

**Director Criteria Review Memo – SRC Energy Bost Farm 5-7 Pad, Form 2A #401552974
(Location ID #456832)**

This summary explains how COGCC conducted its technical review of the existing SRC Energy Bost Farm 5-7 Pad location within the context of SB 19-181 and for the required Director's Objective Criteria. The COGCC approved the Form 2A for SRC Energy's Bost Farm 5-7 Pad in August 2018. This Oil & Gas Location was approved for 48 wells. At the time the Form 2A was approved, SRC Energy had submitted only 24 Form 2 Applications for a Permit to Drill (APDs). SRC Energy has since submitted Form 2 APDs for 12 more wells on this Oil & Gas Location. These Form 2 APDs met the following Director's Objective Criteria -

1. (Criteria 1) Oil and Gas Locations within 1,500 feet of a Building Unit or High Occupancy Building, which includes Urban Mitigation Area (UMA) and Large UMA Facility (LUMAF) locations (the closest Building Unit is 972 feet from a well and 762 feet from a production facility)
2. (Criteria 2) Oil and Gas Locations within a municipality (City of Greeley)
3. (Criteria 5c) Location within a Sensitive Area for water resources (adjacent mapped wetland and shallow groundwater)
4. (Criteria 8) Oil and Gas Locations with storage of hydrocarbon or produced liquid in more than 18 tanks or in excess of 5,200 barrels (16 oil tanks and 4 water tanks)

COGCC staff met with the Director to discuss whether the Objective Criteria were sufficiently addressed and whether the Form 2 APDs could be approved with the Best Management Practices (BMPs) and applied Conditions of Approval (COAs) on the approved Form 2A. The following section provide details regarding the evaluation of each criterion.

Criteria 1: Oil and Gas Locations within 1,500 feet of a Building Unit or High Occupancy Building, which includes Urban Mitigation Area (UMA) and Large UMA Facility (LUMAF) locations.

Site Specific Description of Applicability of Criteria 1: At the Director's request, SRC Energy has identified 92 Building Units within 1,500 feet of the Oil & Gas Location. There are only three Building Units (to the west and northwest) in the Buffer Zone (1,000 feet from a well or production facility), with the nearest Building Unit being 972 feet from a well and 762 feet from a production facility. There are only six Building Units (to the west, northwest, and northeast) within 1,000 of the edge of the Oil and Gas Location. Therefore, this Oil & Gas Location is not within an UMA. The remaining Building Units are between 1,000 feet and 1,500 feet from the Oil & Gas Location.

Site Specific Measures to Address Criteria 1: SRC Energy submitted all required notices, provided the required siting rationale for the production facilities, and the required Rule 604.c.(2) mitigation BMPs on their Form 2A. These BMPs included mitigation of nuisance conditions

such as noise, dust, lights, and odors. In particular, the Noise mitigation BMP (BMP #15) indicates that sound walls will be used on the west, south, and east sides for the North Well Pad, and the west, south, and east sides for the South Well Pad. These nuisance mitigation BMPs serve to protect the Building Unit Owners in the Buffer Zone. Therefore, they also protect the Building Unit Owners beyond the Buffer Zone and within 1,500 feet of the Oil and Gas Location.

SRC Energy held a neighborhood meeting on May 14, 2018 as part of the required Greeley USR process in which 38 people attended. The Form 2A was approved by the COGCC in August 2018. A Form 42 Construction Notice was submitted indicating construction of the Oil & Gas Location would start on September 13, 2018. The first well was spud on September 26, 2018. SRC Energy has indicated they have remained in periodic communication with the developer/builder of the large residential neighborhood to the east where the bulk of the Building Units within 1,500 feet are located. The most recent communication being on June 11, 2019. Per SRC Energy, there have been no complaints from any of the approximately 400 homeowners in this residential development. Currently, COGCC has received no complaints for this Oil & Gas Location. SRC Energy has also indicated that on April 16, 2018 they placed two signs on the west side of this residential development notifying residences of the on-going operations.

The COGCC Director and staff met with SRC Energy on June 24, 2019 to discuss the location and possible alternate locations to drill these wells. SRC Energy has indicated they continue to be in contact with the developer of the large residential neighborhood to the east, that all liquids (oil, water, and gas) will be piped from the location to minimize truck traffic greatly, and they have coordinated with the City of Greeley and the Greeley Fire Department in case of fires or explosions at the location.

SRC Energy also discussed several alternate locations with the Director and staff. SRC Energy presented five different alternatives within the DSUs and described why they were not viable options. One location was not attainable as the Surface Owner has plans to develop the property, a second was not attainable, as the City of Greeley intention is that this area be developed with commercial property due to it bordering US Highway 34 and it would also be a COGCC defined Large Urban Mitigation Area Facility due to the number and proximity of existing Building Units. Three other alternatives would either require multiple surface locations or four mile laterals, which are not possible given available technology.

Determination: Given the foregoing, the Director determined Criteria 1 was sufficiently analyzed.

Criteria 2: Oil and Gas Locations within a municipality.

Site Specific Description of Applicability of Criteria 1: This Oil & Gas Location is located within the City of Greeley.

Site Specific Measures to Address Criteria 1: SRC Energy has indicated the City of Greeley regulates the siting of Oil & Gas Locations and that an approved Use by Special Revue from the City of Greeley (USR 17:17) was issued on September 9, 2018.

Determination: Given the foregoing, the Director determined Criteria 2 was sufficiently analyzed.

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

Site Specific Description of Applicability of Criteria 5.c: The proposed location is in a sensitive area due to its proximity to a mapped wetlands and shallow groundwater. Groundwater is estimated to be 10 feet below ground surface and the mapped wetland being immediately adjacent to the proposed location

Site Specific Measures to Address Criteria 5.c: SRC Energy included several BMPs (BMP #7-Storm Water/Erosion Control, #8-Leak Detection, #10-Berm Construction, & #14-Wetlands Protection) on the Form 2A that addressed additional protections to prevent or minimize impacts to the mapped wetlands and shallow groundwater. Additionally, COGCC staff placed a Condition of Approval on the Form 2A requiring SRC Energy to mark and/or fence the boundary of the wetland and to keep all oil and gas activities outside of the wetland.

Determination: The Director determined that Criteria 5.c was sufficiently analyzed based on the application of additional BMPs that address the protection of the mapped wetlands and shallow ground water resources, and were sufficient to meet the standard for protection of the sensitive environment and water resources.

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

Site Specific Description of Applicability of Criteria 5.c: The Form 2A for this Oil & Gas Location was approved for 16 oil tanks and 4 water tanks.

Site Specific Measures to Address Criteria 8: SRC Energy has indicated that as part of the Greeley USR, a Tactical Response Plan was coordinated and prepared with local emergency responders. Additionally, at the request of the Greeley Fire Department, SRC Energy modified the location to add another Access Road to have additional access to the pad for emergency situations if needed. The Form 4 Sundry describing this modification was approved by the COGCC October 2018.

Determination: The Director determined that Criteria 8 was sufficiently analyzed based on the requirements of the approved City of Greeley USR and the addition of another Access Road at the request of the Greeley Fire Department.

Staff met with the Director to discuss the updated BMPs and the COAs that were applied to the Form 2A by COGCC staff. The Director determined that following the application of the

additional analysis from the Objective Criteria, the permit application meets the standard for protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.