

STATE OF COLORADO

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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

August 27, 2013

Mr. Matthew Lepore, Director COGCC
1120 Lincoln Street, Suite 801
Denver, Colorado 80203

Re: Colorado Department of Public Health and Environment (Department) Consultation
Recommendations for the Synergy Resources Corporation Kelly Farms Pad A-4-3NHZ located in
Weld County

Dear Mr. Lepore:

This letter describes the Department's recommendations to the Commission on conditions for approval to minimize adverse impacts for the Synergy Resources Corporation (Synergy) multi-well pad located in the SENW of Section 4, Township 5N Range 66W in Weld County, Colorado. These recommendations are based on onsite meeting with representatives from Weld Air and Water, the City of Greeley, Synergy and their environmental contractor Craig Mulica and the Colorado Oil and Gas Conservation Commission (COGCC). An additional meeting was held on August 12 2013, with representatives of Weld Air and Water and the Department's Air Pollution Control Division staff. This letter contains not only recommendations for conditions of approval, but also suggestions for best management practices to reduce potential impacts from this oil and gas site.

Recommended conditions of approval

During the onsite meeting on July 30 2013, Synergy agreed to the following conditions of approval.

- Monthly inspections using forward-looking infrared camera to detect any fugitive emissions from the well site;
- Dust suppression practices using a vacuum system to control dust from the fracing process;
- Use of an automated system to determine tank levels, reducing the need to open the thief hatch and a log to record the number of times the thief hatch is used on each tank;
- Noise suppression practices including a sound wall to minimize noise from the well site; and
- Baseline water quality sampling followed by monthly sampling of the surface water in Sheep Draw.

Following the onsite meeting on July 30 2013, Weld Air and Water members requested additional conditions for the Kelly Farms location. The Department has evaluated this request and recommends two additional conditions of approval to reduce the potential adverse impacts from the Kelly Farms well pad.

- Installation of control devices that are properly designed, operated and maintained according to manufacturer's specifications to achieve control efficiency of at least 95% and handle fluctuations including flash emissions of VOCs using appropriate technologies (e.g. surge tanks); and
- Require the development of an emergency response plan that involves the local fire department and emergency response officials in the Greeley area to address foreseeable emergencies and provide a rapid and effective response.

Suggestions for best management practices

The Department acknowledges the considerable effort put forth by Weld Air and Water to identify measures that exceed the strong rules and regulations already in place by COGCC and CDPHE to regulate oil and gas operations in Colorado. The Department is supportive of many of the suggestions made by Weld Air and Water to minimize impacts from this well site, but does not feel that they need to be conditions of approval. Those suggestions include baseline air quality monitoring, control devices with at least 98% VOC destruction, Tier 3 engines for drill rig, no-bleed pneumatic devices, continuous methane monitoring, telemetry system to detect malfunctions and notify Synergy, timely response and repair policy, electric compressor engines and an emergency response plan that includes a detailed evacuation plan. Additional comments on these practices are provided below.

Baseline air quality monitoring

The Department encourages the collection of air quality samples but this location is not ideal for characterizing the ambient air quality in the City of Greeley and the data would have limited usefulness. However, if Synergy proceeds with air quality sampling the APCD staff is available to meet and discuss what compounds should be analyzed and the location of the air quality monitoring equipment.

Control devices with at least 98% VOC destruction

The Department air quality control regulations require control devices capable of achieving a control efficiency of at least 95%, and the same control devices are used (e.g. on flares) for either 95% or 98% control efficiency. The difference in control efficiency can be the use of enhanced maintenance practices. The Department believes infrared camera inspections and a maintenance program that requires timely repairs will minimize the potential for equipment failure and upset conditions and effectively achieve the higher control efficiency.

Tier 3 drilling engines

Drilling engines are not regulated by CDPHE; however, the use of Tier 3 engines will reduce emissions and is supported by the Department.

No-bleed pneumatic devices

The Department encourages no-bleed pneumatic devices and the Air Pollution Control Commission regulations allow either no-bleed or low-bleed pneumatic devices to be used as part of a system wide strategy to reduce and control emissions.

Continuous methane monitoring

Continuous methane monitoring at the Kelly Farms well pad may not be necessary given the agreement to conduct monthly inspections using an infrared camera and the use of telemetry equipment to notify Synergy of an upset condition.

Telemetry system to detect malfunctions and notify Synergy

During the onsite meeting on July 30 2013, Synergy stated that a telemetry system would be used at this well site. The Department supports this practice, including immediate notification and response to upset conditions.

Timely response and repair policy

The Department is supportive of all strategies that reduce emissions from oil and gas well sites, and encourages Synergy to use a maintenance program that enhances the infrared camera inspections and provides for the timely repair of any leaks or conditions to reduce fugitive emissions.

Electric compressor engines

Synergy commented at the onsite meeting July 30 2013 that a compressor at the existing Northridge well site would not be necessary by the time the new wells are drilled at Kelly Farms. If conditions change the Department encourages the use of electric compressors at both well sites to reduce emissions.

Emergency response plan with detailed evacuation plan

The Department recommended this issue as a condition of approval; however, coordination with the local fire department and emergency response officials in Greeley is needed.

Conclusion

The Department's consultative role in the Kelly Farms well site required a thorough review of the potential impacts to public health, safety, welfare and environment while seeking a balanced and reasonable approach to providing recommendations to the COGCC. In view of these considerations, the Department has documented both recommended conditions of approval and suggestions for best management practices to reduce the impacts in a residential area adjacent to a high school.

Synergy Resources has already agreed to conditions that go beyond the current strong regulatory framework in Colorado to manage oil and gas development and that cooperation is recognized and appreciated by the Department.

Sincerely,

Kent Kuster
CDPHE Oil and Gas Liaison