



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

Division of Oil & Gas

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April 11, 2016

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Scott Digert, Manager of Reservoir Management
BP Exploration (Alaska) Inc.
P.O. Box 196612
Anchorage, AK 99519-6612

RE: Prudhoe Bay Unit – Initial Participating Area Plan of Development

Dear Mr. Digert:

By letter dated January 14, 2016, the State of Alaska Department of Natural Resources (DNR) Commissioner requested additional information to be submitted and included as part of the Prudhoe Bay Unit (PBU) Initial Participating Areas (IPA) proposed 2016 Plan of Development (2016 POD). On March 24, 2016 the DNR, Division of Oil and Gas (Division) met with BPXA for a technical review of the 2016 POD, and on March 31, 2016, the Division timely received the Prudhoe Bay Unit (PBU) Initial Participating Areas (IPA) proposed 2016 Plan of Development (POD). The POD was submitted by BP Exploration (Alaska) Inc. (BPXA) as operator for the PBU on behalf of all the working interest owners (WIO).

On July 17, 2015, BPXA and ExxonMobil Alaska Production Inc. (ExxonMobil) as WIOs in the PBU applied to the Alaska Oil and Gas Conservation Commission (AOGCC) to amend Conservation Order (CO) 341E to increase the allowable gas offtake in Rule 9 from an average of 2.7 billion standard cubic feet per day (BSCF/D) to 4.1 BSCF/D. Subsequently, ConocoPhillips Alaska, Inc. (CPAI) and Chevron U.S.A, Inc., also as PBU WIOs, supported BPXA's application to the AOGCC to increase the allowable gas offtake limit, but requested the limit to be set at 3.6 BSCF/D. The AOGCC's decision amending CO 341E determined an average offtake rate of 3.6 BSCF/D provides adequate capacity to meet gas sale requirements and identified carbon dioxide as a potentially valuable source resource for enhanced recovery projects on the North Slope. The decision also concluded that "monitoring of development operations within the Prudhoe Oil Pool prior to commencement of major gas sales is vital to ensure that liquids recovery is maximized." As the agency charged with reviewing and approving the development plans for short-term and long-term development activities, the Division has a responsibility to thoroughly evaluate development plans and assess potential impacts to ultimate recovery and state revenues.

The Division has reviewed the proposed 2016 IPA POD and requests additional information to determine whether the plan is consistent with the provisions of 11 AAC 83.303 and 11 AAC 83.343(c).

The Division appreciates the information that the Unit Operator provided, particularly as relates to oil development and facility access and sharing as requested in the January 14, 2016 letter. However, the Division requests more detailed information on activities that will result in and are related to the eventual commencement of a Major Gas Sale (MGS) from PBU during the upcoming 2016 POD period, and long term, as referenced in 11 AAC 83.343(a)(1) and (3), in order to more fully understand BPXA's plans regarding the development of natural gas. Although the Division understands that PBU IPA currently produces oil, the Division does not fully understand the timing and type of activities that will be conducted to prepare for an MGS. Until the additional information requested below is received and reviewed, the Division cannot deem the 2016 PBU IPA POD complete. Please submit the additional information to the Division no later than May 1, 2016, so that the plan can be fully reviewed by the Division consistent with 11 AAC 83.303 and 11 AAC 83.343(c).

Section 3.6 of the 2016 POD provides:

3.6 Major Gas Sales

Major gas sales (MGS) from Prudhoe Bay remains dependent upon a number of factors, including market demand and the availability of an acceptable offtake project. In the meantime, the PBU working interest owners will continue to use gas to enhance and accelerate oil recovery and for NGL production for shipment through TAPS or use in enhanced oil recovery operations.

The PBU working interest owners will continue to evaluate viable plans and incorporate [sic] into the current plan of development to further optimize gas and oil recovery, and to address facilities, equipment, wells, and operational changes to position for major gas sales.

This section is not sufficient to allow the Division to understand how the WIOs plan to achieve an MGS or to develop the PBU IPA in order to accomplish an MGS. The Division seeks to fully understand the statements in Section 3.6. Additionally, the Division needs to understand the timing and sequence of activities, especially which activities will occur during the 2016 POD and which will occur as part of a long range proposed development plan. As such, the Division requests BPXA submit additional information on the following:

- 1) In-fill drilling plans and timing that would be required to initiate gas offtake for an MGS.
 - a) Explain how current in-fill and ST (side track) drilling helps prepare for an MGS;

- b) How many wells do the co-owners envision being needed to supply gas for an MGS?
 - c) When will these wells be drilled?
 - d) Where will these wells be located?
 - e) Will the amount of well work needed to keep the current well stock 'healthy' be continued once an MGS starts?
 - f) What additional well work will be required on existing wells to prepare for an MGS if any?
 - g) Do you anticipate shutting in production wells when a gas sale starts, if so, in what area of the field?
- 2) Plans, strategies, and timing related to CO2 management.
- a) Since CO2 is a component of the gas in the IPA what is the plan for CO2, use it or dispose of it?
 - b) Will CO2 be shipped offsite?
 - c) Will CO2 be kept in the IPA? If so, how will it be stored? Where will it be stored?
 - d) Will CO2 be used for enhanced oil recovery? If so how and when?
 - e) When do the co-owners foresee having to handle CO2?
- 3) Technical strategies, timing, and activities required to achieve a gas balancing agreement.
- a) What activities are currently planned for discussion of a gas balancing agreement? If no plans, when might these activities and discussions be commenced?
 - b) What are the technical hurdles?
 - c) What is the ideal timeframe for reaching a gas balancing agreement?
- 4) The extent to which an MGS will require changes in existing operations, such as gas processing or treatment.

The Division also requests scheduling of a technical review on these subjects prior to May 15, 2016.

In its letter dated January 14, 2016 and by follow-up email on March 14, 2016, the Division requested that specific information be included in the 2016 IPA POD. With respect to an MGS, the Department generally requested "[a] discussion of the efforts to market oil and gas from the unit" and then asked for specifics with respect to: the marketing efforts being undertaken (Request (a)(1)); a delineation between local marketing and MGS (Request (a) 2)); the extent to which an MGS will require changes in existing operations such as gas processing or treatment (Request (a)(3)); and a detailed discussion of any changes believed to be necessary to permit the marketing of gas, including different commodity prices, etc., (Request (a) 5)).

In its response, BPXA indicated that the WIOs prefer the marketing of gas from the unit be performed by the working interest owners individually. Rather than submitting a plan for joint marketing of gas from the Unit, the Unit Operator may direct each WIO to provide its own separate responses to those issues. The Division requests that responses be provided directly to

the Division no later than May 1, 2016. Those responses will be considered part of the PBU IPA POD, but the Division will not share or discuss commercially sensitive responses from individual WIOs with other WIOs and will hold information confidential as requested and as appropriate.

The Commissioner may suggest modifications to proposed plans of development. *See* 11 AAC 83.343(c). The Division provides the following suggestions as to what it believes a complete POD with respect to MGS from the PBU IPA should address:

- 1) whatever the source, be it the WIO individually or the Unit Operator, a detailed discussion of the efforts to market gas from the Unit during the preceding year, and a detailed plan for marketing efforts the WIO or Unit Operator will undertake under the proposed POD.

These discussions should include the identity of the parties with whom the current commercial agreement(s) are being negotiated, or with whom each WIO intends to have substantive discussions regarding the marketing of unit hydrocarbons including unit gas, and the commercial terms under which each WIO is offering to make resources available for long-term sale, including: the estimated volumes to be delivered, the pricing terms, the location at which title to the gas and associated risks of loss will change, and the condition of the gas at the time of delivery;

- 2) the proposed terms by which the following will be treated when there is an MGS:
 - a) gas balancing;
 - b) byproduct handling;
 - c) field cost allowance;

If the WIOs have not agreed upon such terms for the unit, the Unit Operator should discuss any progress made to develop such terms, identify remaining issues that prevent agreement on such terms, and plans to finalize such terms during the 2016 POD period;

- 3) A detailed discussion of any change in circumstances each WIO believes is necessary to permit the marketing of gas. If the change(s) in circumstances involve a different commodity price, then WIOs shall detail the scenarios (including sufficient details as to important variables) under which WIOs anticipate that gas can technically and economically be produced and marketed; and
- 4) A detailed discussion of the extent to which an MGS will require changes in existing operations and/or additional operations such as gas processing or treatment. In BPXA's March 31, 2016 letter, BPXA indicates that the Unit Operator and the WIOs are currently reviewing plans and activities necessary to support MGS from the unit, but provides no details about such plans or activities.

As indicated, the proposed PBU IPA POD needs to address specific items with respect to MGS that it currently does not address. Absent this further detail, the Division cannot evaluate whether the POD meets the regulatory criteria.

The Division is available to meet to discuss these matters and the most efficient process for BPXA to submit the additional information requested.

If you have questions regarding this decision, please do not hesitate to contact Kyle Smith at (907) 269-8807, or via email at kyle.smith@alaska.gov.

Sincerely,



Corri A. Feige
Director

cc: DOL
Temple Davidson, DNR
Kyle Smith, DNR