

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Nora Mead Brownell, and Suedeen G. Kelly.

ANR Pipeline Company

Docket No. RP04-435-000

ORDER ON CONTESTED SETTLEMENT

(Issued July 3, 2006)

1. On September 30, 2005 ANR Pipeline Company (ANR) filed an Offer of Settlement, Stipulation and Agreement (Settlement), and Explanatory Statement in this docket pursuant to Rule 602 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 602 (2005). ANR also moved for a waiver of the initial decision, to the extent necessary, under Rules 602 (h)(2)(iii) and 710(d). ANR asserts the Settlement will resolve the issues set for hearing in this proceeding by (1) establishing a fifteen degrees Fahrenheit (15° F) cricondentherm hydrocarbon dew point (CHDP) Safe Harbor¹ (Safe Harbor) for the ANR system and (2) implementing procedures in the tariff for posting CHDP limitations on its system and addressing requests for aggregation of gas supplies. Michigan Consolidated Gas Company (MichCon) and Aquila Inc. d/b/a Aquila Networks (Aquila) oppose the Settlement. On November 15, 2005, the Administrative Law Judge (ALJ) certified the Settlement to the Commission as a contested settlement.

2. Upon consideration of the testimony of ANR, other supporting parties, and opposing parties, the Commission decides the contested issues on the merits. The Commission finds ANR has supported its proposed 15° F CHDP Safe Harbor with substantial evidence that is un rebutted. The Commission finds that ANR's CHDP safe harbor may reasonably take into consideration ANR's ability to make deliveries to

¹ As used in ANR's tariff, "Safe Harbor" gas is gas that the pipeline cannot normally refuse to accept into its system as it satisfies all tariff conditions including an HDP equal to or less than specified in the tariff. However, the pipeline may post lower CHDP limits below the Safe Harbor level through the issuance of an Operational Flow Order (OFO) to avoid an event that threatens the operational integrity of the pipeline. A Safe Harbor tariff condition does not establish a limitation on the quality of the gas that a pipeline may accept or deliver.

downstream interconnects, but that ANR is not required to base its CHDP Safe Harbor on operating conditions on downstream systems. The Commission denies the other objections of the opposing parties and finds that provisions of the Settlement are otherwise just and reasonable. Based on these findings, the Commission approves the Settlement.

I. Background

3. Natural gas is composed of a number of hydrocarbon compounds, of varying molecular weight. As it is transported and distributed, unprocessed natural gas may experience changes in temperature and pressure which cause the heavy hydrocarbons to assume a liquid form. When this happens, pipelines and other downstream equipment may experience inefficient operations and unsafe conditions. This problem is known as hydrocarbon liquid dropout, and the potential for this problem to occur can be measured in terms of the hydrocarbon dew point (HDP) of the gas stream in question. The HDP defines whether the natural gas stream in a pipeline consists of a single gas phase or two phases, gas and liquid.

4. As described in more detail in Appendix B of this order, HDP varies depending upon the (1) temperature, (2) pressure, and (3) composition of a gas stream. Increases in temperature and pressure have opposing effects on the likelihood that the heavier hydrocarbons will condense into liquids. The higher the temperature, the less likely the heavier hydrocarbons will condense into liquids. However, the higher the pressure on the gas stream, the more likely the heavier hydrocarbons will condense into liquids. When pressure is very low, the entire gas stream will remain in a gaseous state. As the pressure increases toward more normal pipeline operating pressures, higher temperatures are necessary for the heavier hydrocarbons to remain in a gaseous state. However, once the pressure reaches a certain point, the gas phase starts to change, as the heavier hydrocarbons become liquid.

5. This means that, when the temperature sufficient to maintain the gaseous phase of a particular gas stream is plotted on a graph as a function of increasing pressure levels, a balloon-shaped curve is formed.² As pressure rises from zero, the temperature necessary to maintain the gaseous state rises. However, once the pressure goes above a certain level, the temperature necessary to maintain the gaseous state starts to fall. The highest temperature on this curve is known as the CHDP of the gas stream in question. The CHDP of a particular gas stream varies depending upon the composition of the gas stream. A gas stream with a high proportion of heavier hydrocarbons will have a higher

² Parties to the proceeding also refer to the curve as the “phase envelope.”

CHDP than a gas stream with a lower proportion of heavier hydrocarbons.³ Since processing gas removes the heavier hydrocarbons, the CHDP of a processed gas stream will generally be lower than the CHDP of an unprocessed gas stream. The focus of this proceeding has been to determine the highest CHDP of gas delivered to ANR, which ANR can safely and reasonably accept on its system without the heavier hydrocarbons changing from a gaseous to liquid phase.⁴

6. When gas prices increase relative to gas liquids prices (referred to as upside-down economics) as they have in recent years, gas processors and owners of processing rights may decide not to process the gas stream because the value of the hydrocarbons in a gaseous phase exceeds the market price of extracted liquid hydrocarbons. In response to reduced processing of gas entering its system and to perceived safety problems, ANR began to issue OFOs that placed a limit on the Btu heat content of gas entering its system to ensure that gas would be processed to remove the heavier hydrocarbons that presented the risk of liquid fallout.

A. Procedural History

7. On November 21, 2003, the Indicated Shippers filed a complaint against ANR in Docket No. RP04-65-000, claiming that ANR's issuance of OFOs was effectuating changes in the gas quality provisions of its tariff without making a filing under section 4 of the Natural Gas Act (NGA).⁵ On December 30, 2003, the Commission found that permanent changes to ANR's gas quality standards had to be achieved through a section 4 filing, and could not be effectuated by the posting of OFOs. The Commission directed ANR to cease and desist from issuing OFOs to effectively implement permanent gas

³ The hydrocarbon gases that can be found in natural gas are; methane (C1), ethane (C2), propane (C3), butanes (C4), pentanes (C5), hexanes (C6), heptanes (C7), octanes (C8), and nonanes and above (C9+).

⁴ The highest pressure at which the gas phase of the gas stream can remain in a gaseous state is known as the Cricondenbar Hydrocarbon Dew Point. However, because the pipeline operator can more easily control the pressure at which the pipeline operates than the temperature, the maximum Cricondenbar Hydrocarbon Dew Point of gas delivered to the pipeline has not been a matter of concern.

⁵ 15 U.S.C. § 717c (2000).

quality restrictions and stated that ANR should file a tariff proposal to address gas quality issues on its system as soon as possible.⁶ ANR submitted such a filing on March 15, 2004, which the Commission rejected as insufficiently supported.⁷

8. On August 2, 2004, ANR filed in the instant docket revised tariff sheets to address gas quality issues on its pipeline system (August 2 filing). Among other things, ANR proposed a general requirement that gas delivered to it be free from hydrocarbon liquids which might interfere with merchantability or injure the equipment through which it flows. ANR also proposed tariff language permitting it, from time to time, to post on its internet site specific limits on CHDP of gas to be received on specified segments or other locations of ANR's system. In addition, ANR proposed a 15° F CHDP Safe Harbor, thereby agreeing to accept any gas with a CHDP at or below 15° F. ANR also proposed to make HDP⁸ data available to those affected by a posting, and to permit shippers to aggregate supplies. Several parties filed comments in support of ANR's filing, while other parties filed comments and protests to ANR's proposal. The protesters challenged

⁶ 105 FERC ¶ 61,394 (2003).

⁷ 107 FERC ¶ 61,094 (2004).

⁸ A more expansive definition of HDP is provided in the Natural Gas Council's *White Paper on Liquid Hydrocarbon Drop Out in Natural Gas Infrastructure* by the NGC+ Liquid Hydrocarbon Drop Out Task Group (February 28, 2005) (White Paper) filed with the Commission in this proceeding as [MC-2] and in Docket No. PL04-3-000, February 28, 2005. Section 4.1.1 of the White Paper provides:

The hydrocarbon dew point (HDP) defines whether the natural gas stream in a pipeline at a given pressure and temperature consists of a single gas phase or two phases, gas and liquid. The HDP is defined as the series of matching pressure and temperature points at which hydrocarbons condense into liquid from a natural gas mixture. The hydrocarbon dew point **pressure** is the pressure at which hydrocarbons will begin to condense from a gas mixture at a given temperature. The hydrocarbon dew point **temperature** is the temperature at which hydrocarbons will begin to condense from a gas mixture at a given pressure, and it is usually more important for pipeline operations where the pressure is determined independently.

For the White Paper discussion of the HDP curve, *see* Appendix B of this order.

ANR's choice of 15° F CHDP as the proper Safe Harbor level, contended that ANR's aggregation and posting proposals were too broad, and questioned ANR's calculation methodology.

9. On September 30, 2004 the Commission issued an order accepting and suspending the tariff sheets submitted with the August 2 filing, subject to conditions, and set the filing for hearing.⁹ The Commission noted that the parties had questioned the adequacy and relevance of the data ANR submitted in support of its proposed CHDP Safe Harbor level and raised issues concerning ANR's sampling method and capability. The Commission stated that the issues raised concerning the appropriate level of ANR's proposed HDP safe harbor were issues of fact to be resolved before an ALJ.¹⁰ Specifically, the Commission set for hearing the appropriate level of ANR's Safe Harbor HDP; the criteria ANR will use for determining which points will be subject to an HDP posting; and the mechanisms or methodology to be used for aggregating supplies.¹¹ The Commission also stated that a properly selected HDP should result in a tariff and service that customers can rely upon and that ANR can operationally provide with a high degree of confidence without the use of OFOs. The Commission stated that whether ANR's proposal will achieve this objective is among the issues to be examined at the hearing.¹²

10. In the rehearing order issued December 22, 2004, the Commission noted that the following disputed factual issues raised in the protests were best determined in a hearing: the lack of information on the safe harbor HDP, the type and currency of data used for HDP calculations, the necessity of considering Btu content together with HDP levels, the need for a maximum HDP level, the amount of notice needed for changes in HDP level, the need for monitoring points, the lack of criteria for determining which points will be subject to HDP limits, and the kind of information to be provided to shippers concerning

⁹ 108 FERC ¶ 61,323 (September 30 Order), *order on clarification, reh'g, and compliance filing and denying a stay*, 109 FERC ¶ 61,358 (2004) (December 22 Order).

¹⁰ *Id.* at P 19.

¹¹ *Id.* at P 23.

¹² *Id.* at P 25.

HDP limits.¹³ The Commission also stated that parties to the hearing could examine whether the *Natural Gas I* reporting requirements¹⁴ should be fine tuned to reflect ANR's system and customer needs.¹⁵

11. In the September 30 Order, the Commission stated that ANR's proposal did not directly address the issue of gas merchantability. It stated that if the Commission adopts generally applicable gas merchantability standards, their applicability to ANR will be determined in another proceeding. The Commission stated it would not set any issues concerning gas merchantability for hearing in the instant proceeding.¹⁶ However, the Commission stated that this procedural finding did not foreclose the parties from achieving an agreement or settlement on gas merchantability issues. In the December 22 Order, the Commission noted that ANR's proposed tariff recognizes its customers'

¹³ December 22 order at P 14.

¹⁴ *Natural Gas Pipeline Company of America*, 102 FERC ¶ 61,234 at P 48 (2003) (*Natural Gas I*):

[W]e shall require Natural to file revised tariff provisions that provide that it shall post, on its Internet website: (1) every receipt point dewpoint value Natural calculates, within 24 hours of such calculation, along with the method by which the dewpoint was calculated; and (2) every blended dewpoint and blended Btu value Natural calculates for a line segment of its system, within 24 hours of such calculation. This, coupled with the GT&C section 26.1(h) procedures, and the shipper's ability to question Natural about the flow path of the shipper's volumes, should enable Natural's shippers to assess whether Natural's basis for imposing a more stringent quality restriction on a given shipper is reasonable, whether the reason is operational in nature or to maintain Natural's ability to deliver gas into interconnecting downstream pipelines, and whether there is any basis for asserting, in a complaint filed with the Commission, that Natural has imposed a quality restriction to the shippers at certain receipt points who are tendering rich, non-conforming gas to Natural, while the same quality restriction is not being applied to shippers at other receipt points along the same line segment who are also tendering rich, non-conforming gas to Natural.

¹⁵ December 22 Order at P 8.

¹⁶ September 30 Order at P 21.

interest, as owners of the gas, in the HDP level of the gas they receive.¹⁷ The Commission also stated in the September 30 Order that it might consider it appropriate to reconsider the HDP provisions in ANR's tariff in the context of developments in Docket No. PL04-3-000, *Natural Gas Interchangeability*.

12. On October 20, 2004, ALJ issued an Order establishing a procedural schedule that included testimony and discovery deadlines and a hearing date. Pursuant to that schedule, as amended, the parties completed discovery and filed three rounds of testimony. On September 30, 2005, ANR filed a motion for waiver of the initial decision and an Offer of Settlement. The parties filed comments on the settlement from October 18 through 20, 2005 and reply comments from October 31 through November 2, 2005. On November 8, 2005, the ALJ heard oral argument on the Offer of Settlement, on certification of that offer, and on waiver of the initial decision. On November 14, 2005, the ALJ certified ANR's Offer of Settlement to the Commission as a contested settlement,¹⁸ as discussed further below. He also certified ANR's motion for waiver of the initial decision.

13. On June 15, 2006, in Docket No. PL04-3-000, the Commission issued its *Policy Statement on Provisions Governing Natural Gas Quality and Interchangeability in Interstate Natural Gas Company Tariffs*, 115 FERC ¶ 61,325 (2006) (*Policy Statement*). The *Policy Statement* provides guidance to individual companies regarding natural gas quality and interchangeability.¹⁹

¹⁷ December 22 Order at P 7 *citing* Section 13.2(a), Second Revised Sheet No. 130, ANR's FERC Gas Tariff, Second Revised Volume No. 1:

Transporter may, from time to time, as operationally necessary, establish and post on its internet site a limit on Hydrocarbon Dewpoint for receipts on specified segments or other specified locations on its system to prevent hydrocarbon fallout, consistent with this Section, *or to assure that gas will be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end-users, local distribution companies and others.* (emphasis supplied in the order)

¹⁸ *Certification of Contested Offer of Settlement*, 113 FERC ¶ 63,021 (2005) (*Certification*).

¹⁹ The *Policy Statement* states five general principles. In order for natural gas quality and interchangeability specifications to be enforced, they must be in the pipeline's tariff. Pipeline tariff provisions on natural gas quality and interchangeability should be

(continued)

B. ANR's Current Tariff Provisions

14. ANR's current tariff provisions concerning CHDP became effective March 1, 2005.²⁰ ANR's tariff defines "Hydrocarbon Dewpoint" as "cricondentherm, the highest temperature at which the vapor-liquid equilibrium may be present."²¹ It states that ANR will perform CHDP calculations using the Peng-Robinson equation of state.

15. ANR's current gas quality tariff provisions provide, among other things, that gas delivered to and received by ANR shall be commercially free from hydrocarbon liquids which might interfere with its merchantability or cause injury to equipment. They provide that gas shall be free of hydrocarbons in liquid form and not contain any excessive liquefiable hydrocarbons that might condense to free liquids in the pipeline under normal pipeline conditions.²²

16. They also provide that ANR may establish and post a limit on CHDP for receipts on specified segments or locations on its system to prevent hydrocarbon fallout or to assure that gas will be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end-users, local distribution companies (LDCs) and others.²³

based upon sound science and should recognize the need to be flexible to enable the pipeline to balance safety and reliability concerns with the importance of maximizing supply. While not setting specific levels for hydrocarbon drop out or interchangeability parameters, the Policy Statement strongly encourages pipelines and their customers to use the interim guidelines in the White Paper of the NGC+ Liquid Hydrocarbon Drop Out Task Group as a common reference point. To the extent pipelines and their customers cannot reach agreement on gas quality and interchangeability, the Commission will resolve disputes on a case-by-case basis on a record of fact and technical review. Conformance of the Settlement with these principles is discussed at the end of this order.

²⁰ Director Letter Order, Docket No. RP04-435-004 (February 10, 2005).

²¹ Section 1.24A, Sixth Revised Sheet No. 86, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

²² Section 13.2 (e), Second Revised Sheet No. 131, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

²³ Section 13.2 (a), Second Revised Sheet No. 130, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

ANR will provide as much notice as reasonably practicable of such limitations and will attempt to provide at least ten days notice. It will also post the anticipated duration of a limitation.

17. The current tariff provisions provide for a CHDP Safe Harbor of 15° F. ANR will accept delivery of gas with an CHDP equal to or less than 15° F.²⁴ ANR may accept gas with a higher CHDP through aggregation or other reasonable means, to the extent operationally practicable.²⁵

18. Under its current tariff provisions, ANR will post the following information concerning HDP: (1) each receipt point CHDP value it calculates, within twenty-four hours after making the calculation and the method by which the CHDP value was calculated and (2) each blended CHDP and blended BTU value it calculates for a line segment of its system within twenty-four hours of calculation.²⁶

C. Provisions of the Settlement

19. Article I is an introduction briefly describing the factual background and procedural history of this proceeding.

Article II describes changes to ANR's tariff sheets.²⁷ The revisions to ANR's tariff concern section 1, definitions; section 13, gas quality provisions; and section 8,

²⁴ Section 13.2(a)(i), 2nd Sub First Revised Sheet No. 130.01, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

²⁵ Section 13.2(a)(ii), 2nd Sub First Revised Sheet No. 130.01, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

²⁶ Section 13.2(a)(iii) and (iv), 2nd Sub First Revised Sheet No. 130.01, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

²⁷ The pro forma revised tariff sheets are attached to the Stipulation and Agreement as Appendix A. The pro forma sheet concerning definitions is Seventh Revised Sheet No. 86. The pro forma sheets concerning OFOs are First Revised Sheet No. 115, Sixth Revised Sheet No. 117, Original Sheet No. 117.01, Second Revised Sheet No. 117A, and Third Revised Sheet No. 117B. Pro forma sheets concerning gas quality standards are Third Revised Sheet No. 130, Second Revised Sheet No. 130.01, Third Revised Sheet No. 131, Original Sheet No. 131.01, Original Sheet No. 131.02, Original Sheet No. 131.03, Original Sheet No. 131.04, and Original Sheet No. 131.05. A description of the content of these sheets is provided in Appendix A to this order.

OFO provisions. The Settlement Sheets provide for the implementation of a 15° F CHDP Safe Harbor. The definition of Hydrocarbon Dewpoint term shall mean “cricondentherm, the highest temperature at which the hydrocarbon vapor-liquid equilibrium may be present.” CHDP calculations will be performed using the Peng-Robinson equation of state and C6+ assumptions. Shippers’ challenges have limited rights to request a C9+ analysis. ANR may post a CHDP limit above the CHDP Safe Harbor to the extent compliance with the more stringent Safe Harbor level is not necessary to prevent HPD fallout or to enable gas to be delivered to downstream interconnecting entities. ANR may post CHDP limits below the CHDP Safe Harbor only through the issuance of an OFO to avoid an event that threatens the operational integrity of ANR’s system, as set out in the Settlement Sheets. ANR will establish HDP monitoring points on its system, and these points will be used for the purpose of its posted CHDP limits. This Article also establishes ANR’s posting procedures. ANR may allow a shipper whose gas does not meet the CHDP limits to pair with a shipper whose gas does.

20. Actual tariff sheets implementing the provisions of the Settlement shall be filed within 30 days after the effective date of the Settlement.

21. Article III describes the effect of the Settlement and provides that (1) approval of the Settlement will resolve all issues set for hearing in Docket No. RP04-435-000 and terminate the proceeding; (2) the Settlement does not preclude future filings under either section 4 or section 5 of the NGA to seek changes in the gas quality provisions of ANR’s tariff or to implement generic industry-wide gas quality standards approved by the Commission; and (3) the provisions of the Settlement are non-severable.

22. Article IV defines Consenting and Contesting Parties and governs the rights and obligations of Consenting Parties. This article provides, among other things, that if the Commission does not approve the Settlement without material modification adverse to ANR and/or the Consenting Parties and as applicable to all shippers, then ANR or any Consenting Party adversely affected by a modification can either declare the Settlement to be void or accept the Settlement subject to the right to seek rehearing and judicial review.

23. Article V sets forth the conditions precedent to the Settlement becoming effective. These are, first, the issuance of a Commission order approving the Settlement as applicable to all shippers on ANR without any material modification or material condition unacceptable to ANR or to any consenting Party. Second, there must be a waiver in the Commission order of compliance by ANR with the requirements of the Commission’s Rules and Regulations including, but not limited to, Part 154, to the extent necessary to effectuate all of the provisions of the Settlement. This Article also

establishes that the effective date of the Settlement is the first day of the month immediately following the date that a Commission order satisfying the conditions precedent becomes final, that is, no longer subject to rehearing.

24. Article VI states that the Settlement is a privileged settlement offer under the Commission's rules and that nothing in the Settlement shall be deemed to be a settled practice under applicable precedent.

25. Article VII specifies that the term of the Settlement shall continue until the effective date of a superceding tariff filing which revises the Settlement sheets in a manner inconsistent with the Settlement.

D. Comments on the Settlement

1. Comments in Support Of or Not Opposed to the Settlement

a. ANR

26. ANR filed comments in support of the Settlement. ANR states the Settlement achieves the objectives of providing certainty to the shipper community, while striking an appropriate balance between allowing the maximum amount of gas to enter ANR's system and protecting ANR's system from liquid dropout. ANR states the Commission stated in the September 30 Order that "a properly selected HDP should result in a tariff and service that customers can rely upon and that ANR can operationally provide with a high degree of confidence without the use of OFOs."²⁸ ANR asserts the 15° F CHDP Safe Harbor will provide shippers with needed certainty and at the same time will enable ANR to provide safe and reliable service with a high degree of confidence. ANR states it "has a high degree of confidence that it can safely and reliably deliver gas that has an HDP of 15° or less in the absence of emergency conditions"²⁹

27. ANR also states that the 15° F CHDP Safe Harbor represents a compromise between producers and customers to whom gas is delivered. ANR states producers sought Safe Harbors of 20 or 25° F to increase the amount of supply that could be delivered through ANR's system and to avoid processing costs when producers consider them to be uneconomical. ANR states that LDCs and other delivery customers sought to ensure that gas can be safely delivered by ANR to their delivery points and that one such customer sought a CHDP Safe Harbor of zero degrees Fahrenheit in its direct testimony.

²⁸ ANR cites the September 30 Order at P 25.

²⁹ ANR Comments at 7.

ANR states that the 15° F CHDP Safe Harbor is a reasonable compromise and that the Settlement satisfactorily resolves the other issues set for hearing. It states that the Settlement provides specific and transparent criteria and procedures that ANR must follow in determining when and where on its system to apply HDP limitations and additional flexibility to satisfy HDP limitations by requests for pairing.

b. Local Distribution Company and End User Comments

28. Of the LDCs commenting, the East Ohio Gas Company d/b/a/ Dominion East Ohio (Dominion East Ohio) submitted comments for the purpose of clarifying that it is a Consenting Party under the Stipulation and the Settlement. Northern Illinois Gas Company d/b/a/ Nicor Gas Company (Nicor Gas) filed comments stating that it supports the 15° F CHDP Safe Harbor “because ANR will continue to have the capability to manage any operational problems on its system should it need to by instituting an operational flow order.”³⁰ The Wisconsin Distributor Group³¹ (WDG) similarly states that it would prefer a lower HDP Safe Harbor to ensure its system would be protected from operational problems, but that it is willing to support the Settlement because ANR has the right to issue an OFO to lower the CHDP level below 15° F. WDG believes that the OFO protection is an “adequate means of protecting ANR’s system and its customers’ systems,” at least until greater knowledge about such issues is obtained through actual operations.³² WDG states it is willing to support the Settlement and the 15° F CHDP Safe Harbor “for the immediate future and to the extent that level is effective in protecting the systems of its members.”³³ WDG states that to the extent the 15° F level proves ineffective to protect its LDCs’ systems, ANR and the other parties to this proceeding must work to establish and implement an effective HDP Safe Harbor level.

³⁰ Nicor Comments at 1.

³¹ WDG states it is an *ad hoc* group of local distribution companies whose members collectively serve the vast majority of the natural gas consumers in the state of Wisconsin. The members of WDG for purposes of this proceeding are Alliant Energy – Wisconsin Power & Light Company, City Gas Company, Madison Gas & Electric Company, Wisconsin Gas LLC and Wisconsin Electric Power Company (collectively doing business as “We Energies”) and Wisconsin Public Service Corporation. Each member joins in WDG’s comments.

³² WDG Comments at 4.

³³ *Id.*

29. The Peoples Gas Light and Coke Company and North Shore Gas Company (Peoples) submitted comments not opposing the Offer of Settlement. Peoples states it has concluded that ANR's proposed 15° F CHDP Safe Harbor is adequate to prevent liquid fallout on ANR's system, and also that ANR's proposal presents little risk that Peoples' system will receive liquids from ANR. However, Peoples states it is concerned that ANR views the purpose of this proceeding too narrowly and would minimize the appropriate weight to be given to downstream entities' systems.³⁴ Peoples asserts that the requirements of downstream pipelines are relevant and that Commission policy and precedent require that ANR's standards be sufficient to meet the reasonable requirements of pipelines, including LDCs, receiving gas from ANR.³⁵ Peoples states that if ANR can transport gas without harm to its system, but not deliver it to downstream markets, ANR's standard is incompatible with the public interest goals articulated by the Commission. Peoples does not believe that deference to the Commission's public interest considerations requires a lowest common denominator solution where any downstream pipeline or directly connected end user can force interconnecting upstream pipelines to meet standards more stringent than what is needed for system integrity, but is concerned that approval of the Settlement does not endorse the narrow view that ANR need not take into consideration downstream entities in determining an HDP Safe Harbor.

30. The Process Gas Consumers Group (PGC) filed comments in support of the Settlement. PGC believes that gas with a fluctuating HDP can cause serious operational, safety and reliability problems for end-use industrial consumers, but that these concerns need to be balanced with the need for increased supplies of natural gas. PGC believes the Settlement represents a balanced solution for all stakeholders.

³⁴ Peoples cites Offer of Settlement at 9.

³⁵ Peoples cites *Natural Gas I*, 102 FERC ¶ 61,234 at P 38 (2003), 104 FERC ¶ 61,322 at P 50 (2003) (*Natural Gas II*).

c. Producer Comments

31. Indicated Shippers,³⁶ Alliance Pipeline L.P. and Aux Sable Liquid Products, L.P. (Aux Sable), the Producer Coalition,³⁷ ExxonMobil Gas & Power Marketing Company (ExxonMobil), and BP Energy Company and BP America Production Company (BP Energy) filed comments in support of the Settlement. All state that the 15° F CHDP Safe Harbor is a compromise and that they believe a higher HDP Safe Harbor is appropriate. Specific comments follow.

32. Indicated Shippers states that from the standpoint of a shipper on the ANR system, the Settlement is a balanced, fair and reasonable resolution of the matters set for hearing and that the Settlement provides shippers with certainty regarding hydrocarbon dew point issues on the ANR system because of the HDP Safe Harbor and the implementing tariff provisions.

33. Aux Sable states it is accepting the 15° F CHDP Safe Harbor along with an implementation system that ensures HDP limits are imposed only when operationally necessary in the interests of reaching a workable compromise. It also states that its support for the Settlement is conditioned on the provision that all gas receipts into the Sandwich-George-Defiance (SGD) segment from either interconnects with other systems or from adjacent HDP segments on ANR must meet posted HDP limits for the SGD segment.³⁸ Aux Sable states Alliance delivers significant quantities of natural gas (usually processed by Aux Sable's processing plant) to ANR in the SGD segment. Aux Sable states this provision is important because it ensures that it is treated the same as other suppliers delivering gas into the SGD segment and not required to subsidize the receipt of higher HDP gas into the SGD segment.

³⁶ Consisting of Chevron U.S.A. Inc., ConocoPhillips Company, and Shell Offshore Inc. Indicated Shippers states that Chevron U.S.A. Inc. was formerly known as ChevronTexaco Natural Gas, A Division of Chevron U.S.A. Inc. and intervened in this proceeding under the latter name.

³⁷ Consisting of Devon Energy Corporation, Dominion Exploration & Production, Inc., Forest Oil Corporation, The Houston Exploration Company, Kerr-McGee Oil & Gas Corporation, Newfield Exploration Company, Spinnaker Exploration Company, and TOTAL E&P U.S.A., INC.

³⁸ Aux Sable cites section 13.3(a)(viii), Original Sheet No. 131.03, Appendix A, Stipulation and Agreement.

34. The Producer Coalition states that the Settlement correctly formulates standards based on the conditions on ANR's system and does not seek to protect downstream systems. It asserts ANR must base its operational gas quality standards on suitability for transportation on its system and not on suitability for transportation on systems downstream of ANR. The Producer Coalition asserts that the 15° F CHDP Safe Harbor³⁹ is designed to prevent liquids fallout on ANR's pipeline system and that it is not designed to foreclose possible liquids fallout under temperature and pressure conditions downstream of ANR's system. The Producer Coalition asserts that ANR may post HDP limits, but only because of operational and engineering considerations on ANR's system.⁴⁰ Thus, asserts the Producer Coalition, "while ANR may act to ensure that gas is accepted for delivery into downstream facilities, the governing operational conditions that drive the issuance of HDP limits are those on its own system."⁴¹ The Producer Coalition asserts that the Settlement permits ANR to issue OFOs reducing the CHDP limit below the Safe Harbor only when events threaten the operational integrity of ANR's system.

35. The Producer Coalition asserts that interstate pipelines and LDCs are separately responsible for addressing the operating temperatures and pressures on their respective systems. It asserts that if HDP standards on ANR address conditions on downstream systems, they will jeopardize the long-term viability of natural gas supplies. The Producer Coalition asserts that ANR cannot control operations downstream of its jurisdictional facilities or the conditions under which gas may ultimately be delivered to consumers. The Producer Coalition asserts that LDCs have exercised responsibility for their facilities by installing and operating gas heaters at their interconnections with pipelines to offset the temperature effects of pressure reductions when high pressure interstate gas is delivered to their low pressure systems.

36. The Producer Coalition also views the aggregation of gas supplies through the pairing of receipts as an essential component of the Settlement and a condition of its support for the Settlement.

³⁹ The Producer Coalition cites section 13.3 beginning on Third Revised Sheet No. 131, Appendix A, Stipulation and Agreement.

⁴⁰ The Producer Coalition cites section 1.24(c), Seventh Revised Sheet No. 86, Appendix A, Stipulation and Agreement.

⁴¹ The Producer Coalition Comments at 5.

2. Comments Opposed to the Settlement

37. MichCon and Aquila oppose the Settlement. They state generally that the proposed 15° F CHDP Safe Harbor is too high and will not prevent liquid drop out on ANR's system. They also state that ANR must take into account operating conditions on their systems in setting the HDP Safe Harbor on ANR's system and that ANR has failed to do so. Their specific comments are provided in the Discussion section below.

E. The ALJ's Certification and ANR's Motion on Pre-filed Testimony

38. On November 15, 2005, the ALJ certified the Offer of Settlement to the Commission under Rule 602(h)(2)(ii) of the Commission's Rules of Practice and Procedure as a contested settlement.⁴² The ALJ found that the factual record of this proceeding for the purposes of his review consisted only of affidavits attached to the comments on the Settlement--the Yoho affidavit attached to the reply comments of the Indicated Shippers and the Aud affidavit attached to the initial comments of MichCon. The ALJ found that none of the pre-filed testimony had been offered or accepted into evidence and, therefore, did not constitute part of the record.⁴³ Nonetheless, he certified all pleadings, orders, and other documents of record in this proceeding to the Commission, as well as the Offer of Settlement and the comments on the Offer of Settlement.⁴⁴

39. The ALJ also certified ANR's motion for waiver of the initial decision to the Commission. The ALJ states that the parties waived the issuance of an initial decision,⁴⁵ but it is unclear whether he granted ANR's motion either in his *Certification* or at some time prior to the *Certification*.

⁴² 18 C.F.R. § 602(h)(2)(ii) (2005).

⁴³ *Certification* at P 40 citing 18 C.F.R. §§ 385.504-09 (2005); *Williams Natural Gas Co.*, 53 FERC ¶ 63,021 at 65,240 (1990).

⁴⁴ *Certification* at P 53.

⁴⁵ *Id.* at P 39.

40. In his Certification, the ALJ found there was nothing in MichCon's arguments⁴⁶ that established that genuine issues of material fact remained in dispute.⁴⁷ The ALJ recommended that the Commission approve the Offer of Settlement.

41. On December 23, 2005, ANR filed a motion with the Commission requesting that the Commission consider the pre-filed testimony if the Commission were to decide that there are genuine issues of material fact in dispute. ANR moved either that the Commission determine that it can consider the pre-filed testimony and exhibits of the parties or that the Commission accept into the record all pre-filed testimony and exhibits, other than testimony and exhibits stricken by the ALJ. ANR asserts the Commission can consider pre-filed testimony and exhibits in ruling on a contested settlement.⁴⁸ No party opposes ANR's motion.

II. Discussion

42. For the reasons discussed below, the Commission finds that this contested Settlement is just and reasonable and accordingly the Commission approves the Settlement without condition. Before discussing the merits of the Settlement, the Commission first considers certain procedural issues raised by the ALJ's certification of the Settlement and ANR's motion to waive an initial decision by the ALJ.

A. Procedural Issues

43. In order to approve a contested settlement, such as the instant Settlement, the Commission must make "an independent finding supported by 'substantial evidence on

⁴⁶ Specifically, in the MichCon Initial Comments and the Aud affidavit. *Certification* at P 50 and 52.

⁴⁷ The ALJ found that the issue of whether the 15° F HDP Safe Harbor is sufficient to protect MichCon's pipeline from liquid fallout had not been set for hearing. He found that the issue of the methodology to be used for calculating the HDP Safe Harbor was a policy question.

⁴⁸ ANR cites *CNG Transmission Corp. v. FERC*, 40 F.3d 1289, 1293 (D.C. Cir. 1993); *Moreau v. FERC*, 982 F.2d 556, 568 (D. C. Cir. 1993); *Koch Gateway Pipeline Co.*, 84 FERC ¶ 61,143 at pp. 61,770, 61,773-85 (1998); *Indicted Shippers v. Sea Robin Pipeline Co.*, 78 FERC ¶ 63,008 (1997); *Koch Gateway Pipeline Co.*, 74 FERC ¶ 61,088 (1996), *order on reh'g*, 75 FERC ¶ 61,132 (1996), *aff'd in part and rev'd in part sub nom. Exxon Corp. v. FERC*, 114 F.3d 1252 (D.C. Cir. 1997).

the record as a whole' that the proposal will establish 'just and reasonable' rates."⁴⁹ Consistent with this requirement, Rule 602(h)(1)(i) of the Commission's settlement rules provides that the Commission may decide the merits of contested settlement issues only if the record contains substantial evidence upon which to base a reasoned decision or the Commission finds that there is no genuine issue of material fact.

44. We do not agree with the ALJ that the issues raised by the parties contesting the instant Settlement are solely policy issues. While resolving the issues raised by the contesting parties requires consideration of various policy matters, the Commission must also decide material factual issues, such as the effects of the Safe Harbor on the safe operation of both ANR's system and the systems of downstream entities. However, the Commission finds that the record in the instant proceeding is sufficient to permit a reasoned resolution of all issues, including the issues of material fact.

45. ANR made an initial filing with information concerning the HDP level. Thereafter, the parties conducted discovery and filed, variously, direct, answering, cross answering, and rebuttal testimony. In addition, MichCon and the Indicated Shippers filed affidavits with their comments on the Settlement. The ALJ found, in certifying the Settlement to the Commission, that the record for consideration consists only of the comments on the Settlement and affidavits attached to these comments and excludes the pre-filed testimony and exhibits and other pleadings.⁵⁰ The Commission recognizes that, when an ALJ certifies a settlement before a hearing is completed, there may be due process concerns with the use of pre-filed testimony and exhibits that have not been subject to cross-examination.⁵¹ However, after the ALJ certified the instant Settlement,

⁴⁹ *Mobil Oil Corp. v. FERC*, 417 U.S. 283, 314 (1974). *Trailblazer Pipeline Co.*, 85 FERC ¶ 61,345 (1998).

⁵⁰ The testimony is pre-filed in the sense that it has been filed prior to a hearing.

⁵¹ Rule 602(h)(2)(iii), 18 C.F.R. §385.602(h)(2)(iii) (2005), which concerns contested settlements where there are genuine issues of fact, originally contained a requirement that "parties have an opportunity to avail themselves of their right with respect to the presentation of evidence and cross-examination of opposing witnesses." (*See Alternative Dispute Resolution*, Order No. 578, FERC Stats. & Regs., Regulations Preambles 1991-1996 ¶ 31,018 at 31,331 (April 12, 1995) Docket No. RM91-12-000 (Order No. 578).) The Commission revised Rule 602(h)(2)(iii) in Order No. 578 so that this requirement was eliminated. *Id.* Instead, the Commission determined in Order No. 578 that it would be subsumed within the requirement for substantial evidence. (*Id.* at 31,333-34.) The Commission explained that the presiding judge will have to

(continued)

ANR filed a motion that the Commission consider the pre-filed testimony and exhibits of the parties, and no party opposes that motion. Moreover, all parties have agreed that the ALJ's initial decision may be omitted. In light of the fact that no party objects to the Commission relying on the entire record developed in the proceeding before the ALJ, the Commission will decide the issues of material fact based on that record.

46. The Commission now turns to the merits of the issues raised by the contesting parties. The Commission first considers the policy issue of the extent to which ANR must consider conditions on downstream systems in setting the level of its Safe Harbor. The Commission then turns to whether the Settlement's 15° F CHDP Safe Harbor is supported by substantial evidence on the record.

B. To What Extent Must ANR Take Into Account Conditions on Downstream Systems in Setting a Safe Harbor HDP?

47. As discussed below, the Commission finds that, in determining a just and reasonable HDP Safe Harbor on an upstream pipeline such as ANR, one factor to be considered is whether the Safe Harbor will enable the upstream pipeline to make deliveries to downstream interconnects. However, as further discussed, the Commission clarifies that it did not intend in *Natural Gas II*⁵² to mandate that upstream pipelines' gas quality standards require that all gas received on their systems meet whatever gas quality standards any downstream entity may establish.

determine whether a party is entitled to present evidence and to cross-examine witnesses when the determination is made concerning whether the "record contains substantial evidence from which the Commission may reach a reasoned decision on the merits of the contested issues." [citation to Rule 602(h)(2)(iii)(B).] In this vein, the Commission emphasizes that substantial evidence pertains to the quality and not the quantity of the evidence; evidence elicited through cross-examination of witnesses may be necessary and appropriate in some instances but not in others.

Id. at 31,334.

⁵² 104 FERC ¶ 61,322 at P 50 (2003).

1. MichCon's and Aquila's Arguments

48. MichCon and Aquila argue that ANR must take into account operations on downstream systems in calculating a Safe Harbor HDP. They argue that ANR is required to meet the market and gas quality standards of LDCs and others who are actually supplying gas for end users, not just transporting gas in interstate commerce. They rely on *Natural Gas II*,⁵³ *The Toca Producers v. Southern Natural Gas Company*,⁵⁴ and *ANR Pipeline Company*.⁵⁵ MichCon and Aquila assert the Commission should reject the 15° F Safe Harbor dewpoint because ANR did not take into account the operations of downstream pipelines and LDCs in calculating it.⁵⁶

49. MichCon and Aquila assert their systems are subject to extreme cold temperatures in the winter and that unprocessed natural gas would adversely affect their ability to provide uninterrupted supplies to their customers. Based on MichCon's testimony and analysis of its own system, Aquila is concerned that the 15° F CHDP Safe Harbor is inadequate to prevent hydrocarbon fallout and to assure that gas will be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end-users, local distribution companies, and others. To the contrary, Aquila argues that the 15° F CHDP Safe Harbor will result in liquid fallout for MichCon, Aquila, and others. MichCon asserts ANR states in the Offer of Settlement that the proposed CHDP Safe Harbor of 15° F "represents a reasonable compromise between the litigation positions of both producer and downstream consumer interests and strikes the appropriate balance for the ANR system."⁵⁷ But MichCon asserts it is inappropriate to attempt to balance the

⁵³ 104 FERC ¶ 61,322 at P 49-50 (2003).

⁵⁴ 104 FERC ¶ 61,300 at P 36 (2003).

⁵⁵ 108 FERC ¶ 61,323 at P 5 (2004).

⁵⁶ MichCon cites an ANR discovery response stating that

ANR generally does not have information regarding third party systems downstream of delivery meter stations and therefore it did not take into consideration such factors in its analysis of the 15° F safe harbor. The proposed tariff provisions were based upon the analysis of the ANR system, including ANR's delivery meter stations.

Exhibit A at P 10 and Attachment 2 at 3, MichCon's Comments.

⁵⁷ Offer of Settlement at 11.

monetary interests of producers, on the one hand, and the safety of the public, on the other hand. MichCon also asserts that the CHDP Safe Harbor proposed by ANR will unreasonably shift costs related to the handling and disposal of the hydrocarbon liquids from the producers to the downstream parties receiving the gas. MichCon asserts this is clearly contrary to Commission policy.⁵⁸

50. Aquila is also concerned that the proposed OFO authority for lowering the CHDP Safe Harbor is too limited. Aquila asserts that the Settlement provides only for lowering the CHDP Safe Harbor in order to avoid an event that threatens the operational integrity of ANR's system.⁵⁹ Aquila asserts that this provision contravenes the Commission's order that the purposes of the HDP limit are, among others, "to assure that gas will be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end-users, local distribution companies, and others,"⁶⁰ as well as similar statements in *Natural Gas II* and *Toca*.

51. Aquila accordingly asserts that section 2.4 of the Settlement should be revised to provide:

ANR may post an HDP limitation below the Hydrocarbon Dewpoint Safe Harbor only through the issuance of an OFO necessary to avoid an event that threatens the operational integrity of ANR's system, end-users, local distribution companies, and others, as set forth in the Settlement Sheets. (underlined words added by Aquila)

⁵⁸ Citing *Natural Gas II*, 104 FERC ¶ 61,322 at P 56, 57 (2003); *Northwest Pipeline Corporation*, 71 FERC ¶ 61,253 (1995) (noting the Commission's long-standing policy requiring that cost shifts be minimized).

⁵⁹ Aquila cites section 2.4 of the Stipulation and Agreement at 4: "ANR may post an HDP limitation below the Hydrocarbon Dewpoint Safe Harbor only through the issuance of an OFO necessary to avoid an event that threatens the operational integrity of ANR's system, as set forth in the Settlement Sheets."

⁶⁰ Aquila cites the September 30 Order, 108 FERC ¶ 61,323 at P 5.

52. Aquila also requests that the Settlement Sheet, Original Sheet No. 117.01, be revised to include not only ANR's operational integrity, but the operational integrity of end-users, LDCs, and others.⁶¹

2. Peoples' Arguments

53. Peoples supports the Settlement, but submitted comments regarding the consideration of downstream systems. Peoples asserts the Commission previously found it is appropriate to consider the requirements of downstream pipelines, including LDCs.⁶² Peoples asserts that in establishing an HDP Safe Harbor, ANR should consider not just its own system integrity, but also whether the gas will cause safety and operational problems downstream. Peoples asserts it is not in the public interest for gas to flow into ANR's system only to have downstream entities forced to decline to confirm the gas to flow into their systems because of operational problems. Peoples states it supports the Settlement because it believes the record shows that the 15° F CHDP Safe Harbor is sufficient not only to protect ANR's system from liquid fallout, but also to prevent ANR deliveries to Peoples' LDC systems from causing liquid fallout on these LDC systems. Peoples states it agrees with Aquila that the Commission must give serious consideration to the Settlement's impact on downstream pipelines and end users, but that Peoples does not believe that serious consideration means that a given downstream pipeline's or end user's opposition should, by itself, prevent adoption of a reasonable standard for an upstream pipeline.

⁶¹ The Commission understands Aquila to suggest that section 8.9 on Sixth Revised Sheet No. 117 and Original Sheet No. 117.01 should read as follows, where the underlined words are supplied by Aquila:

With respect to an OFO that sets a Hydrocarbon Dewpoint limit below the . . . Safe Harbor, Transporter shall post . . . a notice identifying the operational event giving rise to the OFO with specificity, identifying the point(s) where the operational event threatened Transporter's operational integrity or the operational integrity of end-users, local distribution companies, and others, identifying specific points upstream of the Hydrocarbon Dewpoint Problem(s) and HDP Segments of Transporter's System affected by the OFO.

⁶² Peoples cites *Natural Gas I*, 102 FERC ¶ 61,234 at P 38 (2003) and *Natural Gas II*, 104 FERC ¶ 61,322 at P 50.

3. ANR and Producer Arguments

54. ANR asserts an HDP Safe Harbor is not intended and cannot be required to take into account each and every operational requirement on downstream LDC systems and prevent all possibility of liquids dropping out on such systems. ANR states: “Once the gas is delivered to downstream LDCs or end users, it is the responsibility of such downstream entities to protect their own systems from liquids dropout.”⁶³ Otherwise, ANR asserts, it would have to use the worst-case scenario of any part of the system of any downstream LDC or end user like the small farm taps on MichCon’s system. ANR and Aux Sable assert ANR should not be required to set an HDP Safe Harbor based on conditions on MichCon’s system. They assert this would allow the operating conditions on unheated farm taps in Michigan to determine the level of the Safe Harbor. Aux Sable asserts farm taps on MichCon’s system at which fallout might occur represent, at most, two tenths of one percent of ANR’s average daily gas deliveries. ANR asserts that if MichCon is concerned that the Safe Harbor will result in higher HDP gas entering its system, and may increase the risk of liquid fallout on its system, it should take measures to protect its facilities, such as installing line heaters or liquid separation equipment. ANR asserts that, in any event, MichCon has not experienced liquid drop out on its system, even at its farm taps, as a result of gas delivered by ANR.⁶⁴ ANR and Aux Sable also assert that setting the Safe Harbor HDP on ANR based on conditions at MichCon’s farm taps would unnecessarily restrict the supply of gas to the interstate market.⁶⁵

55. The Producer Coalition asserts neither *Natural Gas* nor *Toca* holds that an interstate pipeline must adjust its HDP Safe Harbor to the operating conditions on downstream LDCs. The Producer Coalition asserts that the ruling in *Natural* is limited to downstream interstate pipelines and only requires that a pipeline has the right to require producers to meet gas quality standards that ensure that the pipeline is able to deliver gas that conforms to the standards of downstream interstate pipelines.⁶⁶ Aux Sable asserts that the Commission should not accept the tariff revision proposed by Aquila. Aux Sable asserts that extending the coverage of ANR’s OFO provision to events that affect “end-users, local distribution companies and others”⁶⁷ would require ANR to protect the

⁶³ ANR Reply Comments at 5.

⁶⁴ Citing MichCon Aud Rebuttal at 7.

⁶⁵ Aux Sable cites ASL-5 at 14.

⁶⁶ Citing *Natural Gas II*, 104 FERC ¶ 61,322 at P 42-53.

⁶⁷ Citing Aquila Comments at 4-5.

safety of other systems and that ANR cannot monitor or guarantee the operational integrity of any system other than its own. Aux Sable asserts that end users must be responsible for operational problems on their own systems and that, if necessary, they can refuse to accept gas from ANR.

4. Commission Decision

56. As the Commission stated in *Natural II*, a fundamental goal of Commission policy since Order No. 436 has been to encourage development of a seamless interstate pipeline grid, so that “willing buyers and sellers can meet in a competitive national market to transact the most efficient deals possible. As the House Committee Report to the Decontrol Act stated: ‘All sellers must be able to reasonably reach the highest-bidding buyer in an increasingly national market. All buyers must be free to reach the lowest selling producer and obtain shipment of its gas to them on even terms with other suppliers.’”⁶⁸ ANR and all pipelines transport gas in the public interest. Therefore, an important consideration when an upstream pipeline establishes gas quality standards, including Safe Harbor provisions such as are at issue here, is the ability of downstream entities to accept the gas the upstream pipeline will be delivering to them.

57. However, to the extent that *Natural II* may be read as establishing a policy that upstream pipelines must establish gas quality standards that enable them to satisfy whatever gas quality standards any downstream entity may establish for its system, the Commission no longer believes such a policy is appropriate. Obviously, the Commission is concerned that all pipeline and LDC systems operate in a safe and efficient manner, and such safe operations require control of liquid fallout. ANR and downstream systems are under certificate and/or legal requirements to operate their systems in a safe and reliable manner. However, the potential for liquid fallout varies depending upon local conditions. For example, low ambient temperatures are a primary cause of liquid fallout. Thus, the colder the climate a system passes through the more likely liquid fallout will be

⁶⁸ Order No. 636, Pipeline Service Obligations and Revisions to Regulations Governing Self Implementing Transportation Under Part 284 of the Commission's Regulations, and Regulation of Natural Gas Pipeline After Partial Wellhead Decontrol, FERC Stats. & Regs., Regulations Preambles January 1991-June 1996 ¶ 30,939 at 30,393, citing, H.R. Rep. No. 29, 101st Cong., 1st Sess., at 6 (1989).

a problem. Moreover, even when a system is located in a cold climate, it may be built mostly below the frost line, such that only minor parts of it are exposed to low temperatures.⁶⁹

58. In addition, there are methods for preventing liquid fallout once gas has been processed to a pipeline's HDP or CHDP Safe Harbor limits. For example, heaters may be installed to ensure that the temperature of the gas stream in those parts of the system that experience low ambient temperatures remains high enough to control liquid fallout.⁷⁰ There are also ways to remove liquids that do fall out from the pipeline.⁷¹

59. In these circumstances, the Commission finds it would be inappropriate to, in essence, allow a single downstream entity, with special needs, to dictate the gas quality standards that all gas entering the upstream pipeline system must meet. Such an approach of basing upstream gas quality standards on the worst case downstream scenario could lead to adverse consequences, contrary to the Commission's fundamental goal of encouraging the development of a seamless interstate pipeline grid, so that "willing buyers and sellers can meet in a competitive national market to transact the most efficient deals possible."⁷² First, processing gas can be expensive. Therefore, it may well be more efficient to address the special needs of a few downstream entities through such strategies as the installation of heaters, rather than requiring that all gas entering the upstream pipeline's system be subject to more expensive processing than is necessary for the safe operation of the vast bulk of the interstate systems through which the gas will flow.

60. Second, the worst case downstream scenario approach could result in less gas commodity available for the interstate market. MichCon's rebuttal is that, taken as a total energy market, there will not be an incremental addition to the energy market by permitting ANR to transport higher HDP gas. We disagree. The additional costs of

⁶⁹ Sections 2.4.2-2.4.3, White Paper [MC-2]; Aux Sable Cross Answering Horner at 7:21-23; 8-9 [ASL-5]; [Dominion East Ohio Temperature Data] [ASL-15].

⁷⁰ Sections 2.4.6, 2.4.8, and 3.3, White Paper [MC-2]; Transmittal Letter at 11 and Exhibit H, August 2, 2004 filing; Aux Sable Cross Answering Horner at 19:22-23-20:1 [ASL-5]; Producer Coalition Direct and Answering Doering at 15:16-20-16:1-3 [PC-1]; MichCon Aud Rebuttal at 8:16-23-9:1-7 [MC-10].

⁷¹ Sections 1.4.6-1.4.8, White Paper [MC-2]; ANR Reply Comments at 12

⁷² Order No. 636, ¶ 30,939 at 30,393.

processing all gas supplies to meet a least-common denominator CHDP standard would reduce total supplies available to the market. Not only will processing decrease the total heating value of processed gas, but the additional costs will increase producers' marginal cost of production. These increased marginal costs will lead to economic decisions to stop production from low-productivity, high-cost supplies.

61. Third, the worst case downstream scenario approach could decrease pipeline throughput. Decreased throughput, under some circumstances, reduces operational flexibility to offer transportation by displacement and exchange. Thus, in this case the Commission will not allow extraordinary conditions at a few downstream locations, such as MichCon's unheated farm taps, to dictate the gas quality requirements that all shippers on the ANR system must meet.

62. ANR and the producers do agree that ANR must consider its ability to make deliveries at its interconnects with downstream systems, but that ANR is not responsible for operating conditions on downstream systems and need not consider operating conditions on downstream systems when setting the Safe Harbor CHDP for ANR's system. The Commission accordingly finds that in setting a Safe Harbor CHDP, ANR must choose a level that assures that it can make deliveries to downstream customers and that gas will be accepted for delivery at the interconnects with those customers. ANR must consider conditions at those interconnects when setting the Safe Harbor CHDP. ANR's tariff requires as much.⁷³ However, the Commission agrees with ANR and the producers that LDCs and other downstream systems are responsible for the operating conditions on their systems.

63. MichCon's and the LDCs' reliance on *Toca* is misplaced. In *Toca*, producers filed a complaint seeking, among other things, an HDP Safe Harbor on Southern Natural Gas Company (Southern). Southern had an objective specific quality specification in its tariff that gas delivered to Southern must not contain more than 0.30 gallons per Mcf of isopentane and heavier hydrocarbons. The Commission found the complaint raised no genuine issues of material fact as to whether Southern's existing tariff was unjust or unreasonable or unduly discriminatory. It also found that there was no evidence that the existing tariff was unjust or unreasonable or unduly discriminatory. In response to the producers' request for an HDP Safe Harbor, the Commission found there was no hard data that would guarantee that imposition of such a measure would protect the Southern system and its downstream customers from liquid fallout. The Commission dismissed

⁷³ Pro forma Section 13.3, Third Revised Sheet No. 131, Appendix A, Stipulation and Agreement. Similar language is also located in the currently effective Section 13.2(a) on Second Revised Sheet No. 130.

the complaint. There is nothing in *Toca* that requires a pipeline to set an HDP Safe Harbor at a level determined by the operating conditions on downstream LDCs. The *Toca* order simply affirms that the existing heavy hydrocarbon provisions in Southern's tariff were just and reasonable.

64. The Commission rejects the tariff revision proposed by Aquila that would allow ANR to issue an OFO reducing the CHDP limitation below the CHDP Safe Harbor to avoid an event that threatens the operational integrity of end-users, local distribution companies, and others, as well as of ANR's system. ANR is responsible for the operational integrity of its own system, but not for the operational integrity of downstream systems. That is the responsibility of the downstream systems. The September 30 Order does not require such a provision, contrary to Aquila's assertions.⁷⁴ The portion of the September 30 Order Aquila cites recites a tariff provision that was proposed by ANR at that time in section 13.2(a).⁷⁵ As then proposed and conditionally accepted in the September 30 Order, section 13.2(a) addresses only the ability to set CHDP limits to assure that gas will be accepted for delivery into interconnects with LDCs and others. It does not address setting limits to correspond to or ameliorate operating conditions on LDCs and other systems. In addition, under its already approved tariff, ANR may only issue an OFO to protect the operational integrity of its pipeline system, not that of other entities.⁷⁶

C. Whether the 15° F Safe Harbor Dewpoint is Appropriate

65. The Commission now turns to a consideration of whether the Settlement's 15° F CHDP Safe Harbor is supported by substantial evidence in the record. It is undisputed that the CHDP of a gas stream is an appropriate means of determining whether that gas may be accepted onto a system without a significant danger of damaging liquid fallout. As discussed earlier in this order, the CHDP of a particular gas stream is the maximum temperature at which liquids may condense from that gas stream under the varying pressures to which the gas stream may be subject. So long as the CHDP of gas flowing on a pipeline system is lower than the lowest temperatures that the gas is likely to reach during its transit of the pipeline, liquid fallout should not be a problem.

⁷⁴ September 30 Order, 108 FERC ¶ 61,323 at P 5.

⁷⁵ Second Revised Sheet No. 130, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

⁷⁶ Sections 8.1 – 8.3, Fourth Revised Sheet No. 114 and Original Sheet No. 115, ANR Pipeline Company, FERC Gas Tariff, Second Revised Volume No. 1.

66. Thus, determining the appropriate CHDP Safe Harbor for ANR's system involves, in essence, determining the lowest temperatures that gas flowing on ANR's system (and downstream systems) is likely to reach. This requires considering not only ambient temperatures in the ground surrounding ANR's pipeline,⁷⁷ but also the likely pressure drops that may occur, for example when gas is delivered at interconnects. That is because, at typical pipeline operating pressures, a decrease in pressure of 100 psi results in a decrease in gas temperature of 7° F.⁷⁸ Such pressure drops also reduce the temperature necessary to maintain the gaseous state, *i.e.*, the pressure drops move the gaseous phase to lower point on the HDP curve. The drop in temperature is represented by a straight line called the Joule-Thomson (J-T) line.⁷⁹ The J-T line is drawn tangent to the HDP curve. Volumes with temperature/pressure points to the right of the J-T line will not experience liquid drop out no matter how large the decrease in pressure. Volumes with temperature/pressure points to the left of the J-T line will experience liquid drop out if the pressure decreases far enough. Examples of the J-T line can be seen in Appendix C in [ANR-8].⁸⁰

67. In this section, the Commission finds that ANR's method of deriving a CHDP Safe Harbor by using representative temperatures and pressures was reasonable. It finds ANR's 15° F CHDP Safe Harbor is supported by its analyses of unheated interconnects showing that liquid drop out would not occur with a 15° F CHDP Safe Harbor under expected operating conditions. The Commission finds further that the opposing parties have not shown that lower CHDP Safe Harbors are necessary. The Commission finds, however, that ANR's CHDP Safe Harbor may need to be reevaluated in the future, depending on changing conditions.

⁷⁷ Pipeline facilities are generally underground, making ambient ground temperatures generally more relevant than ambient air temperatures. However, there may be some places where the pipeline is above ground, and this can require some consideration of ambient air temperatures as well.

⁷⁸ ANR Anderson Direct at 5 [ANR-4].

⁷⁹ *Id.*, Appendix B.

⁸⁰ In Appendix C, *see* "Figure 1. ANR – MichCon Interconnects "Candidate HDP Curves" [ANR-8].

1. MichCon's Arguments

68. MichCon asserts ANR's proposed CHDP Safe Harbor of 15° F should be rejected because it will not prevent hydrocarbon liquid fallout on ANR's system.⁸¹ It asserts that ANR did not follow the method in the White Paper and derived a Safe Harbor CHDP that is too high.

69. MichCon asserts the White Paper instructs a pipeline to calculate the lowest flowing temperature on the pipeline, together with corresponding pressure reductions, to determine whether hydrocarbon liquids are likely to fall out in the pipeline.⁸² MichCon asserts that,⁸³ instead, ANR calculated its 15° F CHDP Safe Harbor based on an arbitrarily selected temperature of 40° F and an arbitrarily selected system pressure

⁸¹ Citing Attachment 3, Exhibit A, MichCon Comments. Attachment 3 is the Direct and Answering Testimony of Jennie Aud [MC-1]

In MichCon's Comments, the accompanying materials are as follows: Exhibit A, Affidavit of Jennie Aud (October 20, 2005); Attachment 1 to Exhibit A, ANR Pipeline Company Customer Index; Attachment 2 to Exhibit A, Data Request 2-1 of MichCon to ANR (January 4, 2005) and ANR response; Attachment 3 to Exhibit A, Direct and Answering Testimony of Jennie Aud on Behalf of Michigan Consolidated Gas Company [MC-1] and accompanying materials consisting of (1) White Paper [MC-2], (2) The Michigan Consolidated Gas Company Operating Statement (April, 2004) [MC-3], (3) responses of the Producer Coalition to January 4, 2005 discovery request of MichCon [MC-4], (4) Hydrocarbon Dewpoint Summaries for Willow Delivery and Bluepoint Delivery to MichCon [MC-5], (5) Representative 15 ° and 0 ° HDP Dewpoint Curves with J-T Lines [MC-1.e, also MC-6], (6) Rebuttal Testimony of Jennie Aud [MC-10]; Attachment 4 to Exhibit A, Supplemental Data Requests 1-1 and 2-1 of the Producer Coalition to ANR and accompanying responses, but with graphs omitted (for graphs, see [ANR-7]); and Exhibit B, proposed tariff revision to third Revised Sheet No. 131 providing that gas delivered in Northern Segment (ML-7) will have an HDP equal to or less than zero degrees Fahrenheit.

⁸² Citing Appendix B, White Paper. The White Paper is attached to Attachment 3, Exhibit A, MichCon's Comments [MC-2].

⁸³ Citing Exhibit A at P 8, Attachment 3 to Exhibit A at 13-16, MichCon's Comments; Direct Testimony of Scott G. Zersen on Behalf of ANR Pipeline Company at 11-12 [ANR-1].

reduction of 300 pounds per square inch (psi).⁸⁴ MichCon asserts ANR has actually experienced flowing gas temperatures as low as -8 ° F in Michigan and pressure reductions as large as 975 psi in Michigan and other states.⁸⁵ MichCon indicates that the 15° F CHDP Safe Harbor is thus based on a flowing gas temperature that is too high and pressure reductions that are too low and that, thus, hydrocarbon liquid fallout will occur at the 15° F level.

70. MichCon asserts that ANR used the White Paper methodology in response to discovery requests. MichCon asserts ANR calculated CHDP levels of -14 ° F and -59 ° F in its responses. It asserts that when ANR only took into consideration the maximum system pressure drops on its own system of 250 psi and ignored pressure drops at delivery meters, ANR calculated that the appropriate CHDP Safe Harbor level for ANR would be -14 ° F.⁸⁶ MichCon asserts that when ANR used the White Paper methodology and took into consideration all system pressure drops, ANR calculated that the appropriate CHDP Safe Harbor level for ANR would be -59 ° F.⁸⁷ MichCon asserts ANR's analyses indicate a high probability of liquid fallout on ANR's system if the CHDP is set at 15° F or higher.

2. ANR and Producer Arguments

71. ANR asserts the procedures for posting CHDP limitations rather than the CHDP Safe Harbor are intended to prevent liquid fallout. The purpose of the CHDP Safe Harbor, it asserts, "is to provide a high degree of certainty to shippers that deliver gas into the ANR system that their gas will flow."⁸⁸ In any event, ANR asserts that it correctly applied the procedures in the White Paper and that 15° F is an appropriate level for the Safe Harbor CHDP.

⁸⁴ All references to pressure in this order are to pounds per square inch.

⁸⁵ Citing Exhibit A at P 8; Attachment 4 to Exhibit A at 1, 3, MichCon's Comments. (Attachment 4 consists of data requests from the Producer Coalition to ANR in which ANR calculated HDP for conditions on ANR's system.)

⁸⁶ Citing Exhibit A at P 9; Attachment 4 to Exhibit A at 2, MichCon's Comments.

⁸⁷ Citing Attachment 4 to Exhibit A at 4, MichCon's Comments.

⁸⁸ ANR Reply Comments at 6 *citing Natural Gas I*, 102 FERC ¶ 61,234 at P 32 (2003) ("[W]e shall require Natural to adopt a 'safe harbor' dewpoint provision to accommodate shipper concerns over the ability of gas to flow on Natural's system.").

72. ANR asserts that its witness Zersen correctly followed the general methodology in the White Paper to derive the 15° F Safe Harbor in using representative temperatures and pressures to establish a system-wide Safe Harbor.⁸⁹ ANR asserts it is not appropriate to use the lowest flowing temperature and highest pressure drop that occurred at any location for the purpose of establishing a system-wide HDP Safe Harbor in the White Paper method.

73. ANR asserts that, once a CHDP limit is chosen, it is appropriate to use the lowest flowing temperature and coincident pressure to test that limit for a specific area. ANR and Aux Sable state that Mr. Zersen tested the lowest flowing temperature and coincident pressure on the MichCon interconnects by analyzing the one MichCon interconnect that has no heater. They assert that plotting the lowest temperature and coincident pressure on a graph with the 15° F Safe Harbor and corresponding hydrocarbon dewpoint curve showed there was no liquid dropout at this meter, even with a pressure drop of 392 psi.⁹⁰ Aux Sable further concludes that since, in its opinion, MichCon will not experience fallout at the one delivery point without a heater, MichCon will not experience fallout at the other MichCon delivery points, which do have heaters.⁹¹

74. The Producer Coalition asserts substantial evidence shows that the 15° F CHDP Safe Harbor “will reliably prevent drop out under most, if not all, operating conditions on ANR’s system.”⁹² The Producer Coalition and BP Energy assert there have been no threats to ANR’s system over the past twenty-one months from liquid drop out. It states that during this period, ANR had a 20 to 25° F CHDP limit in effect from February 1, 2004 through October 31, 2004 by OFO and a 15° F CHDP Safe Harbor in effect from November 1, 2004 through October 31, 2005 by its tariff. The Producer Coalition also asserts that the method used to arrive at ANR’s Safe Harbor was reasonable and that, in the event of an emergency, ANR can issue an OFO setting a CHDP limit below 15° F.

⁸⁹ *Citing* Rebuttal Testimony of Scott G. Zersen at 10-11[ANR-5].

⁹⁰ *Citing* ANR Zersen Rebuttal at 10-11 [ANR-5] and attached “ANR-MichCon Metering Facilities” at 1-4 [ANR-8].

⁹¹ Aux Sable asserts MichCon has line heaters at fifteen out of sixteen of its delivery points with ANR.

⁹² Producer Coalition Reply Comments at 8.

75. Aux Sable asserts that a 15° F CHDP Safe Harbor will not result in hydrocarbon liquid fallout on MichCon's system because MichCon has not experienced any problems on its system related to this phenomenon.⁹³ Aux Sable asserts that MichCon has accepted substantial quantities of gas from ANR during the winter with a CHDP higher than zero degrees Fahrenheit and up to twenty degrees Fahrenheit⁹⁴ with no liquid dropout.

76. Aux Sable also asserts that ANR's 15° F CHDP Safe Harbor is reasonable because when the temperature decreases below the CHDP of 15° F, the pressure at which liquid fallout occurs also decreases. Aux Sable asserts that if the pressure is lowered to 100 psi, the temperature at which liquids can fall out is approximately 2° F for gas with a CHDP of 15° F.⁹⁵

77. The Producer Coalition asserts that the Commission should reject what it calls MichCon's lowest common denominator approach. The Producer Coalition asserts MichCon used data on extreme conditions unlikely to occur on ANR's system.⁹⁶ It asserts that MichCon's approach would set the CHDP Safe Harbor for ANR's system based on the lowest operational temperature reading recorded on any interconnected downstream LDC or, alternatively, on CHDP limits set by downstream LDCs, state commissions or end users on the gas to be received from ANR.

78. ANR asserts that the Safe Harbor CHDP should not be -14° F or -59° F. ANR asserts that these figures resulted from White Paper analyses in which its witness Zersen used the lowest temperatures in three states and the lowest, not the coincident, pressures

⁹³ Aux Sable cites Cross-Answering Testimony of W. Norval Horner at 3 [ASL-5], MichCon Response to ASL Data Request 1-14 [ASL-7].

⁹⁴ Aux Sable cites ASL Horner Cross-Answering at 3-4 [ASL-5], MichCon Response to Data Request 24 [ASL-8], and Hydrocarbon Dewpoint Summaries for Willow Delivery and Bluelake Delivery to MichCon at 2 [MC-5].

⁹⁵ Aux Sable cites ASL Cross-Answering Horner at 9-10 [ASL-5], Representative 15° F and 0° F HDP Dewpoint Curves with J-T Lines [MC-6], ANR Zersen Rebuttal at 5 [ANR-5], and 15 Degrees Fahrenheit "Candidate HDP Curve" [ANR-6].

⁹⁶ The Producer Coalition cites ANR Zersen Rebuttal at 11 [ANR-5], ANR Phase Diagrams [ANR-8], and MichCon Phase Diagrams [MC-6].

that occurred at the lowest temperatures.⁹⁷ ANR asserts that, for example, Mr. Zersen performed the White Paper methodology in the analyses by using the lowest temperature of -8° F experienced in the winter in Michigan with an operating pressure of 975 psi that coincided with the -8° F temperature. However, ANR states, Mr. Zersen used a pressure drop of 850 psig in the analyses, which represented the non-coincident maximum pressure reduction that could occur anywhere in Michigan.

79. Aux Sable also asserts Safe Harbor CHDPs of -14° F or -59° F are not necessary. It argues there will be no hydrocarbon liquid fallout as long as the gas stream has a temperature above 15° F, and that the gas stream on ANR's system, and on the downstream LDC systems as well, has a temperature above this level. It states that the lowest monthly average flowing gas temperature on ANR's system was 34° F in northern Wisconsin during the years 2002-2004.⁹⁸ Aux Sable asserts that the -8° F gas temperature⁹⁹ is not representative of flowing gas temperatures, but rather results from above-ground measurements taken when gas is briefly exposed to cold ambient air temperatures or is a measurement error.¹⁰⁰ Aux Sable asserts its analysis of data for Dominion East Ohio's twenty coldest points of measurement showed that normal winter flowing gas temperatures were almost always above 25° F and argues that MichCon's primary service area, which is slightly north of Dominion East Ohio's, can be expected to have similar or slightly lower gas temperatures.¹⁰¹ Aux Sable also argues that a large part of the gas transported by ANR comes from outside the Gulf of Mexico and is naturally lean, so that it has a CHDP well below 10° F.¹⁰²

⁹⁷ Citing ANR Zersen Rebuttal at 10 [ANR-5] and attached "ANR Pipeline Company, Docket No. RP04-435-000, June 16, 2005 Data Request [and related material] [ANR-7]" at 1-12.

⁹⁸ Aux Sable cites ANR Filing of August 2, 2004 at 41, "ANR Pipeline System-Monthly Average Gas Temperature [ANR-2].

⁹⁹ "ANR Pipeline Company, Docket No. RP04-435-000, June 16, 2005 Data Request [and related material] [ANR-7]" at 1, 3, 5-6, and 9.

¹⁰⁰ Aux Sable cites ASL Horner Cross-Answering at 8-9 [ASL-5].

¹⁰¹ Aux Sable cites ASL Horner Cross-Answering at 8-9 [ASL-5] and charts of temperature measurements at twenty Dominion East Ohio locations [ASL-15].

¹⁰² Aux Sable cites Direct Testimony and Answering Testimony of Norval Horner at 11-12 [ASL-1].

3. Commission Decision

80. The opposing parties raise several issues of fact in this set of issues. To resolve these issues, the Commission turns to the record.

a. ANR's Testimony on the HDP Safe Harbor

81. ANR filed the following testimony concerning its proposed 15° F CHDP Safe Harbor. ANR testified that when the temperature of natural gas falls below the HDP temperature, hydrocarbon liquids begin to form or fall out in the pipeline.¹⁰³ Hydrocarbon liquids that accumulate in the pipeline and move downstream create a potential public safety hazard to the pipeline, end users, and residences and recovery is a long term process for the pipeline.¹⁰⁴ To prevent liquid fallout, the HDP of the gas must stay below the actual flowing gas temperature.¹⁰⁵

82. ANR testified that approximately two thirds of the gas delivered to ANR is gas supply attached to the ANR system in the Southwest and Mid-Continent areas and gas delivered into ANR's pipeline in the market areas such as that coming from Canada. These supplies have historically not presented any significant liquid fallout concerns for ANR because these supplies have been processed before delivery to ANR.¹⁰⁶ ANR testified that approximately one-third of the gas on ANR's system originates in the Gulf of Mexico and is transported on ANR's Southeast System. This gas tends to be extremely rich in hydrocarbon liquefiabiles.¹⁰⁷ ANR testified that there are four processing plants in the production area of the Southeast System, Eunice, Lowry, Calumet, and Pelican,¹⁰⁸ two of which are owned by an affiliate, El Paso Field Services.¹⁰⁹ The ANR system downstream of the Eunice processing plant that transports the Gulf of Mexico supply is a single phase system, that is, it is designed to accommodate

¹⁰³ ANR Anderson Direct at 5 [ANR-4].

¹⁰⁴ ANR Zersen Direct at 5 [ANR-1]; Exhibit M, August 2, 2004 filing.

¹⁰⁵ *Id.* at 6 [ANR-1].

¹⁰⁶ ANR Anderson Direct at 6 [ANR-4].

¹⁰⁷ *Id.*

¹⁰⁸ Exhibit C, Filing of August 2, 2004.

¹⁰⁹ Responses to March 18, 2005 Data Requests at 1-2 [ASL-2].

gas only, not liquids.¹¹⁰ ANR's pipeline system is not equipped to handle the amount of liquids that would fall out if the majority of gas coming from the Gulf of Mexico was not processed.¹¹¹

83. ANR's witness Zersen testified that he used the process outlined in Appendix B of the White Paper generally to establish a system-wide HDP Safe Harbor.¹¹² He testified that in using this method it is not appropriate to use the lowest temperature on the entire system and the largest pressure reduction on the system. He stated that Step 6 of Appendix B of the White Paper requires the use of the lowest temperature and *coinciding* (emphasis in original) highest pressure of flowing gas.

84. ANR's witness explained the choice of the 15° F CHDP Safe Harbor as follows. ANR based this figure primarily on its system operations.¹¹³ Its foremost concern was to ensure the safety and integrity of its operations.¹¹⁴ But he testified ANR also took into consideration the interests of its customers—ANR sought to provide a degree of certainty to producers and provide them with reasonable access to ANR's pipeline and it also sought to protect the integrity of ANR's and its downstream customers' facilities and provide reliable service to its downstream customers.¹¹⁵ ANR explained that while the Safe Harbor that it proposed was the result of a formula applied to chosen parameters, "it is also the result of reasoned judgment based on ANR's knowledge and experience as the operator of its system over many years."¹¹⁶

85. ANR did not propose a Safe Harbor based on the extreme end of its operating range, and so did not use the lowest flowing gas temperatures or the lowest monthly

¹¹⁰ ANR Zersen Direct at 5 [ANR-1].

¹¹¹ *Id.* at 8; Exhibits D, J, and N, August 2, 2004 filing (showing total liquids storage capacity on Southeast System divisions as 238,700 gallons and average daily removal of liquids by three processing plants at or upstream of Eunice on the Southeast System as 1,421,002 gallons).

¹¹² ANR Zersen Rebuttal at 10-11 [ANR-5].

¹¹³ ANR Zersen Direct at 13 [ANR-1]; Filing of August 2, 2004 at 11;

¹¹⁴ ANR Zersen Rebuttal at 3 [ANR-5]s.

¹¹⁵ ANR Zersen Direct at 13; Filing of August 2, 2004 at 11;

¹¹⁶ ANR Zersen Rebuttal at 3 [ANR-5].

average flowing gas temperatures.¹¹⁷ ANR testified the monthly average flowing gas temperatures on ANR in its primary market areas range from approximately 37° F to 70° F degrees Fahrenheit in the summer and from 34° F to 57° F in the winter.¹¹⁸ ANR determined, based on its analysis of its system that ANR could calculate the Safe Harbor dewpoint using 40° F because it was representative of the actual flowing mainline low temperatures on many days during the year and was appropriate from an operational and safety standpoint.¹¹⁹ In addition, ANR believed that the 40° F figure was supported by the fact that during peak times when ANR is experiencing the coldest flowing temperatures, the pipeline's line pack and capacity are such that large pressure reductions are less likely to occur. In addition, ANR has included a safety margin of four degrees which provides a cushion to address potential temperature readings below 40 degrees Fahrenheit.¹²⁰

86. The temperature of gas also varies with changes in pressure. At typical pipeline operating pressures, a decrease in pressure of 100 psi results in a decrease in gas temperature of 7° F.¹²¹ ANR testified that gas on ANR's mainline transmission system is typically transported at pressures ranging from approximately 450 – 975 pounds per square inch gauge (psi).¹²² There are five locations in the market area where pressure is reduced by up to 250 psi for purposes of optimization and synchronization of system operations.¹²³ In addition, there are pressure drops at the delivery meter stations. ANR has a total of 414 delivery meter stations downstream of the processing plants. Of these, 385 have pressure control regulators and an average pressure drop of 431 psi.¹²⁴

87. With respect to pressure drops, ANR used a representative figure for meters without heaters. It determined that there were 78 meters that did not have heaters and

¹¹⁷ *Id.* at 4.

¹¹⁸ ANR Anderson Direct at 4 [ANR-4]; Exhibit E, August 2, 2004 filing.

¹¹⁹ ANR Zersen Rebuttal at 4 [ANR-5].

¹²⁰ *Id.*.

¹²¹ ANR Anderson Direct at 5 [ANR-4].

¹²² *Id.*.

¹²³ *Id.*; Exhibit G, August 2, 2004 filing.

¹²⁴ ANR Anderson Direct at 5 [ANR-4].

that, while the maximum pressure reduction at these meter stations was 760 psi, the average pressure reduction at these points was 282 psi.¹²⁵ Based on this data, ANR determined that a 300 psi drop was an appropriate figure to use as a representative pressure drop. ANR stated its approach of using a representative pressure drop is a more balanced approach than either (1) requiring that LDCs and other end users be responsible for guarding against lower temperatures caused by pressure reductions at their delivery points as producers wanted or (2) using extremely large pressure cuts at any delivery point on the ANR system as some end users wanted. ANR stated that its methodology recognized that suppliers bear primary responsibility for the quality of the gas that they supply to ANR for delivery to downstream shippers, while not necessarily allowing for the highest pressure drops at a delivery point to dictate a lower than necessary Safe Harbor for the entire ANR system.¹²⁶

88. ANR testified it then calculated a CHDP Safe Harbor beginning with the figure of 40° F as the low system temperature. ANR noted that a pressure reduction of 300 psi would cause a 21° F drop in flowing gas temperature, so that, in order to avoid fallout, CHDP temperatures would need to remain below 19° F.¹²⁷ ANR also proposed a 4° F safety margin so that the CHDP Safe Harbor would be 15° F.¹²⁸ ANR testified four degrees Fahrenheit was an appropriate safety margin since it was using average flowing temperature figures and a representative level of 40° F as a starting point instead of the lowest flowing temperature. ANR testified it was also appropriate because the equation of state method used to calculate the cricondenthem HDP is not precise, system operations such as flow patterns and operating pressure can change, and the adoption of an HDP Safe Harbor for the ANR system is a new concept with which ANR has had no experience.

89. Mr. Zersen testified that he performed White Paper analyses using the 15° F CHDP to determine whether ANR's delivery points with MichCon and Dominion East

¹²⁵ ANR Zersen Rebuttal at 5 [ANR-5]; Exhibit H at 1, August 2, 2004 filing.

¹²⁶ ANR Zersen Rebuttal at 6 [ANR-5].

¹²⁷ ANR Zersen Direct at 12 [ANR-1].

¹²⁸ *Id.*; ANR Zersen Rebuttal at 7-8 [ANR-5].

Ohio that have no heaters would experience liquid fallout.¹²⁹ He testified the analyses showed there would be no liquid fallout at these unheated meters.

90. ANR testified that the appropriate HDP Safe Harbor level could change in the future. It stated that changes in the operating factors and assumptions could impact the future adequacy of the 15° F CHDP Safe Harbor, as well as future changes in technology or plant operations.¹³⁰

b. The Appropriate HDP Safe Harbor for ANR

91. The Commission finds ANR has supported its proposed 15° F CHDP Safe Harbor with substantial evidence, as cited above. To derive an HDP Safe Harbor, ANR relied on its expertise in operating its system and on representative flowing gas temperatures and pressure drops based on historical data concerning the operation of its system. It built a safety margin into the resulting CHDP Safe Harbor level. Last ANR tested the actual lowest temperatures and coincident pressures at the delivery points on its system for MichCon and Dominion East Ohio that do not have heaters and found that no liquid dropout would occur under these circumstances. The Commission finds that ANR's method of deriving the 15° F CHDP Safe Harbor was reasonable. The Commission finds further that the testing of this Safe Harbor level against the actual lowest temperatures and coinciding pressures at delivery points where the risk of dropout is highest is particularly probative. The volumes at these temperature/pressure points were to the right of the J-T line either altogether¹³¹ or for the pressure drops at the delivery points.

¹²⁹ ANR Zersen Rebuttal at 11-12 [ANR-5]; "ANR-MichCon Metering Facilities, Appendix B Process for establishing a Cricondenthem HDP Limit" [ANR-8] and "ANR-Dominion East Ohio Metering Facilities, Appendix B Process for establishing a Cricondenthem HDP Limit," [ANR-9]. The analysis for MichCon showed MichCon has one unheated meter and that it had a low temperature of 27.4 ° F with an associated pressure drop of 392 psi over the period May, 2002 through June, 2005. The analysis for Dominion East showed that Dominion East has two unheated meters and that they had a low temperature of 29.7 ° F with an associated pressure of 573.3 psi.

¹³⁰ ANR Zersen Direct at 14-15 [ANR-1].

¹³¹ See Appendix C of this order which contains ANR's graph describing the volumes at the lowest temperature on its interconnect with MichCon where there is no heater [ANR-8]. "The rule of thumb is that for every 100 pounds of pressure drop, the gas temperature will drop by 7 ° F." (Section 2.4.5 of the *White Paper* [MC-2].) This drop in temperature is represented by the J-T line. The J-T line is drawn tangent to the HDP curve. Volumes with temperature/pressure points to the right of the J-T line will

(continued)

The fact that no liquid dropout would occur at these points under actual operating conditions that have been experienced to date indicates that the 15° F is an appropriate level for ANR's CHDP Safe Harbor. In addition, the Commission notes that the evidence of record is that MichCon has not experienced liquid drop out on its system as a result of gas delivered by ANR during the period February 1, 2004 through October 31, 2005 when ANR initially used a CHDP limit of 20° to 25° F and subsequently of 15° F.¹³² This evidence also supports ANR's CHDP Safe Harbor of 15° F.

92. The Commission finds further that the opposing parties have not rebutted ANR's evidence. At this stage of the proceeding, no party proposes an alternate HDP Safe Harbor level.¹³³ MichCon, however, asserts that ANR's CHDP Safe Harbor should be lower than 15° F. MichCon cites two analyses done by ANR in which the resulting CHDP for points in the state of Michigan was -14° F where only pressure drops on ANR's system were considered and -59° F when all pressure drops, including those at delivery points, were considered.¹³⁴ These studies were of the worst case scenario on ANR's system.¹³⁵ These studies were based on the lowest winter-time temperature on

not experience liquid drop out no matter how large the decrease in pressure. Volumes with temperature/pressure points to the left of the J-T line will experience liquid drop out if the pressure decreases far enough.

¹³² MichCon Aud Rebuttal at 7 [MC-10].

¹³³ MichCon originally asserted the proper CHDP Safe Harbor for the ANR system would be at or below 0° F, but later argued, instead, that whatever the HDP Safe Harbor, it must result in CHDP levels no higher than 0° F for gas delivered by ANR to MichCon. *See* MichCon Aud Direct at 16:17-18 [MC-1]; MichCon Aud Rebuttal at 3:9-14 (this testimony was struck by the ALJ, but may be considered here by the Commission as there has been no hearing and there is no formal evidentiary record). The Commission rejects the latter MichCon argument also. MichCon's argument is essentially that whatever ANR's Safe Harbor HDP may be, only deliver gas no higher than CHDP 0° F to MichCon. MichCon's proposal would require ANR to batch gas commodity deliveries. The interstate natural gas transportation and commodity markets, unlike the product pipelines and markets, are not equipped to handle intermittent flow.

¹³⁴ *Citing* "ANR Pipeline Company, Docket No. RP04-435-000, June 16, 2005 Data Request [and related material]" [ANR-7].

¹³⁵ *Id.* and ANR Zersen Rebuttal at 9-10 [ANR-5].

ANR's system in Michigan, -8° F and highest pressure reduction of 850 psi.¹³⁶ These studies only take into account the lowest temperature and greatest pressure drop on ANR's system and ignore all the other flowing gas temperatures on ANR. The result is a CHDP Safe Harbor level that is significantly lower than the 0° F originally proposed by MichCon and later sought for deliveries at its interconnects with ANR. Further, the focus of this proceeding has been to determine the highest CHDP of gas delivered to ANR, which ANR can safely and reasonably accept on its system. The worst case parameters identified here are delivery point parameters. While ANR must take delivery point conditions into consideration, and it should know the extreme limits of its operating envelope, ANR does not have to establish its Safe Harbor CHDP on the basis of worst case scenario. The Commission finds that the ANR studies cited by MichCon do not support MichCon's contention that ANR's CHDP Safe Harbor should be less than 15° F.

93. The Commission finds the 15° F CHDP Safe Harbor is supported by substantial evidence and, therefore, is a just and reasonable gas quality standard for ANR's system. The Commission notes, however, that ANR and other parties testified that the HDP Safe Harbor depends on many factors and that these factors may change over time. Thus, the appropriate HDP Safe Harbor for ANR's system may change. In that case, ANR may file a revised HDP Safe Harbor under section 4 of the NGA, or a customer may file a complaint under section 5 of the NGA.

D. Whether the Settlement Tariff Provisions Should be Revised to Provide that Gas Delivered to MichCon Has an HDP of 0° F

94. Above the Commission recognized that interstate pipelines may reasonably take into account interconnecting systems when establishing their own HDP Safe Harbor. However, the Commission rejected use of the lowest common denominator of recipient parties' systems as a criterion by which the HDP should be set. In this section, the Commission finds that ANR is not bound by other pipelines' HDP requirements in establishing its own HDP Safe Harbor.

1. MichCon's Arguments

95. MichCon asserts that in the September 30 Order, the Commission stated that one of the purposes of an HDP limit is "to ensure that gas will be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end-users, local

¹³⁶ "ANR Pipeline Company, Docket No. RP04-435-000, June 16, 2005 Data Request [and related material]" at 9 [ANR-7].

distribution companies, and others.”¹³⁷ MichCon states it possesses an Order No. 63 certificate that it received from the Commission in 1980,¹³⁸ and that MichCon provides transportation service for ANR and other interstate pipelines in accordance with that certificate. MichCon states it has an Operating Statement on file with the Commission and that, pursuant to its Operating Statement, if gas delivered to MichCon has an HDP greater than 0° F at a pressure of 500 pounds psi, it has the option to refuse to accept the gas in order to protect the integrity of its system.¹³⁹

96. MichCon argues that the only way to ensure that gas will be accepted for delivery into the MichCon system is to set the HDP standard at a level that will ensure that gas delivered into the MichCon system contains an HDP at or below 0° F at a pressure of 500 pounds psi. Therefore, if the Settlement is approved by the Commission, MichCon argues that the Commission should require ANR to modify its tariff to guarantee that the gas delivered by ANR into the MichCon system will contain an HDP at or below 0° F at a pressure of 500 pounds psi. MichCon requests Third Revised Sheet No. 131 be revised with the addition of the following sentence at the end of section 13.3: “Notwithstanding the foregoing, the gas delivered by Transporter at Delivery Points located in the Northern Segment (ML-7) of Transporter's Pipeline System will have a Hydrocarbon Dewpoint equal to or less than 0 degrees F.” MichCon asserts that the addition of this sentence to ANR's tariff will ensure that the gas delivered to MichCon by ANR will comport with MichCon's quality specifications.

2. Producer Arguments

97. Aux Sable asserts that whether gas ANR delivers to MichCon meets the 0° F requirement in MichCon's Operating Statement is not relevant to whether the Settlement

¹³⁷ *Citing* September 30 Order at P 5.

¹³⁸ *Michigan Consolidated Gas Co.*, 12 FERC ¶ 61,044 (1980).

¹³⁹ *Citing* Attachment 3, The Michigan Consolidated Gas Company Operating Statement (April, 2004) at 16 [MC-3], Exhibit A, MichCon Comments. Section 12.1 (i) of MichCon's Operating Statement requires that the hydrocarbon dewpoint of gas delivered to MichCon shall not exceed 0° F at 500 pounds psi. MichCon may refuse to accept such gas at its option. The Commission notes that MichCon's HDP standard is an HDP phase envelope with a specific temperature and pressure point, whereas the CHDP standard is based on an HDP phase envelope as measured by its highest temperature regardless of pressure. Thus, a gas stream which satisfies the ANR's 15° Safe Harbor could also satisfy MichCon's HDP standard.

should be accepted by the Commission. Aux Sable asserts first that the gas delivered to MichCon will likely continue to have the same HDP as it currently does, which is below 15° F in the market area,¹⁴⁰ so that ANR will be able to continue to meet MichCon's HDP standard. Second, Aux Sable asserts acceptance of the Settlement would not require MichCon to refuse gas or to accept gas with an HDP 0° F, but leaves MichCon with the option to refuse gas that does not meet MichCon's standard. Third, Aux Sable asserts MichCon's 0° F requirement applies to MichCon in its role as a transporter of gas on behalf of others and as a transporter of gas produced in-state. Aux Sable asserts the 0° F standard does not apply to MichCon as an LDC serving end-use customers; that is, Aux Sable asserts there is no evidence that MichCon's tariff for end users requires that gas be delivered to those end users at 0° F.

98. The Producer Coalition asserts that the Commission should reject MichCon's proposed tariff revision to require that all gas delivered to MichCon have an HDP of 0° F or lower for the same reasons that the Commission should reject MichCon's lowest common denominator approach to deriving the HDP Safe Harbor. The Producer Coalition asserts that the proposed tariff provision unduly prefers MichCon or is an attempt to institute a delivery point merchantability standard.

99. Aux Sable also asserts that the Commission should reject the tariff revision MichCon proposes to the Settlement. First, Aux Sable asserts that if the Commission does accept these revisions, section 5.1 of the Settlement provides that the Settlement cannot become effective. Second, Aux Sable asserts that the proposed revision would unduly discriminate against it. Aux Sable asserts that Alliance delivers gas to ANR in market zone ML-7 and that this gas is processed once in Canada, with a resulting HDP of less than 10° F, and a second time at the Aux Sable processing plant to remove the light hydrocarbons, ethane and propane. Aux Sable indicates that when natural gas prices exceed the value of recovered liquids, that is, the economics are upside down, Alliance does not process the gas at Aux Sable plant and the gas it delivers to ANR sometimes has an HDP higher than 0° F. Aux Sable asserts that MichCon's proposed tariff revision would force Alliance's gas to meet a 0° F HDP during times of upside down economics. Aux Sable asserts this would be discriminatory and unjust and unreasonable because the 0° F restriction would only apply in market zone ML-7 and that other pipelines, producers, and processors tendering gas to ANR outside market zone ML-7 would only need to meet, at the lowest, the 15° F HDP Safe Harbor.

¹⁴⁰ Aux Sable cites ASL Horner Cross-Answering at 12-13 [ASL-5].

3. Commission Decision

100. MichCon is a Hinshaw pipeline as well as an LDC.¹⁴¹ As a Hinshaw pipeline, it is exempt from the Commission's NGA jurisdiction by NGA Section 1(c).¹⁴² That section provides that, if all the gas the pipeline receives from out-of-state is consumed within the state and the pipeline is regulated by a state commission, it is not subject to NGA jurisdiction. However, section 284.224 of the Commission's regulations¹⁴³ allows a Hinshaw pipeline to perform certain interstate transportation while retaining its Hinshaw status. To retain Hinshaw status, the pipeline must perform the interstate services pursuant to a blanket certificate provided by section 284.224. Such a certificate permits providing interstate transportation similar to that under which intrastate pipelines perform interstate transportation under section 311 of the Natural Gas Policy Act of 1978 (NGPA). However, the Commission's regulation of the rates Hinshaw pipelines charge for services performed under the section 284.224 certificate is pursuant to NGA sections 4 and 5, not NGPA section 311. MichCon accepted a section 284.224 certificate in 1980.¹⁴⁴

101. MichCon can thus perform interstate transmission of natural gas under its section 284.22 certificate on behalf of interstate pipelines and local distribution companies. MichCon is required to file a statement of operating conditions, including its rates,¹⁴⁵ under section 284.123(e) of the Commission's regulations.¹⁴⁶ MichCon filed its most recent Operating Statement on June 30, 2005 in Docket Nos. CP80-340-000 and RM85-1-000.

¹⁴¹ MichCon testified that it has 2,300 miles of transmission pipeline and more than 17,000 miles of distribution pipelines. MichCon Aud Rebuttal at 18 [MC-10].

¹⁴² See *Consumers Energy Company*, 94 FERC ¶ 61,287 (2001).

¹⁴³ 18 C.F.R. § 284.224 (2005).

¹⁴⁴ *Michigan Consolidated Gas Company*, 12 FERC ¶ 61,044 (1980).

¹⁴⁵ For a discussion of MichCon's rates for interstate transmission, see *ANR Pipeline Company v. FERC*, 71 F.3d 897 (D.C. Cir. 1995), order on remand, *Michigan Consolidated Gas Company*, 85 FERC ¶ 61,080 at 61,283-(1998) (finding MichCon performed an interstate service under its certificate and requiring it to have Standard Fixed Variable rates that collect all fixed costs in the demand charge like other interstate transporters of gas under Order No. 636).

¹⁴⁶ 18 C.F.R. § 284.123(e) (2005).

102. MichCon testified that ANR transports large quantities of gas on the MichCon Hinshaw transmission system.¹⁴⁷ MichCon testified that ANR's two largest contracts with MichCon allow ANR to transport, on a firm basis, a total quantity up to 710,500 MMBtu of gas per day during the summer, and up to 1,065,750 MMBtu of gas per day during the winter. MichCon testified that under these agreements ANR transports its gas on the MichCon transmission system to ANR's Michigan storage facilities during the summer and ANR receives the storage gas back from MichCon at receipt points on ANR's pipeline system in the winter. MichCon testified that each of the transportation agreements signed by ANR adopts the terms and conditions of MichCon's currently-effective Operating Statement on file with the Commission, including the quality provisions that requires that gas delivered to MichCon must have a hydrocarbon dew point at or below 0° F at a pressure of 500 pounds psi.

103. The Commission rejects MichCon's proposed revision to ANR's tariff that gas delivered to MichCon have an HDP equal to or less than 0° F at 500 psi. This proposal is beyond the scope of this proceeding which was limited to HDP limits to be set by ANR and excluded the merchantability of the gas at delivery points. ANR has already established that its system does not require, under most circumstances, a lower HDP to operate safely and reliably. The Commission finds that the terms and conditions of the transportation service which MichCon provides to ANR as a shipper on MichCon's system are governed by MichCon's Operating Statement on file with the Commission. Under the Operating Statement, ANR is required to deliver gas to be transported on ANR's behalf that has a dewpoint of 0° F at 500 psi or face the possibility that MichCon may reject the gas. The Commission assumes that ANR will conduct its operations so as to be able to meet its contractual obligations, including the 0° F HDP requirement, to the extent this term is part of its transmission agreements with MichCon.

E. Whether Other Objections Render ANR's HDP-Related Provisions Inadequate

1. MichCon's Objections

104. MichCon asserts ANR has not shown that the proposed 15° F CHDP Safe Harbor will result in service upon which its customers can rely.¹⁴⁸ MichCon asserts that, on the contrary, if the Safe Harbor is established at the level proposed by ANR in this docket,

¹⁴⁷ Exhibit A at 3, MichCon Comments.

¹⁴⁸ *Citing* September 30 Order at P 7.

MichCon will not be able to rely upon the transportation service provided by ANR¹⁴⁹ because gas delivered into the MichCon system with an HDP above 15° F greatly increases the probability that hydrocarbon liquid fallout will occur on the MichCon system during critical cold weather periods, which could disrupt service to MichCon's customers, cause damage to MichCon's facilities, or result in severe health and safety issues for residential, commercial, industrial, end-use, and power generation customers.¹⁵⁰ MichCon also asserts there exists the very real risk that under ANR's HDP Safe Harbor proposal, ANR could deliver gas to MichCon with an HDP well in excess of 15° F¹⁵¹ because there is no HDP limit unless there is a posting, the posting procedure is complicated and time-consuming, and there is no upper limit on the HDP.

105. MichCon further asserts ANR has not established that, with a 15° F CHDP Safe Harbor, ANR will be operationally able to provide transportation service with a high degree of confidence without the use of OFOs.¹⁵² MichCon argues, it is clear that ANR does not have a high degree of confidence that the proposed 15° F CHDP Safe Harbor will protect its system from hydrocarbon liquid fallout under all conditions. MichCon asserts an HDP Safe Harbor should be set low enough that the pipeline will never have to issue an OFO related to the HDP of the gas. MichCon argues that rather than allowing the inclusion of an HDP-related OFO provision in the ANR tariff, ANR should be required to set the HDP Safe Harbor at a low enough level that OFOs will never be required and that the necessary level is below 15 ° Fahrenheit.

b. Commission Decision

106. The Commission rejects these objections. As held above, the Commission has found that the 15° F CHDP Safe Harbor will permit ANR to make deliveries at its interconnects with downstream systems without liquid drop out occurring under the operating conditions usually present on the pipeline. Thus, ANR will be able to provide reliable service to its customers. The Commission also finds that ANR's posting procedure is reasonable. Posting of CHDP levels from the monitoring points permits receiving parties and shippers knowledge of gas quality that will be delivered, thus giving them time to plan for the quality of gas that will be delivered. ANR is obligated to

¹⁴⁹ *Citing* Exhibit A at P 12, MichCon Comments.

¹⁵⁰ *Id.*; Attachment 3 [MC-1, MC-6, and MC-10], MichCon Comments.

¹⁵¹ *Citing* Exhibit A at P 14, MichCon Comments.

¹⁵² *Citing* September 30 Order at P 25.

protect the operating integrity of its system. It also is obligated under its Settlement Sheets to attempt to provide notice at least ten days prior to the effective date of a limitation.¹⁵³ This obligation also provides an incentive to ANR to monitor its system and post CHDP limits in a timely manner. The Commission disagrees that the HDP Safe Harbor should be set low enough that ANR will never have to issue an OFO. The HDP Safe Harbor is set at a level that addresses normal operating conditions on ANR.¹⁵⁴ This ensures that shippers or their suppliers do not have to process more gas than is necessary. However, it is not possible to foresee all events on the pipeline and emergencies may arise in which ANR must reduce the CHDP limit below 15° F in order to protect the operational integrity of its system. The OFO provisions in the Settlement provide ANR with the ability to address these emergency situations.

F. Consistency with the Policy Statement

107. Based on the evidence of record, the Commission finds in this order that 15° F is a just and reasonable CHDP safe harbor for ANR's system and approves the Settlement. The Commission has recently issued a *Policy Statement* on gas quality. Although the *Policy Statement* was not in effect during the instant proceeding, the Commission finds that the Settlement approved in this order is consistent with the five gas quality principles in the *Policy Statement*, as discussed below.

108. The *Policy Statement* states that only natural gas quality specifications contained in a Commission-approved gas tariff can be enforced. The Settlement proposes to continue placing ANR's gas quality provisions in its tariff, consistent with the *Policy Statement*.

109. The *Policy Statement* states that pipeline tariff provisions on gas quality need to be flexible to allow pipelines to balance safety and reliability concerns with the importance of maximizing supply, as well as recognizing the evolving nature of the science underlying gas quality specifications. The Settlement provides ANR flexibility to accept gas that does not meet a posted CHDP limit, where it can do so without impairing safety

¹⁵³ Section 13.3(a)(v), Original Sheet No. 131.02

¹⁵⁴ The Commission still abides by its finding in *Indicated Shippers v. ANR Pipeline Company*, 105 FERC ¶ 61,394 at P 18 (2004), wherein we stated that OFOs should be used for temporary and transient emergency situations. Whether ANR's proposed 15° F HDP Safe Harbor would achieve this objective was among the issues to be examined in the hearing (September 30 Order at P 25) and addressed by the Settlement.

or reliability. For example, proposed sections 13.3(a)(x) and (c)(3) of ANR's General Terms and Conditions provide for the pairing of gas supplies that do not meet a posted CHDP limit with gas supplies that do meet the limit. Section 13.3(c) provides that a shipper must make a written proposal to ANR for pairing. ANR will determine (1) whether the proposal can physically occur on its system "without causing undue risk to [ANR's] operations" and (2) whether the commingled stream that would result from the proposal satisfies the Hydrocarbon Dewpoint limitation. ANR must provide the shipper a written explanation of the basis for any denial. Thus, if ANR has the ability to transport out-of-specification gas without jeopardizing its system operations, its tariff is flexible enough to allow it to do so. In addition, Article III of the Settlement recognizes that the Settlement gas quality tariff provisions may be changed in the future pursuant to either section 4 or section 5 proceedings. Thus the Settlement does not establish a moratorium or other condition that would limit ANR's, the Commission's, or others' ability to propose changes to ANR's gas quality tariff provisions to recognize the evolving nature of science underlying gas quality specifications. The Settlement is thus consistent with the principle of flexibility.

110. The *Policy Statement* states that Pipelines and their customers should develop gas quality specifications based on technical requirements. While the *Policy Statement* specifically mentioned only pipelines and their customers in setting forth this and the following two principles, the Commission of course expects that all interested parties, including producers, processors, and end users, as well as pipelines and their customers, will have an opportunity to participate in the resolution of these issues. Representatives of all these industry sectors participated in the ANR proceeding. The ANR proceeding established a record that delved into the operational characteristics of the ANR system, operating parameters of key delivery points, and the key gas quality specifications necessary for ANR to stay within its operating parameters.¹⁵⁵ This record supports the

¹⁵⁵ The record examined technical factors such as minimum flowing gas temperature, minimum ambient air temperature, minimum ambient ground temperature, operating pressure requirements, pressure reduction, CHDP levels of gas supplied, including to downstream pipelines, experience with monitoring HDP levels and associated problems caused by hydrocarbon liquid drop at various levels, presence of heating systems, presence separation equipment, prevailing and expected flow patterns, and the impact of storage. These factors are among those recommended as useful in the NGC+ *White Paper on Liquid Hydrocarbon Drop Out in Natural Gas Infrastructure*, Appendix A, *Parameters to be Considered in Establishing CHDP or C6+ GPM Based Limit*.

Settlement's gas quality standards, consistent with the third principle of the *Policy Statement*.

111. The *Policy Statement* strongly encouraged the use of the interim guidelines of the NGC+ Liquid Hydrocarbon Drop Out Task Group contained in the White Paper as a common reference point in negotiating technically based solutions. The NGC+ interim gas quality guidelines provide for the use of either CHDP, which is preferred, or C6+ specifications to control hydrocarbon dropout utilizing a set of parameters to establish the specifications. The ANR Settlement uses a CHDP specification. Further, the record shows that both ANR and the contesting parties were aware of the NGC+ interim gas quality guidelines, and debated whether ANR's analysis comported with the guidelines. The Settlement is consistent with the *Policy Statement* with respect to use of the NGC+ interim gas quality guidelines.

112. The *Policy Statement* states that to the extent disputes over gas quality cannot be resolved by the parties, those disputes can be brought before the Commission to be resolved on a case-by-case basis, on a record of fact and technical review. ANR's original gas quality proposal and the resulting Settlement were contested. The Commission established a hearing to create a record and the order uses that record to resolve the disputed issues. All interested parties, including pipelines, customers, producers, and processors, had an opportunity to participate in the hearing. The procedures followed in this proceeding are consistent with those in the *Policy Statement*.

III. Miscellaneous Issues

113. Neither ANR nor the Settlement address two remaining tariff sheets in this proceeding: First Revised Sheet No. 130.01 and Substitute First Revised Sheet No. 130.01 to ANR's FERC Gas Tariff, Second Revised Volume No. 1. These sheets remained part of the record as "Suspended" and "Pending," respectively.¹⁵⁶ As the Settlement provides for compliance tariff sheets to replace those that are currently in effect, the Commission rejects these two sheets as moot.

IV. Conclusion

114. The Commission has considered the testimony and arguments of the parties in this contested Settlement. It has decided the contested issues on the merits and has found in favor of ANR and the consenting parties. The Commission has determined that the 15^o

¹⁵⁶ Director Letter Order, ANR Pipeline Company, Docket No. RP04-435-004, P 7 n. 6, issued February 2, 2005.

F CHDP Safe Harbor is just and reasonable and has rejected the objections of the opposing parties to this and other provisions of the Settlement. Accordingly, the Commission approves the Settlement.

The Commission orders:

- (A) The Offer of Settlement filed by ANR on September 30, 2005 is approved.
- (B) The objections of the opposing parties are denied.
- (C) First Revised Sheet No. 130.01 and Substitute First Revised Sheet No. 130.01 to ANR's FERC Gas Tariff, Second Revised Volume No. 1 are rejected as moot.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

APPENDIX A

Summary of the Contents of the Pro Forma Tariff Sheets¹⁵⁷

Section 1.24A retains the definition of Hydrocarbon Dewpoint largely unchanged. This term shall mean “cricondenterm, the highest temperature at which the hydrocarbon vapor-liquid equilibrium may be present.” Section 1.24A states that the Hydrocarbon Dewpoint (cricondenterm) calculations are performed using the Peng-Robinson equation of state.

New section 13.3(f) of the gas quality provisions provides that ANR will perform the HDP (cricondenterm) calculations using the Peng-Robinson equation of state and C6+ assumptions consistent with industry practices. Upon a shipper’s request, ANR will conduct a C9+ analysis, but no more than once every twelve months unless a new source of supply has been added at that point.

New section 1.24C states that the term HDP Problem shall mean actual or anticipated operational problems on ANR’s system specifically related to actual or anticipated hydrocarbon liquid fallout.

The new provisions revise section 13.2(a) and (e) by removing the provisions that gas received by and delivered to ANR shall be commercially free from hydrocarbon liquids and that it shall not contain any excessive liquefiable hydrocarbons that might condense to free liquids in the pipeline under normal pipeline conditions. The new provisions revise section 13.3 to provide that ANR must accept gas with an HDP equal to or less than 15° F, the CHDP Safe Harbor. New section 13.3 also provides that ANR may establish and post limits on CHDP no lower than the CHDP Safe Harbor for receipts on specified HDP segments to cure or prevent hydrocarbon liquid fallout. The limits may be posted in order to prevent anticipated hydrocarbon liquid fallout, to correct problems from actual hydrocarbon liquid fallout, or to assure that gas would be accepted for delivery into interconnects, including with interstate or intrastate pipelines, end users, and local distribution companies.

New sections 13.3(a) and (b) describe procedures for posting. Section 13.3(b) defines monitoring points at five stations on ANR that will establish HDP segments on ANR’s system. Two monitoring points, Eunice and Defiance, are the headstation and

¹⁵⁷ This summary is provided to aid readers in understanding the arguments and positions of the parties and the Commission. It is not intended to reword or reinterpret the actual proposed tariff language.

terminus (before branching) of the ANR's southeast trunkline. Two other monitoring points, Greensburg and Sandwich, are the headstation and terminus (before branching) of ANR's southwest trunkline. One monitoring point, the Georgetown station, appears to be on a branch in the northern market area east of Lake Michigan between the Defiance and Sandwich stations.¹⁵⁸ Section 13.3(a) states that an HDP segment will be the portion of ANR's system between monitoring points, or, for the furthestmost upstream monitoring points, the remaining portion of ANR's upstream system. New section 1.24B in the definitions section states that HDP Segment shall have the meaning defined in section 13.3.

New section 13.3(a)(i) provides that when there is an HDP problem consisting of actual hydrocarbon liquid fallout, ANR may post a CHDP limit, no lower than 15 degrees Fahrenheit, at the point where the liquid fallout occurs and then to the receipt points upstream of that location within the HDP segment where the fallout is occurring. If the HDP problem is not corrected, ANR shall apply CHDP limits for each HDP segment immediately upstream of the HDP segment where the liquid fallout occurs up to the nearest monitoring point that satisfies the CHDP limit. ANR will apply any CHDP limit uniformly to all receipt point in an HDP segment. ANR's analysis and posting of HDP limits will not skip over any HDP segment between the HDP problem and the furthestmost upstream HDP segment to which an HDP limit is posted.

New section 13.3(a)(ii) provides that when there is an HDP problem consisting of ANR's anticipating hydrocarbon liquid fallout under foreseeable operating conditions on ANR's system, ANR shall post CHDP limits, no lower than 15 degrees Fahrenheit, to all HDP segments where potential for liquid fallout is anticipated, absent the limitation, and to all HDP segments required to prevent the anticipated liquid fallout. A posting shall not skip over any HDP segment between the HDP problem and the furthestmost upstream HDP segment to which a CHDP limit is posted. ANR may make a posting when its analysis of system operating factors, such as anticipated processing plant operation, pressure reduction, flow patterns, flowing gas temperatures, and HDP temperatures indicates a need for a limitation. ANR will post an explanation of the basis for the CHDP

¹⁵⁸ Accession No. 20050505-0084 (map submitted by the Producer Coalition), Docket No. RP04-435-000 (non-public). The location of the Georgetown Station is not clear. There is a Georgetown interconnection shown as number 23 in the Northern-Market Zone section of the cited map of ANR's system. There is also a Georgetown meter, Meter No. 521106, in Michigan shown on Exhibit H at 4 in the August 2, 2004 filing). It is possible that one or both of these features is the Georgetown Station that ANR is using for an HDP monitoring point.

limit and, upon request by a shipper, will provide a written detailed explanation of the problem, the reasons for its choice of the CHDP limit, and the affected HDP segments.

New section 13.3(a)(iii) provides that ANR shall post CHDP limits in a given HDP segment only to the extent necessary to prevent liquid fallout from occurring in order to manage and operate ANR's system in a safe and reliable manner and that such posted CHDP limits shall remain in effect no longer than necessary. New section 13.3(a)(vi) provides that posted HDP limits shall not exceed the limits needed to correct the specifically identified or anticipated HDP problem on specific HDP segments of ANR's system.

Section 13.3(a)(iv) retains the existing provisions that, to the extent operationally feasible, ANR will not apply an CHDP limit under the gas quality provisions to meters that are not upstream of a processing plant with available capacity and that flow 500 Dt or less per day. Section 13.3(a)(v) retains the existing provision that ANR will provide as much notice of a CHDP limitation as reasonably practicable and will attempt to provide such notice at least ten days prior to the effective date of the limitation.

New section 13.3(a) (vii) provides that when ANR cannot fully correct an HDP problem by posting an HDP limit in the most downstream HDP segment experiencing or anticipating an HDP problem, it may post a CHDP limit in subsequent upstream HDP segments, but the CHDP limit in subsequent upstream segments may be no stricter than the limit in the first HDP segment.

New section 13.3(a) (viii) provides that when ANR posts a CHDP limit on the Sandwich-Georgetown-Defiance HDP (SGD HDP) segment, then the gas receipts into that segment, either from interconnects or from any adjacent HDP segment feeding gas directly into the SGD HDP segment, must meet the posted CHDP limit for the SGD HDP segment.

New section 13.3(a)(ix) provides that ANR will not require processing of gas at receipt points upstream of the tailgate of a straddle plant that meets the posted CHDP limit without processing.

New sections 13.3(a)(x) and (xi) permit gas that does not meet a posted CHDP limit at a receipt point to continue to flow in certain circumstances. Section 13.3(a)(xi) provides that such gas can continue to flow provided that the shipper or a third party provides ANR proof of processing at a plant within the HDP segment where the gas at the tailgate of that plant satisfies the CHDP limit for the applicable HDP segment.

Section 13.3(a)(x) provides that, to the extent operationally practicable, ANR may allow gas that does not meet a posted CHDP limit at a receipt point to continue to flow if ANR approves a pairing proposal. New section 13.3(c) provides that ANR may allow a shipper whose gas does not meet a posted HDP limit to pair its gas with a shipper whose gas satisfies the posted limit. The shipper wishing to pair must provide ANR with a written proposal for the pairing of its volumes. ANR will determine whether the proposal is physically possible without undue risk to ANR's operations and will evaluate whether the commingled stream that would result from the proposal satisfies the CHDP limit. If ANR determines the pairing proposal does not meet one or more of these conditions, ANR will provide the shipper with a written denial specifying the basis for the determination. ANR will permit all shippers interested in pairing to post relevant data on its internet site.

Sections 13.3(d) and (e) retain the provisions that ANR will post each receipt point HDP value and each blended HDP and blended BTU value that it calculates within 24 hours of making the calculations.

Revisions to ANR's OFO provisions include new section 8.2(e) which provides that ANR may impose a CHDP limit below the CHDP Safe Harbor at a receipt point or monitoring point to avoid an event that threatens the operational integrity of ANR's system. New section 8.3(e) provides that notwithstanding the reason for issuing an OFO that "reduces the Hydrocarbon Dewpoint Safe Harbor" shall be applied in a manner consistent with the procedures in section 13.3(a).

Revised section 8.9 provides that if ANR issues an Operational Flow Order (OFO) notice of an CHDP limit below the HDP Safe Harbor, ANR shall post a notice within three business days identifying with specificity the operational event giving rise to the OFO, the points where the operational event threatened ANR's operational integrity, specific points upstream of the HDP problem, and HDP segments of ANR's system affected by the OFO. ANR will also update this information as new information becomes available.

Appendix B

From *White Paper on Liquid Hydrocarbon Drop Out in Natural Gas Infrastructure*, NGC+ Liquid Hydrocarbon Drop Out Task Group (February 28, 2005) [MC-2]:

Section 4 - Overview of Hydrocarbon Dew Point

4.1 Introduction

4.1.1 The hydrocarbon dew point (HDP) defines whether the natural gas stream in a pipeline at a given pressure and temperature consists of a single gas phase or two phases, gas and liquid. The HDP is defined as the series of matching pressure and temperature points at which hydrocarbons condense into liquid from a natural gas mixture. The hydrocarbon dew point **pressure** is the pressure at which hydrocarbons will begin to condense from a gas mixture at a given temperature. The hydrocarbon dew point **temperature** is the temperature at which hydrocarbons will begin to condense from a gas mixture at a given pressure, and it is usually more important for pipeline operations where the pressure is determined independently.

4.1.2 When condensate forms from a gas mixture, the distribution of hydrocarbons changes so that the liquid phase becomes enriched in the heavier components while the gas phase becomes depleted of these heavier components. As the gas is cooled below its original dew point temperature, the entire dew point curve shifts cooler for the remaining gas phase that is now depleted in heavier components. The chilled gas temperature becomes the new HDP of the gas stream.

4.2 Hydrocarbon Dew Point Curve

4.2.1 The HDP for natural gas with a given composition is typically displayed on a phase diagram, an example of which is shown in Figure 4-1. The HDP curve is plotted as a function of gas pressure (P) and temperature (T). The left-hand side of the curve (in blue [to the left of the Critical Point]) is the bubble point line and divides the single-phase liquid region [blue or dark gray] from the two-phase gasliquid region [green or gray]. The right-hand side of the curve (in black [to the right of the Critical Point]) is the dew point line and divides the two-phase gas-liquid region and the single-phase gas region [yellow or light gray]. The bubble point and dew point lines intersect at the critical point, where the distinction between gas and liquid properties disappears. Note that two dew point temperatures are possible at a given pressure (P_3) and two dew point pressures are possible at a given temperature (T_3). This phase envelope phenomenon provides for behavior known as retrograde condensation. The retrograde phenomenon occurs when liquids form at a given temperature when the pressure is lowered (see red arrow [below

Gas Pressure Decreases]). The word “retrograde” means moving backward and this phenomenon was given the name because it is contradictory to the phase behavior of pure components, which condense with increasing pressure and or decreasing temperature. The maximum pressure at which phase change occurs (P_{max}) is called the **cricondenbar**, and the maximum temperature (T_{max}) at which phase change occurs is called the **cricondentherm**.

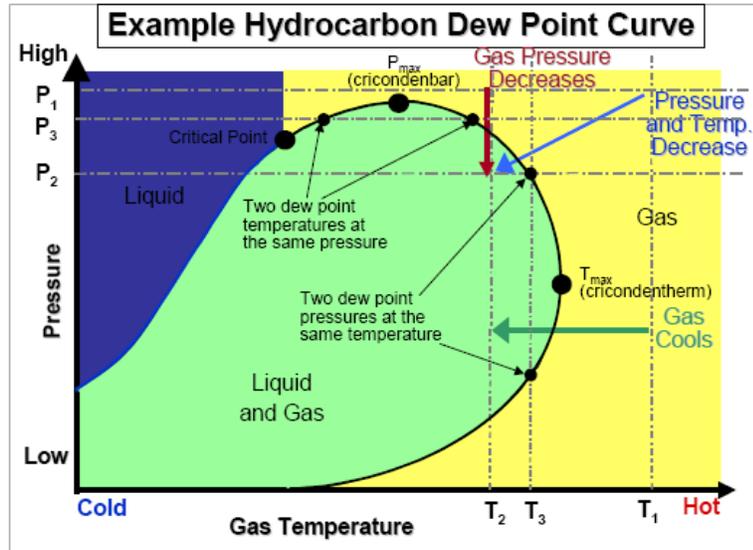


Figure 4-1 - Hydrocarbon Dew Point Curve for a Typical Natural Gas Mixture

4.2.2 The HDP is a function of the composition of the gas mixture and is strongly influenced by the concentration of the heavier hydrocarbons, especially C_{6+} . The presence of heavier hydrocarbons will increase the HDP and failure to include them in a HDP calculation will under-predict the HDP. For most pipeline conditions, the HDP temperature at a given pressure increases as the concentration of heavier hydrocarbons increases. Thus, the **potential** to form liquids at certain pipeline conditions exists for gases rich in C_{6+} . Processing of the gas stream primarily removes or extracts heavy hydrocarbons and thus reduces the HDP of a given mixture. The level of hydrocarbon removal directly impacts the HDP. Figure 4-2 shows examples of the HDP curve for unprocessed and processed gas mixtures. The unprocessed HDP curve is in red [top curve] and has a higher cricondentherm temperature while the processed HDP curve is in blue [bottom curve]. The difference between the two curves shows the impact of processing on the HDP.

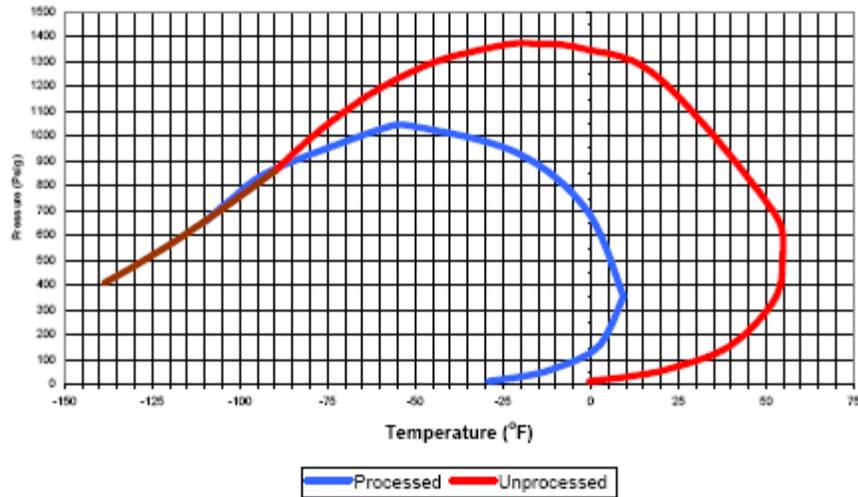


Figure 4-2 – Contrast of Unprocessed [top curve] and Processed Natural Gas [bottom curve]

The significance of the HDP curve for gas transmission and distribution operations lies in the potential transition from the single-phase gas region to the two-phase gas-liquid region. For example, the arrows in Figure 4-1 (Figure numbers to be corrected) show changes in pipeline pressure and temperature in which the end-point lies inside the gas-liquid phase. In this situation, condensate formation inside the pipeline will occur. It is important to recognize, however, that the volume of condensate **cannot** be determined simply by plotting points on the HDP curve. The volume of condensate can be determined by analyzing the gas phase compositions upstream and downstream of a potential condensation location (*e.g.*, regulator, pipeline) and determining the GPM (gallons of liquids per thousand standard cubic feet of gas) for the liquefiable components in each stream.

APPENDIX C

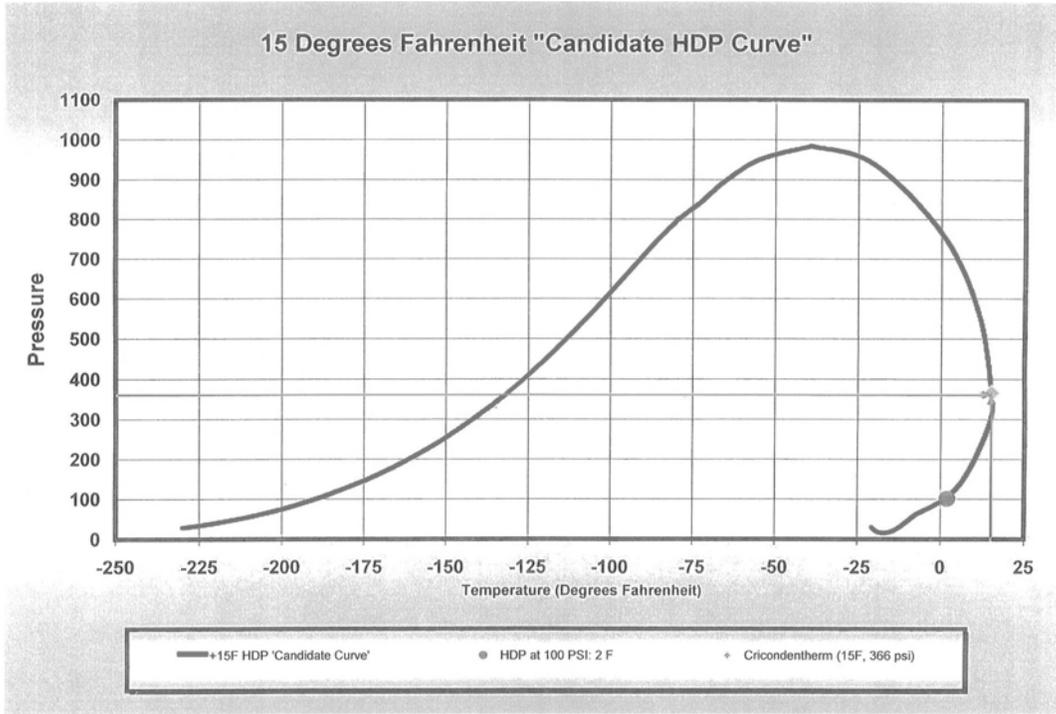


Exhibit No. ANR-6

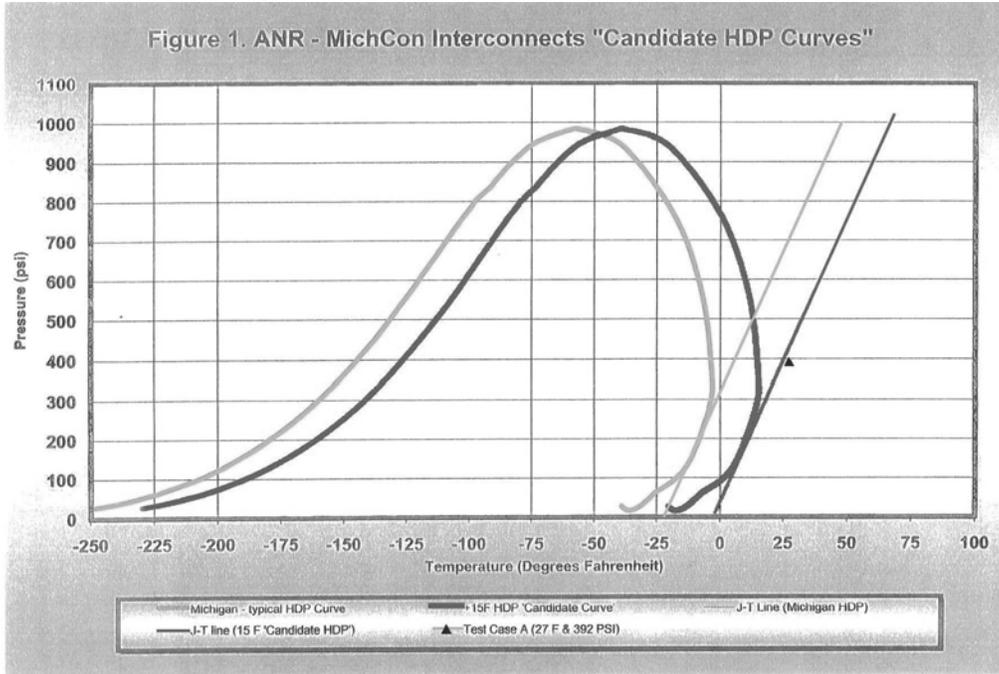


Exhibit No. ANR-8