

**ALASKA STATE LEGISLATURE  
HOUSE RESOURCES STANDING COMMITTEE**

October 26, 2015  
8:00 a.m.

**MEMBERS PRESENT**

Representative Benjamin Nageak, Co-Chair  
Representative David Talerico, Co-Chair  
Representative Bob Herron  
Representative Craig Johnson  
Representative Kurt Olson  
Representative Paul Seaton  
Representative Andy Josephson  
Representative Geran Tarr

**MEMBERS ABSENT**

Representative Mike Hawker, Vice Chair

**OTHER LEGISLATORS PRESENT**

Senator Mia Costello  
Representative Sam Kito, III

**COMMITTEE CALENDAR**

OVERVIEW: ALASKA OIL AND GAS CONSERVATION COMMISSION

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

DAN SEAMOUNT, Commissioner  
Alaska Oil and Gas Conservation Commission (AOGCC)  
Department of Administration (DOA)  
Anchorage, Alaska

**POSITION STATEMENT:** Presented an overview of the rulings of the Alaska Oil and Gas Conservation Commission.

CATHY FOERSTER, Commissioner/Chair  
Alaska Oil and Gas Conservation Commission (AOGCC)  
Department of Administration  
Anchorage, Alaska

**POSITION STATEMENT:** Presented an overview of the rulings of the Alaska Oil and Gas Conservation Commission.

**ACTION NARRATIVE**

[8:00:17 AM](#)

**CO-CHAIR BENJAMIN NAGEAK** called the House Resources Standing Committee meeting to order at 8:00 a.m. Representatives Seaton, Josephson, Tarr, Herron, Johnson, Olson, Talerico and Nageak were present at the call to order. Senator Costello and Representative Kito were also in attendance.

**OVERVIEW: Alaska Oil and Gas Conservation Commission**

CO-CHAIR NAGEAK announced that the only order of business would be an overview from the Alaska Oil and Gas Commission (AOGCC) as on October 15, 2015 it ruled for an increase in allowable gas offtake from Prudhoe Bay and Pt. Thompson. He described it as a major milestone required for the advancement of the Alaska LNG (AKLNG) project.

[8:01:46 AM](#)

DAN SEAMOUNT, Commissioner, Alaska Oil and Gas Conservation Commission (AOGCC), Department of Administration (DOA), identified himself as the geologist commissioner and noted that the geology of the area has been studied since the 1950s and is well known. He said in 2000 there were discussions of building the pipeline and producing in 2014, which caused him concern as the timing would have been wrong in that almost a million barrels [of oil] a day were being produced. He explained that "if you start blowing down the gas" the use of the gas recycling for Enhanced Oil Recovery (EOR) would not be as efficient as it is currently. He remarked that it is good [the project] has been delayed until 2025, as [AOGCC] engineering and geology determined that by 2025 production of the gas can begin.

[8:04:43 AM](#)

CATHY FOERSTER, Commissioner/Chair, Alaska Oil and Gas Conservation Commission (AOGCC), Department of Administration, said she would explain the recent rulings by the Alaska Oil and Gas Conservation Commission (AOGCC) on gas offtake allowables from Prudhoe Bay and Pt. Thompson in anticipation of major gas sales from the North Slope in 2025, the rationale behind those rulings, and what the rulings mean going forward. She pointed

to slide 1, within her power point presentation, and noted that Prudhoe Bay had an offtake allowable before this hearing of 2.7 BCF/day, "but not really." During the [AOGCC] hearing the offtake allowable was changed to 3.6 BCF/day in anticipation of an offtake in 2025. She pointed out that there was no offtake allowable at Pt. Thompson, and no pool rules - generally an offtake of gas from an oil or condensate field would happen in a pool rule. Currently, she said, pool rules are in place for Pt. Thompson with an offtake allowable of 1.1 BCF/day. The bottom line, she explained, is that the combination of those two is sufficient offtake to meet the needs of the currently proposed project. Ms. Foerster turned to slide 2, and said the AOGCC's responsibilities include: regulating oil, gas, and geothermal exploration development and production throughout the State of Alaska; overseeing all drilling, well work, well production operations, and reservoir management on all state lands and all state waters. She related that its primary responsibilities are to protect human safety, protect fresh ground waters, prevent waste, encourage greater ultimate recovery, and protect correlative rights. She highlighted that the categories of preventing waste and encouraging greater ultimate recovery come into play when deciding on a gas offtake allowable from an oil field. She referred to slide 3, and noted that all of the known gas on the North Slope is in Prudhoe Bay and Pt. Thompson, "there is a lot of it," and it has been called stranded because there was no way to get it to market. In that the AOGCC is charged with encouraging greater ultimate hydrocarbon recovery, its job is to help see that the gas does get to market. She remarked that the sum of the two numbers depicted on the slide is the sum of the two numbers the operators quoted in the hearing.

[8:08:03 AM](#)

MS. FOERSTER pointed to slide 4, and highlighted that another responsibility is to prevent waste. She explained that when gas is taken from an oil field or condensate field, before the oil and condensate have been produced, some of the oil will be lost. She described the issue as an important concern for the AOGCC in Prudhoe Bay where there are 2.5 billion barrels of oil left to be produced, which is "huge." She pointed out that 2.5 billion barrels is approximately the same amount as the Kuparuk River field (second largest field in North America) has produced since it came online 34 years ago. She then noted there is a large amount of condensate at Pt. Thompson that would almost equal the oil produced from the Swanson River field in the over 50 years it has been in production and described that the losses would be

enormous if Alaska had a gas pipeline too soon. She pointed out the conundrum AOGCC faces in that it has the task of encouraging the gas to be produced while also protecting those liquids from being wasted. She reiterated that allowing that gas to be sold too soon would result in waste of a large amount of the liquid, but not allowing the operators and the state to take advantage of what might be the only window of opportunity to sell the gas would also be wasteful in that it wouldn't encourage the greater ultimate resource recovery of the gas. With regard to slides 5-6, she said the AOGCC has been studying the effects of gas sales on the loss of liquids versus the ultimate recovery of the gas since before 2005. She said the AOGCC is convinced, with the assistance of world-class consultants and hard work, the technical validity of the BP and Exxon reservoir models for Prudhoe Bay and Pt. Thompson are above reproach. She opined that the AOGCC has taken the prudent course of participating with BP and ExxonMobil Corporation in studies to assist in determining how best to optimize both liquid and gas recovery. She offered that over the years she has said that for Prudhoe Bay, later is better, less is better, accelerating oil production beforehand is better, and developing it and implementing strategies to mitigate oil losses is better. As for Pt. Thompson, she further offered that the monkey is on ExxonMobil Corporation's back to demonstrate to the AOGCC that blowing down gas is the only feasible way to achieve production from Pt. Thompson as opposed to cycling to get the condensates out first. On August 27, during a public hearing, the Prudhoe Bay owners presented testimony to support major gas sales from Prudhoe Bay beginning 2025, and on September 1, the Pt. Thompson owners did the same for that field, she conveyed. The records were left open until mid-September so the operators could address unanswered questions, and on October 15, the AOGCC issued orders allowing an increase at Prudhoe Bay and offtake at Pt. Thompson, she advised.

[8:12:45 AM](#)

MS. FOERSTER pointed to slide 7 depicting a summary of the rulings, and said that AOGCC increased the offtake allowable at Prudhoe Bay to 3.6 BCF/day annual average which allows, for example, if there is a day when Pt. Thompson is unable to deliver, Prudhoe Bay can go up to whatever is needed as long as the annual average is 3.6 BCF/day. She remarked that five years before production will start from the gas sales, BP must provide to the AOGCC a report of the projects they've done and results they've achieved in oil recovery acceleration projects. She reiterated that getting as much oil out of the ground before the

gas sales start ensures that less is left and at risk of being lost. She said that CO2 may not be an oil enhancing product in the reservoirs so before it is allowed to start, the AOGCC requires a study of all the different sources that they might inject into, and where would be a good source for increasing greater ultimate recovery in the oil reservoirs. She noted that the AOGCC was asked to consider CO2 disposal authorization, but that it is outside the AOGCC's jurisdiction, and is within the jurisdiction of the EPA. She reiterated that for Pt. Thompson a 1.1 BCF/day offtake allowable on an annual average was granted; and prior to major gas sales, after five years of cycling in the pilot, and at least one year before the startup of major gas sales, ExxonMobil Corporation must give the AOGCC a rundown of what the cycling project has done and demonstrate that full scale cycling is not feasible. Because, she remarked, if it is, the AOGCC may want to grant a higher offtake allowable to Prudhoe Bay and say no to Pt. Thompson so that Pt. Thompson can recover those liquids. Currently, the offtake allowables for Prudhoe Bay and Pt. Thompson do not have a sunset clause but, she pointed out, the AOGCC always has the ability to determine and make changes. She described these actions as a promise to the legislature that the AOGCC endeavors to prevent waste and encourage greater ultimate recovery.

8:17:09 AM

REPRESENTATIVE JOSEPHSON asked why ConocoPhillips Alaska, did not make a formal request for offtake, as with the other companies.

MS. FOERSTER replied that she did not know, and opined they may have had disagreements but she was unsure.

8:17:53 AM

REPRESENTATIVE TARR referred to the Pt. Thompson ruling regarding the requirement that they must demonstrate that cycling isn't feasible, and noted it "seems sort of high risk for them" due to the type of investment that would have to be made over the next ten years as this project moves forward. She surmised that if they can't demonstrate that [cycling isn't feasible] that the AOGCC would probably increase the offtake so there would still be participation in AKLNG. In addition to that they would have to do more in oil recovery with the condensate, she questioned.

MS. FOERSTER answered that the AOGCC is not asking [Pt. Thomson] to spend any additional money other than what they are already spending. She explained that [Pt. Thomson] has a cycling pilot planned for next year through to major gas sales start up. She further explained that after five years of continuous cycling, the AOGCC requires a review of what that project has done, lessons learned about the performance of the reservoir, and any other insights into the feasibility of performing full scale cycling. She explained that with cycling, gas is produced and a lot of condensate comes out with it, and the gas is then re-injected in order for the reservoir pressure to stay high. She offered that if the reservoir pressure continually drops, the condensate entrained in that gas drop out into the reservoir rather than the surface, and when the condensate drops out into the reservoir it is there forever. She noted that before major gas sales starts, they will be cycling - producing the gas, stripping off the liquids, re-injecting the gas, to maintain reservoir pressure. Although, she acknowledged, a little drop out of condensates will occur because the pressure will be dropped to get "a little bit of gas out," so it doesn't become the huge overriding dominant reservoir mechanism. Currently, she noted, ExxonMobil Corporation offered that the costs to do the condensate recovery and the reservoir characteristics of the reservoir combined make it an infeasible project, and they will demonstrate to the AOGCC that their assumptions are correct with the small pilot.

[8:21:43 AM](#)

REPRESENTATIVE JOHNSON asked whether the assumption is that Pt. Thomson is an oil field due to the condensates or whether there are there actual reserves.

MS. FOERSTER replied that the definition of an oil well in the State of Alaska is tied to the gas to oil ratio in production. She explained that if the gas to oil ratio is less than 100,000 standard cubic feet per barrel, it's an oil well. The Pt. Thomson wells have about 20,000 ... for every 20,000 cubic feet of gas a barrel of oil will be produced with it, or 20 mcf per barrel. She advised that is what makes Pt. Thompson an oil field by the state's statutory definition of an oil well.

[8:22:49 AM](#)

REPRESENTATIVE JOHNSON surmised there is not conventional oil.

MS. FOERSTER responded there is a viscous oil layer at the bottom of the reservoir previously determined to be between 150-300 feet thick with a lot more oil there, and ExxonMobil Corporation advised it was not feasible. Since that time, more wells were drilled and the belief is that the oil rim is less than one-third first estimated, approximately 40 feet thick. She noted the likelihood [is zero] that an expensive well would be drilled, put on production, and within days or weeks the thick viscous oil would no longer be producing, but rather producing the gas above and the water below it. Now that more is known about the oil rim, she noted, the AOGCC is more confident that, with the current technology, no one would drill an oil well in this field.

[8:25:16 AM](#)

REPRESENTATIVE JOHNSON questioned whether it is a gas field or a condensate field.

MS. FOERSTER replied that it is a condensate field, and the best way to achieve greater ultimate recovery from the field will be allowing the gas to be produced.

[8:25:46 AM](#)

REPRESENTATIVE JOSEPHSON asked about the term "re-injection" and how it compares to "fracturing," in that Ms. Foerster had discussed protecting fresh ground water. He opined there has been no demonstrated problem with fracturing or fracking, but rather with the associated activities, and quiered whether there is any threat to the villages' water supply or other water sources.

MS. FOERSTER informed the committee that 25 percent of Alaska's wells are hydraulically fractured, and that the AOGCC updated its hydraulic fracturing rules a few years ago. She pointed out there has not been an incidence of ground water damage from hydraulic fracturing in the State of Alaska. Some people in the states expressed concern about fracturing, and she noted that the regulators in Pennsylvania and Upstate New York were not prepared for hydraulic fracturing and; therefore, did not have good regulations in place to ensure mechanical integrity in wells to protect ground waters at the time, but the regulations have since been fixed. She pointed out that there were issues not related to hydraulic fracturing, as shown within 1970s guides explaining what to do when a water well encounters methane - "we weren't fracking shale in Minnesota in the 70s."

She said the AOGCC would not allow fracturing to occur in the State of Alaska if it posed any threat to human safety or ground water. She referred to re-injecting gas and said it has the same mechanical integrity assurances as hydraulic fracturing.

REPRESENTATIVE JOSEPHSON commented that there is no fresh water under Prudhoe Bay.

MS. FOERSTER responded that there could be loss of integrity and have gas come to surface, but the AOGCC does not allow wells that do not have good mechanical integrity to operate or be injected into.

[8:30:42 AM](#)

REPRESENTATIVE SEATON asked for clarity on the 22 trillion cubic feet at Prudhoe Bay and 6 trillion cubic feet at Pt. Thomson, with the offtakes, and questioned whether at some point in time as those are being used up ... are the 22 trillion feet recoverable so that just the offtake rate can be used to determine the years of supply, other than any yet to be discovered gas.

MS. FOERSTER answered yes, that is recoverable and is not the gas in place - that is what BP and ExxonMobil Corporation say, with what they know right now is recoverable, and the [years] can be calculated. She agreed that it does not take into account any yet to be discovered gas and the USGS's estimate of gas potential on the North Slope is in the 150 Tcf. It is the AOGCC's hope that "if we build it, they will come," and the pipeline will have value similar to the Trans-Alaska Pipeline System, she offered.

[8:32:07 AM](#)

REPRESENTATIVE HERRON referred to Ms. Foerster's comments regarding studies and asked whether they are available for anyone interested.

MS. FOERSTER answered that that the studies are confidential and she and Commissioner Dan Seamount have not seen the studies, although their staff signed confidentiality agreements allowing them access. She offered that anything ExxonMobil Corporation and BP want to share they will, and she urged the committee to ask them.

[8:32:44 AM](#)

REPRESENTATIVE JOSEPHSON noted that her discussion has been around 28-30 Tcf, and yesterday consultants from the House Finance Committee offered a theoretical 20-year life of the gas line, and that the state could possibly make hundreds of millions of dollars more per year if it bought out TransCanada. He asked whether she has an expectation there is gas beyond a 20-year supply.

MS. FOERSTER said that all of the known gas on the North Slope is in the two fields and it adds up to 28 trillion cubic feet of gas. She then described the oil and gas industry as an industry for gamblers.

[8:33:57 AM](#)

MR. SEAMOUNT pointed out that, as a geologist, he has worked up and down the Laramide Basin, which travels down to the Gulf of Mexico with a lot of oil and gas produced. He remarked that in all of his experience he has never seen so much oil and gas as on the North Slope in that the source rocks are much richer than in the Rocky Mountains. He expressed he is confident more oil and gas will be discovered on the North Slope in the future.

MS. FOERSTER interjected that as an engineer who works in an industry full of geologists, there has to be a balance between the optimists and pessimists to come out with a realist.

MR. SEAMOUNT described himself as a realist.

[8:35:08 AM](#)

REPRESENTATIVE JOHNSON asked whether this is a puzzle piece into a balancing agreement knowing what is there and what isn't. He further asked whether that is part of what the producers need to move forward with an offtake agreement, or gas balancing agreement.

MS. FOERSTER offered that Representative Johnson should ask BP, ExxonMobil Corporation, ConocoPhillips Alaska, and Chevron what they need and what they are thinking.

[8:35:52 AM](#)

REPRESENTATIVE SEATON referred to the 1.1 BCF/day for Pt. Thomson, and 3.6 [BCF/day] starting in 2025 for Prudhoe Bay, and

asked whether it is also for 2025 with the 1.1 [BCF/day] for Pt. Thomson adjustable after coming back with the recycling numbers.

MS. FOERSTER answered yes, both of those allowables ... although they are in the rules today they are with an expectation that startup is in 2025 and [if issues arise] the AOGCC could take them back.

[8:36:41 AM](#)

REPRESENTATIVE TARR pointed to slide 7, "in 5 years BP must provide report of oil recovery acceleration activities and results," and offered a scenario of the report coming back with unsatisfactory results as the efforts were not in line with the AOGCC mission of enhanced recovery, and she asked how the issue would be addressed.

MS. FOERSTER said without knowing the numbers it is hard to say exactly what the AOGCC would do. She added that the AOGCC would be looking for BP to continue, as it has for many years, looking for opportunities to accelerate oil, such as horizontal drilling, and (indisc.) drilling. She said, should it slow down the AOGCC would need to know why, and look again at the balance, how much oil is left in the ground, how much is at risk of being lost, and how much gas is at risk of being stranded if the AOGCC says no and the pipeline doesn't happen. She described the question as a multi-variable.

[8:38:15 AM](#)

REPRESENTATIVE SEATON referred to waste and balancing, "there were different amounts of oil that was looking at in Prudhoe Bay and Pt. Thomson ... different kinds of oils but ... and they are in different fields." He asked when considering the Prudhoe Bay and Pt. Thomson offtake combinations, which would leave the least waste for both fields. For example, he offered, if it was necessary to increase the offtake at Prudhoe Bay so there was no condensate left in Pt. Thomson and leave a greater number of barrels of waste in Prudhoe Bay, asked whether that would then be recovered in Pt. Thomson. He asked whether those are the calculations [the AOGCC] makes, or whether it is only on an individual field basis.

MS. FOERSTER replied that lawyers would get involved and argue whether the AOGCC had jurisdiction to lump the fields and consider the combination of waste versus looking at the fields separately. She advised the AOGCC would push for the composite

- taking the position that its job is to obtain greater ultimate recovery from fields within the State of Alaska. She remarked that if it was necessary to sacrifice a bit at Prudhoe Bay to get a lot at Pt. Thomson or vice versa, the AOGCC would assert that and it would be up to the lawyers to argue authority.

8:39:57 AM

REPRESENTATIVE TARR asked whether Ms. Foerster had considered pooling the units to balance in that manner, and asked whether she was saying that she did not consider that at all and decided to view them separately.

MS. FOERSTER explained that when an operator requests permission to do something the AOGCC either says yes or no, and does not suggest an alternative. She said the AOGCC staff has participated in years of studies with ExxonMobil Corporation and BP, and the AOGCC felt confident those numbers had been tweaked to get where they were good numbers. In the event things change, the operators will come back to the AOGCC and advise, or through the studies it will become obvious, and the AOGCC can and will make tweaks if necessary, she offered.

8:42:00 AM

**ADJOURNMENT**

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 8:42.