daily basis to perform inspections. Based on the technical review, HighPoint will institute the following BMPs to mitigate the large volume of hydrocarbon and produced water storage on Location.

- Tank design, construction, and maintenance will be performed in accordance with applicable industry and National Fire Protection Association (NFPA) standards.
- HighPoint prepared an emergency action plan that was required to be reviewed and approved by the local fire districts as part of the Weld Oil and Gas Location Assessment (WOGLA) process. The plan is included within the application and must be approved before the WOGLA is approved.
- Monthly documented infrared (IR) camera inspections will be performed to detect hydrocarbon leaks and schedule for repair.
- All tanks are internally coated, fitted with internal sacrificial anodes, equipped with remote liquid level sensors, have tank thief hatch gasket seals, pressure relief valves (PRV), and vapor recovery, VOC combustors, and emission control devices (ECD).
- All containment areas will be inspected weekly and after heavy rain events. Excessive stormwater accumulation will be removed and disposed or discharged on location if

unimpacted. Containment design will be sufficient to contain the largest tank and stormwater volume.

- Four-strand barbed wire fencing will be installed around the perimeter of the Location and cattle guards set at the Location entrance and will remain throughout interim reclamation.

Summary: HighPoint provided site specific BMPs to protect sensitive water resources related to being within the Crow Creek Designated Groundwater Basin and environmental protections due to the number of storage tanks on Location. Construction stormwater BMPs will control sedimentation runoff and erosion. Water-based bentonite drilling fluids in a closed loop system will be utilized during drilling to protect groundwater resources. Production facilities constructed within lined secondary containment will prevent migration of contaminants into the underlying soils and groundwater. Pumper will visit the location daily and visually inspect all tanks and fittings for leaks.

Tanks, equipment, and piping are constructed of materials compatible with the pressures and fluids that they store, treat, handle, or transport. Tanks conform with applicable industry and NFPA standards. The SCADA system will allow remote fluid level monitoring and shut-down including a facility wide ESD if necessary. All tanks are internally coated, fitted with internal sacrificial anodes, equipped with remote liquid level sensors, tank thief hatch gasket seals, PRV, and vapor recovery and ECD. Monthly leak detection and repairs are conducted using an IR camera. A fence constructed around the perimeter and an entrance cattle guard provide site security.

Director Determination:

Based on the Objective Criteria review. The Director has determined that this permit application meets the standard for protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.