API Exhibit A

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

SUMMIT PETROLEUM CORPORATION Petitioner, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LISA JACKSON, Administrator, Respondents	)	Consolidated Case Nos. 09-4348 and 10-4572

AMERICAN PETROLEUM INSTITUTE'S MOTION FOR LEAVE TO INTERVENE IN SUPPORT OF PETITIONER

Pursuant to Federal Rule of Appellate Procedure 15(d), the American Petroleum Institute ("API"), by and through the undersigned counsel, hereby respectfully moves to intervene in support of the Petitioner in this matter. Counsel for API has conferred with counsel for the parties to this action; the Petitioner Summit Petroleum Corporation does not oppose this Motion, and the Respondent Environmental Protection Agency takes no position on this Motion.

API is moving to intervene so that it may appear in support of the named Petitioner. It is entitled to intervene as of right, or alternatively, to intervene permissively.

INTRODUCTION AND BACKGROUND

A. *Summit Petroleum Company's Petitions for Review*

On September 8, 2009, the Environmental Protection Agency's Region V office ("EPA") issued a "source determination" for Summit Petroleum Corporation's Rosebush gas sweetening plant. In that source determination, EPA memorialized a phone call between representatives of EPA and Summit Petroleum Corporation ("Summit") where EPA determined that the Rosebush plant and a number of gas wells constituted a single source for purposes of permitting under Title V of the Clean Air Act. 42 U.S.C. §§ 7661-7661f; 40 C.F.R., Part 71. This September 8, 2009 source determination constituted a final agency action and Summit Petroleum Corporation petitioned for review with this Court on November 4, 2009. *Summit Petroleum Corp. v. EPA*, Case No. 09-4348. This Court granted EPA's motion to hold the petition in abeyance on March 18, 2010.

After Summit submitted additional information for EPA's consideration, EPA issued a supplemental source determination for the Rosebush plant on October 18, 2010. EPA maintained that the Rosebush plant, gas wells and associated flares constituted a single source for permitting purposes under Title V. Summit filed a separate petition for review of this supplemental source determination on December 15, 2010. *Summit Petroleum Corp. v. EPA*, Case No. 10-4572. This Court consolidated both cases on December 17, 2010.

B. *The American Petroleum Institute*

The American Petroleum Institute ("API") is a national trade association representing all aspects of America's oil and natural gas industry. It is comprised of nearly 400 members, ranging from the largest oil conglomerates to the smallest independent oil companies. These members include oil and natural gas producers, oil refiners, pipeline operators and marine transporters as well as service and supply companies that support all segments of the oil and gas industry. API speaks on behalf of its members to the public, Congress, the Executive Branch, state governments and the media and represents their interests in legal proceedings. Many of its member companies are regulated under Title V of the Clean Air Act and require, or may in the future require, Title V permits governing air emissions from their operations. API has long been active in the regulation of the oil and gas industry. It established the "API number," a unique 14-digit numeric identifier for oil and gas wells recognized by all federal, state and tribal regulators.

ARGUMENT

I. API IS ENTITLED TO INTERVENE UNDER FRAP 15(d).

Federal Rule of Appellate Procedure 15(d) guides this Court's review of a motion to intervene in proceedings to review agency action, requiring that such a motion include "a concise statement of interest of the moving party and the

grounds for intervention." *See, e.g., Yakima Valley Cablevision, Inc. v. FCC*, 794 F.2d 737, 744 (D.C. Cir. 1986).

API and its members have a strong and direct interest in this litigation. API has members with stationary sources subject to, or potentially subject to, Title V of the Clean Air Act. Some of these stationary sources include natural gas sweetening facilities and natural gas compressor facilities that may be subject to a source determination like that issued by EPA to Summit. In this case, EPA Region V's interpretation of "stationary source" would establish a precedent that significantly expands EPA's policy on how it makes source determinations. If the two source determinations that are the subject of these appeals are allowed to stand, they would potentially subject API's members to increased regulatory and financial burdens by expanding the number of facilities subject to Title V. Therefore, API and its members have a direct interest in the two challenged source determinations.

When a third-party challenges a final agency action, the members of the regulated industry that are directly affected by that action have a significant, protectable interest that supports intervention. *See Conservation Law Foundation v. Mosbacher*, 966 F.2d 39, 41 (1st Cir. 1992) (commercial fishermen impacted by regulatory plan to address overfishing had a recognizable interest in the timetable for implementing that plan); *Natural Resources Defense Council v. Environmental*

Protection Agency, 99 F.R.D. 607, 609 (D.D.C. 1983) (pesticide manufacturers subject to regulation under challenge have a legally protected interest). Here, API represents the regulated industry directly impacted by the two source determinations under review.

II. INTERVENTION IS ALSO SUPPORTED BY FEDERAL RULE OF CIVIL PROCEDURE 24.

The policies underlying Rule 24 of the Federal Rules of Civil Procedure guide appellate courts in their Rule 15(d) analysis. *Int'l Union, United Auto., Aerospace, & Agric. Implement Workers Local 283 v. Scofield*, 382 U.S. 205, 217 n.10 (1965). Federal Rule of Civil Procedure 24 recognizes two forms of intervention: (1) intervention as of right, and (2) permissive intervention. Fed. R. Civ. P. 24. A court may grant a would-be intervenor's motion on either basis. *See Scofield*, 382 U.S. at 216, n. 10. API meets the Federal Rule of Civil Procedure 24 criteria for both intervention as of right and permissive intervention.

A. API May Intervene As A Matter of Right

Under Rule 24(a)(2), a court considering a motion to intervene as of right must address four criteria:

> (1) the timeliness of the motion; (2) whether the applicant "claims an interest relating to the property or transaction which is the subject of the action"; (3) whether "the applicant is so situated that the disposition of the action may as a practical matter impair or impede the applicant's ability to protect that interest"; and (4) whether "the applicant's interest is adequately represented by existing parties."

Fund For Animals, Inc. v. Norton, 322 F.3d 728, 731 (D.C. Cir. 2003); *see Scofield*, 382 U.S. at 217 n.10 ("The Federal Rules of Civil Procedure, of course, apply only in the federal district courts. Still, the policies underlying intervention may be applicable in appellate courts."). API satisfies these requirements.

1. This Motion Is Timely.

Summit filed its Petition for Review challenging the October 18, 2010 source determination on December 15, 2010. The parties have not filed any procedural or dispositive motions. Pursuant to Federal Rule of Appellate Procedure 15(d), any motion to intervene must be filed within 30 days of the Petition for Review, which is by January 14, 2010 in this case. Under this Court's January 13, 2011 amended briefing schedule, Petitioners will not file their brief until April 1, 2011. API proposes to file its brief in support of Petitioner on April 1, 2011 as well, and its intervention will not alter the schedule of this case. Therefore, API has timely filed this Motion.

2. API's Members Have a Protectable Interest.

As explained above, API has members with stationary sources similar to that of Summit, including gas wells, flares and sweetening and gas compressor facilities. If the two source determinations at issue are allowed to stand, they could constitute Agency precedent that may subject API's members to more onerous regulatory and financial burdens.

3. The Disposition Of This Case May Impact The Ability of API's Members to Protect Their Interests.

API's members own stationary sources within and outside EPA Region V. Although source determinations are highly fact-specific decisions, prior decisions both within an EPA regional office and by other EPA regional offices can be highly influential in future source determinations. As EPA guidance on the issue states, these prior source determinations are "informative of the necessary analytical process" in making source determinations. Memorandum from Gina McCarthy, EPA, Asst. Admin. to Regional Administrators, "Withdrawal of Source Determinations for Oil and Gas Industries" (Sept. 22, 2009) at 2, *available at* http://www.epa.gov/region7/air/nsr/nsrmemos/oilgaswithdrawal.pdf.

The source determinations under review here show that EPA is willing to consider emitting activities spread over vast areas and significant distances apart to be "adjacent and contiguous," even when separated by independently owned properties. These source determinations, if allowed to stand as Agency precedent, would impair the ability of API members with arguably similar stationary sources to protect their interests.

4. The Interests of API's Members May Not Be Adequately Represented By Petitioner.

A "proposed intervenor has the burden of showing that the existing parties cannot adequately represent its interests, but this burden is minimal." *Georgia v.*

U.S. Army Corps of Eng'rs., 302 F.3d 1242, 1255 (11th Cir. 2002). Accordingly, an applicant for intervention need only show that its interests are sufficiently different from those of the existing parties and that the present representation "may be" inadequate. *Nuesse v. Camp*, 385 F.2d 694, 703 (D.C. Cir. 1967).

While API generally intends to support Summit's positions in this case, Summit may take narrower or differing positions than API, which is seeking to protect a wider variety of interests. Summit will focus on protecting its own interests without regard for the regulatory and economic interests of API's members. *See Natural Resources Defense Council v. Costle*, 561 F.2d 904, 911 (D.C. Cir. 1977) ("industry-intervenors have many particular, separate interests in the regulation of their own categories in addition to their overlapping interest in the promulgation of a body of valid regulations."). Although Summit's interests overlap with those of API, the potential for differing positions meets the "minimal" burden required for intervention.

B. API Also Qualifies For Permissive Intervention.

API also qualifies for permissive intervention. Federal Rule of Civil Procedure 24(b)(1) provides in pertinent part: "On timely motion, the court may permit anyone to intervene who:…(B) has a claim or defense that shares with the main action a common question of law or fact." As demonstrated above, this

Motion is timely. Since API's members have stationary sources throughout the country that could be subject to source determinations similar to, or influenced by, those under review here, API is familiar with the relevant legal issues. API seeks to offer arguments that share common legal issues and common facts with Summit's petitions for review. Therefore, the requirements for permissive intervention are satisfied. Even if this Court concludes that API may not intervene as of right, it should be permitted to do so.

CONCLUSION

For the foregoing reasons, API is entitled to intervene as of right. It also qualifies for permissive intervention. Therefore, API respectfully requests leave to intervene in this matter.

Dated: January 14, 2011

Respectfully submitted,

/s/ Jay T. Jorgensen

Jay T. Jorgensen
jjorgensen@sidley.com
Roger R. Martella, Jr.
rmartella@sidley.com
James R. Wedeking
jwedeking@sidley.com
SIDLEY AUSTIN LLP
1501 K Street, N.W.
Washington, D.C. 20005
Phone: (202) 736-8000
Facsimile: (202) 736-8711

Byron F. Taylor
bftaylor@sidley.com
SIDLEY AUSTIN LLP
One South Dearborn
Chicago, Ill. 60603
Phone: (312) 853-7000
Facsimile: (312) 853-7036

Michelle M. Schoeppe
schoeppem@api.org
AMERICAN PETROLEUM INSTITUTE
1220 L Street, N.W.
Washington, D.C. 20005
Phone: (202) 682-8251
Facsimile: (202) 682-8033

Counsel for American Petroleum Institute

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of January 2010, the foregoing Motion to Intervene in Support of the Petitioner was filed electronically. Notice of this filing will be sent to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

_/s/ James R. Wedeking_____

Counsel for American Petroleum Institute

API Exhibit B

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF
Kerr-McGee/Anadarko Petroleum Corporation,
Frederick Compressor Station

Permit Number: 95OPWE035
Issued by the Colorado Department of Public Health and Environment
Air Pollution Control Division

Petition Number: VIII-2008-02
Filed by WildEarth Guardians

RESPONSE OF COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, AIR POLLUTION CONTROL DIVISION, TO ORDER GRANTING PETITION FOR OBJECTION TO PERMIT

I. INTRODUCTION

On October 8, 2009, EPA Administrator Jackson issued an Order responding to Petition VIII-2008-0002 filed by Rocky Mountain Clean Air Action (now "WildEarth Guardians") on August 14, 2008. *See* Attachment 1. WildEarth Guardians objected to the Colorado Department of Public Health and Environment ("CDPHE"), Air Pollution Control Division's ("Division") issuance of Title V Renewal Operating Permit No. 95OPWE035 to Kerr-McGee Gathering, LLC ("Kerr-McGee Gathering") for its Frederick Compressor Station ("Frederick Station"). The Frederick Station is located in the Wattenberg natural gas field ("Wattenberg Field"), northeast of the Denver, Colorado metropolitan area.

WildEarth Guardians' 2008 petition was its second petition under subsection 505(b)(2) of the Clean Air Act ("CAA"), 42 U.S.C. § 7661d(b)(2), relating to the Frederick Station Title V renewal permit. In its first petition, WildEarth Guardians alleged that the Division had failed to assure compliance with applicable Prevention of Significant Deterioration ("PSD") requirements of Title I of the Act and applicable Colorado PSD regulations for the Frederick Station. WildEarth Guardians argued that the Division had "failed to aggregate emissions from all adjacent and interrelated pollutant emitting activities, namely the natural gas wells that supply natural gas to the Frederick Station."[1]

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1 "Petition for Objection to Issuance of Operating Permit for Kerr-McGee Frederick Compressor Station," January 3, 2007, Petition No. R8-06-002-0216-OPRA-AR ("WEG Petition for Objection"), p. 6.

In a February 7, 2008 Order, former EPA Administrator Johnson granted the objection. EPA's Order stated that the Division had "failed to adequately respond to [WildEarth Guardians] initial comments, which raised the PSD and title V source definition issues and the compliance schedule issue" and that the Division had not obtained the necessary information "to evaluate the PSD and title V source definition issue."

The Division responded to EPA's Order on April 29, 2008 by issuing an addendum to the January 1, 2007 Technical Review Document in support of the Title V renewal permit. In that response, the Division concluded that no other sources met all three elements of the three-part test because they were not contiguous or adjacent to the Frederick Station.2 Therefore, the Division concluded that no other sources would be aggregated with the Frederick Station.

On August 14, 2008, WildEarth Guardians filed another objection with EPA, alleging that the Division had still not adequately responded to its argument regarding aggregation. In the October 8, 2009 Order that resulted, Administrator Jackson stated that:

> … 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. . . . 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

2 *See* Attachment 2.

> pollution emitting activities should be considered under common control for purposes of making the source determination.
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> * * * *
>
> 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 the 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.

Attachment 1 at pp. 8-9.

Consistent with EPA's Order, the Division is supplementing the permit record through this response, comprising an Addendum to the Technical Review Document for the state-issued operating permit. As recommended by EPA, the Division has utilized the three regulatory criteria to determine whether to aggregate other emission sources with the Frederick Station; specifically, sources such as storage tanks and dehydrators associated with exploration and production wells. As further recommended by EPA to develop the record to respond to the Administrator's Order, the Division has formally requested and obtained more information from Kerr-McGee Gathering, including a complete system map of its production and midstream natural gas emission sources, and a flow diagram indicating the movement of gas from Kerr-McGee Oil & Gas Onshore, LP's ("KMOGO") wells owned and operated by KMOGO to various Kerr-McGee Gathering compressor stations, and to other companies operating in the Wattenberg field. [3] The Division also obtained from KMOGO copies of typical oil and gas exploration and production leases and midstream contracts. Moreover, the Division also evaluated information from several other gas production and midstream companies operating in the Wattenberg field. This documentation, acquired to develop the record in this instance to

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3 EPA's Order refers to "Kerr-McGee/Anadarko Gathering, LLC." The permittee for the Frederick Station is Kerr-McGee Gathering, LLC. Kerr-McGee Gathering, LLC is a wholly-owned subsidiary of Anadarko Petroleum Company, as is KMOGO. Therefore, this Addendum refers to "Kerr-McGee Gathering" as the entity from whom the Division obtained information in connection with the Frederick Station permit. However as described below, for the purposes of this response and discussion, the Division considers Kerr-McGee Gathering, LLC; KMOGO (which operates certain oil and gas wells and associated emission sources in the Wattenberg Field, such as storage tanks and dehydrators), and Anadarko Petroleum Corporation to be under the control of the same entity, or entities under common control.

respond to the Administrator's Order, includes information regarding ownership of exploration and production leases, operation of gas wells and compressor stations, and relevant provisions of midstream contracts.

The Division's actions in connection with this response reflect an extraordinary amount of effort. Not surprisingly, the Division's analysis reveals the highly complex and unique nature of oil and gas production operations. This is particularly true in mature, large gas plays such as the Wattenberg Field. Oil and gas fields often comprise a labyrinth of gas flows, ownership and operational interests and other components that are in a constant state of flux. Such large, complex and dynamic processes generally do not fit consistently within the common sense notion of a plant. The Division does not anticipate that the level of analysis accompanying this response to the Administrator's Order is necessarily warranted or appropriate in other oil and gas source determinations.

This Addendum provides a specific and complete response to Petitioner's comments, as directed by EPA. As reflected in the following discussion, the Frederick Station renewal permit conclusions reached by the Division in the final permit were correct. As such, the Division has determined that no changes to the permit are warranted.

II. UNIQUE COMPLEXITIES OF OIL AND GAS OPERATIONS

In responding to EPA's Order on the Frederick Station Title V permit, it is first useful to consider the unique nature of oil and gas operations and how the characteristics of these operations affect how a stationary source or plant within this industry could be defined. It is also helpful to better understand how emission sources in the oil and gas industry operate and why and where they are located with respect to each other, and how these factors can differ from those associated with emission sources in other regulated industrial sectors, such as power generation and manufacturing.

In support of this objective, as explained above, the Division requested additional information from Kerr-McGee Gathering regarding its operations at the Frederick Station and within the Wattenberg Field. The Division also collected and reviewed information from publicly-available sources and from other oil and gas companies to gain a broader sense of how oil and gas operations are conducted in Colorado.

According to the U.S. Energy Information Administration (EIA), in 2008, just over 41,000 oil and gas wells in Colorado produced approximately 1.4 trillion cubic feet of natural gas and 25 million barrels of oil.[4] These production activities encompass a

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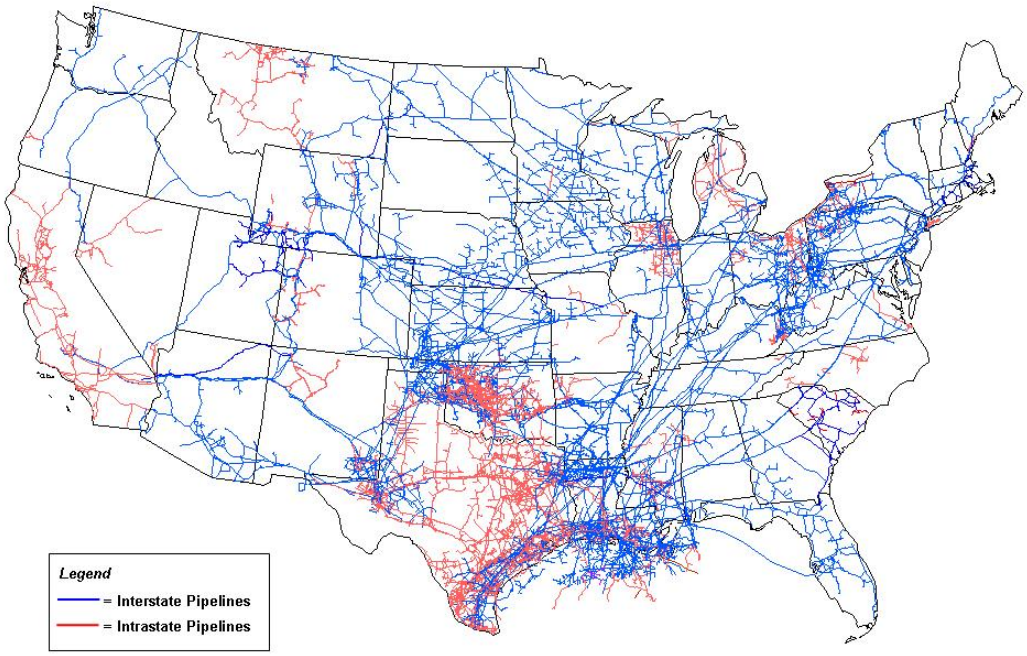
[4] http://www.eia.doe.gov/oil_gas/natural_gas/info_glance/natural_gas.html. The following general observations come from this on-line source as well as the information the Division has gathered over a number of years from oil and gas sources in the Wattenberg Field, and more recently from Kerr-McGee Gathering and three other oil and gas production and midstream companies operating in the Wattenberg Field.

substantial area in Colorado, including the San Juan Basin in the southwest portion of the state, the Piceance Basin in the western part of the state along the Interstate-70 corridor, and the Denver-Julesburg Basin in northeast Colorado.

In essence and by definition, the entire natural gas production, gathering, processing and transportation system is connected via a network of pipes. This network of pipes extends from the wells where the gas is initially recovered to the ultimate end-users, i.e., the residential, commercial and industrial customers. Because natural gas would quickly disperse in to the atmosphere if not contained at all times in the process, it must constantly be held through a series of pipes, equipment and storage vessels.

As described by the EIA, the U.S. natural gas pipeline network is a highly integrated transmission and distribution grid that can transport natural gas to and from nearly any location in the lower 48 states. The natural gas pipeline grid is comprised of more than 210 natural gas pipeline systems and 305,000 miles of interstate and intrastate transmission pipelines (this total does not include field production and gathering lines). A map of this network is provided below:

U.S. Natural Gas Pipeline Network, 2009



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

The simple fact that a pipe connects two physically separate oil and gas facilities or emission units does not, by itself, imply that these two facilities or units should be considered to be a part of the same emission source. While the interconnection of two facilities through a dedicated physical conveyance such as a railroad spur, channel or pipeline historically has been a part of EPA's determinations in some cases to consider two facilities to be part of the same emission source for air quality permitting purposes, it

is not a primary or sole determining factor, especially considering the complex nature of the oil and gas industry. While a physically dedicated connection between two facilities (such as a pipeline) could be an overwhelming factor in a source determination in a different industry, in part because of its uniqueness within that particular industry,[5] it is not a distinguishing feature in the natural gas production and gathering sector of the oil and gas industry.

Ultimately, the facilities within the natural gas production and delivery system, from a single well in the field to a residential customer's house, are all connected in some way via a set of pipelines. It is inherent to this type of operation, and does not, by itself, establish an unusual circumstance or compelling factor regarding the interdependency of two facilities. For the natural gas production and delivery system, it is not primarily a business decision but rather the nature of the industry; i.e., wells are drilled where the gas resource is found and the support systems like the gas processing and compressor systems are constructed based on gas delivery needs.

Similarly, the locations of natural gas wells and surface facilities are determined by a variety of factors. Many of the factors are not specifically controlled or dictated by the oil and gas production companies that drill and develop the wells and then move and process the gas. Beyond the obvious need to locate gas wells in an area where natural gas reserves are present, the spacing requirements for gas wells are established and regulated by a number of different entities in Colorado, including the Colorado Oil and Gas Conservation Commission on private and state-owned lands, Federal agencies such as the Bureau of Land Management on Federal lands, and Tribal authorities on Tribal lands.

Oil and gas production companies must also negotiate surface use agreements, pipeline agreements and rights-of-way with surface right owners in the areas where wells are being drilled and developed. These agreements, which often focus on minimizing the surface footprint and impact of the oil and gas operations, dictate the locations of surface facilities, minimum offsets from adjoining boundaries and the number of well pads allowed. Geological, topographical and engineering considerations, along with logistical factors such as access restrictions and the availability of power, also drive siting decisions.

The decisions on where to locate natural gas gathering facilities, such as compressor stations, are subject to the same type of criteria. The movement of gas within the gathering system is accomplished by creating pressure differentials in the system in

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[5] *See, e.g.*, EPA's source aggregation determinations for dedicated conveyances between two plants or stations in General Motors (railroad dedicated solely to two GM plants, ESCO (plants for metal cast casings shipped several blocks to plant applying coatings to those casings), Great Salt Lake Minerals Plant (brine pump station supporting plant connected by pipe), American Soda Commercial Mine (processing facility connected by slurry pipeline connection), and Anheuser-Busch brewery production facility (landfarm for wastewater disposal connected by pipeline). These cases are discussed more fully in Section III.C below.

accordance with the principles of physics to enable gas to flow through a pipe from areas of higher pressure to areas of lower pressure. In addition to the natural pressure of the gas in the reservoir and the well, compression of the gas must occur along the transportation path to help overcome pressure loss and facilitate the continued movement of the gas. From an engineering perspective, the spacing (i.e., location) of compressor stations and their associated level of compression capability must provide sufficient pressure boost on both the suction and discharge sides of the stations to keep the natural gas flowing along the desired paths.

Between well spacing requirements and surface use and engineering considerations, the specific places where oil and gas facilities are ultimately located are often not primarily at the discretion of the oil and gas companies. It does not appear to the Division that the locations of oil and gas exploration, production and gathering sites are typically chosen for the purpose of avoiding air quality requirements, or to define an emission source in one manner versus another. The siting considerations in the oil and gas industry are unique and inherent to the industry and do not necessarily establish a conclusion on the relationship between two facilities that might apply in a different industrial sector. These considerations must be evaluated within this context as a part of any source aggregation determination made for facilities in the oil and gas industry.

In addition to the unique set of factors that influence where oil and gas facilities are located, the business relationships between parties involved in oil and gas operations are highly complex and quite specific to this industry. The ownership structure of the oil and gas resources themselves (i.e., the mineral rights) can take many forms, and for even just one well, can involve the interaction of multiple royalty owners, changes in ownership between geological formations, various working interests in the well, and joint operating agreements ("JOAs") among owners and lessees that dictate the terms and conditions under which the mineral resources will be developed. In some cases, the owner(s) of the mineral rights may extract the resources themselves, and in other cases, a separate party may do so under a lease/royalty arrangement.

JOAs govern how the production activities are conducted for a well, but do not address how the gas produced is gathered and moved through the natural gas delivery system. Separate contracts in the form of gas gathering agreements between exploration and production and gas gathering companies specify how and under what terms and conditions gathering services will be provided. Based on information received from a number of different oil and gas companies, the Division has concluded that gas gathering companies do not typically dictate or control the production operations at natural gas wells. From a business standpoint, there appears to be a very clear demarcation between oil and gas production and gas gathering functions.

In many oil and gas production areas, the surface rights are severed from the mineral rights, meaning that one party owns the surface property and another (or several others) owns the minerals located below the surface. In these cases, agreements must be reached between the surface land owners and the oil and gas exploration and production companies, in order to provide the necessary access and surface facilities to drill wells

and produce oil and gas. The distinctions between mineral and surface ownership further add to the complexity of assessing oil and gas sources.

Ownership structure also tends to change as oil and gas fields are developed and mature. In some cases, exploration and production companies must initially install their own infrastructure to gather gas in newly developed areas, because of the uncertainty related to the amount of gas that will recovered in that area. Once sufficient, economically viable reserves are identified in an area, the gas gathering companies generally become more willing to make the necessary investments to build their own gathering systems and/or to acquire the gathering systems built by the original exploration and production companies. As gas fields mature over time, ownership in both the production and gathering operations tend to frequently change. The complicated and changing business relationships and ownership structures differentiate the oil and gas industry from other industries, and should also be an important and highly relevant consideration in any case-by-case source determination that is made.

Given the above-described complexities, changing conditions, and variables in the oil and gas sector related to its infrastructure and commercial framework, to not recognize these factors when making source determinations for this sector would inherently lead to the type of detailed, cumbersome and fine-grained analyses that are not practicable for the volume of permits managed by the Division. Moreover, EPA has expressly determined in the 1980 Preamble to its prevention of significant deterioration regulations that state air quality permitting agencies and EPA itself should avoid these types of detailed, complex, and fine-grained analyses when making source determinations.6 Further, to require such a detailed and complex aggregation analysis on every oil and gas permitting decision would require permit engineers to analyze every possible natural gas flow permutation potentially connected to the source being permitted as well as to other ancillary operating equipment, no matter how tangential and contingent that pipeline connection might be, while simultaneously requiring that attorneys working with the permitting representatives similarly analyze commercial, royalty and gathering contracts to determine how natural gas is owned and controlled. This would be significantly subjective, and is in any event not practicable.

III. THE THREE-PART TEST FOR SOURCE DETERMINATIONS

A. The Federal Regulatory Scheme

The Clean Air Act ("CAA") Amendments Act of 1990 amended the CAA, 42 U.S.C. 7401 *et seq.*, by enacting Title V. Title V requires facilities that are "major sources" of pollutants to obtain operating permits from state-run permitting programs that have been approved by EPA. All major sources that emit certain thresholds of federally regulated pollutants must apply for and obtain a Title V operating permit, which consolidates all pollutant emitting activities into the permit. 42 U.S.C. §§ 7661-7661f.

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6 *See* discussion below in Section III.A.

Such permits must include, among other things, enforceable emission limitations and standards, monitoring data that is submitted to the state permitting authority, a schedule of compliance, and other conditions to ensure compliance with applicable requirements of the CAA. 42. U.S.C. § 7661a, c(a). Title V regulations define "major source" as a "stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping. . . ." 40 C.F.R. § 70.2.

Earlier, in the 1977 amendments to the CAA, Congress enacted the PSD statutory scheme in Title I, Part C of the CAA, 42 U.S.C. §§ 7470-7492. The PSD program requires that State Implementation Plans ("SIPs") contain emission limitations to prevent significant deterioration of air quality in attainment and unclassifiable areas. 42 U.S.C. § 7471. PSD requirements apply to the construction of major stationary sources and/or major modifications of major stationary sources of air pollution in areas designated as attainment. *See* 42 U.S.C. § 7475; 40 C.F.R. § 51.166(a)(7).

The aggregation issue is dependent upon a determination of what facilities, structures, or installations constitute a "source." Facilities and equipment that are properly construed as part of a single source should have their emissions aggregated or combined to determine whether the source is a major source of air pollution for either or both Title V and nonattainment New Source Review (NSR)/PSD purposes. EPA defines "stationary source" for PSD purposes as any "building, structure, facility, or installation which emits or may emit a regulated NSR pollutant." *See* 40 C.F.R. § 52.21 (b)(5); *see also* 40 C.F.R. §§ 51.165, 70.2, 71.2 (stationary source definition in nonattainment NSR and Title V regulations).[7]

In *Alabama Power Company v. Costle*, 636 F. 2d 323 (D.C. Cir. 1980), the Court rejected EPA's initial, broad application of the term "source" in the PSD regulations. The Court then directed EPA as follows:

> EPA cannot treat contiguous and commonly owned units as a single source unless they fit within the four permissible statutory terms. To allow an entire plant or other appropriate grouping of industrial activity to be subject as a single unit to PSD, as Congress clearly intended, EPA should devise regulatory definitions of the terms "structure," "building," "facility," and "installation" to provide for the aggregation, where appropriate, of industrial activities according to considerations such as proximity and ownership.

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[7] Because the definitions of "source" for PSD and Title V are essentially the same in EPA regulations, this memorandum will treat EPA and state determinations of "source" in either context as applying to the other. *See* discussion of EPA's practice of using the same aggregation analysis for both the Title V and PSD programs in *MacClarence v. EPA*, 396 F.3d 1123, 1126-27 (9th Cir. 2010).

* * * * * * *

> EPA's new definitions should also provide explicit notice as to whether (and on what statutory authority) EPA construes the term source, as divided into its constituent units, to include . . . "long-line" operations such as pipelines, railroads, and transmission lines. We agree with industry that EPA has not yet given adequate notice as to whether it considers those industrial activities to be subject to PSD.

636 F.2d at 397.

In response to the *Alabama Power* Court's directive, EPA promulgated a revised definition of source for PSD purposes. In the Preamble to its 1980 PSD regulations ("1980 Preamble"), EPA described what the phrase "building, structure, facility, or installation" means in the PSD context:

> The court [in *Alabama Power*, 636 F.2d at 397] added that that "a plant is to be viewed as a source" and that the Agency "should" provide for the aggregation of pollutant-emitting activities "according to considerations such as proximity and ownership." But it warned that "EPA cannot treat contiguous and commonly owned units as a single source unless they fit within the four permissible statutory terms."
>
> In EPA's view, the December opinion of the court in *Alabama Power* sets the following boundaries on the definition for PSD purposes of the component terms of "source:" (1) it must carry out reasonably the purposes of the PSD; (2) it must approximate a common sense notion of "plant;" (3) it must avoid aggregating pollutant-emitting activities that as a group would not fit within the ordinary meaning of "building," "structure," "facility," or "installation."
>
> * * * * * * * *
>
> EPA has stated in the past and now confirms that it does not intend "source" to encompass activities that would be many miles apart along a long-line operation. For instance, EPA would not treat all of the pumping stations along a multistate pipeline as one "source."
>
> * * * * * * * *
>
> One commenter asked, however, if EPA would treat a surface coal mine and an electrical generator separated by 20 miles and linked by a railroad as one "source," if the mine, the generator, and the

> railroad were all under common control. EPA confirms that it would not.

45 Fed. Reg. at 52694-95 (August 9, 1980).

In the PSD regulations promulgated with the 1980 Preamble, EPA established the following three-part test to determine what buildings, structures, facilities and installations should be considered a single source. This three-part test is currently codified at 40 C.F.R. § 52.21(b)(6):

> [A]ll of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the common control of the same person (or persons under common control). . . . Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same first two digit code) as described in the *Standard Industrial Classification Manual, 1972*, as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101-0066 and 003-005-00176-0, respectively).

However, notwithstanding the Court's directive, other than the general statements in the 1980 Preamble and the two specific examples quoted above, EPA did not provide guidance on, or define whether, when, or to what extent, long line operations such as "pipelines, railroads, and transmission lines" would be considered a "source" for PSD purposes.

On January 12, 2007, EPA Acting Assistant Administrator Wehrum issued a memorandum titled "Source Determinations for Oil and Gas Industries" ("Wehrum Memorandum"). The Wehrum Memorandum provided guidance to EPA regional offices and states when making aggregation determinations with respect to the oil and gas sector, and included a discussion on the role of proximity in assessing whether sources should be considered contiguous or adjacent.[8] On September 22, 2009, EPA Assistant Administrator McCarthy withdrew the Wehrum Memorandum and gave the following guidance to states:

> Permitting authorities should therefore rely foremost on the three regulatory criteria for identifying emissions activities that belong to the same "building," "structure," "facility," or "installation." These are (1) whether the activities are under the control of the same person (or person under common control); (2) whether the activities are located on one or more contiguous or adjacent properties; and (3) whether the activities belong to the same industrial grouping. 40 C.F.R. 52.21(b)(6). In applying

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[8] The Division partially relied on the Wehrum Memorandum in its earlier Title V aggregation analyses for the Frederick Station.

> these criteria, permitting authorities should also remain mindful of the explanation we provided in the 1980 Preamble. See 45 FR 52676, 52694-95 (August 7, 1980).
>
> I agree with the previous memorandum's conclusion that whether or not a permitting authority should aggregate two or more pollutant-emitting activities into a single major stationary source for purposes of NSR and Title V remains a case-by-case decision in which permitting authorities retain the discretion to consider the factors relevant to the specific circumstances of the permitted activities. After conducting the necessary analysis, it may be that, in some cases, "proximity" may serve as the overwhelming factor in a permitting authority's source determination decision. However, such a conclusion can only be justified through reasoned decision making after examining whether other factors are relevant to the analysis.

Memo from Gina McCarthy, Assistant Administrator, to Regional Administrators, "Withdrawal of Source Determinations for Oil and Gas Industries" (September 22, 2009) (hereafter "McCarthy Memo"). Attachment 3.

EPA has not specifically defined in regulation the terms "proximity" or "ownership." Instead, as noted in the McCarthy Memo, EPA has left such determinations to the discretion of its regional offices and state authorities. Nor has EPA ever defined either "proximity" or "long line operations" for PSD or Title V source determinations in its regulations implementing these programs. The Division is also mindful of the statements in the McCarthy Memo that, in applying the definition of "source" in the oil and gas exploration, production, and delivery context, EPA will give the Division discretion to make such source determinations on a case-by case basis.

B. The Colorado Regulatory Scheme

EPA has delegated full permitting and enforcement authority for implementation of the CAA to the Colorado Department of Public Health and Environment, Air Quality Control Commission ("AQCC"). Colorado is a SIP-approved state for both PSD and Title V permitting, not just a delegated state. *See* 40 C.F.R. § 53.230, Subpart G.

The Colorado Air Pollution Prevention and Control Act ("Act"), in the establishment of the Title V program, incorporates EPA's definition of "Major Source" in § 25-7-114(3), C.R.S. The AQCC restates this definition in Regulation 3, Part A, Section I.B.23, defining "Major Source," in relevant part, as:

> Any stationary source or group of sources belonging to the same industrial grouping (see Section 1.B.41 of this Part A), that are located on one or more contiguous or adjacent properties and are under common control of the same person (or persons under common control) that:

> * * * * * * * * * *
> Directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant.

AQCC Regulation No. 3, Part D (5 CCR 1001-5), establishes a PSD air quality program in attainment areas in Colorado. The AQCC definitions of "stationary source" and "major source" parallel EPA's definition of these terms in the PSD and Title V regulations, respectively. The AQCC's definition of a "stationary source," in relevant part, is:

> Any building, structure, facility, or installation, or any combination thereof belonging to the same industrial grouping that emits or may emit any air pollutant subject to regulation under the Federal Act, that is located on one or more contiguous or adjacent properties and that is owned or operated by the same person or by persons under common control. . . . . Building, structures, facilities, equipment, and installations shall be considered to belong to the same industrial grouping if they belong to the same major groups (i.e., have the same two-digit codes).

5 C.C.R. 1001-5, Regulation 3, Part A, § I.B.41.

Under the three-part test established in federal and Colorado regulations, to be considered a single stationary source in Colorado, the pollutant-emitting activities in question must be:

1. in the same industrial grouping as described by their two-digit SIC code;
2. located on one or more contiguous or adjacent properties; and
3. under the control of the same person (or persons under common control).

All three of these conditions must be met in order for sources/emission units to be considered to be a part of the same stationary source for PSD and Title V purposes under both EPA and AQCC regulations. *Compare* 40 C.F.R. §§ 52.21(b)(6) *with* AQCC Regulation 5 C.C.R. 1001-5, Regulation 3, Part A, § I.B.41(definition of stationary source for PSD determinations) and 40 C.F.R. §§ 70.2, 71.2 *with* § 25-7-114(3), C.R.S., and 5 C.C.R. 1001-5, Regulation No. 3, Part A, § I.B.23 (definitions of major source for Title V purposes). Correspondingly, if any one of the three conditions of the test is not met, the sources/emission units are, by definition, not part of the same stationary source.

The McCarthy Memo reiterates the importance of the three-part test. The McCarthy Memo also emphasizes the need to review the three regulatory criteria in 40 C.F.R. § 52.21(b)(6), the explanation in the 1980 Preamble adopting those regulatory criteria, and past case-by-case determinations applying these criteria. The Division has carefully and thoroughly considered the three-part test established by EPA and Colorado in their respective PSD and Title V regulations, the 1980 Preamble, past EPA regional

and headquarters case-by-case determinations, guidance from other oil and gas states, and a recent court decision, *MacClarence v. Environmental Protection Agency*, 596 F.3d 1123 (9th Cir. 2010), in reaching its aggregation determination in this case.

In addition, the Division has applied the guidelines established in the 1980 Preamble that, to be considered a source for aggregation purposes in the PSD and Title V context, the source must (1) further the purposes of the PSD program, (2) meet a common sense idea of plant, and (3) not include pollutant activities that do not come within an ordinary concept of what constitutes a "building, structure, facility or installation." These additional considerations must also be met in order for pollutant-emitting activities to be properly aggregated.

C. The Contiguous or Adjacent Element of the Three-Part Test

As will be discussed below, while the analysis of all three elements of the three-part test are highly fact-specific and conducted on a case-by-case basis, the analysis of the "located on one or more contiguous or adjacent properties" element can be highly challenging, particularly within the context of the oil and gas industry. EPA has considered the "contiguous or adjacent" factor in source determinations across a wide range of industries, and has reached various conclusions based on the case-specific facts.

For example, EPA Regional Offices and Headquarters have determined that pollutant emitting activities as far apart as forty-four miles are contiguous or adjacent for a particular source aggregation determination. Yet, EPA has also determined that pollutant-emitting activities as close as one-quarter of a mile apart, or even physically within the same parcel, are not contiguous or adjacent.9 In some cases, these analyses also considered the concept of contiguous or adjacent within the framework of deciding if one facility supported the primary activity of another facility and assessing if the two activities should both be described by the same two-digit SIC code.

Moreover, the concept of "interdependency," which many individual EPA determinations consider, is not discussed in the 1980 Preamble or mentioned in the federal PSD or Title V regulations defining "source." Rather, it is a concept that has been developed over time by various EPA offices in case-by-case determinations. Therefore,

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9 *Compare* April 20, 1999 letter from Richard Long, Air and Radiation Program, EPA Region VIII, to Dennis Myers, Colorado Air Pollution Control Division (discussed below in Section III.D.ii.) to August 2, 1996 Memorandum from John Seitz, Director, EPA Office of Air Planning and Standards, "Major Source Determinations for Military Installations under the Air Toxics, New Source Review and Title V Operating Permit Programs of the Clean Air Act (Act)." That memo explains that Department of Defense military installations often have co-located facilities grouped under the major SIC code 97 within the same geographic unit, but that they should only be aggregated by distinct branches of the military, because they are not under "common control." The memo further indicates that they should only be aggregated by "functionally distinct groupings" on a case specific basis, using the "common sense notion of a plant." *Id.* at pp. 2-4.

while the Division has thoughtfully considered "interdependency" as part of its contiguous or adjacent analysis, given the unique engineering and commercial complexities in the oil and gas production and midstream sector, the Division will not necessarily look to interdependency as a determining factor in this or other similar cases.

The Division also notes that, because EPA has not promulgated a definition of "proximate" in the PSD or Title V regulations, the weight to be given individual EPA office determinations regarding what constitutes proximate, similar to interdependency, is not binding on the Division. Further, because EPA has never directly addressed the specific "adjacency" issue presented by the Frederick Station and the gas produced from wells that can and does flow to the Frederick Station, EPA should allow a reasonable amount of discretion to the Division in making this determination and similar determinations.10

As noted above, the McCarthy Memo concludes that an aggregation determination "remains a case-by-case decision in which permitting authorities retain the discretion to consider the factors relevant to the specific circumstances of the permitted activities."

In evaluating the terms "contiguous" or "adjacent" within EPA's "common sense notion of plant," the Division first considers the plain meaning of the two terms. The online edition of the Merriam-Webster dictionary provides the following definitions:

Contiguous: Being in actual contact; touching along a boundary or at a point.

Adjacent: Not distant; nearby; having a common endpoint or border.

Based on this definition of "contiguous," an oil and gas well that is located on land that is geographically separated from a compressor station site would not be "contiguous" within the plain meaning of that term.

The more difficult assessment is determining whether such a non-contiguous well might be considered "adjacent" to the compressor station. EPA's source aggregation determinations consistently state that assessment of the adjacent nature of activities must be determined on a case-by-case basis. *See* 1980 Preamble, 45 Fed. Reg. at 52695. *See also* 58 Fed. Reg. 42760, 42766-67 (August 11, 1993) (comprising EPA's discussion related to source determinations for hazardous air pollutants). Moreover, EPA has not established a specific distance between activities in assessing whether such activities are adjacent.

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10 The Division discusses *MacClarence v. EPA* , 596 F.3d 1123 (9th Cir. 2010) below. While there are some factual similarities in this case with the Wattenberg Field and those at issue in Alaska's Prudhoe Bay Unit, there are also significant differences, as further discussed below.

D. EPA Contiguous or Adjacent Determinations

Several of EPA's case-by-case determinations directly address adjacency in the context of oil and gas exploration, production, processing and treatment activities. EPA has made these case-by-case determinations during federal permitting processes and in response to requests by state agencies or regulated entities.[11]

i. Region VIII Gas Production and Midstream Determinations

In July 1999, EPA Region VIII evaluated whether emitting units at compressor stations along a pipeline should be aggregated together as a single source for Title V permitting purposes.[12] Region VIII concluded that, based on the information provided, each compressor station with its associated emitting units comprised an independent single source, but did not require aggregation of the various compressor stations as a single stationary source. *See* letter from Richard Long, Director of the Air and Radiation Program, EPA Region VIII to EnerVest San Juan Operating Co., July 8, 1999.

Region VIII again evaluated the term "adjacent" in December 1999 when determining whether the oil and gas wells, pumps, line heaters, dehydration equipment, combustion equipment and tank batteries within an oil and gas production field should be aggregated together as a single source for Title V permitting purposes. EPA concluded that each individual tank battery with its associated emitting units comprised an independent single source, but did not require aggregation of the various tank batteries located within the oil and gas field as a single stationary source. *See* letter from Richard Long, Director of the Air and Radiation Program, EPA Region VIII to Citation Oil and Gas Corporation, December 9, 1999.

In these two determinations, EPA Region VIII did not aggregate oil and gas production equipment located on different parcels of land within an oil and gas field.

ii. Other EPA Contiguous or Adjacent and Support Facility Determinations

In the context of a gathering system and a gas transmission line owned and operated by the same parent company and on contiguous properties, EPA concluded that they should be aggregated. *See* November 3, 1986 letter from Allen Bell, Director, Air,

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11 The Division found these aggregation determinations by searching, among other sources, EPA's "Applicability Determination Database," found on EPA's Clean Air Act Compliance Monitoring web pages; EPA Region VII's "Air Program Policy and Guidance Index;" and the NSR and Title V Policy Guidance Databases developed by Region VII, available on Region VII's Air Program web pages.

12 As explained above, the definition of a major source for Title V purposes contains the same regulatory criteria as the definition of stationary source for PSD purposes. Accordingly, EPA's case-by-case determinations with respect to Title V also apply in making aggregation determinations in the PSD context.

Pesticides and Toxics Division, U.S. EPA, to the Executive Director of the Texas Air Control Board. While EPA briefly addressed the issue of contiguous or adjacent, the focus of this determination was on the relationship between the gathering system and the gas transmission line, and whether the two activities should be grouped under the same two-digit SIC code (i.e., did one facility support the other). In this case, the determining factor was the dependence of the gathering system on the transmission system to get the product to market. The transmission system was a support facility for the gas gathering system, and the gathering system could not otherwise introduce its product into commerce. However, the adjacency of the two systems was not at issue because they were located on contiguous properties. That situation is different from the one at issue in this case, where the Division must determine whether pollution-emitting activities from oil and gas exploration and production sites that are not contiguous with a midstream compressor station should be aggregated with that compressor station.

In a related context for an offshore oil and gas drilling operation, the EPA Environmental Appeals Board recently held that a source determination by EPA Region 10 lacked an adequate record basis to support EPA's aggregation decision. EPA had determined that two drilling ships owned by Shell that were not connected could operate within 500 feet of each other and should not be aggregated. *See, In re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, (OCS Appeal Nos. 07-01 and 07-02, September 14, 2007). However, in remanding the case, the Appeals Board rejected the appellants' argument that potential drill locations should be aggregated even if they were many miles apart yet located on contiguous lease blocks owned by the same company. In doing so, the Board reasoned as follows:

> The phrase 'contiguous or adjacent properties' must be understood as connoting a more substantial connectedness, proximity, or continuity that would correspond to a common understanding of building, structure, facility, installation, or plant.

Id. at 39-40.

Earlier, EPA Region 10 determined that an offshore oil and gas platform and an onshore production facility located 2.8 miles apart and connected by pipelines should be aggregated as a single source. *See* August 21, 2001 letter from Douglas Hardesty, Manager, Federal and Delegated Air Programs, EPA Region 10 to John Kuterbach, Chief, Air Quality Management, Alaska Department of Environmental Conservation. In this case, these two Forest Oil sites were exclusively dependent on each other because pipelines transported all the oil, gas and produced water from the offshore site to the onshore site and the onshore site transported treated produced water back to the offshore site. In addition, electrical power produced at the onshore site was provided to the offshore site via electrical cables and communication cables were used to coordinate efforts between the two sites. Finally, personnel from the onshore site would perform maintenance activities at the offshore site. Because of the mutual interdependency of the two sites, EPA Region 10 determined that the two sites were adjacent and, because they met the other two elements of the three-part test, should be aggregated as one source.

Other individual EPA aggregation determinations have expanded upon the concept of "adjacency." These determinations generally involve other types of industrial activities, but they support the above decisions related to typical oil and gas exploration and production activities and, by extension, their relation to midstream activities, including compressor stations. In those case-by-case determinations, EPA evaluated three factors in assessing whether an activity was adjacent as part of the three-part test identified in the above source determination regulations. Those three factors developed and utilized by EPA are connectedness, proximity and interdependence. The Division considered all of these aggregation analyses and determinations in deciding whether to aggregate any other compressor stations and wells in the Wattenberg Field with the Frederick Station. Some of these case-by-case determinations are discussed below.

For example, EPA evaluated whether to aggregate sections of Shell Oil Company's Wilmington, Delaware, refinery complex for PSD purposes in 1980. The sections were located 1.8 miles apart, interconnected by twenty pipelines transferring intermediary products back and forth, and managed as a single refinery. In that case, EPA determined that the sections of the refinery complex constituted one source for PSD purposes. EPA's determination focused on the fact that the sections were interconnected by pipelines, that those pipelines transported intermediary products from one site to the other, and that they were operated as a single refinery. *See* Letter from E. Reich, Director, Division of Stationary Source Enforcement to C. Eller, Director, Enforcement Division, Region IX, May 16, 1980.

Similarly, in June 1981, EPA evaluated whether two General Motors facilities constituted one source for PSD purposes. The facilities were located one mile apart, with a dedicated railroad line between them, and were programmed together to produce one line of automobiles transported by the dedicated railroads back and forth between the facilities for assembly and painting. As in the *Shell Refinery* case above, EPA's determination was based on interconnectedness and interdependence. The railroad served only the General Motors facilities, parts were transported back and forth between the facilities, and the plants were less than one mile apart. EPA concluded that the two facilities were adjacent and should be treated as one source for PSD purposes. *See* June 8, 1981, Memorandum "Defining Two Separate Plants as One Source," from Steve Rothblatt, Chief, Air Programs Branch, Region V EPA, to Edward E. Reich, Director, Stationary Source Enforcement Division, Region V EPA.

In determining whether Anheuser-Busch's Fort Collins, Colorado brewery and land farm constituted a single stationary source for PSD purposes, EPA again looked closely at the interdependency of the operations both within the context of a support facility relationship (i.e., same two-digit SIC code) and for determining if the activities were located on contiguous or adjacent properties. The brewery and land farm were six miles apart but physically connected by a pipeline. EPA focused on the fact that (1) the land farm operation was an integral part of the brewery operations and (2) the brewery needed the land farm to dispose of its waste water. As in the *Shell* and *General Motors* analyses above, EPA concluded that the two facilities constituted one stationary source

for PSD purposes, because of the interdependency of the two operations. *See* Letter from R. Kellam, Acting Director, Information Transfer & Program Integration Division to R. Long, Director, Air Program, Region VIII, August 27, 1996.

EPA has also considered whether two ESCO plants (the Main Plant and Plant 3) should be considered adjacent for Title V aggregation purposes. Plant 3 produced metal castings, and the castings were all coated at the Main Plant. EPA Region X concluded that this interdependency of the plants caused them to be contiguous or adjacent and subject to aggregation for Title V purposes. Region X utilized EPA's "common sense notion of a plant" to conclude that, because Plant 3 was entirely dependent on the Main Plant for production of the finished product, both plants constituted one source under Title V. Through this conclusion, Region X also disagreed with ESCO's arguments that a support facility relationship could not form the basis for a contiguous or adjacent determination. *See* Letter from J. Cabreza, Permits Team Leader, Office of Air Quality, to Oregon Department of Environmental Quality, August 7, 1997.

In evaluating whether a Great Salt Lake Minerals plant and pump station should be considered one source for PSD purposes, EPA Region VIII focused on the fact that the pump station did not have its own primary economic activity but only supported the activity of the plant, even though the pump station was twenty miles from the plant. The pump station supported brine transfer for the plant. EPA stated:

> Distance between the operations is not nearly as important in determining if the operations are part of the same source as the possible support that one operation provides for another.

EPA did not specifically examine or draw a conclusion on distance with regard to the contiguous or adjacent element of the three-part test, it instead focused on determining if a support facility relationship existed between the two activities. EPA opined that the pump station and plant constituted one source for PSD purposes. However, EPA also stated as follows:

> Our position on this rather unique situation is only provided as guidance, as it remains the State's primary responsibility to make the final determination under your SIP-approved PSD regulations.

See Letter from R. Long, Director, Air Program, EPA Region VIII to Division of Air Quality, Utah Department of Environmental Quality, August 8, 1997. Utah ultimately decided not to aggregate these two pollutant-emitting activities. In the Title V permit for the minerals plant, Utah stated as follows:

> The collective pump station operations located on the west side of the Great Salt Lake are not included in this permit since it has been designated as a separate source.13

In responding to a request from the Utah Division of Air Quality about whether two Utility Trailer Manufacturing Company facilities on non-contiguous sites should be considered adjacent and aggregated as a single source, EPA Region 8 did not make a specific determination. EPA Region 8 reiterated the 1980 Preamble statements regarding the fact-specific nature of aggregation decisions, described several existing EPA source determinations for non-contiguous sites, and recommended that Utah consider several factual issues in making its source determination. These issues included evaluating whether the location of the new facility was chosen because of its proximity to the existing facility, whether materials would routinely be transferred back and forth between the two facilities, whether managers and other workers would be shared between the two facilities, and whether the production process itself would be split between the two facilities. *See* May 21, 1998, letter from Richard Long, Director, Air Program, EPA Region 8 to Lynn Menlove, Manager, New Source Review Section, Utah Division of Air Quality.

Finally, in considering whether to aggregate the pollutant emitting activities at a mine and a processing facility owned and operated by American Soda, EPA Region VIII decided that these two facilities should be aggregated. The facilities were located forty-four miles apart and connected via a pipeline. EPA made its determination based on its analysis that the two facilities were interdependent because the mine, via a slurry pipeline, produced an intermediate product for the processing plant, while a return pipeline conveyed spent brine from the processing plant back to the mine. The facilities were thus exclusively interdependent upon each other and served no other purpose. EPA concluded that in this case, given their integral connectedness, the distance between the two facilities alone did not preclude them from being considered adjacent. *See* April 20, 1999 letter from Richard Long, Air and Radiation Program, EPA Region VIII, to Dennis Myers, Colorado Air Pollution Control Division.

In contrast to most of the above determinations, where EPA determined that the connectedness or interdependency between facilities was such that they should be aggregated either because they were contiguous or adjacent or because of a support facility relationship, EPA Region IV concluded that two bulk gasoline terminals located in close proximity did not constitute a single stationary source for Title V purposes. Although the two terminals were only about nine-tenths of a mile apart on a public road, they were not connected by pipelines or other utilities and were not support facilities for each other. EPA concluded that the two terminals did not constitute a single stationary source for PSD purposes because the terminals could and did operate independently, neither terminal was a support operation for the other, and the terminals were not physically connected by a structure such as a pipeline dedicated to the transfer of material or energy between the two terminals. EPA reached this conclusion even though the

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13 *See* http://www.airquality.utah.gov/Permits/DOCS/10917pmt.20060803.pdf.

facilities occupied most of the land area between the two terminals and the facilities shared some employees. *See* letter from W. Smith, Director, Air, Pesticides and Toxics, Management Division, EPA Region IV to Mecklenburg County Department of Environmental Protection, May 19, 1999.

An assessment of these case-by-case determinations reveals the fact-specific nature of each determination. However, a general pattern among the cases indicates that there should be a high level of connectedness and interdependence between two activities for EPA to consider them adjacent. In particular, it appears that interdependence requires that the two activities rely on each other – not just that one activity relies on the other activity. In addition, reliance means that one activity cannot operate or occur without the other. If the activities operate independently or the activities do not act solely as a support operation for each other, the activities are generally not considered adjacent for source determination purposes.

E. State Guidance Documents

In addition to the above EPA case-by-case source determinations, several states have developed guidance on aggregation of activities associated with oil and gas exploration, production, and distribution. These guidance documents focus specifically on the contiguous or adjacent portion of the three-part test. The State of Colorado sees the guidance as informative of how this element of the test can be viewed, but not dispositive or binding on the state in its application of the pertinent regulatory factors. In Texas, Oklahoma and Louisiana, state air quality agencies have used the interdependency tests applied by EPA in the above examples to help form their aggregation analysis policies for oil and gas as well as other activities. Moreover, Wyoming, another state with significant oil and gas exploration and production activity, has articulated a reasonable position regarding pipeline connections between oil and gas wells and compressor stations, and whether pipelines should be considered in source aggregation analyses. Each of these states is SIP-Approved for its respective Title V and PSD permit programs.

The Texas Council on Environmental Quality ("TCEQ") has concluded that "[c]ontiguous or adjacent properties are adjoining except for an intervening road, railroad, right-of-way, waterway, or the like." 14 In establishing a distance to determine whether one pollutant-emitting activity is contiguous or adjacent to another pollutant emitting activity, TCEQ relies primarily upon a proximity test, stating that "[p]roperties located less than ¼ mile apart are considered contiguous."

However, TCEQ also states that "interdependent properties located more than ¼ mile apart may also be considered contiguous." Similar to the EPA case-by case determinations discussed above, TCEQ defines interdependent properties as properties that are "*mutually* dependent." (emphasis added). According to the TCEQ guidance, "a

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14 *See* Attachment 4 "Definition of Site," also found at http://www.tceq.state.tx.us/assets/public/permitting/air/Guidance/Title_V/site.doc.

mutually dependent property either supports or is supported by another property (or properties) and *cannot function independently*." *Id.* (emphasis added).

Similarly, the Oklahoma Department of Environmental Quality ("ODEQ"), Air Quality Division, has established guidance to evaluate the contiguous and adjacent nature of activities. ODEQ guidance states that "[a] physical separation of property does not in itself constitute separate sources; for example, the fact that some property at a plant site is divided by a highway or a railroad right-of-way does not create separate and distinct sources." 15 In addition, like TCEQ, ODEQ considers "within a contiguous area" as any source located within a quarter (¼) mile of another commonly owned source. ODEQ acknowledges that this proximity-based approach is a simplification of EPA guidance and may not adequately deal with situations with extenuating circumstances "such as when sources are not within a quarter (¼) mile of each other, but operationally support each other and are 'connected' by some means of transportation." *Id.* In these cases, ODEQ undertakes a case-by-case determination and considers: 1) whether the entities are located in different counties and located more than five miles apart; 2) whether the facilities operationally support each other; and 3) whether the facilities are physically joined in any manner. If the facilities are located in different counties and more than five miles apart, ODEQ does not consider them contiguous and adjacent. If the facilities are either located in the same county or less than five miles apart, then ODEQ focuses on whether the facilities operationally support each other and are physically joined in any manner.

The Louisiana Department of Environmental Quality ("LDEQ") also provides guidance regarding whether oil and gas production operations should be considered contiguous. LDEQ treats sites separated by a quarter (¼) mile or less as contiguous.16 However, LDEQ makes clear that the facilities to be considered contiguous are limited to those within a quarter (¼) mile of the target facility. Facilities should not be "daisy-chained" together to establish a contiguous grouping. *Id*. Thus, similar to Texas and Oklahoma, LDEQ relies upon a proximity-based method unless the "particular circumstances for a given case (e.g., interdependency)" warrant a contiguous determination. *Id.*

The Wyoming Department of Environmental Quality ("WDEQ") recently made a presentation to EPA regarding its position on aggregation of oil and gas wells and, among other things, compressor stations in that state. WDEQ's position is that a pipeline connecting a well(s) to a compressor station does not, by itself, meet the contiguous or adjacent criteria to aggregate the two types of facilities. WDEQ further notes that aggregating oil and gas production and distribution facilities will result in "additional

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15 *See* Attachment 5, "Air Permitting Collocated Facilities," also found at http://www.deq.state.ok.us/factsheets/air/PermittingCollocated.pdf.
16 *See* Attachment 6, "Interpretation of Contiguous for Oil and Gas Production Facilities," http://www.deq.louisiana.gov/portal/tabid/2347/Default.aspx.

permitting timelines/burden with little or no environmental benefit."[17] Finally, WDEQ notes that the interdependency test is not one that has been established in statute or EPA-promulgated regulations, and it urges EPA to rely instead on the statutory definition of source.[18]

As is evident from the above, Texas, Louisiana, and Oklahoma all have developed proximity-based criteria for assessing whether activities are contiguous or adjacent. Each state uses a quarter (¼) mile distance as a general guideline to determine contiguousness/adjacency, though all retain case-by-case analysis to evaluate other facts if extenuating circumstances warrant. Wyoming urges EPA to focus on the statutory and regulatory definitions of source contained in the *Alabama Power* decision and the 1980 Preamble in making source determinations in the natural gas production and distribution context.

F. Non-Aggregation of Oil and Gas Facilities for Hazardous Air Pollutants

Finally, it is significant that, in the hazardous air pollutant ("HAP") arena, EPA has expressly determined, consistent with Congress' statutory mandate in the CAA, 42 U.S.C. § 7412(n)(4)(A), oil and gas production field facilities are typically *not* industrial facilities that should be aggregated. Such facilities generally are not "in close proximity to or co-located with one another (contiguous) and located within an area boundary, the entirety of which (other than roads, railroads, etc.), is under the physical control of the same owner." Oil and Natural Gas Maximum Achievable Control Technology Standard, 63 Fed. Reg. 6288, 6303 (Feb. 6, 1998). For HAP major source determinations, the EPA-promulgated definition of "facility" states that "pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts . . . or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility." 64 Fed. Reg. 32610, 32630 (June 17, 1999).[19]

IV. THE THREE-PART TEST APPLIED TO OIL AND GAS SOURCES

All three parts of the "building, structure, installation or facility" test can present challenges in assessing their applicability within the unique and complex framework of

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17 *See* Attachment 7, "Aggregation in Wyoming," PowerPoint Presentation to EPA, February 23, 2010.

18 *Id*.

19 *See also* 42 U.S.C. § 7412(n)(4)(A): "Emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources, and in the case of any oil or gas exploration or production well (with its associated equipment), such emissions shall not be aggregated for any purpose under this section."

oil and gas production, gathering and processing operations. Evaluating the contiguous or adjacent portion of the test can be especially complex[20] given the geographical distribution of emission sources across large areas in the oil and gas industry in general, including the Wattenberg Field, where the Frederick Station is located. In addition to the EPA oil and gas aggregation determinations previously described, the Division further discusses the three-part test as applied to the Wattenberg Field generally and as recently applied in Alaska's Prudhoe Bay.

A. Gas Production in Colorado, including the Wattenberg Field

Consistent with EPA's recommendations in its October 8, 2009 Order, the Division obtained information from Kerr-McGee Gathering regarding the physical, contractual, engineering and operational characteristics of oil and gas wells and compressor stations owned or operated by Kerr-McGee Gathering and others in the Wattenberg Field.[21] The Division also obtained and analyzed similar categories of information from other oil and gas exploration, production and distribution companies in the Wattenberg Field.[22]

The Division has carefully analyzed this information in relation to the recent *MacClarence* decision, the source determinations that EPA has made over a number of years, and the guidance documents from other oil and gas producing states. Based on all this information and guidance, the Division has determined that certain guidelines can be applied to oil and gas production and gathering systems in Colorado generally, and specifically to the Wattenberg Field.

Based upon its analysis, the Division has determined that oil and gas exploration, production and gathering systems are fundamentally different from other sources, such as manufacturing operations, for purposes of aggregation analyses. Oil and gas exploration and production areas have unique physical and ownership characteristics. Significantly, the fields usually cover large surface areas. For example, the Division estimates that

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20 As explained above and below, while the Division has developed considerable information and has carefully and thoroughly analyzed this information in this response, the Division does not see the need for and does not intend to engage in such in-depth information gathering and analysis every time it processes an oil and gas permit application. The Division will, however, utilize the information gathered and the case-by-case analysis performed as a part of this response in making future source determinations in this area.

21 *See* Attachment 8, January 14, 2010 letter from the Division's Roland Hea, Permitting Section Supervisor, Stationary Sources Program, to Korby Bracken, Anadarko Petroleum Corporation.

22 *See* Attachment 9, February 5, 2010 letter from the Division's Kirsten King, Manager, Stationary Sources Program to Curtis Rueter, Environmental Manager, Noble Energy, Inc.; Attachment 10, February 5, 2010 letter from Kirsten King to Jill Cooper, Group Lead Environment, EnCana Oil and Gas (USA), Inc.; Attachment 11, February 5, 2010 letter from Kirsten King to Joshua Epel, Assistant General Counsel, DCP Midstream.

there are approximately 24,000 wells scattered over 2,000 square miles in the Wattenberg Field that are owned and operated by numerous oil and gas companies.

Moreover, compressor stations and well operations are typically not located on contiguous properties, i.e., the properties on which they are located do not touch. The question is how to determine which, if any, compressor stations and oil and gas wells and their associated pollutant-emitting activities scattered over a large geographic area should be considered "adjacent" for purposes of the three-part test. Mature fields, like the Wattenberg Field, consist of a network of wells, gathering lines, condensate tanks, glycol dehydrators and compressor stations. In the Wattenberg Field, according to the Division's permit and emission point tracking database, there are many exploration and production companies that are operating.

Based upon its review of information provided by the oil and gas companies operating in the Wattenberg Field, the Division has concluded that gas production companies have the ability to send and do send produced gas to a number of different compressor stations. Some of these compressor stations are owned and operated by the same or a related entity, while others are not owned or operated by the same or a related entity.23 Moreover, in most instances production companies do not own the surface land or the underlying oil and gas resources. They have only a limited right to produce the oil and gas resources (sometimes only at certain depths or in certain formations while other entities may have the right through lease or ownership to produce gas at other levels) and to disturb a reasonable amount of surface as part of their exploration, production, and distribution activities.24

The Division has determined that gathering companies generally do not control the operations of oil and gas wells. A gathering company simply accepts the gas provided by the production company, as long as it meets certain quality and other contractual requirements. Except in very limited and unusual circumstances, a gathering company does not control or affect the operations of the wells that are the subject of the gathering contract. It is entirely the decision of the oil and gas production company regarding how and when it operates its wells. For instance, if the production company

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23 *See* Attachment 12, February 4, 2010 letter and attachments from Korby Bracken, Manager, Air Quality, Kerr-McGee Gathering, LLC to Roland Hea, Permitting Section Supervisor, Stationary Sources Program (hereafter "Kerr-McGee letter"), at pp. 1-2; Attachment 13, March 3, 2010 letter from Jill Cooper, Group Lead, Environment, EnCana Oil and Gas (USA), Inc. ("EnCana") to Kirsten King, Program Manager, Stationary Sources Program, Colorado Air Pollution Control Division (hereafter "EnCana letter"), at pp. 2-6; Attachment 14, March 12, 2010 letter and attachments from Joshua B. Epel, Associate General Counsel, DCP Midstream to Kirsten King, Manager, Stationary Sources Program (hereafter "DCP letter"); and Attachment 15, March 17, 2010 letter and attachments from Chris Martinez, Air Quality Manager, Noble Energy to Kirsten King, Manager, Stationary Sources Program (hereafter "Noble letter").

24 *See* Kerr-McGee letter at p. 1-2; EnCana letter at p. 2; Noble letter at p. 2.

decides to shut-in a particular well because of market conditions or other reasons, the gathering company cannot override that decision. 25

The Division also has concluded that, in many instances, oil and gas wells are operated by entities that are unrelated to the gathering company operating the compressor stations and other facilities associated with gathering operations. Because many oil and gas leases have several working interest owners, the operations of a well may be governed by a JOA between these owners and the oil and gas production company/lessee. Additionally, because typical oil and gas leases allow each working interest owner to take its portion of the produced gas in-kind, the produced gas may be subject to "split stream" gas distribution. In split stream situations, working interest owners may decide to have their gas conveyed via different gathering companies, resulting in one well being connected to more than one gathering system. 26

As noted above, pursuant to contract, a gathering company generally accepts all of the gas provided by a production company for specific wells, whenever that gas is available. However, short-term maintenance, poor well gas quality or force majeure events may require a particular well to be shut-in.27 Moreover, the Division has found that, in most instances in Colorado and always in the Wattenberg Field, once gas from a particular well is metered and flows into the gathering lines of a gathering company, that gas becomes commingled with other gas flowing through those lines from other wells and other companies. It is not possible to distinguish, track, or "brand" the gas from a particular well once it enters the gathering lines of the gathering companies.28

Further, specific compressor stations, like the Frederick Station, are not addressed or identified individually in gathering contracts. This gives the gathering company flexibility to allow the gas from a particular well to flow to a different compressor station connected to the gathering system as conditions warrant. For instance, if the Frederick Station is not operating because of maintenance, repair, or new equipment installation, the gas from a well that normally would flow to the Frederick Station will instead flow to another compressor station.29

Information gathered by the Division reflects that the engineering and construction aspects of a mature field, including the Wattenberg Field, result in a spider web of gathering lines, compressor stations and wells. Within this maze, gathering and distribution lines overlap, run parallel, and cross at different depths. The gas produced at

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25 *See* Kerr-McGee letter at pp. 6-7; EnCana letter at pp. 2, 6; Noble letter at p. 3; DCP letter at pp. 2, 4.
26 *See* Kerr-McGee letter at pp. 2-6; EnCana letter at pp. 2-3; Noble letter at p. 3;
27 *See* Kerr-McGee letter at p. 7; EnCana letter at p. 3; Noble letter at p. 5; DCP letter at p.4.
28 *See* Kerr-McGee letter at p. 8 and attached Exhibit 4, Gas Gathering Agreement, General Terms and Conditions, Article 2.1; EnCana letter at p. 3.
29 *See* Kerr-McGee letter at pp. 6-8; *see also* EnCana letter at pp. 2-3; Noble letter at pp. 6-7.

individual wells may flow to several compressor stations depending on conditions within the gathering system, and the flow of the gas can change from day to day. The changes in flow patterns can result from any number of factors, including the pressure and hydraulics of individual compressor stations, wells and gathering lines. 30

Finally, the Division also notes that the age and production capacity of different wells and fields affects the amount of gas flowing to a particular compressor station on a particular day (or time of day). As wells age, the pressure in the well will decrease, thereby reducing the amount of gas that can be produced from that well. Conversely, if an older well is re-completed, its gas production will likely increase, providing the gathering system with more gas than before. Moreover, new wells are drilled and connected periodically within the same field, including the Wattenberg Field. Over time, these dynamic changes can necessitate new compressor stations, new gathering lines, or increased capacity at existing compressor stations.31

B. The *MacClarence* Decision

A recent case, *MacClarence v. Environmental Protection Agency*, 596 F.3d 1123 (9th Cir. 2010), addresses aggregation of sources in an oil and gas production and distribution context. In *MacClarence*, the Court affirmed an EPA decision not to object to a final permit issued under Title V by Alaska's Department of Environmental Conservation ("ADEC"). ADEC issued the Title V permit to British Petroleum ("BP") for a production center in Prudhoe Bay. The production center is one of six operated by BP that services 38 well pads located on tundra across a 300 square mile area. The production centers separate the oil, water and hydrocarbon gases, and then pump the processed crude oil to the Trans-Alaska Pipeline for sale.

MacClarence petitioned EPA under section 505(b)(2) of the CAA, 42 U.S.C. § 7661d(b)(2), to object to ADEC's Title V permit, which aggregated six well pads with one production center. *Id.* at 1126-27. MacClarence argued that ADEP should have aggregated the entire Prudhoe Bay Unit, including the facilities at all the well pads and all the production centers. *Id.*

ADEC, in the Statement of Basis accompanying the permit, found that extending the Title V permit to the entire Prudhoe Bay Unit would be unprecedented, would "severely stretch the concept of proximity," and would be unduly complex to administer and operate. *Id.* at 1128. ADEC also concluded that such a result would not fit within the "common sense notion of a plant," and would not have any "clear corresponding environmental benefit." *Id.* 32

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30 *See* Kerr-McGee letter at pp. 6-8; *see also* EnCana letter at pp. 2-3; Noble letter at pp. 6-7.
31 *See* Kerr-McGee letter at p. 9 and attached Exhibit 5; *see also* EnCana letter at p. 6.
32 *See also* Attachment 16, ADEC's Final Title V Permit No. 182TVP01, Revision I, February 17, 2004, "Statement of Basis," at pp.4-7 ("ADEC Decision").

ADEC also identified some of the problems that would arise if the entire Prudhoe Bay Unit were aggregated as one source:

> a) Netting analyses conducted over such a large stationary source could lead to avoiding all PSD reviews.
>
> b) De-bottlenecking analysis would be more difficult.
>
> c) Tracking cause and effect of activities within the unit would be difficult; calculation of associated emission effects would become more complicated.
>
> d) Permit maintenance burden would be greater; both Title I and Title V permits would be in a constant state of revision.
>
> e) Scope of review and analysis could discourage discrete facility upgrades. If ADEC were required to evaluate all air-related issues across the entire PBU at the same time, agency resources could be overwhelmed resulting in permitting delays. 33

ADEC also concluded that pipelines alone should not be the sole factor in determining adjacency, explaining:

> [I]n the oil and gas industry pipelines connect everything. Pipelines are used throughout the [Prudhoe Bay] operating unit as the preferred method for transferring fluids between facilities. To only consider the connectivity of operations via pipelines to determine proximity and to not also consider the concept of a common sense notion of a plant would result in one stationary source extending from the North Slope oil fields all the way to the Valdez Marine Terminal.34

EPA denied MacClarence's petition for EPA to object to the permit. EPA held that MacClarence "failed to provide adequate information to support his claim that the entire PBU should be aggregated and has also failed to demonstrate that the failure to aggregate all facilities within the PBU has led to a deficiency in the content of the permit." 35 EPA also noted favorably that ADEC "provided a detailed explanation of its aggregation decision in the statement of basis for the final permit for GC1. [and that] ADEC discussed in great detail why it decided, based on the applicable statutes, regulations, and EPA guidance and the specific facts before the ADEC, that it was not appropriate to aggregate all facilities within the entire PBU."36

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33 ADEC Decision at p. 6.
34 *Id*.
35 *See* Attachment 17, *In the Matter of BP Exploration , Inc., Gathering Center #1, Permit No. 182TVP01 (Revision 1),* "Order Denying Petition for Objection," pp. 7-8.
36 *Id*. at p. 8.

In affirming EPA's decision not to object, the Ninth Circuit Court of Appeals held that under section 505(b) of the CAA, the burden to prove that the Title V permit did not comply with the requirements of the CAA was on the petitioner, and that he had not met that burden. 596 F.3d at 1131-1132. The Court further noted affirmatively that ADEC had compiled a substantial administrative record that supported its decision. The Court determined that ADEC's use of a "hub-and-spoke" model in its aggregation analysis was reasonable and supported by the administrative record. *Id*. at 1133. The Court thus held that EPA's decision not to object was not an impermissible interpretation of the term "demonstrate" in section 505(b)2) to place the burden on the objector to show non-compliance with the CAA arbitrary or capricious, the applicable standard of review of an EPA section 505(b)(2) decision. *Id.*

C. The Wattenberg Field Differs Significantly from Prudhoe Bay

Gas production and distribution in Colorado differs substantially from the production and distribution of oil in the Prudhoe Bay Unit described in the *MacClarence* decision. For example, the Prudhoe Bay Unit covers about 300 square miles while the Wattenberg Field is much larger, covering 2,000 square miles. In the Prudhoe Bay Unit, only 6 production centers service a total of about 38 well pads; the Wattenberg Field includes over 24,000 wells.

In the Prudhoe Bay Unit, BP owns 26-50 percent of all the facilities and, under an agreement with the other oil and gas lessees, operates all the wells and production equipment. In the Wattenberg Field, ownership of the gas is fragmented; and ownership and operation of the wells, compressor stations, and various interstitial and ancillary equipment is dispersed among at least fifty different exploration and production companies and several midstream companies. The surface and mineral estate is, in many instances, split. The gathering lines are owned by a number of companies and cross over, run parallel to, or beneath each other. The produced gas can and does flow to one compressor station one day and to another compressor station the next. The compressor stations to which gas flows may be owned and operated by the same company, or by different companies.[37] As previously described, midstream companies do not control the operations of the wells.

In light of the significant differences between the Wattenberg Field and the Prudhoe Bay Unit, the Division has determined that the "hub and spoke" model utilized by Alaska is unsuitable in the Wattenberg Field. The Division has reached this conclusion because midstream companies, except perhaps in some very limited circumstances, cannot physically or by contract control the operations of oil and gas wells. A midstream company could not, for example, have any authority to tell a well operator that it is required to install a flare on a battery of condensate tanks or glycol dehydrators that are associated with the well. Without this authority to require the installation of certain types of pollution control equipment or institute operational

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[37] Kerr-McGee letter at pp. 1-2; EnCana letter; Noble letter at p. 4; DCP letter at p. 1.

controls, a midstream company could not enforce any permit conditions that the Division might include within the midstream company's air quality permit related to the well(s).

Moreover, the changing conditions and participants in oil and gas field production and distribution, including changes in ownership, contracts, gas production, and engineering, would cause the Division's permitting process to be in a constant state of flux and uncertainty.38 By the time an "aggregated" compressor station and wells permit was reviewed and issued by the Division, the owners of the wells and compressor station, the engineering associated with those particular wells and compressor station, and the production conditions related to the facilities covered by the permit could, and in many cases would, be different from the conditions that existed when the permit application was first submitted. 39 This would make both permitting and enforcement of such permits difficult if not impossible to administer and result in the kind of fine-grained analysis that EPA declared was not practicable or necessary in the 1980 Preamble.

D. General Considerations for Assessing Contiguous or Adjacent in the Wattenberg Field

In addition to considerations of proximity, given all of the foregoing variables, including the fact that midstream companies do not control oil and gas well operations to any significant extent; unless (1) particular wells and compressor stations are solely owned and operated by the same entity or under common control with the same entity, and (2) are solely dedicated to or dependent upon a single compressor station, and the compressor station receives all of its gas from those particular wells, the level of "interdependency" necessary to find that a compressor station and non-contiguous wells should be considered adjacent does not appear to exist in the Wattenberg Field. Therefore, except in very narrow circumstances, the Division does not anticipate determining that compressor stations should be considered adjacent to non-contiguous oil and gas wells in the Wattenberg Field.

V. THE THREE-PART TEST APPLIED TO KERR-MCGEE GATHERING'S FREDERICK STATION TITLE V PERMIT RENEWAL

In its October 8, 2009 Order, EPA required the Division to supplement the permit record and, as necessary, make appropriate changes to the permit. In doing so, EPA

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38 The *MacClarence* court noted favorably that ADEC's reasoning in its final Title V permit decision for the production station at issue included the following statement: "The complexity of administering . . . and operating . . . a stationary source as large as the PBU without clear corresponding environmental benefit argues against" the aggregation of the entire PBU. 596 F.3d at 1133.

39 *See, e.g.*, the many and varied types of services and engineering scenarios described in the EnCana letter at pp. 4-6.

recommended that the Division conduct a source determination analysis which could include the following:

- An evaluation of Kerr-McGee's complete system map showing all emission sources owned or operated by the Company in the Wattenberg Field and determine whether the various pollution emitting activities are contiguous or adjacent to and under common control with the Frederick Station.
- An evaluation of 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.
- 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 activities should be considered under common control for purposes of making the source determination.

As recommended by EPA, the Division requested additional information from Kerr-McGee Gathering in a January 14, 2010 letter in order to provide a more detailed stationary source determination analysis for the Frederick Station. *See* Attachment 8. Kerr-McGee Gathering responded to the Division request through a submittal transmitted to the Division on February 4, 2010. *See* Attachment 12. Kerr-McGee Gathering also submitted additional information on March 9, 2010, including an updated list of well sites, which correlates to the 3-section by 3-section map delivered with its February response.[40] *See* Attachment 18. This smaller map includes all of Kerr-McGee Gathering's emission sources within the subject range, along with possible gas flow directions. Gas will flow along the path of least resistance within the gathering system, and thus it is not possible to guarantee flow directions along some gathering lines. This is indicated on the detailed map with bi-directional flow lines. In addition, Kerr-McGee Gathering submitted a larger map of its "Wattenberg Gathering System" dated February 23, 2010. *See* Attachment 19. The Division has thoroughly reviewed and evaluated all of the information submitted by Kerr-McGee Gathering to respond to EPA's Order.

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[40] *See* March 9, 2010 e-mail from Korby Bracken to Matt Burgett with an attached table showing, among other things, distances of KMOGO wells/pollutant-emitting equipment from the Frederick Station within the three section-by-three section area surrounding the plant (this updated table replaced a similar table included as Exhibit 6 in the February 4, 2010 submittal). Attachment 18.

A. Other Kerr-McGee Gathering Compressor Stations in the Wattenberg Field

As described in the Division's April 29, 2008 Addendum to the January 1, 2007 Technical Review Document ("Addendum"), the Division has previously considered the relationship between the Frederick Station and other Kerr-McGee Gathering compressor stations in the Wattenberg Field, namely the Hudson, Fort Lupton, Dougan, Brighton, and Hambert Compressor Stations.41 In our analysis in the April 29, 2008 addendum, the Division concluded that the Frederick Station should not be aggregated with any of these other Kerr-McGee Gathering compressor stations. While the primary focus of this response to the October 8, 2009 Order has been on the relationship between the Frederick Station and oil and gas well pollutant-emitting activities in the Wattenberg Field, the Division has considered whether the additional information submitted by Kerr-McGee Gathering in the current context materially affects the aggregation analysis previously done for the other Kerr-McGee Gathering compressor stations in the Wattenberg Field.42

As discussed above in Section III.D.i., Region VIII determined in 1999 that while all the pollutant-emitting sources within a compressor station should be aggregated, gas compressor stations connected by pipeline in the same gas field were not required to be aggregated. *See* letter from Richard Long, Director of the Air and Radiation Program, EPA Region VIII to EnerVest San Juan Operating Co., July 8, 1999. This determination by Region VIII is consistent with the Division's analysis in the Addendum. In that Addendum, the Division found that the closest Kerr-McGee Gathering compressor station to the Frederick Station is the Dougan Compressor Station, which is approximately 7.2 miles from the Frederick Station. The other Kerr-McGee Gathering compressor stations in the Wattenberg field and their approximate distances from the Frederick Station are as follows: Hudson Compressor Station—13.6 miles; Hambert

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41 Compressor stations in the Wattenberg Field owned and operated by companies other than Kerr-McGee Gathering (i.e., companies outside the Kerr-McGee/Anadarko corporate structure) were not considered further in this analysis because they are not controlled by or under common control with Kerr-McGee Gathering's compressor stations and therefore, do not meet this element of the three-part test. *See* March 9, 2010 e-mail from Korby Bracken to Matt Burgett, Attachment 18.

42 The Division notes that, in its second objection to the Division's aggregation analysis for the Frederick Station, WildEarth Guardians did not raise an objection to the Division's previous analysis in the Addendum regarding whether other Kerr-McGee Gathering compressor stations in the Wattenberg Field should be aggregated with the Frederick Station. Nor did Administrator Jackson in her October 8, 2009 Order expressly object to the compressor station analysis and non-aggregation determination contained in the Division's Addendum. Nevertheless, in the interest of developing a comprehensive source determination analysis for the Frederick Station, the Division has re-evaluated the analysis and conclusion in its Addendum to determine if any new facts warrant possible aggregation of Kerr-McGee Gathering's other compressor stations in the Wattenberg Field with the Frederick Station.

Compressor Station—17 miles; Brighton Compressor Station—13.8 miles; Ft. Lupton Compressor Station—9.0 miles.43

Because all the Kerr-McGee Gathering compressor stations in the Wattenberg Field are owned by the same corporate entity (i.e., are under control of the same person) and perform the same function/activity (i.e., same industrial grouping), the Division's analysis focused primarily on assessing if the compressor stations were on contiguous or adjacent properties. After noting that EPA "chose not to aggregate the (other Kerr-McGee Gathering compressor stations) during the (previous EPA) PSD permit process," and determining that none of the other Kerr-McGee Gathering compressor stations in the Wattenberg Field were in close proximity to the Frederick Station, and that they are separate surface sites, the Division determined that none of the other compressor stations operated by Kerr-McGee Gathering should be aggregated with the Frederick Station.44

After reviewing the additional information submitted by Kerr-McGee Gathering, the Division has concluded that the case-specific facts for the compressor stations are unaltered from the analysis in the Addendum, and that the determination not to aggregate other Kerr-McGee Gathering compressor stations with the Frederick Station in the Addendum is still valid. In fact, the additional facts submitted in the Kerr-McGee letter further support the determination in the Addendum. As with KMOGO owned or operated oil and gas wells, Kerr-McGee Gathering's gas gathering agreements do not specify that collected gas will be moved through any specific compressor station, including the Frederick Station. Gas entering and leaving Kerr-McGee Gathering's system is not owned by Kerr-McGee Gathering.

There are no separate contractual arrangements between Kerr-McGee Gathering's Frederick Station and Kerr-McGee Gathering's other compressor stations in the Wattenberg field. Multiple streams of gas from oil and gas wells can pass through different compressor stations on the way to the delivery points, with a portion of the gas collected from a well passing through the Frederick Station, and with some passing through other compressor stations that are part of Kerr-McGee Gathering's system. Gathering system pressures determine how collected gas moves through the system's network of pipes and compressor stations, not contractual or other arrangements.

Gathering systems, including the portion of Kerr-McGee Gathering's system connected to the Frederick Station, are complex and subject to many variables that impact the gathering system dynamics. Variables can include gas production changes at wells due to age or well stimulation (e.g., re-completions), connection of new wells, addition of new compressor stations, and equipment changes at existing compressor stations. All of these changes can influence the gas flow dynamics of the gathering system and impact

43 Addendum, p. 9.
44 *Id.*

how collected gas moves to a delivery point. The consequence of these intrinsic variables is a system that is rarely stable.45

All these factors argue against the application of an interdependency concept so as to consider other compressor stations owned and operated by Kerr-McGee Gathering in the Wattenberg Field to be part of the same source with the Frederick Station. Moreover, as described above, since the closest Kerr-McGee Gathering compressor station, the Dougan Station, is 7.2 miles from the Frederick Station, this distance also argues against aggregating any of these other compressor stations with the Frederick Station when considering proximity and the common sense notion of plant. As a result, the Division does not consider the other Kerr-McGee Gathering compressor stations to be contiguous or adjacent to the Frederick Compressor Station.

Given the above facts, the Division has determined that none of the other Kerr-McGee Gathering compressor stations in the Wattenberg Field should be aggregated with the Frederick Station.

B. KMOGO Oil and Gas Wells in the Wattenberg Field

The following subsections describe the Division's analysis under the three-part test as it applies to the Frederick Compressor Station and surrounding oil and gas wells:

i. Industrial Grouping

The first element in completing an analysis using the three-part test is to determine whether particular air pollutant-emitting activities share the same industrial grouping; i.e., the same two-digit SIC code. In this case, the assessment of this element is relatively straightforward. In the oil and gas industry, compressor stations and exploration and production wells and their associated equipment (such as storage tanks) share the same two-digit SIC code. The SIC code for Crude Petroleum and Natural Gas is 1311 and includes oil and gas well operations and gathering compressor stations. Under the Regulation No. 3 definition, since they belong to the same major group (i.e., have the same initial two-digit code, "13") as described in the 1987 SIC Manual, a compressor station and wells are considered to belong to the same industrial grouping. Therefore, in this case, the first requirement of the three-part test for the Frederick Compressor Station and any potentially associated wells is met.

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45 For the factual information discussed in the above three-paragraphs and the sources of these facts, *see* notes and accompanying text in footnotes 47 through 56 below.

ii. Common Control

A second requirement of the three-part test is to determine whether the pollutant-emitting sources are controlled by the same entity (or entities under common control). Because Kerr-McGee Gathering and KMOGO are both wholly-owned subsidiaries of Anadarko, the Division considers that for the purposes of this analysis, the oil and gas exploration and production facilities owned or controlled by KMOGO that are connected via pipeline to the Frederick Station are controlled by, or are entities under common control with, the same entity, Anadarko.46

Conversely, pollutant-emitting sources, such as wells, condensate tanks or glycol dehydrators at the well head, that are owned and operated by a third party, are not considered under the common control of Kerr-McGee Gathering, and the Division has determined that it is not appropriate to consider them for possible inclusion in the Frederick Station, even if they would otherwise meet the other two parts of the test (i.e., the same two-digit SIC code and the contiguous or adjacent criteria). The Division has reached this conclusion because, as discussed further below, Kerr-McGee Gathering does not control the oil and gas production activities at such third party owned or operated sites.

iii. Contiguous or Adjacent – Relationships Between Pollutant-Emitting Activities

The Division must also analyze the third criteria for source aggregation; namely, whether and to what extent the Frederick Station and KMOGO-operated wells are adjacent or contiguous. As previously discussed, for this analysis the Division will consider not only the distance between emission sources, but potentially the interdependency of those sources.

The Division notes that it does not typically consider a well itself to be a pollutant-emitting activity. However, wells are commonly associated with production equipment such as storage tanks and glycol dehydrators, which are considered pollutant-emitting activities. In some cases, the pollutant-emitting equipment (e.g., a condensate storage tank) may be located right next to a particular wellhead; in other cases it may be located in a more centralized place to serve multiple wells. While the use of the term "well" in this document often refers to the well and the pollutant-emitting activities associated with the well, for the discussion of the contiguous or adjacent element, the Division will be more specific to avoid possible confusion.

As described above, the Division will not aggregate the Frederick Station with any wells or pollutant-emitting activities that are owned or operated by third parties, since Kerr-McGee Gathering has no control over these wells/activities. However, there are

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46 While this part of the test is relatively straightforward in this case, whether a compressor station or gas plant is owned or controlled by the same entity or under common control with the same entity remains a case-by-case determination.

numerous wells and associated pollutant-emitting equipment owned or operated by KMOGO which the Division considers, for the purposes of this analysis, to be under common control with Kerr-McGee Gathering. The information submitted by Kerr-McGee Gathering identifies twenty-nine condensate tank batteries owned or operated by KMOGO within the area represented in the submitted detailed map. The closest pollutant-emitting activity is a condensate storage tank located 0.3 mile from the Frederick Station. The Division has determined that none of the KMOGO-operated wells or associated pollutant-emitting activities are contiguous to (touching) the Frederick Station site. 47

The Division has evaluated the KMOGO wells/pollutant-emitting equipment connected to Kerr-McGee Gathering's gathering system to determine if they should be considered adjacent to the Frederick Station. Regarding the concept of adjacency, when making its own determinations or responding to determinations made or questions posed by other permitting authorities, EPA has to varying degrees considered the roles of proximity (i.e., distance) and interdependency in assessing what constitutes adjacent. Proximity is a factor raised specifically in the 1980 Preamble, while interdependency is a factor that has evolved over time in various case-by-case determinations.

While interdependency is a consideration, it is not an express element of the actual three-part test set forth in regulations, and in the context of oil and gas infrastructure, it may have reduced relevance to an agency determination. As stated in the McCarthy Memo:

> After conducting the necessary analysis, it may be that, in some cases, "proximity" may serve as the overwhelming factor in a permitting authority's source determination decision. However, such a conclusion can only be justified through reasoned decision making after examining whether other factors are relevant to the analysis.

The role of proximity is, in the Division's view, highly pertinent in the oil and gas sector for all the reasons set forth above.

In order to evaluate the factors of proximity and potential interdependency, the Division reviewed information describing the Wattenberg Field gathering system and the role of the Frederick Station. The Division further analyzed other case-by-case source determinations as part of its analysis, as reflected herein. The Division's assessment of these case-by-case determinations indicates that there should be a high level of connectedness and interdependence between two activities for them to be considered contiguous or adjacent if that is an element to be applied. In particular, a determination of interdependence requires that the two activities rely upon each other exclusively; i.e., one activity cannot operate or occur without the other. The case-by-case determinations indicate that if activities operate independently and one activity does not act solely as a support operation for the other, the activities should not be deemed contiguous or

47 Kerr-McGee letter at p.10.

adjacent. Moreover, as discussed above, interdependence is but one consideration for the Division to determine adjacency, and for reasons stated earlier, interdependence may have limited relevance and applicability in the oil and gas context in general and the Wattenberg Field in particular.

Kerr-McGee Gathering's business is to transport gas produced at wells owned by exploration and production companies. The wells can be owned either by independent third parties or by KMOGO. Kerr-McGee Gathering enters into contracts to move its customers' gas from receipt points (wells) to delivery points. Kerr-McGee Gathering must design its gathering system in such a way to accomplish these contractual agreements. Gas entering and leaving Kerr-McGee Gathering's system is not owned by Kerr-McGee Gathering.[48]

Kerr-McGee Gathering has explained that volumetric control (gas production) of a well is directly controlled by the owner/operator of the well, not the Frederick Station or Kerr-McGee Gathering.[49] While under certain circumstances and as explained above, Kerr-McGee Gathering could require a certain well, either owned/operated by KMOGO or a third party, to be shut-in for pipeline maintenance, a force majeure event, or due to poor gas quality from the well, these types of shut-ins occur only rarely.[50] Because these types of shut-ins occur only infrequently and under unusual circumstances, the Division has determined that neither the Frederick Station nor Kerr-McGee Gathering have operational control over these wells and their associated pollutant-emitting equipment, either the KMOGO owned/operated wells/equipment or those owned/operated by third parties. As described above, the Division does recognize that, within the context of this analysis, while Kerr-McGee Gathering may not exert operational control over KMOGO wells/equipment, they are controlled by the same corporate entity (i.e., Anadarko) for business purposes.

Kerr-McGee Gathering's gas gathering agreements do not specify that collected gas will be moved through any specific compressor station, including the Frederick Station.[51] Gathering system pressures determine how collected gas moves through the system's network of pipes and compressor stations.[52] The Petitioner argues that wells under common control with Kerr-McGee/Anadarko (and connected to the Frederick Compressor Station) depend upon the Frederick Station for their operations.[53] This does not appear to be the case, based upon the Division's evaluation of information obtained from Kerr-McGee Gathering and other oil and gas production and midstream companies operating in the Wattenberg Field. Should the Frederick Station be shut down for maintenance, equipment replacement or other reasons, gas can flow to other compressor stations with available capacity based upon system pressures. This is true both for

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48 Kerr-McGee letter at p. 5.
49 Kerr-McGee letter at pp. 6-7.
50 Kerr-McGee letter at p.7.
51 *Id.*
52 *Id.* at pp. 6, 7-9.
53 *See* WEG Petition for Objection at pp. 11-21.

compressor stations that are owned and operated by Kerr-McGee Gathering, and compressor stations that are operated by other midstream companies in the Wattenberg Field.[54] Similarly, if wells located near the Frederick Station were to be offline, the Frederick Station would pull an amount of gas from more distant wells until a hydraulic equilibrium was established.[55] The KMOGO owned or operated wells and associated pollutant-emitting equipment are not solely dependent on the Frederick Station and the Frederick Station is not solely dependent on particular KMOGO owned or operated wells/equipment.[56] Therefore, these facts do not support a determination that the Frederick Station and the wells connected to the Frederick Station (and their associated pollutant-emitting equipment) are interdependent.

Gas accepted into the gathering system near the Frederick Station will have a natural preference to flow to the Frederick Station due to hydraulics, but close proximity to the Frederick Station does not necessarily cause the gas produced from these wells to flow to the Frederick Station in every instance. Such gas can and does flow to other Kerr-McGee Gathering compressor stations in the Wattenberg Field. There is even less confidence that collected gas will pass through the Frederick Station as the distance from the Frederick Station increases. In fact, it is very likely that collected gas from some more distant wells will be split into multiple streams due to system dynamics. These multiple streams could pass through different compressor stations on the way to the delivery points, with a portion of the gas collected from a well passing through the Frederick Station, and with some passing through other compressor stations that are part of Kerr-McGee Gathering's system.[57] This inherent uncertainty in gas flows on a day to day basis argues against aggregating any KMOGO wells with the Frederick Station, since gas flow from a specific well can and does pass through various compressor stations as it is moved to delivery points.

Moreover, gathering systems, including the portion of Kerr-McGee Gathering's system connected to the Frederick Station, are complex and subject to many variables that impact the gathering system dynamics. As described above, variables can include gas production changes at wells due to age or well stimulation (e.g., recompletions), connection of new wells, addition of new compressor stations, and equipment changes at existing compressor stations. All of these changes can influence the gas flow dynamics of the gathering system and impact how collected gas moves to a delivery point. The consequence of these intrinsic variables is a system that is rarely stable.[58]

Taking into consideration the uncertain pathways that gas takes in the Wattenberg Field, along with the regular changes that take place on gathering systems, it is not reasonable to conclude that any specific well and associated pollutant-emitting equipment

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54 *Id*. at pp. 7-8; *see also* Noble letter at pp. 6-7.
55 Kerr-McGee letter at p. 8.
56 *See* Kerr-McGee letter at p. 9, where Kerr-McGee states that 60% of the gas flowing to the Frederick Station is from third party wells.
57 *See* Kerr-McGee letter at p. 8; *see also* Noble letter at pp. 6-7.
58 *See* Kerr-McGee letter at pp. 6-9; *see also* Noble letter at pp. 5-7.

owned or operated by KMOGO should be aggregated with the Frederick Station as a single source. There is no guarantee that gas collected from any KMOGO well will pass through the Frederick Station on any particular day (or portion of a day). Gathering system changes (e.g., addition of new wells, addition of a new compressor station) could dramatically affect the gas flow from any well. If any particular well or wells and their associated pollutant-emitting equipment were aggregated with the Frederick Station, the result would be a permit covering emission causing activities that could change on a monthly, weekly or even daily basis, resulting in a permit whose emission parameters are not stable. The Division has determined that these facts make determinations to broadly aggregate sources in the oil and gas exploration, production and midstream distribution industry generally unjustifiable because of the inherent unknown gas flow pathways and the common changes to the gathering systems dynamics on a day to day basis.

In most cases in the Wattenberg Field, oil and gas wells and gathering facilities do not have the level of interdependency that would be relevant to justify considering non-contiguous wells to be adjacent to compressor stations. The ownership, contractual, engineering, and operating realities of the Wattenberg Field support few, if any, instances of interdependency among wells and compressor stations that would require or suggest that individual well sites should be aggregated with specific compressor stations, including the Frederick Station.

Applied to the complex legal, engineering and operational situations that exist in the oil and gas industry, as a general rule, upstream oil and gas activities (such as well production, condensate storage and dehydration) are not reliant on only one gathering facility (such as a compressor station). In fact, there often may be many gathering facilities, including a number of compressor stations, which act to transport produced oil and gas from a particular well to a specific receipt point. Similarly, a given gathering facility may support numerous operators and areas of upstream oil and gas activities. As such, it would be inappropriate, unwieldy, complex, and operationally and administratively difficult to conclude that a particular compressor station is dependent on any specific well or that a particular well or wells are dependent on, and thus adjacent to, the Frederick Station. Based on the foregoing, the Division concludes that there is not a sufficiently high level of connectedness and interdependence between these two activities to consider them adjacent, based on the concept of interdependency.

iv. Contiguous or Adjacent – Proximity

Proximity (i.e., distance) is another important factor, and for the reasons set forth above, the Division concludes is a highly relevant factor to consider when evaluating if two emission units are adjacent. Frederick Station is clearly physically connected via gas pipelines to a number of wells. As discussed previously, other oil and gas producing states have developed proximity guidelines to inform their contiguous or adjacent determinations. Generally, these states consider oil and gas operations located within a quarter (¼) mile of each other to be contiguous or adjacent. This distance is consistent with the practical meaning of the term adjacent. Units separated by larger distances

could still be considered adjacent based upon a case-by-case evaluation of distance and significant interdependency.

The Division has not developed any specific distance threshold that would be used to determine adjacency for the oil and gas industry. However, it is informative to note that KMOGO does not operate any pollutant-emitting activities within a quarter (¼) mile of the Frederick Station. The closest KMOGO pollutant-emitting equipment is a condensate storage tank and a water storage tank located 0.3 mile from the Station, and is the only KMOGO pollutant-emitting equipment located within a half (½) mile of the Station. There are four KMOGO condensate and water storage tank pairs located within three quarters (¾) of a mile of the Station, and eleven KMOGO condensate and water storage tank pairs located within one mile of the Station.

As explained above, the nature and extent of connectedness via pipeline in the oil and gas industry is unique when compared with other industries. A typical manufacturing entity may connect operations via pipeline for convenience of production whereas operations in the oil and gas industry are connected via pipeline out of necessity. The Frederick Station must be connected to wells via pipeline in order to move the gas produced at wells to delivery points. The Division has determined that this necessary connectedness should be viewed differently from connectedness in other industries, and therefore will be given less weight in a source determination.[59]

Proximity is also distinctive in the oil and gas industry, including locations of the wells in the Wattenberg Field that are connected to the Frederick Station. As observed above, wells must be placed where the natural gas resource is located. KMOGO cannot place wells at convenient locations to reduce distance to a compressor station, or to try to avoid single source issues. In the Wattenberg Field, the spacing and density of wells is regulated by the Colorado Oil and Gas Conservation Commission whose mission is to promote the responsible development of Colorado's oil and gas resources. Well locations can also be controlled by land agreements, access issues, geologic formations, terrain, and, in other situations, by federal or state land management agencies, such as the Bureau of Land Management for oil and gas production on federal lands.

The locations of wells surrounding the Frederick Station and their associated pollutant-emitting equipment are not chosen primarily because of their proximity to the station. The Division has determined that nearby wells and their associated pollutant-emitting equipment are not necessarily dependent on this station nor is the Frederick Station dependent on certain nearby wells. Moreover, as distance from the Frederick Station increases, the commercial interests and engineering/process flows and dynamics associated with the wells, their associated pollutant-emitting activities and the station quickly become more complex. Within the context of the oil and gas industry, the lack of proximity between the Frederick Station and the wells/pollutant emitting-equipment strains the common sense notion of plant.

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[59] *See MacClarence*, *supra*, 396 F.3d at 1128, and the ADEC decision, Attachment 16 at pp. 4-7.

v. Contiguous or Adjacent – Conclusion

In the present case, the Division's analysis of the information contained in the administrative permit record demonstrates a lack of interdependency, to the extent that element of the test is relevant, between the Frederick Station and nearby emission sources. Considering proximity in combination with the lack of dedicated relationships between those pollutant-emitting activities owned and/or controlled by Kerr-McGee Gathering and KMOGO, the Division has determined that no additional sources should be considered contiguous or adjacent to the Frederick Station. This part of the three-part test is not met. Therefore, based on this additional analysis to supplement the Technical Review Document, the Division concludes that no additional sources should be aggregated with the Frederick Station at this time.

vi. Other Source Determination Considerations

While it is not directly considered in the three-part test, it is worth noting that the Division does not believe that there would be a significant benefit to the environment from any aggregation of wells with the Frederick Station. This facility is already considered a Major Source for purposes of Title V, and a Major Stationary Source for purposes of PSD and Non-Attainment New Source Review. Aggregation with any wells would not change these designations. In addition, Colorado Regulation No. 7 requires emission controls at oil and gas exploration and production operations and natural gas compressor stations located statewide and in the ozone nonattainment area, including the Frederick Station, other compressor stations owned and operated by Kerr McGee Gathering, and KMOGO owned or operated wells and pollutant-emitting equipment associated with these wells.60 These regulations control emissions from condensate storage tanks, glycol dehydrators, natural gas-actuated pneumatic controllers and natural gas-fired reciprocating internal combustion engines at wells and compressor stations.

Also, KMOGO must control VOC emissions from condensate tanks in this area emitting greater than two tons per year and achieve a specific reduction percentage on a system-wide basis. The exact reduction percentage is based upon the calendar date and increases over time. During the 2009 summer ozone season, KMOGO was required to reduce VOC emissions from these tanks by 81%.61 KMOGO reported a weekly average of 87.8% control for this time period, with no weeks out of compliance.62 The Division would not anticipate a large, or necessarily any, reduction in air emissions from a Division decision to aggregate some KMOGO wells with the Frederick Station, since the storage tanks in this area are already well controlled on a system-wide basis.63

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60 *See* 5 CCR 1001-9, Regulation No. 7, Sections XII, XVI, XVII, and XVIII.
61 *See* 5 CCR 1001-9, Regulation No. 7, Section XII.D.2.
62 Data obtained from the Division's 2009 system-wide control strategy compliance summary.
63 *See* Kerr-McGee letter at p.11; *see also* EnCana letter at p. 6; Noble letter at p. 7.

Finally, the Division also recognizes that some unintended consequences could result from the aggregation of wells with the Frederick Station. Kerr-McGee Gathering would be allowed to consider emission changes at any aggregated wells during a hypothetical future netting analysis at the Frederick Station. This could, in some cases, result in Kerr-McGee Gathering avoiding future PSD reviews at the Frederick Station.64

VI. CONCLUSION

For all of the foregoing reasons and, after considering all the facts, relevant applicability determinations, legal precedent, regulations and the record provided herein, the Division has determined that it is not appropriate to aggregate Kerr-McGee Gathering's Frederick Station with other emission sources in the Wattenberg Field for purposes of the Title V permit renewal. The Division will update the Technical Review Document for the Frederick Station Title V permit with this additional analysis to respond to EPA's Order. This Response to Order constitutes a full response by CDPHE to EPA's October 8, 2009 Order. The Title V renewal operating permit as issued by CDPHE for the Frederick Station, with this supplementation to the record pursuant to the Order, is valid and will not be revised by CDPHE.

64 *See MacClarence, supra*, 596 F.3d at 1128 and ADEC decision, Attachment 16 at p. 6.

API Exhibit C

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor

Dianne R. Nielson, Ph.D.
Executive Director

Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.
Web: www.deq.state.ut.us

February 14, 2001

DAQO-014-01

JENKS TO LET ME KNOW IF THE INCOMING 11/19/98 WAS SUBSTANTIALLY DIFFERENT THAN 6/19/98.
-M. OWENS, 5/3/02.

Jim M. Wolfe, P.E.
Senior Environmental Engineer
IMC Global, Inc.
8300 College Boulevard
Overland Park, KS 66210

Dear Mr. Wolfe:

Re: IMC Kalium Ogden Corporation Source Determination

This is in response to your letter submitted to the Utah Division of Air Quality, dated November 19, 1998, requesting a reconsideration of the single source determination previously made for IMC Kalium (formerly Great Salt Lake Minerals Corporation).

We have reviewed your request and other relevant material and conclude that the operations on the west side of the Great Salt Lake and the operations on the east side are in fact, two separate sources for the purposes of Title V and the New Source Review program.

This conclusion is based on the following analysis:

"Source" is defined in our rules (Utah Administrative Code (UAC) R307-101-2) as

> ... "any structure, building, facility, or installation which emits or may emit any air pollutant subject to regulation under the Clean Air Act and which is located on one or more continuous or adjacent properties and which is under the control of the same person or persons under common control. A building, structure, facility, or installation means all of the pollutant-emitting activities which belong to the same industrial grouping. Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e. which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (US Government Printing Office stock numbers 4101-0065 and 003-005-00176-0, respectively)."

While this definition uses the term "continuous" as opposed to the more commonly used term "contiguous", they are presumed to be synonymous.

This definition comes from the PSD definition of "source", and is incorporated into the definition of "major source" in R307-15. Non-attainment NSR, PSD, and Title V programs should use the same definition and criteria though the criteria for "major" may change depending on the context of the determination, i.e., a major source in a serious ozone nonattainment area is different than in an attainment area; still the basic definition of "source" remains the same.

In crafting its definition of "source", EPA relied on a Court of Appeals decision, *Alabama Power Co. v. Costle*. This stated that a "source" should "approximate a common sense notion of 'plant'" and "avoid aggregating pollutant-emitting activities that as a group would not fit within the ordinary meaning of 'building', 'structure', facility', or 'installation'."

Based on the above, in order to count as one source, emitting units must be:

1. located on **continuous or adjacent** properties;
2. under the control of the same person, or persons under **common control**;
3. belong to the **same industrial grouping** (major or 2-digit SIC code).

All three of these elements **must** be present in order to constitute a "source". IMC Kalium, ". . . has never asserted that its facilities have different SIC codes . . . ." It is also understood that there is common control. The source determination simplifies to the question of whether the two operations are continuous or adjacent properties. The question of "support facility" does not get raised, as it only applies when two facilities have differing SIC codes but where one is a "support facility" of the other.

In its preamble to the PSD regulations, EPA noted that it did not intend ". . . to encompass activities that would be many miles apart along a long-line operation". EPA went on to say,

> "For instance, EPA would not treat all of the pumping stations along a multistate pipeline as one "source".
>
> "EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The Agency can answer that question only through case-by-case determinations. One commenter asked, however, whether EPA would treat a surface coal mine and an electrical generator separated by 20 miles and linked by a railroad as one "source", if the mine, the generator and the railroad were all under common control. EPA confirms that it would not. *First the mine and the generator would be too far apart.* Second, each would fall into a different two-digit SIC category". 45 FR page 52695 dated Aug 7 1980 (emphasis added).

This language implies that even though a connection may exist between facilities, a 20 mile separation would be too far to conclude a single source exists. In this case the separation is about 30 miles and the only connection is via an under water open channel to which IMC Kalium has no ownership or property rights of any kind.

Based on the above analysis, it has been determined that the two locations do in fact represent two separate sources for the purposes of Title V and NSR/PSD permitting. Should you have any questions concerning this determination, please contact Regg Olsen, Permitting Manager, at 801-536-4165.

Sincerely,

Reginald D. Olsen
Permitting Branch Manager
Utah Division of Air Quality

cc: Mark Kaschmitter, IMC Kalium Ogden Corporation
Mike Owens, EPA Region VIII
Richard W. Sprott, Utah DAQ