

ANR PIPELINE COMPANY

Description of Company Operations

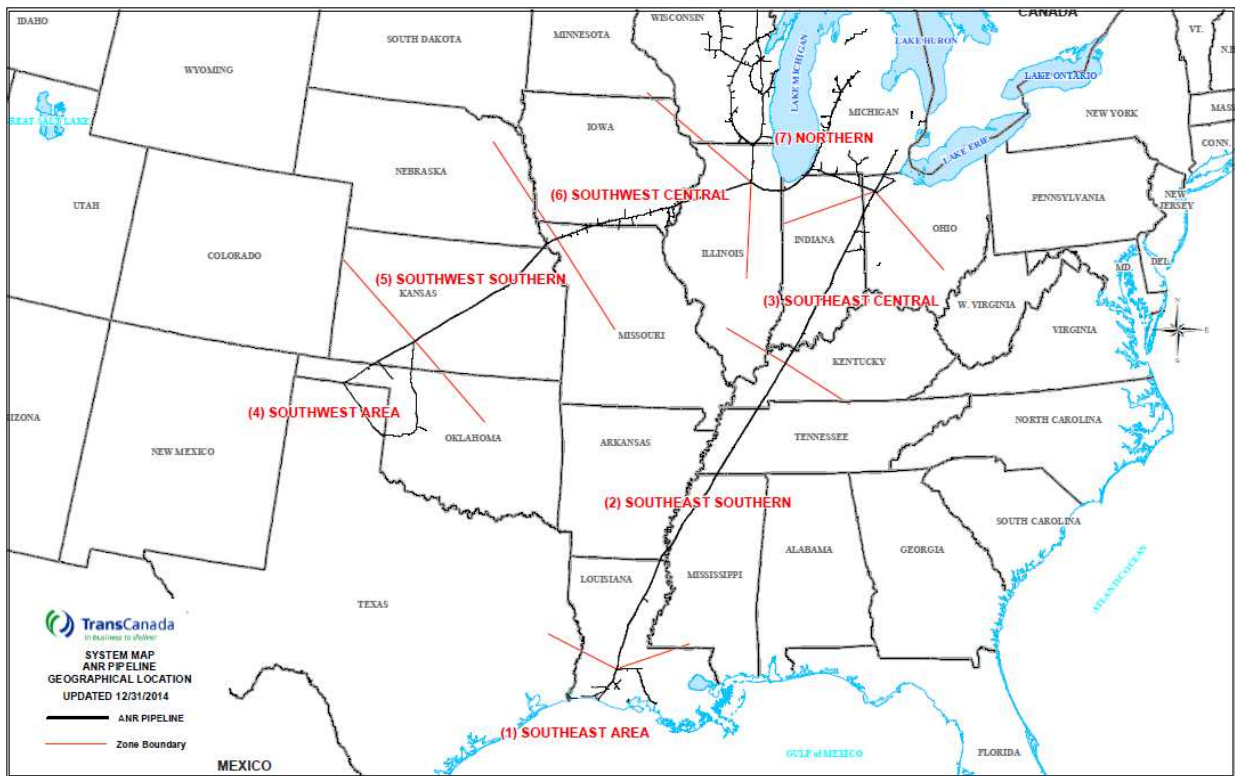
System Overview

ANR Pipeline Company's ("ANR") 9,400-mile transmission system was originally designed to transport natural gas from producing fields located primarily in Texas and Oklahoma on its Southwest Mainline and in Louisiana on its Southeast Mainline. ANR's system extends to markets located primarily in Wisconsin, Michigan, Illinois, Ohio, and Indiana. ANR's natural gas pipeline now also interconnects with numerous other natural gas pipelines, providing customers with access to diverse sources of North American supply, including Western Canada, the Rocky Mountain region, and the Appalachian and other unconventional production areas and to a variety of end-user markets in the midwestern and northeastern United States. ANR also owns and operates regulated underground natural gas storage facilities in Michigan. ANR provides storage, transportation, and various capacity related services on an open access basis to qualifying shippers.

ANR is a wholly owned direct subsidiary of American Natural Resources Company and a wholly owned indirect subsidiary of TransCanada American Investments Ltd., TransCanada Pipeline USA Ltd., TransCanada Pipelines Limited, and TransCanada Corporation.

System Map [18 C.F.R. § 154.312(u)(1)]

No significant changes have occurred on ANR's system, shown below, since the filing of ANR's last FERC Form No. 2. A system map is provided below for convenience.



ANR PIPELINE COMPANY

Major Expansions and Abandonments¹ [18 C.F.R. § 154.312(u)(2)]

Major expansions and abandonments effective for the period January 1, 1995 through November 1, 2015:

Docket No. CP93-564

Application filed on July 19, 1993, pursuant to Section 7(c) of the Natural Gas Association (“NGA”), for authorization to construct and operate two meter stations, a 0.2 mile interconnect near Columbus, Michigan, and 12.1 miles of 24-inch pipeline (ANR Link) between the Muttonville Lateral and an interconnect at the U.S./Canada border in St. Clair County, Michigan. Facilities were placed in service in November 1996. A cost of \$13.9 million was reflected in the Section 157 cost report.

Docket No. CP96-185

Application filed on February 12, 1996, pursuant to Section 7(b) of the NGA, for authorization to abandon by sale to GPM Gas Corporation certificated gathering facilities that included 1,550 miles of 2-inch to 20-inch pipeline, 43,800 horsepower of compression and measurement equipment at 1,142 locations and a 15.1 mile pipeline segment classified as transmission. Abandonment was approved in November 1996. The abandonment by sale was effective in December 1996. Exhibit Y of the Application reflected the cost of the facilities (Account No. 102 Gas Plant Purchased or Sold) as \$116.7 million.

Docket No. CP96-186

Application filed on February 12, 1996, pursuant to Sections 7(b) and 7(c) of the NGA, for authorization to abandon by transfer to its affiliate, ANR Field Services Company, gathering facilities that included 530 miles of 2-inch to 16-inch pipeline, 2,700 horsepower of compression and measurement equipment at 351 locations; and authorization to refunctionalize to transmission certain facilities previously classified as gathering for rate and accounting purposes. The abandonment, and refunctionalization of certain facilities, was approved in August 1996. The abandonment by transfer was effective in December 1996. Exhibit Y of the Application reflected the cost of the abandoned facilities (Account No. 102 Gas Plant Purchased or Sold) as \$79.4 million.

¹ Excludes addition of interconnect receipt/delivery points, as well as activities performed under ANR’s blanket certificate.

ANR PIPELINE COMPANY

Major Expansions and Abandonments (continued)

Docket No. CP96-641

Application filed on July 15, 1996, pursuant to Section 7(c) of the Natural Gas Association ("NGA"), for authorization to construct and operate 11.9 miles of 42-inch pipeline loop between the Bridgeman and Sandwich compressor stations. Facilities were placed in service in November and December 1997. A cost of \$18.8 million was reflected in the Section 157 cost report.

Docket No. CP97-596

Application filed on June 27, 1997, pursuant to Section 7(b) of the NGA, for authorization to abandon by transfer to its affiliate, ANR Field Services Company, certificated gathering facilities consisting of the portion of its Holly Ridge Lateral Facility located east of the Gilbert interconnect, including 15.88 miles of 8-inch pipeline, 1,200 horsepower of compression, and the Holly Ridge metering station. Abandonment was approved in October 1997. The abandonment by transfer was effective in November 1997. Exhibit Y of the Application reflected the cost of the facilities (Account No. 102 Gas Plant Purchased or Sold) as \$0.7 million.

Docket No. CP97-765

Application filed on September 29, 1997, pursuant to Section 7(c) of the NGA, for authorization to install 11.4 miles of 30-inch mainline loop located upstream of the existing Kewaskum, Wisconsin compressor station, and a new meter station located on the existing Racine lateral pipeline. Facilities were placed in service in October 1999. A cost of \$24.5 million was reflected in the Section 157 cost report.

Docket No. CP99-241

Application filed on March 8, 1999 pursuant to Section 7(c) of the NGA, for authorization to install Phase I: two 10,000 HP compressor engines at the Woodstock Compressor Station in McHenry County, Illinois; and Phase II: one 1,500 HP compressor engine at the Weyauwega Compressor Station in Waupaca County, Wisconsin and to construct 0.11 miles of 16-inch pipeline traversing from the Weyauwega Compressor Station to the Marinette Junction tap site. Phase I facilities were placed in service in January and February 2001. Phase II facilities were placed in service in January 2002. A cost of \$23.8 million for Phase I facilities, and a cost of \$0.5 million for the portion of the Phase II facilities relating to the 0.11 miles of 16-inch pipeline, were reflected in Exhibit K of the Application. A cost of \$3.5 million for the portion of the Phase II facilities relating to the 1,500 HP compressor was reflected in the Section 157 cost report.

ANR PIPELINE COMPANY

Major Expansions and Abandonments (continued)

Docket No. CP02-434

Application filed on September 6, 2002, pursuant to Sections 7(b) and 7(c) of the NGA, for authorization to construct and operate a total of approximately 26.3 miles of 30-inch pipe on the Madison Lateral in McHenry County, Illinois and Walworth and Rock Counties, Wisconsin; to remove the existing 4-inch and 6-inch pipe on the Beloit Lateral and replace them with approximately 6.5 miles of 20-inch pipe, all in Rock County, Wisconsin; to install a new meter station, the Tiffany East Meter Station, on and adjacent to ANR's existing Tiffany Meter Station site in Rock County, Wisconsin; and to upgrade the existing South Madison Meter Station in Rock County, Wisconsin. Facilities were placed in service in December 2004. A cost of \$45.4 million was reflected in the Section 157 cost report.

Docket No. CP04-1

Application filed on October 1, 2003, pursuant to Section 7(c) of the NGA, for authorization to install an additional 6,000 HP of electric powered compression at the Weyauwega Compressor Station in Waupaca County, Wisconsin, referred to as the North Leg Project. Facilities were placed in service in December 2005. A cost of \$12.5 million was reflected in the Section 157 cost report.

Docket No. CP04-51

Application filed on January 12, 2004, pursuant to Section 7(c) of the NGA, for authorization to replace 4.8 miles of 14-inch pipeline in Washington County, Wisconsin; to install 4.0 miles of 8-inch loop line in Brown County, Wisconsin; to install 2.5 miles of 6-inch loop line in Wood County, Wisconsin; and to re-wheel an existing compressor unit at the Mountain Compressor Station in Oconto County, Wisconsin. Facilities were placed in service in November 2005. A cost of \$17.9 million was reflected in the Section 157 cost report.

Docket No. CP04-79

Application filed on March 10, 2004, pursuant to Sections 7(b) and 7(c) of the NGA, for authorization to convert a total of 4.1 Bcf of base gas to working gas at the Lincoln-Freeman, South Chester, and Central Charlton Storage Fields, located in central and north-central Michigan; to abandon by sale the Capac Storage Field, located in eastern Michigan; to install injection/withdrawal wells and separation equipment at the Lincoln-Freeman Storage Field; and to install appurtenant equipment at the South Chester and Central Charlton Storage Fields to enhance late season deliverability. Facilities were placed in service in December 2006. A cost of \$11.9 million was reflected in the Section 157 cost report.

ANR PIPELINE COMPANY

Major Expansions and Abandonments (continued)Docket No. CP05-364

Application filed on May 31, 2005, pursuant to Section 7(c) of the NGA, for authorization to install 3.08 miles of 16-inch and 3.78 miles of 30-inch pipeline loop in Outagamie County and Rock County Wisconsin, respectively; to install a 2,370 HP compressor unit at the Janesville Compressor Station along with minor upgrade work at five existing meter stations; and to construct the new Goodman 20,620 HP Compressor Station in Marinette County, Wisconsin. Facilities were placed in service in November 2006. A cost of \$50.5 million was reflected in the Section 157 cost report.

Docket No. CP06-358

Application filed on May 30, 2006, pursuant to Sections 7(b) and 7(c) of the NGA, for authorization to install three new injection/withdrawal wells, a 4-inch meter run, and approximately 120 feet of lateral line and 360 feet of gathering line, in the Freeman side of the Lincoln-Freeman Storage Field; to install two new injection/withdrawal wells, a 4-inch meter run, and approximately 1,040 feet of connecting pipeline at the Winfield Storage Field; to install a filter separator, a high pressure gas cooler, new control room and new dehydration tower valves, and controls at the Goodwell Storage Field; to abandon five existing 1,100 HP compressor units and to replace them with two new 7,700 HP turbine compressor units at the Goodwell Storage Field; and to convert 1 Bcf of base gas to working gas at the Reed City Storage Field, located in Clare, Montcalm, Newaygo, Osceola and Lake Counties, Michigan. Facilities were placed in service in December 2007. A cost of \$32.9 million was reflected in the Section 157 cost report.

Docket No. CP06-464

Application filed on September 21, 2006, pursuant to Section 7(c) of the NGA, for authorization to acquire and convert the Cold Springs 1 Storage Field, located in Kalkaska County, Michigan, including the development, construction, and operation of six new injection/withdrawal wells, a 500-foot gathering pipeline system, a 7,000 HP electric driven reciprocating compressor station with all ancillary facilities to perform the storage injection and withdrawal operations, and 700 feet of 20-inch pipe from the Cold Springs 1 Storage Field to the Cold Springs 12 Lateral. Facilities were placed in service in November 2008. A cost of \$84.2 million was reflected in the Section 157 cost report.

ANR PIPELINE COMPANY

Major Expansions and Abandonments (continued)

Docket No. CP08-465

Application filed on August 20, 2008, pursuant to Section 7(c) of the NGA, for authorization to install 8.9 miles of new 30-inch pipeline loop on ANR's Madison Lateral in Rock County, Wisconsin; to install one new mainline control valve at the Marshfield Compressor Station in Wood County, Wisconsin; to install one new mainline control valve at the Fairwater Meter Station in Columbia County, Wisconsin; and to upgrade the Marshfield Meter Station in Wood County, the North Wausau Meter Station in Marathon County, and the Randolph Meter Station in Columbia County, Wisconsin. Facilities were placed in service October 2010. A cost of \$38.2 million was reflected in the Section 157 cost report.

Docket No. CP11-12

Application filed on October 18, 2010, pursuant to Section 7(b) of the NGA, for authorization to abandon by sale to Apache Corporation approximately 4.07 miles of 10-inch pipeline, 0.2 miles of 8-inch pipeline and various appurtenances and other facilities related to the 10-inch and 8-inch pipelines located in federal waters offshore in the Gulf of Mexico. Abandonment was approved in December 2010. The abandonment by sale was effective in December 2011. Exhibit Y of the Application reflected the cost of the facilities (Account No. 101 Gas Plant In Service) as \$2.2 million.

Docket No. CP11-539

Application filed on August 23, 2011, pursuant to Section 7(c) of the NGA, for authorization to install a new compressor station consisting of a 6,300 HP compressor engine and appurtenant facilities in Portage County, Wisconsin ("Marshfield Reduction Project"). Facilities were placed in service in October 2013. A cost of \$27.3 million was reflected in the Section 157 cost report.

Docket No. CP11-543

Application filed on September 1, 2011, pursuant to Section 7(b) of the NGA, for authorization to abandon by sale to TC Offshore, LLC approximately 600 miles of pipeline; seven offshore platforms; measurement, compression, separation and dehydration facilities; and appurtenances located in Louisiana and Texas and in state and federal waters offshore Louisiana and Texas in the Gulf of Mexico. The abandonment by sale was approved in June 2012 and was effective in November 2012. Updated final accounting entries listed the cost of the facilities (Account No. 102 Gas Plant Purchase or Sold) as \$492.3 million.

ANR PIPELINE COMPANY

Major Expansions and Abandonments (continued)

Docket No. CP13-124

Application filed on April 4, 2013, pursuant to Section 7(b) of the NGA, for authorization to abandon certain onshore and offshore facilities located in Texas and in federal waters offshore Texas in the Gulf of Mexico and dedicated capacity by sale to Transcontinental Gas Pipe Line Company, LLC. The abandonment by sale was approved in May 2013 and was effective in June 2013. Exhibit Y of the Application reflected the cost of the facilities (Account No. 101 Gas Plant In Service) as \$9.3 million.

Docket No. CP14-514

Application filed on July 2, 2014 pursuant to Section 7(c) of the NGA, for authorization to install a new 10,915 horsepower compressor unit and appurtenant facilities at the existing Sulphur Springs Compressor Station in Henry County, Indiana. Facilities were placed in service in October 2015. The estimated cost of the project, as reflected in Exhibit K of the Application, was \$35.3 million.

ANR PIPELINE COMPANY

Design and Operation of ANR's System [18 C.F.R. § 154.312(u)(3)]

The ANR pipeline system is hydraulically modeled with Gregg Engineering's WinFlow software utilizing the AGA general flow equations. Broadly speaking, the ANR system is divided into five major areas: Southwest Area ("SW Area"), Southwest Mainline ("SW Mainline"), Southeast Area ("SE Area"), Southeast Mainline ("SE Mainline"), and Northern Area. The ANR system also includes storage facilities located in the state of Michigan.

The SW Area is a ring shaped pipeline segment traversing portions of western Oklahoma, both the Texas and Oklahoma panhandles, and a portion of southern Kansas. Operationally, there is typically a null point of gas receipts near the border between Wheeler County, Texas and Roger Mills County, Oklahoma. Gas flows both east and west from this null point around the ring, flowing back together at the compressor station at Greensburg, Kansas. The approximately 717 mile pipeline segment ranges from 4-inch to 24-inch pipe. The MAOP along the pipeline is predominately 1050 psig and 975 psig but also contains smaller segments with MAOP's of 1000 psig and 936 psig. There is approximately 89,000 HP installed at eight compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.

The SW Mainline extends from Greensburg, Kansas through the states of Nebraska, Missouri and Iowa, terminating at a compressor station near Sandwich, Illinois. The approximately 1,743 mile pipeline segment consists of a complete mainline of 24-inch pipe and a complete loop line of 24-inch pipe. The remaining pipeline segment consists of laterals ranging from 4-inch to 16-inch pipe. There is a common MAOP of 975 psig with approximately 94,000 HP installed at seven compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.

The SE Area is comprised of two legs, one originating at the Patterson Compressor Station near Patterson, Louisiana and the other originating at the Grand Chenier Compressor Station near Grand Chenier, Louisiana. The two legs come together at the Eunice, Louisiana compressor station, which is the demarcation point between the SE Area and the SE Mainline. The approximately 505 mile mainline segment ranges from 20-inch to 30-inch pipe. The remaining mileage is comprised of 16-inch, 12-inch, 10-inch, 8-inch and 6-inch pipe that is mostly laterals. The MAOP along the pipeline is predominately 1050 psig and 975 psig but there are sections with MAOP's of 1200 psig, 1100 psig, 1090 psig, and 991 psig. There is approximately 66,000 HP installed at four stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 70°F.

The SE Mainline extends from Eunice, Louisiana through the states of Mississippi, Tennessee, Kentucky and Indiana, terminating at Defiance, Ohio. The approximately 2,381 mile pipeline segment consists of complete mainline of 30-inch pipe, a complete loop line of 30-inch pipe, and a partial loop line of 36-inch pipe. Additionally, there are laterals ranging from 4-inch to 30-inch pipe. The MAOP of the segment is 858 psig, except for one lateral with an MAOP of 944 psig. There is approximately 330,000 HP installed at eleven compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 70° F.

The Northern Area is sectioned for modeling purposes into the following five segments:

- The Wisconsin System extends north from Sandwich, Illinois through the state of Wisconsin to Crystal Falls, Michigan. This pipeline segment consists of parallel and non-parallel nested loop lines serving most of the eastern half of the state. There are large interconnections at Crystal Falls (Great Lakes Gas Transmission), Marshfield (Viking Gas Transmission), and Janesville (Northern Natural Gas Company). There are approximately 2,000 miles of pipeline ranging in size from 4-inch to 30-inch pipe. The MAOP along the pipeline from the Sandwich Compressor Station north to the Kewaskum Compressor Station is 850 psig. The remainder of the segment is 975 psig. There is approximately 144,000 HP installed at nine compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.59, a heat content of 1,010 Btu/cf, and an assumed ambient temperature of 60°F.
- The Michigan Leg South extends from Sandwich, Illinois through the state of Indiana, terminating at Bridgman, Michigan. The approximately 318 mile pipeline segment consists of a complete mainline of 22-inch pipe, a complete loop line of 30-inch pipe and a partial loop of 42-inch pipe. There is a common MAOP of 850 psig with approximately 37,000 HP installed at two compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.
- The Michigan Leg North extends from Bridgman, Michigan through the state of Michigan, terminating at Woolfolk, Michigan. The approximately 509 mile pipeline segment consists of a complete mainline of 22-inch pipe, a complete loop of both 24 and 43-inch pipe, and two complete loops of 30-inch pipe. The remaining segment consists of laterals ranging in size from 4-inch to 12-inch pipe. There is a common MAOP of 850 psig with approximately 62,000 HP installed at two compressor stations. For modeling purposes, the capacity is based on a gas specific gravity of 0.63, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.

- The Tie Line extends from Bridgman, Michigan through the state of Indiana, terminating at Defiance, Ohio. The approximately 391 mile pipeline segment consists of a complete mainline of 22-inch pipe and a complete loop of 24-inch pipe. The remaining segment consists of laterals ranging in size from 4-inch to 12-inch pipe. There is a common MAOP of 858 psig with approximately 23,000 HP installed at one compressor station. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.
- The Willow Run Lateral extends from Defiance, Ohio into the state of Michigan, terminating at Ypsilanti, Michigan. The approximately 226 mile pipeline segment consists of a complete mainline of 30-inch pipe and a complete loop line of 30-inch pipe. The remaining segment consists of laterals of both 12-inch and 20-inch pipe. The MAOP along the pipeline is predominately 858 psig, but with smaller segments of MAOP's at 679 psig and 720 psig. There is approximately 37,000 HP installed at one compressor station. For modeling purposes, the capacity is based on a gas specific gravity of 0.60, a heat content of 1,020 Btu/cf, and an assumed ambient temperature of 60°F.

The Storage Area consists of fifteen storage fields and connecting pipeline ranging from 8-inch to 36-inch pipe. The major directly connected facilities are connected to the Michigan Leg North located in central Michigan. The discontinuous facilities, which are connected to the Great Lakes Gas Transmission system and the MichCon system, are located in northern and eastern Michigan. A minor directly connected facility connected to the Tie Line is located in southern Michigan and Indiana; its mileage is reflected in the Tie Line segment referenced in the Northern Area above. The MAOP varies from 650 psig to 1200 psig with approximately 140,000 HP installed at ten compressor stations. The mainline pipe and laterals connecting the fields total approximately 193 miles of pipe and the gathering systems within each field total approximately 417 miles of pipe.