

Director Criteria Review Summary – Kerr McGee Oil & Gas Onshore, Jodster South 24-25HZ Pad, Form 2A Doc #401779724

This summary explains how COGCC staff conducted its technical review of the Kerr McGee Oil & Gas Onshore (KMG) Jodster South 24-25HZ Pad, Form 2A Doc #401779724 within the context of SB 19-181 and for the required Director's Objective Criteria. This Form 2A permit application met the following Director's Objective Criteria -

1. (Criteria 1) The proposed Location lies within 1,500 feet of a Building Unit (the nearest Building Unit is approximately 600 feet east of the Oil and Gas Location).
2. (Criteria 3) The proposed Location lies within 1500 feet a municipal boundary (Johnstown) and within 1500 feet of a county boundary (Weld County).
3. (Criteria 5c) The proposed Location lies within a Sensitive Area for water resources (Hillsboro Ditch 274 feet northwest and within an area of potential shallow groundwater).
4. (Criteria 8) The proposed location will have storage of hydrocarbon or produced liquid in more than 18 tanks (3 condensate, 10 permanent water, and 54 temporary water tanks).

COGCC staff met with the Director to discuss whether the Objective Criteria were sufficiently addressed and whether the Form 2A could be approved 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 1: Oil and Gas Locations within 1,500' of a Building Unit or High Occupancy Building, which include Urban Mitigation Area ("UMA") and Large UMA Facility ("LUMAF") locations.

Site Specific Description of Applicability of Criteria 1: Based on the technical review and desktop evaluation, staff identified nine Building Units within 1,500 feet of the Oil & Gas Location (located southeast, east, northeast, north, and northwest). The nearest Building Unit is approximately 600 feet east of the Oil and Gas Location. There are two Building Units within 1,000 feet of a well (872 feet to the east and approximately 950 feet to the north). There is only one Building Unit is within 1,000 feet of a production facility (983 feet to the east). There are no High Occupancy Building Units or high density residential neighborhoods within 1,500 feet of the proposed location.

Site Specific Measures to Address Criteria 1: Because two Building Units are located within 1,000 feet of the proposed wells and production facilities, this location is a Buffer Zone location and is subject to all BMPs and mitigation measures specified in Rule 604.c.(2). These protections for nuisance impacts will also serve to protect residents in the other proximate Building Units, despite their location outside the Buffer Zone setback. Kerr McGee sent all required notices to the two Building Unit owners within the Buffer Zone. Neither of the two Building Unit owners requested a meeting/consultation with Kerr McGee. Kerr McGee has

indicated they will conduct in-person meetings with those Building Unit owners between 1,000 and 1,500 feet from the location prior to construction starting.

COGCC rule 604.c.(2)E.i requires multi-well production facilities to be placed as far as possible from Building Units. Kerr McGee plans to site the permanent production facilities greater than 1,000 from the nearest Building Unit but does plan to place the temporary tanks, which will be on location for the first six to nine months, within 1,000 feet of a Building Unit. Kerr McGee provided a detailed rationale for the planned placement of the temporary tanks on the Form 2A. After the temporary tanks have all been removed from the proposed location, no production facilities will be within 1,000 feet of a Building Unit.

In order to mitigate odors, Kerr McGee plans to mitigate tank vapor emissions from the temporary tanks and permanent tanks with emission control devices (ECDs).

Determination: During the technical review process, COGCC staff requested additional information and clarification regarding the applicant's proposal and BMPs (e.g. the Noise mitigation BMP was revised to expand the use of sound walls to minimize noise impacts to all Building Units within 1,500 feet of the location) and the information received has been added to the application materials. The applicant provided enhancements and clarifications to the proposed BMPs. Given the foregoing, the Director determined Criteria 1 was sufficiently analyzed.

Criteria 3: Oil and Gas Locations within 1,500' feet a municipal boundary, platted subdivision, or county boundary

Site Specific Description of Applicability of Criteria 3: The proposed Location is planned in unincorporated Larimer County and lies within 1,500 feet a municipal boundary (Johnstown) and within 1,500 feet of a county boundary (Weld County).

Site Specific Measures to Address Criteria 3: Kerr McGee has indicated they have reached out to the Town of Johnstown about their proposed location. They indicated that the Town of Johnstown has not provided any feedback or comments. Additionally, traffic haul routes will be proactively routed north of the Town limits, minimizing impacts to that community.

This proposed Oil and Gas Location is accessed from LCR 1/WCR 13; therefore, Kerr McGee reached out to both Larimer County and Weld County Public Works Departments. Because this proposed Oil and Gas Location is located in Larimer County, Weld County deferred to Larimer County for any Access Permits.

Determination: The Director determined that Criteria 3 was sufficiently analyzed because there was sufficient communication and coordination between the operator and the relevant local government and local jurisdictions within 1,500 feet of the proposed Oil and Gas Location and

all concerns raised by the proximate local governments were addressed during the permit process.

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 surface water features and shallow groundwater.

Site Specific Measures to Address Criteria 5.c: Staff worked with the operator to place BMPs on the form that address protection of the sensitive environment including; tertiary containment to protect the proximate surface water features, lining production facilities, equipping the location with remote shut-in capabilities, and an inspection program for leak detections.

Determination: The Director determined that Criteria 5.c was sufficiently analyzed based on the application of additional BMPs that address the protection of ground and surface water resources 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 barrels.

Site Specific Description of Applicability of Criteria 8: Kerr McGee has indicated they will have three condensate, 10 permanent produced water, and 54 temporary tanks on this Oil & Gas Location.

Site Specific Measures to Address Criteria 8: Of the 54 temporary tanks, two will be used for the pre-spud drill rig only. The other 52 temporary tanks will be 500-barrel skid mounted frac tanks, utilized during flowback and for produced water storage. Kerr McGee anticipates these 52 temporary water tanks will be on the location for approximately 6-9 months. Once these temporary tanks are gone, there will be a total of 13 permanent tanks on this Oil and Gas Location. Kerr McGee has submitted an Emergency Action Plan to the Loveland Rural Fire Protection District.

Kerr McGee included a BMP indicating a geosynthetic liner will underlay and earthen berms will be constructed around these temporary tanks:

Berm Construction: The temporary produced water storage tanks will be staged on a geosynthetic liner and surrounded by an earthen berm. The berms shall enclose an area sufficient to provide secondary containment for 150% of the volume of the largest single tank, and shall be sufficiently impervious to contain spilled or released material. Berms and the liner shall be inspected at regular intervals and maintained in good condition.

Determination: The Director determined that Criteria 8 was sufficiently analyzed based on the BMP applied to this Form 2A and that once the temporary tanks are gone from the location this Criteria will no longer apply.

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.