

Fahn, Patrick J.

From: Brent Miller [BrentM@whiting.com]
Sent: Friday, July 11, 2008 3:26 PM
To: Jeffcoat-Sacco, Illona; Fahn, Patrick J.
Cc: John Morrison; Jack Braun; Rick Ross
Subject: Natural Gas Pipeline from Whiting's Robinson Lake Plant to a Tie-in with WBI near Stanley, ND
Attachments: ND Public Service Commission Letter.doc; API RP 80 2.2 Gathering.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

Illona Jeffcoat-Sacco and Patrick J. Fahn, ND Public Service Commission,

As requested per our conversation yesterday, I have documented our conversation in the attached letter. I have also included the definition of a Gathering Line per the API RP 80 which is used by the DOT as you requested. I am emailing both since you stated that a Commission Meeting is coming up soon and I wanted you to have this information as quickly as possible. Please call me if you have any questions or need other information.

Brent A. Miller
Operations Manager - Northern Rockies
Whiting Petroleum Corporation
1700 Broadway, Suite 2300
Denver, CO 80290
303-390-4246 office
303-250-6034 cellular
303-390-1630 fax





July 11, 2008

North Dakota Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

Attention: Illona Jeffcoat-Sacco and Patrick J. Fahn

Re: Natural Gas Pipeline from Whiting's Robinson Lake Plant to a Tie-in with WBI
near Stanley, ND

Dear Ms. Jeffcoat-Sacco and Mr. Fahn:

As requested per our phone conversation yesterday concerning the above mentioned pipeline, I am sending this letter to document our discussion. There are two main issues concerning the subject pipeline: first, the classification of the pipeline as a gathering or a transmission line under DOT regulations and ND regulations and second, determining if the pipeline should be sited under ND regulations.

Whiting's position from the start and Whiting still believes that this pipeline should fall under the classification of a gathering line per the definition found in the API RP 80 2.2.1.2.6 classification as "Incidental Gathering". This is consistent with a recent (2006) reclassification of a similar pipeline from Bear Paw's Grassland's Plant in North Dakota to a tie-in point with Northern Boarder Pipeline. The lines are of identical use and similar length. Bear Paw's line was reclassified from a jurisdictional transmission line to an incidental gathering line which is currently non-jurisdictional. A recent determination by the DOT and the ND PSC in response to Whiting's letter dated June 27, 2008 classified Whiting's line as jurisdictional. Whiting believes the DOT did not adequately consider the Incidental Gathering definition when making their determination for this line. We plan to jointly set up a conference call with Lane Miller of the DOT to discuss this topic directly with him.

The subject natural gas pipeline is currently about 95% complete. The line itself is 100% complete except for hydro-testing of the line and connections required at WBI's tie-in point and connections required at Whiting's processing plant. The line was scheduled to go in operation within the next two to three weeks. Whiting's gas processing plant is currently operating but all residue gas is being flared. Not all producing wells have been connected to the plant but work is underway.

In our conversation yesterday and contained within a recent email from ND PSC staff, Whiting was told that the subject line may need to be sited under ND regulations. Even though this line could be classified as gathering under API RP 80 it is not necessarily classified as gathering under ND's siting regulations. Whiting believed this pipeline to be an incidental gathering line and an informal contact with the ND PSC staff indicated that the ND PSC agreed with this classification. Whiting also relied on similar actions by other plant owners within North Dakota. Whiting and other operators in Mountrail County have been under pressure by the NDIC to develop a gas gathering and processing system within this area so gas associated with oil production would not continue to be flared. Gas continues to be flared at some of Whiting's well sites that have not yet been connected to Whiting's gas gathering system and gas flaring continues at Whiting's Robinson Lake Gas Processing Plant. Whiting is currently processing gas at the plant but the line in question is not yet connected to WBI so the processed residue gas continues to be flared. Flaring will continue until this line is placed in operation. Whiting has gone to extreme efforts to complete this system as quickly as humanly possible so gas would not continue to be flared in this area.

This area of Mountrail County had no oil and gas infrastructure prior to the new Bakken development taking place. New electrical lines have had to be built along with complete gas and oil gathering systems and gas processing plants. These systems will continue to be expanded as additional oil wells are drilled in this area. Whiting continues to do what has been requested of us to prevent continued waste of a valuable natural resource.

Whiting requests that the ND PSC consider waiving some of its siting rules to allow this pipeline to go into operation as planned to prevent continued flaring and waste. Whiting would be happy to meet with the ND PSC staff to discuss this situation. The NDIC would also likely be interested in participating in a meeting. Since this line could be available to be operational within two weeks, some decisions may need to be made prior to a meeting.

I am attaching an excerpt of API RP 80 including the section that defines incidental gathering. John Morrison of Fleck, Mather & Strutz, Ltd. located in Bismarck, ND represents Whiting on North Dakota matters and can be contacted at 701-223-6585. We plan to include ND PSC staff in future conversations with the DOT.

Thank you for your consideration,

Brent A Miller
Operations Manager
Whiting Oil and Gas Corporation
303-390-4246
brentm@whinting.com

Guidelines for the Definition of Onshore Gas Gathering Lines

API RECOMMENDED PRACTICE 80
FIRST EDITION, APRIL 2000



**American
Petroleum
Institute**

**Helping You
Get The Job
Done Right.™**

delineate the end of the gathering function. This style of definition is necessary to accommodate the wide variety of gas gathering pipeline configurations throughout the country. This Recommended Practice also defines "production operation" in 2.3 (to describe where the gathering function begins) and various other common terms (2.4) used in the gathering line and production operation definitions. In addition, there is a discussion of alternatives considered in development of the definition of gathering line (2.6).

2.2 DEFINITION OF ONSHORE GATHERING LINE

"Gathering Line"

- (a) means any pipeline or part of a connected series of pipelines used to
- (1) transport gas from the furthestmost downstream point in a production operation to the furthestmost downstream of the following endpoints, which physically may have intermediate deliveries (to other production operations, pipeline facilities, farm taps, or residential/commercial/industrial end users) that are not necessarily part of the gathering line:
 - (A) the inlet of the furthestmost downstream natural gas processing plant, other than a natural gas processing plant located on a transmission line,
 - (B) the outlet of the furthestmost downstream gathering line gas treatment facility,
 - (C) the furthestmost downstream point where gas produced in the same production field or separate production fields is commingled,
 - (D) the outlet of the furthestmost downstream compressor station used to lower gathering line operating pressure to facilitate deliveries to the pipeline from production operations or to increase gathering line pressure for delivery to another pipeline, or
 - (E) the connection to another pipeline downstream of:
 - (i) the furthestmost downstream endpoint identified in (A), (B), (C) or (D), or (in the absence of such endpoint)
 - (ii) the furthestmost downstream production operation; or
 - (2) transport gas from a point other than in a production operation exclusively to points in or adjacent to one or more production operations or gathering facility sites for use as fuel, gas lift, or gas injection gas within those operations; and
- (b) does not include a natural gas processing plant.

The above definition is graphically illustrated by the Decision Trees in Appendix A. Additional definitions explaining the meanings of many of the terms used in this definition are found in 2.4. Basic "gathering line" definitional concepts are presented in 2.2.1. Representative applications of the "gathering line" definitions are shown and discussed in Appendix B.

2.2.1 Basic "Gathering Line" Definitional Concepts

The gathering of gas from multiple production operations can be a complex procedure. In many locations, one or more of the processes that may occur in the production operation may also occur downstream in the gathering function. The introduction of gas of varying quality into a gathering system may require further treatment/processing before the gas can be delivered into another pipeline or facility downstream of the gathering line. Because a gathering system may extend over a large geographical area, it is not uncommon for taps on gathering systems to serve numerous residential consumers as well as to make intermediate deliveries to local distribution facilities or large volume end users.

In determining where a gathering line ends, two important concepts are considered—the concepts of "function" and "furthestmost downstream."

2.2.1.1 Function

"Function" recognizes that a gathering line continues to fulfill the gathering function until it reaches a defined and recognized endpoint regardless of intermediate processes and/or deliveries along the line. Because gas flowing into a gathering line from various locations may be of differing quality and flowing pressure, it is sometimes necessary to subject the gas stream to one or more intermediate processes. This is usually done to maintain efficient operation of the gathering line and/or maintain pressure in the line which will not result in an unacceptable back pressure on production or tributary gathering lines flowing into the gathering line. Regardless of the intermediate processes and/or deliveries that may occur along a gathering line, the gathering function—and therefore the gathering line—continues until the line terminates at a defined and recognized endpoint.

2.2.1.2 Furthestmost Downstream

"Furthestmost downstream" recognizes that the most downstream of all locations defined as potential endpoints is the endpoint for the gathering line. The endpoint of a "gathering line" is often defined by the furthestmost downstream gas processing plant, gas treatment facility, gas gathering compressor, point of commingling of gas from two or more fields, or point of connection of the gathering line to another pipeline. These endpoints, together with related basic gathering line concepts, are discussed and illustrated in this section.

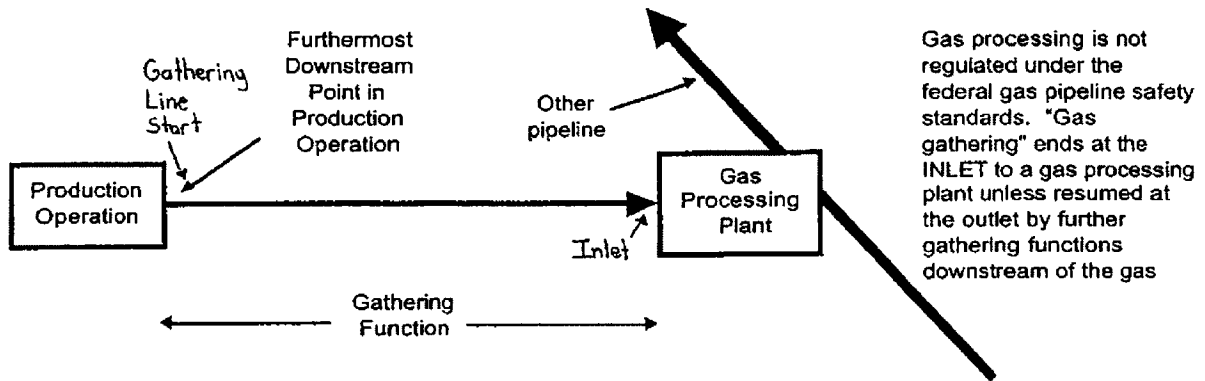


Figure 2-1—Gas Processing is Not a Pipeline Function

2.2.1.2.1 Natural Gas Processing

Natural gas processing is not regulated under the federal gas pipeline safety standards. Gas is removed from transportation for processing, and the residue gas after processing is returned to transportation at the plant outlet. For this reason, when there is no gas gathering beyond a natural gas processing plant as shown in Figure 2-1, the endpoint of gathering is the plant inlet.

2.2.1.2.2 Gas Treatment

Gas treatment often occurs in conjunction with gas processing or compression and in such cases is considered to be part of those operations. In some cases, however, gas treatment operations involve significant stand-alone facilities (e.g., a sulfur recovery or large dehydration facility). When there is no gas gathering beyond a stand-alone gas treatment facility as shown in Figure 2-2, the endpoint of gathering is the facility outlet.

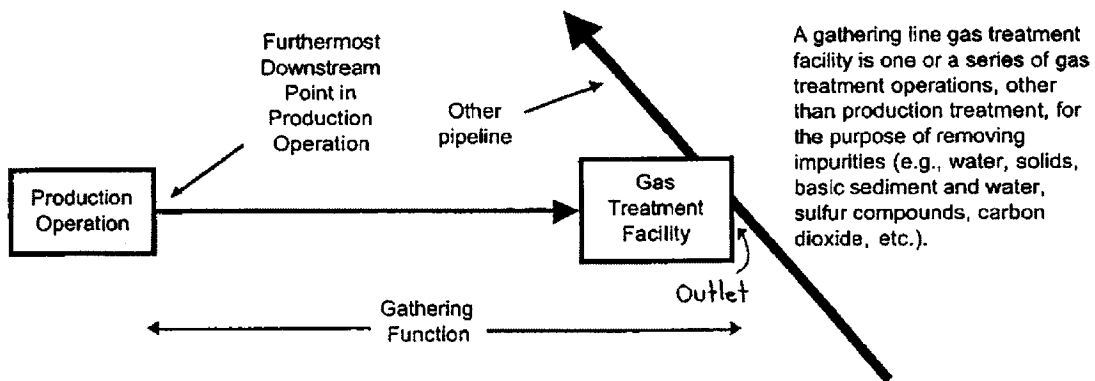


Figure 2-2—Gas Treatment is a Distinct Function on Many Gathering Systems

2.2.1.2.3 Commingling

By its very nature, a common function of gas gathering is to gather (“commingle”) gas from different sources for processing, treatment, and/or delivery to an end-user or other pipeline.¹ Gathering is not limited to accumulation of gas from only one or two fields.² This feature of the “gathering function” is clearly evidenced by the gas commingling from numerous fields that occurs when gas is gathered for processing or treatment prior to delivery to a gas transmission

¹Commingling of production from multiple fields may, in some instances, occur as part of the production process and does not necessarily mean that gas is in “transportation.”

line or other pipeline facility. The basic function of the gathering line—to “gather” gas for delivery to another pipeline (e.g., a gas transmission line) or to an end user—would not change if no processing or treatment were needed. The gathering function extends at least as far as the last point of commingling, as shown in Figure 2-3 and generally will extend downstream to the point of connection with another pipeline as shown in Figure 2-6.

²In some regions of the United States, “fields” may not be easily defined. It is anticipated that the furthestmost downstream endpoint of “gathering” will be defined for those regions by one of the other endpoints identified in the definitions.

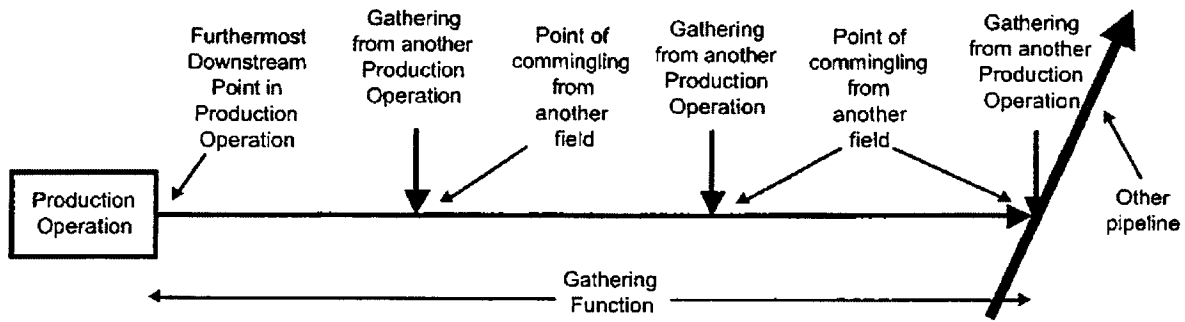


Figure 2-3—The Gathering Function Commingles Gas from Different Sources

2.2.1.2.4 Compression

Gas gathering compression is used to lower upstream gathering line operating pressure to facilitate gas deliveries from production operations into the pipeline or to increase downstream gathering line pressure so that the gas can be delivered to a processing plant, treatment facility, other pipeline, or other end user. Staged compression (compressors in series) may be needed to accomplish

either or both of these objectives. In extensive gathering systems transporting gas from numerous fields, it is often necessary to have compression at several points along the gathering line to maintain upstream line pressures low enough to keep producers from having to operate a great number of individual production compressors to deliver into the gathering system. This concept is illustrated in Figure 2-4.

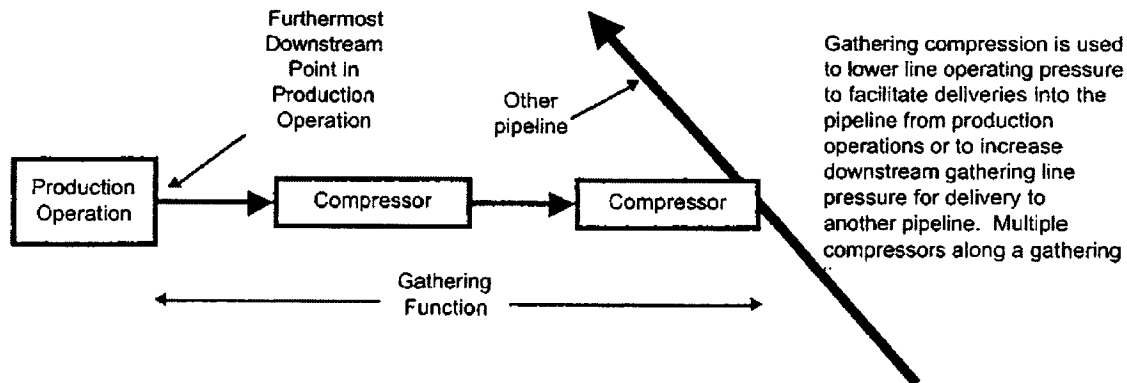


Figure 2-4—Gathering Lines Often Have Multiple Compressors in Series

2.2.1.2.5 Multiple Potential Endpoints

It is very common for a gathering system to have several of the facilities or characteristics listed in the proposed definition as potential endpoints. Sour gas production commingled from several different fields, for instance, might be compressed through several gathering compressors before reaching a desulfurization plant ("gas treatment facility") that sweetens the gas so that it can be delivered to a natural gas

processing plant further down the pipeline. Although each of these operations—commingling, compression, treatment, and processing—are potential endpoints, the "gathering function" has not ended until all potential endpoints have occurred (and, some cases, more than once). For this reason, the definition provides for gathering to end at the "furthest downstream" of the defined potential gathering endpoints. This concept is illustrated in Figure 2-5.

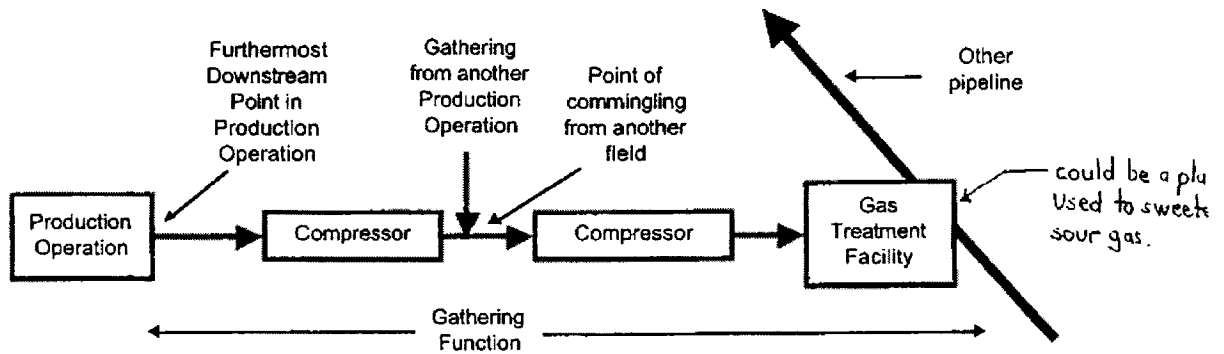


Figure 2-5—Gathering Extends to the Furthest Downstream Endpoint

Applicable to Subject Line:

→ **2.2.1.2.6 Incidental Gathering**

In the case of gas processing or gas treatment, the connection to a transmission line is generally contained within the boundaries of the facility. This is not always the case, however. The gathering line operator may have to move the gas through a pipeline some additional distance from the plant to another pipeline. The pipeline moving the gas from the plant to another pipeline is termed "incidental gathering." The "incidental gathering" resumes at the plant outlet and continues to the other pipeline connection. Incidental gathering may

also occur when a compressor is a potential endpoint. Incidental gathering normally is present when the point of last commingling is the last "identified endpoint." From a functional standpoint, this section of incidental gathering line is no different from the rest of the gathering system. The definition, therefore, includes recognition that gathering may continue downstream of the last endpoint identified by processing, treatment, commingling, or compression activities to the connection with another pipeline. Figure 2-6 illustrates this concept.

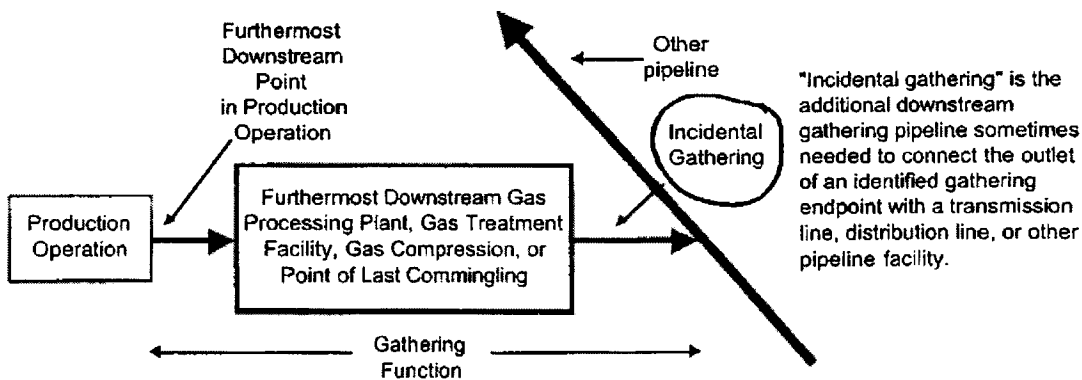


Figure 2-6—Incidental Gathering Downstream of an Identified Endpoint

2.2.1.3 Gas Return Lines

The definition of "gathering line" includes an additional function that is a logical extension of the gas gathering concept. Processed and/or treated gas is often returned to the gathering system compressors, gathering treatment facilities, and/or production operations for fuel gas, gas lift, or gas injection.³ Typically (although not in every instance), the gas return lines are in the same right-of-way or easement as the gathering line delivering gas for treatment, processing, etc. A gas return line may also originate from a tap on a transmission or distribution line. In either situation, the gas return lines are normally operated by the operator of the gathering system or production operation. For pipeline safety purposes, these lines should be treated as gathering lines. The definition therefore addresses these gas return lines, when used solely by gathering or production facilities for fuel, gas lift, or gas injection, in the definition of "gathering line."

END OF
Section 2.2

2.3 DEFINITION OF PRODUCTION OPERATION

As discussed in previous sections, definitions of additional terms and concepts have been provided to enhance the implementation of the gathering line definition. The following is the definition for "production operation" as it has been incorporated into the concept of gathering for the purpose of implementing pipeline safety regulations.

"Production Operation" means piping and equipment used for production and preparation for transportation or delivery of hydrocarbon gas and/or liquids and includes the following processes:

- (a) extraction and recovery, lifting, stabilization, treatment, separation, production processing, storage, and measurement of hydrocarbon gas and/or liquids; and
- (b) associated production compression, gas lift, gas injection, or fuel gas supply.

Additional definitions explaining the meanings of many of the terms used in this definition are found in 2.4. Basic "production operation" definitional concepts are presented below in 2.3.1. Representative applications of the "production operation" definition are shown and discussed in Appendix B.

2.3.1 Basic "Production Operation" Definitional Concepts

2.3.1.1 Production operations generally take place upstream of any gathering or other pipeline facilities that could be regulated as transportation under Title 49 U.S. Code

³Like other "gathering lines," gas return lines do not extend into the "production operation" since the fuel gas, gas lift, and gas injection lines within the production operations are "production piping."

Chapter 601 (Pipeline Safety Act). The production function, in most cases, extends well downstream of the wellhead and may include several processes required to prepare the gas for transportation. Such processes may include separation, dehydration, hydrocarbon liquid stripping or processing, desulfurization, CO₂ or N₂ removal and compression (including series, or "staged," compression) used to enhance the productive capacity of the wells. The scope of production operations may include any number of operators and can vary from one well to large consolidated lease blocks with many wells.

2.3.1.2 A gas producer with a gathering line connection may grant one or more other producers access (via flowlines or other production piping) to that connection. In such situations, the piping from the individual wells and the equipment and facilities used to treat the gas are all a part of the production operation as defined in this Recommended Practice. It should be noted that all or part of the gas from a production operation may go directly to a distribution facility, a transmission facility or a large volume end user without entering a gathering line.

2.4 SUPPLEMENTAL DEFINITIONS

Various oil and gas industry terms-of-art used in the preceding definitions of "gathering line" and "production operation" are defined below. These supplemental definitions serve to further explain the meaning, scope and application of the terms "gathering line" and "production operation." They also explain some of the differences between the use of certain equipment and processes (e.g., "compression" and "gas processing") in production operations and in transportation operations.

2.4.1 natural gas processing plant: A natural gas processing operation, other than production processing, operated for the purpose of commercially extracting natural gas liquids from the gas stream.

2.4.2 gathering line gas treatment facility: One or a series of gas treatment operations, other than production treatment, operated for the purpose of removing impurities (e.g., water, solids, basic sediment and water, sulfur compounds, carbon dioxide, etc.).

2.4.3 production field: An area that is underlain by at least one reservoir containing natural gas or natural gas associated with crude oil.

2.4.4 production: A blanket term referring to all of the operations enumerated in the following definitions.

a. **piping:** As used in the definition of "production operation," includes individual well flowlines, equipment piping, transfer lines between production operation equipment elements and sites, and tie-in lines to connect to gathering, transmission, or distribution lines.