

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)
Kerr-McGee/Anadarko)
Petroleum Corporation,)
Frederick Compressor Station)
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Permit Number: 95OPWE035)
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Issued by the Colorado Department of)
Public Health and Environment, Air)
Pollution Control Division)
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_____)

ORDER RESPONDING TO
PETITIONERS' REQUEST THAT
THE ADMINISTRATOR OBJECT
TO ISSUANCE OF A
STATE OPERATING PERMIT

Petition Number: VIII-2008-02

ORDER GRANTING PETITION FOR OBJECTION TO PERMIT

The United States Environmental Protection Agency ("EPA") received a petition on August 14, 2008 from Rocky Mountain Clean Air Action ("RMCAA" or "Petitioner"). In its petition, RMCAA requests that EPA object, pursuant to section 505(b)(2) of the Clean Air Act ("CAA" or "the Act"), 42 U.S.C. § 7661d, to the renewal by the Colorado Department of Public Health and Environment, Air Pollution Control Division ("CDPHE" or "Colorado") of a title V state operating permit. The renewed permit allows Kerr-McGee/Anadarko Gathering LLC ("Kerr-McGee/Anadarko") to operate the Frederick Natural Gas Compressor Station ("Frederick Compressor Station"), a facility located at 3988 Weld County Road 19, Frederick, Weld County, Colorado. Specifically, RMCAA objects to CDPHE's April 29, 2008 Addendum to the January 1, 2007 Technical Review Document ("TRD Addendum") in support of the renewal, and to CDPHE's determination that "no changes to the [title V] permit" were warranted based on the TRD Addendum.

The Kerr-McGee/Anadarko Frederick Compressor Station is a Natural Gas Gathering and Compression facility as defined under Standard Industrial Classification 1311. Gas is compressed to specification for transmission to sales pipelines using three internal combustion engines to power compressor units. Other activities conducted on site include dehydration of the gas through contact with triethylene glycol, and gravity separation of condensates. The dehydrator is equipped with a thermal oxidizer unit to control volatile organic compound (VOC) emissions. Emissions from the tanks located onsite are controlled with an air-assist vertical flare. Fugitive VOC emissions also result from equipment leaks.

On January 1, 2007, CDPHE renewed the Kerr-McGee Frederick Compressor Station operating permit pursuant to title V of the Act, the federal implementing regulations at 40 CFR Part 70, and the Colorado State implementing regulations at Regulation No. 3 part C. Two days later, on January 3, 2007, RMCAA filed its first petition (Petition I) objecting to the renewal. Petition I alleged that the Frederick Station permit does not comply with 40 CFR part 70 in that: (I) the title V permit failed to assure compliance with Prevention of Significant Deterioration (“PSD”) requirements because CDPHE failed to consider whether emissions from adjacent and interrelated pollutant emitting activities triggered PSD review, specifically Kerr-McGee owned natural gas wells that supply natural gas to the Frederick Station; (II) in light of CDPHE’s failure to consider PSD compliance, it is likely that the title V permit must include a compliance schedule; (III) CDPHE failed to respond to significant comments submitted by the Petitioner during the title V public comment period; and (IV) CDPHE failed to consider adjacent and interrelated pollutant emitting activities in defining the “source” subject to title V.

The Administrator issued an Order granting Petition I, on February 7, 2008. The Administrator determined that CDPHE had failed to adequately respond to comments from RMCAA regarding the need to aggregate potentially connected sources of air pollution as a single source of air pollution. The Administrator directed CDPHE to respond to Petitioner’s comments and, as necessary, supplement the permit record and make appropriate changes to the permit.

On April 29, 2008, CDPHE submitted the TRD Addendum as its full response to the Administrator’s February 7, 2008 Order. On August 1, 2008, EPA Region 8 informed RMCAA by letter of RMCAA’s additional opportunity to petition in light of the TRD Addendum. RMCAA did so on August 14, 2008.

The August 14, 2008 petition (Petition II) alleges that CDPHE’s response to the February 7, 2008 Order—the TRD Addendum, together with CDPHE’s determination that “no changes to the [title V] permit” are warranted—is inconsistent with the CAA. Petitioner argues that the permit continues to fail to ensure compliance with all applicable requirements, including PSD, title V permitting requirements, and the Colorado State Implementation Plan (“SIP”). Petitioner requests that EPA object, pursuant to section 505(b)(2) of the Act, to the renewal of the Kerr-McGee/Anadarko Frederick Compressor Station permit.

EPA has reviewed the allegations in Petition II pursuant to the standards set forth by section 505(b)(2) of the Act, which provides that a petition generally may be based only on objections to the permit that were raised with reasonable specificity during the comment period provided by the permitting agency and places the burden on the Petitioner to “demonstrate to the Administrator that the permit is not in compliance” with the applicable requirements of the Act or the requirements of Part 70. *See also* 40 CFR § 70.8(c)(1) and (d); *New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2nd Cir. 2002).

In reviewing the various allegations made in the petition filed by the Petitioner, EPA considered, among other things: Petition II, exhibits, and related submissions; the Administrator's February 7, 2008 Order granting Petition I; CDPHE's April 29, 2008 TRD Addendum; CDPHE's January 9, 2009 Inter-office Communication memo concerning the Kerr-McGee Frederick Compressor Station (2009 Memo); EPA Region 8's August 1, 2008 letter to the Petitioner informing it of an additional opportunity to petition on Colorado's revised technical review document; and the information reviewed in responding to the January 3, 2007 Petition.

Based on a review of all the information before me, I grant the Petitioner's request for an objection to the Kerr-McGee/Anadarko Frederick Station title V permit for the reasons set forth in this Order.

STATUTORY AND REGULATORY FRAMEWORK

Section 502(d)(1) of the Act calls upon each State to develop and submit to EPA an operating permit program to meet the requirements of title V. EPA granted interim approval to the title V operating permit program submitted by the State of Colorado effective February 23, 1995. 60 Fed. Reg. 4563 (Jan. 24, 1995); 40 CFR part 70, Appendix A. *See also* 61 Fed. Reg. 56367 (Oct. 31, 1996) (revising interim approval). Effective October 16, 2000, EPA granted full approval to Colorado's title V operating permit program. 65 Fed. Reg. 49919 (Aug. 16, 2000). Major stationary sources of air pollution and other sources covered by title V are required to apply for an operating permit that includes emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the Act. *See* CAA §§ 502(a) and 504(a).

The title V operating permit program does not generally impose new substantive air quality control requirements. However, title V permits must include existing air quality control requirements (which are referred to as "applicable requirements") and must contain monitoring, record keeping, reporting, and other conditions to assure compliance by sources with existing applicable emission control requirements. *See* 57 Fed. Reg. at 32250, 32251 (July 21, 1992). One purpose of the title V program is to enable the source, EPA, states, and the public to better understand the applicable requirements to which the source is subject and whether the source is meeting those requirements. Thus, the title V operating permits program is a vehicle for ensuring that existing air quality control requirements are appropriately applied to facility emission units and that such emissions units comply with these requirements.

Under section 505(a) of the Act and 40 CFR § 70.8(a), States are required to submit all proposed title V operating permits to EPA for review. Section 505(b)(1) of the Act authorizes EPA to object if a title V permit contains provisions not in compliance with applicable requirements, including the requirements of the applicable SIP. *See also* 40 CFR § 70.8(c)(1).

Section 505(b)(2) of the Act states that if the EPA does not object to a permit, any member of the public may petition the EPA to take such action, and the petition shall be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to do so or unless the grounds for objection arose after the close of the comment period. *See also* 40 CFR § 70.8(d).

Petitioner commented during the public comment period, raising concerns with the draft operating permit. The August 14, 2008 petition was based on CDPHE's April 29, 2008 TRD Addendum, which responded to EPA's February 7, 2008 Order. EPA advised the Petitioner, in a letter dated August 1, 2008, that there was an additional opportunity to petition in light the TRD Addendum. EPA finds that Petitioner timely filed its petition.

ISSUES RAISED BY PETITIONER

Petitioner claims that the title V permit for the Frederick Compressor Station fails to assure compliance with PSD and title V requirements under the CAA, fails to assure compliance with Colorado SIP requirements, and fails to include a compliance schedule to bring the source into compliance with PSD requirements. Petitioner asserts that CDHPE's claim that PSD review requirements have not yet been triggered for the Frederick Station is baseless, as CDPHE failed to consider emissions from all adjacent and interrelated pollutant emitting activities, namely the natural gas wells and associated equipment that supply natural gas to the Frederick Compressor Station. Petitioner also claims that CDHPE failed to consider adjacent and interrelated pollutant emitting activities in defining the "source" subject to title V. Petitioner's assertions are detailed below.

I. Petitioner's comment I.A.1. "Natural Gas Wells Owned or Controlled by Kerr-McGee/Anadarko Constitute Pollutant Emitting Activities Connected with the Frederick Compressor Station"

Petitioner's comment I.A.2. "Natural Gas Wells Owned or Controlled by Kerr-McGee/Anadarko Constitute Pollutant Emitting Activities That Are Contiguous or Adjacent to the Frederick Compressor Station"

Petitioner alleges that natural gas wells owned by or under common control of Kerr-McGee/Anadarko are pollutant emitting activities that are connected to Frederick Compressor Station. Petitioner describes activities related to the production of natural gas and how those activities can emit air pollutants. Petitioner states that within the TRD Addendum, CDPHE does not dispute the fact that Kerr-McGee/Anadarko operates wells that are associated with these pollutant emitting activities.

Petitioner claims that the nature of Kerr-McGee/Anadarko's ownership and operation of wells, associated pollutant emitting activities, and the Frederick Compressor Station demonstrates that these activities are connected pollutant emitting activities.

Petitioner argues that some or all of the wells owned and operated by Kerr-McGee/Anadarko depend on the Frederick Compressor Station for their operations. It is the Petitioner's position that without the Frederick Compressor Station, some or all of Kerr-McGee/Anadarko's natural gas wells would cease to operate as there would be no means of compressing and transporting natural gas to market pipelines or downstream processing facilities.

In addition, Petitioner claims that the wells owned and operated by Kerr-McGee/Anadarko are contiguous and adjacent to the Frederick Compressor Station. As such, the Petitioner argues that they should be considered as one source for PSD purposes. Petitioner alleges that CDPHE's use of EPA's January 12, 2007 guidance memo issued by EPA Acting Assistant Administrator William L. Wehrum regarding "Source Determinations for Oil and Gas Industries" (referred to as the "Wehrum Memo") "inappropriately subverts the plain language of the PSD regulations, as well as the Colorado SIP." Petition II at 13. Petitioner faults the Wehrum Memo for apparently relying on Section 112 of the CAA to assist in defining the common sense notion of a plant for PSD purposes. In addition, Petitioner argues that the Wehrum Memo disregards previous EPA policy, under which the distance between multiple sources was only a factor and not dispositive in determining whether they should be aggregated and considered one operational source.

Petitioner notes that it does not have access to complete information concerning Kerr-McGee's natural gas wells, and states that "we have not been granted access to specific information that explicitly shows which of Kerr-McGee's producing natural gas wells supply natural gas to the Frederick station." Petition II at 12. The petition goes on to describe documents that show there are numerous wells supplying the Frederick Station and alleges that "[t]he best information we have available to us shows that there are hundreds of wells in close proximity to the Frederick Station, and that most, if not all, of these wells, or pollutant emitting activities, are interrelated with the Frederick Station in that they support operations of the compressor station." Petition II at 12. In essence, Petitioner claims, as it did in Petition I, that the permit record does not contain information that may be required to support CDPHE's determination of the source for the Frederick Station permit.

After review of Petitioner's claims, submitted information, and CDPHE's supplemented permit record, I grant the Petitioner's request for an objection. The permit record as supplemented by the April 29, 2008 TRD Addendum and CDHPE's 2009 Memo fails to provide an adequate rationale for CDHPE's determination of the source for PSD review and title V purposes.

In the TRD Addendum, CDPHE examined whether any natural gas wells and associated process equipment should be aggregated with the Frederick Compressor Station. In Section V (wells) of the TRD Addendum, CDPHE provides several quotes from the Wehrum Memo and concludes with this analysis:

A rough estimate of the surface area covered by the wells on the map submitted by Rocky Mountain Clean Air Action would be in excess of 600 square miles. Note that the surface and subsurface rights are held by numerous unrelated individuals/companies/corporations and governments.

On an historic note, EPA Region 8 issued a PSD permit for the Frederick Station in 1981. Presumably, there were numerous wells in the area at the time. EPA chose not to aggregate the wells with the Frederick Station during the PSD permit process.

Based on the above record and considering the above EPA guidance, as well as previous EPA and Division determinations, the Division's determination is that the Frederick Compressor station should not be aggregated with any or all of the production wells referred to by Rocky Mountain Clean Air Action for either title V or New Source Review (NSR) purposes.

No other aggregation analysis related to natural gas wells and associated process equipment is presented in the TRD Addendum. The record does not show that CDPHE considered all relevant regulatory criteria in making the source determination decision. Although CDPHE quotes heavily from the Wehrum Memo, its conclusion appears to be based on the size of the oil field and the complexity of ownership issues within the well field. There is no explanation as to how the overall size of the well field or the complexity of ownership issues is relevant to the source determination criteria identified in the applicable regulations. Namely, the TRD Addendum does not examine whether the Frederick Compressor Station and other oil and gas sources would qualify as a major stationary source using the criteria identified in the definition of a "building, structure, facility, or installation" in the federal and state PSD regulations. *See* 40 CFR 52.2 and AQCC Regulation No. 3, Part A, Section I.B.41. Specifically, these regulations specify that a source shall encompass "all of the pollutant-emitting activities which belong to the same industrial grouping [i.e., same two-digit SIC code], are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control)."

The January 9, 2009 CDPHE Inter-Office Communication from Mathew Burgett to Jim King (2009 Memo), stated that CDPHE looked into whether there were any natural gas wells owned and/or controlled Kerr-McGee/Anadarko located near (or proximate) to the Frederick Compressor Station. The 2009 Memo stated that a site inspection was conducted and explains that the inspection "revealed some wells and other equipment within close proximity (approximately one city block) of the Frederick Station." *Id.* at 1. The 2009 Memo noted that while pieces of process equipment with the potential to emit criteria pollutants were discovered near the Frederick Compressor Station, subsequent investigation determined that the emitting units were not owned or operated by Kerr-McGee/Anadarko. CDPHE's inspection also found that while material (natural gas) produced by those pieces of process equipment "generally flows to [the Frederick Compressor Station] where it is compressed," the gas could also be directed to other sites for processing or handling. 2009 Memo at 1-2. The 2009 Memo concludes that because "the tanks/wells close to the Kerr-McGee/Anadarko Frederick Station are

not owned or operated by Kerr-McGee/Anadarko and they are not uniquely inter-dependent on the Frederick Station, no additional single source analysis is needed.” No justification for the use of “one city block” as being consistent with the term “close proximity” is presented in the 2009 Memo. Moreover, the 2009 Memo does not identify the relevant regulatory provisions for making a source determination or explain how the inspection findings should be viewed in light of those requirements. It appears that CDHPE may have chosen to focus on proximity and to evaluate ownership of wells only within one city block in reliance on language in the Wehrum Memo. The Wehrum Memo emphasized that proximity is “the most informative factor” when determining whether pollution emitting activities in the oil and gas industry are “contiguous or adjacent” and stated that “[a] reviewing authority can consider two surface sites to be in close proximity if they are physically adjacent, or if they are separated by no more than a short distance (e.g. across a highway, separated by a city block or some similar distance).” Id. at 3, 4-5.

In relying primarily on proximity and only evaluating ownership within one city block without any explanation as to why that distance was appropriate under the circumstances and without an examination of other criteria relevant to source determination, CDHPE failed to adequately support or explain its aggregation decision.

A September 22, 2009, memo from Assistant Administrator Gina McCarthy to the Regional Administrators, entitled “Withdrawal of Source Determination for Oil and Gas Industries” (“McCarthy Memo”), reiterates the importance all three regulatory criteria for identifying emissions activities that belong to the same “building,” “structure,” “facility,” or “installation” (i.e., belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control)). The McCarthy Memo also emphasized that in applying those criteria, permitting authorities should also consider the explanation of those terms provided in the preamble to the Federal regulations, as well as the application of the criteria by Regional EPA offices in numerous source determinations over the past two decades¹. Id. at 2. The McCarthy Memo withdraws the Wehrum Memo and states that “permitting authorities should ... rely foremost on the three regulatory criteria for identifying emission activities that belong to the same ‘building’, ‘structure’, ‘facility’ or ‘installation’” to make case-by-case source determination decisions. Id.

While CDPHE did conduct an on-site inspection of nearby potential emitting activities that it determined were proximate to the Frederick Compressor Station (as summarized in the 2009 Memo), CDPHE failed to consider all appropriate criteria in determining the source for PSD and title V purposes. It is unclear why a “one city block” distance was selected as consistent with a reasonable determination of whether the activities were located on contiguous or adjacent properties or whether there was a thorough analysis of factors that might indicate common control between the Station and

¹ For examples, see two EPA Region 8 determinations: (<http://www.epa.gov/region07/programs/artd/air/title5/t5memos/citation.pdf>) and (<http://www.epa.gov/region07/programs/artd/air/title5/t5memos/enervest.pdf>).

other contiguous or adjacent pollution emitting activities. Moreover, CDPHE did not provide a supporting record examining any potential emission producing activities at a distance further than a one city block radius and their potential reliance or interdependence with the Frederick Compressor station to determine if they should be aggregated as the Petitioner claims. Finally, while the TRD Addendum referenced past source determinations, there is no evidence that CDPHE considered other potentially relevant source determinations that have been made and how the analyses in those determinations might relate to the facts of this permitting action.

For the reasons set forth above, I grant the Petitioner's request for an objection to the permit on the issue of CDHPE's failure to provide an adequate basis in the permit record for its determination of the source for PSD and title V purposes. CDPHE must supplement the permit record and, as necessary, make appropriate changes to the permit. In responding to this Order, I recommend that CDPHE conduct a source determination analysis based on the three regulatory criteria discussed above.

In order to do a thorough analysis, I recommend that CDPHE evaluate Kerr-McGee's complete system map showing all emission sources owned or operated by the Company in the Wattenberg gas field (located primarily in Weld County, Colorado) and determine whether the various pollution emitting activities are contiguous or adjacent to, and under common control with, the Frederick Compressor Station. CDPHE has authority to require additional information from the applicant. See 5 CCR 1001-5 Reg. No. 3, Part C, IV.B.1 ("Nothing herein precludes the Division from requesting further information about the source in order to process the permit application.") I also recommend that CDPHE obtain from Kerr-McGee/Anadarko a flow diagram showing the movement of gas from the well sites to the various facilities in the Wattenberg field operated by both Kerr-McGee/Anadarko and other companies in the field, so that CDPHE may determine the nature of the sources' emissions and determine whether or not the process units associated with those emission sources are interdependent on the operation of the Frederick Compressor Station. Finally, I recommend that CDPHE obtain from Kerr-McGee/Anadarko business information regarding the nature of control of the Frederick Station and nearby wells between the Company and other companies in the field to determine whether various pollution emitting activity should be considered under common control for purposes of making the source determination.

CDPHE, of course, has authority to request any additional or different information it deems relevant to determining whether any emission sources should be aggregated with the operations located at the Frederick Compressor Station.

II. Petitioner's comment I. B. "A Compliance Schedule May Be Necessary"

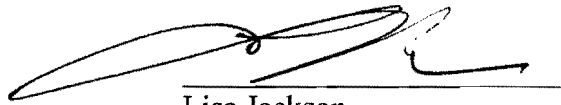
The remainder of Petition II argues that CDPHE's failure "to ensure PSD compliance means that the Frederick Compressor Station may not be in compliance with PSD requirements..." and that EPA must object to the issuance of the title V permit due to CDHPE's failure to assess whether a compliance schedule is needed. Petition II at 23.

As stated above CDPHE failed to adequately support its determination of the source for PSD and title V purposes. As such, I grant the Petitioner's claim and I order that CDPHE establish a more thorough permit record as Ordered in Section I. above, and make any appropriate changes to the permit. In doing so, I am not concluding that the source determination for the Frederick Compressor Station should include any additional pollutant emitting activities nor that the existing title V permit is necessarily in violation of any PSD or title V requirements, only that present permit record does not supply the public with sufficient information to understand why, or why not, additional sources of emissions should or should not be included in the source determination for the Frederick Compressor Station.

CONCLUSION

For the reasons set forth above and pursuant to section 505(b)(2) of the Clean Air Act, I grant Petitioner's requests for an objection to the issuance of the Kerr-McGee/Anadarko Frederick Compressor Station title V permit.

Dated: 10/8/09



Lisa Jackson
Administrator