

**ALASKA STATE LEGISLATURE
SENATE SPECIAL COMMITTEE ON TAPS THROUGHPUT**

April 8, 2014

3:35 p.m.

MEMBERS PRESENT

Senator Peter Micciche, Co-Chair
Senator Anna Fairclough
Senator Lesil McGuire
Senator Berta Gardner

MEMBERS ABSENT

Senator Mike Dunleavy, Co-Chair

OTHER LEGISLATORS PRESENT

SENATOR CATHY GIESSEL

COMMITTEE CALENDAR

PRESENTATION: THE ALASKA OIL & GAS CONSERVATION COMMISSION
MISSION OVERVIEW & OUTSTANDING ISSUES.

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

CATHY FOERSTER, Chair & Engineering Commissioner
Alaska Oil & Gas Conservation Commission (AOGCC)
Anchorage, Alaska

POSITION STATEMENT: Presented information on AOGCC's mission and
outstanding issues.

ACTION NARRATIVE

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CO-CHAIR PETER MICCICHE called the Senate Special Committee on
TAPS Throughput meeting to order at 3:35 p.m. Present at the
call to order were Senators Gardner, Fairclough, McGuire, and
Chair Micciche. He also noted the presence of Senator Giessel.

PRESENTATION: The Alaska Oil & Gas Conservation Commission
Mission Overview & Outstanding Issues.

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CO-CHAIR MICCICHE announced a presentation by the Alaska Oil & Gas Conservation Commission (AOGCC). He related that the state is seeing increased activity in oil and gas business. Cook Inlet has new jack-up rigs and a new platform that is about to be installed. Cook Inlet Energy is operating two-to-three conventional rigs. Repsol and ConocoPhillips are conducting winter exploration activities.

CO-CHAIR MICCICHE noted a 20 percent increase in AOGCC-related activities. He voiced concerns about not having enough inspectors. He requested AOGCC educate Alaskans on what they do and suggested the possibility of providing future assistance to them.

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CATHY FOERSTER, Chair & Engineering Commissioner, Alaska Oil & Gas Conservation Commission (AOGCC), Anchorage, Alaska, presented information on AOGCC's mission and outstanding issues. She explained that AOGCC is an independent and quasi-judicial body located in downtown Anchorage. Although located within the executive branch, by statute AOGCC is independent and does not report to any department but is held to the same administrative requirements. This is so that when DNR comes before AOGCC, it is not held any higher than any other applicant. AOGCC must remain fair and unbiased in nature.

MS. FOERSTER related that statute requires three commissioners; one must be a petroleum geologist, one must be a petroleum engineer, and one must be a public member with relevant training and experience. The public position is currently vacant. She listed the remaining staff: two geologists, six engineers, seven field inspectors, and several IT data management and administrative support positions. There is currently one engineer vacancy and an effort to add one additional field inspector.

She noted that staffing is one of the biggest issues AOGCC has. She said the industry is very active and the technical staff are drawn from the same talent pool as the industry. The industry's compensation is more competitive so it is hard for AOGCC to compete for staff. She related that the last two engineers AOGCC

lost left for a 10 percent signing bonus, a 20 percent raise, and an all-expense trip back to Texas.

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SENATOR GARDNER asked how long the positions have been vacant and if AOGCC can exempt positions from normal compensation schedules.

MS. FOERSTER replied that the field inspector positions have been filled and another field inspector position has been recently added. With the increased activity, more inspectors are needed. The engineer position has been vacant for close to two years. For a while there was a geologist vacancy. The commissioner vacancy occurred at the end of January. She said AOGCC has sought and achieved an exemption for technical staff. She said AOGCC and DNR's technical staff, geologists, and engineers receive an exempted salary status. This year AOGCC budgeted for a raise for commissioners, also, and will make those positions competitive with the director of the Division of Oil and Gas at DNR.

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CO-CHAIR MICCICHE said AOGCC used to compete with Lower 48 positions of similarly qualified and adequately experienced field engineers, but they don't come close to competing within Alaska.

MS. FOERSTER agreed. She said field inspectors have difficult work and must travel to remote sites. On the North Slope they are on call 24/7. She gave examples of the types of calls they receive. She said inspectors try to respond to those calls as quickly as possible due to potential cost to the industry, but with a shortage of inspectors, a balance between having adequate coverage of inspections and not slowing projects down is needed. Inspectors in Cook Inlet, off slope, are on call even when they're on vacation.

CO-CHAIR MICCICHE requested more about AOGCC's mission.

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MS. FOERSTER recounted AOGCC's mission: prevent hydrocarbon waste, protect correlative rights, promote greater ultimate recovery, protect underground fresh water, and protect human safety. She related that AOGCC exercises the police powers of the State of Alaska and has jurisdiction throughout the state, including offshore state waters for conventional oil and gas, coalbed methane, shale gas, shale, oil, and geothermal resource

exploration and development. In addition, if a well is being drilled for other purposes, but there is reason to suspect that it will encounter unanticipated hydrocarbons or other hazardous substances, AOGCC has the authority to assert jurisdiction. She said in 2013 when CIRI was drilling underground coal gasification wells, AOGCC asserted jurisdiction preventing a blow-out.

She explained that their authority covers resource management and conservation, drilling and well work operations, well integrity and well safety systems, custody transfer metering, and, eventually, well abandonment.

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MS. FOERSTER described the typical AOGCC approvals: drilling, sundry wellwork, underground injection, conservation orders, and others. She said all wells drilled in Alaska must receive a drilling permit. All remedial or recompletion wellwork on an existing well requires a permit. The AOGCC has primacy for administering the EPA's Class II underground injection control program in Alaska, and has its own independent review, approval, and monitoring of injection into Class I wells. She said there are statewide rules covering all requirements, but whenever an operator wants pool-specific rules, they submit a request to AOGCC and those rules are addressed in conservation orders. She gave an example from the Cook Inlet fields.

She related that AOGCC addresses a variety of other approvals, such as granting exceptions and variances from existing rules. She shared that in the new millennium, AOGCC has approved almost 3,000 drilling permits, and almost 6,000 sundry well work permits, over 1,200 injection orders, conservation orders, and other decisions and orders.

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MS. FOERSTER listed the major issues before the AOGCC: increased Cook Inlet activity, increased North Slope activity, hydraulic fracturing regulation, suspended, orphaned, and BLN legacy well clean-up, and North Slope gas sales. She addressed increased Cook Inlet activity, stating that offshore drilling in the post-Macondo world is one of the hottest topics before AOGCC. New operators are coming to the field. Furie and Buccaneer have brought jack-up rigs to the Inlet and have been exploring for the past few seasons. Both of these companies have come to Alaska with a lower standard of regulatory compliance than Alaska is used to and have required more than normal regulatory oversight. Both companies are making meaningful discoveries.

Also, Hilcorp has purchased Unocal and Marathon's interests and is very aggressively investing in restoring production in these fields. She referred to a graph that depicts the uptick in production in Trading Bay Field due to Hilcorp's aggressive wellwork and drilling program.

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SENATOR GARDNER recalled that several years ago AOGCC was concerned with lack of office space. She asked if that was resolved.

MS. FOERSTER said they requested and received additional budget to expand the office space.

SENATOR GARDNER asked if new developers have a lower standard of regulatory compliance and are less compliant, or if they've historically practiced in a place with differing regulations.

MS. FOERSTER explained that she could not speak to their prior operations, but most states are fairly similar. She said AOGCC's experience with new developers is that they are cutting corners, making mistakes, and not knowing Alaska's regulations, all of which require greater vigilance and more frequent inspections. She used Hilcorp as an example of a company that is striving to be the best operator, but has a way to go.

MS. FOERSTER showed increased production in Trading Bay and Swanson River Field, noting it is worth AOGCC's time to work with Hilcorp and bring them up to regulatory compliance. She added that Cook Inlet Energy also shows increased production in Redoubt Shoal Field.

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MS. FOERSTER continued to explain that increased activity has kept AOGCC very busy. She said they are reviewing an unusually high number of custody transfer metering applications for companies wanting to bring new production on. Field inspectors are conducting more inspections and safety system tests. New operators are having difficulties complying with regulations so inspections and incident investigations are also up. AOGCC is currently involved in adjudication of some very heated disputes among operators and land owners. The modest inspection staff is being stretched to the max and more are needed. In the big picture the increased activity is very positive.

CO-CHAIR MICCICHE commented that the impact of not having enough inspectors is a key issue that the legislature will be working on.

SENATOR MCGUIRE asked if it is in the budget to include more inspectors.

CO-CHAIR MICCICHE noted that the positions are funded by the industry. He shared consequences of decreased regulatory oversight, delays to the industry, mandatory tests, overtime costs, and risk of an accident or injury from exhaustion.

MS. FOERSTER said AOGCC has put in a request for an additional field inspector.

MS. FOERSTER described the increase in North Slope activity: winter exploration drilling, increased work in oil fields, viscous oil, CD-5, and Pt. Thomson. It is the winter exploration season and Conoco is drilling one exploratory well and Repsol is drilling five wells, which is putting a regulatory strain on field inspectors, engineers, and geologists.

She said activity in the legacy fields is also up. For example, over the past year, Prudhoe Bay has experience a 35 percent increase in well work activity and Kuparuk has experienced an 18 percent increase. The annual decline rate for Prudhoe Bay and Kuparuk appears to be slowing with Prudhoe at 2 percent and Kuparuk at 4 percent, compared to their usual decline of 6 percent. Both Conoco and BP continue to work at unlocking the enormous potential of viscous oil on the slope, and Conoco is working toward development of CD-5, an expansion of its Colville development. She said AOGCC expects renewed well work activity, possibly next year, from Exxon as it moves toward start-up of its Pt. Thomson gas cycling pilot. Finally, AOGCC is hopeful that, as Great Bear completes its evaluation of the exploratory data it gathered, they will be back with positive results and a plan to bring Alaska into the shale business.

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MS. FOERSTER addressed hydraulic fracturing, which has become a nationwide topic of interest. It is not new to Alaska where it has been done for over 40 years. Right now, about 24 percent of Alaska's wells have been hydraulically fractured and the number is increasing. She said AOGCC has been regulating hydraulic fracturing since the beginning and has just completed a multi-year effort to modify its regulations, first to keep up with technology advances, second to address fracturing fluids

disclosure and water quality monitoring, and third, to gather all regulatory requirements into one section in order to make it easier for the public to understand hydraulic fracturing. She asked legislators to refer their constituents to AOGCC for information.

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SENATOR GARDNER asked whether an impediment to expansion of hydraulic fracturing is access to water. She asked if it will be a problem for Great Bear's expansion.

MS. FOERSTER said it is not an issue in Alaska.

CO-CHAIR MICCICHE inquired how to provide a best practices program due to the change from traditional producers to new players.

MS. FOERSTER explained that AOGCC reaches out to new players in order to explain regulations to engineering and operating management and refers them to mentors, informally.

CO-CHAIR MICCICHE suggested the legislature might want to provide formal training for new operators.

MS. FOERSTER related that when DNR gives someone a lease there is no vetting to demonstrate solutions and money if problems arise or if the company has the ability to avoid potential problems. She suggested asking DNR to vet operators new to the state.

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CO-CHAIR MICCICHE said he has been in the field with large and small companies. He opined that large companies bring expertise that should be shared with newer players.

MS. FOERSTER agreed. She addressed suspended, orphaned, and BLM well clean-up. She said states like Texas and Oklahoma have thousands of orphaned wells; Alaska has only a handful. AOGCC has a constant effort to hold operators accountable for properly plugging and abandoning wells that have no further utility. The only operator AOGCC has a problem with is the federal government's BLM travesty wells. She said the bad news is that those wells are still a problem. The good news is that, thanks to the legislature and Senator Murkowski, Congress has provided \$50 million to BLM for their clean-up. BLM is working closely and cooperatively with AOGCC and ADEC to ensure that the clean-

up meets state standards, which are significantly higher than their own.

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SENATOR FAIRCLOUGH said Ms. Foerster has reported that BLM has done the right thing, but the Senate Resource Committee has been not happy with BLM's past practice. She thanked those at BLM who are responding to Alaska's concerns and looked forward to a future with better relationships.

MS. FOERSTER turned to AOGCC's role in North Slope gas sales in order to prevent hydrocarbon waste and ensure greater ultimate recovery of total hydrocarbons. She said those two charges have enormous implications for North Slope gas sales. In the world of petroleum engineering, it is a simple truism that taking gas from an oil field puts ultimate oil recovery at risk. Prudhoe Bay is an oil field with about 2 billion barrels left to produce and Pt. Thomson is also an oil field, so AOGCC is responsible for determining when and how much gas can be taken from those oil fields so that waste does not occur and greater ultimate recovery is achieved.

MS. FOERSTER referred to the white papers AOGCC developed to describe its role in gas offtake determination and the concerns it has with Prudhoe Bay and Pt. Thomson. She said it is possible that the best use of the Pt. Thomson gas will be to inject it into the Prudhoe Bay gas cap to get an added half billion barrels out of the Prudhoe Bay reservoir. As Conoco and BP work to find ways to unlock the huge potential of viscous oil resource, it is highly likely that gas will be part of the solution. The USGS estimates roughly 150TCF of undiscovered gas on the North Slope. If there is the reality of a market for that gas, then the exploration work needed to realize those discoveries will likely result.

She said the question was asked whether the gas that is burned off is wasted. She reminded the committee that the gas BTU content, out until 2028, is producing a more valuable field-burning product than the product being used to get it out of the ground. It won't be until 2028, on a BTU basis, "that we're using as much gas as we're getting oil." She concluded that the dollar value to those two products is off the graph.

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CHAIR MICCICHE asked for a copy of the graph. He asked if it was based on current decline rates.

MS. FOERSTER said it uses the 6 percent decline rate. She handed out the BTU graph. She stressed that the operators are doing the best thing for the state by using gas to produce more oil.

CO-CHAIR MICCICHE noted there are other options of lifting the hydrocarbons.

MS. FOERSTER agreed. She concluded that, "The monkey's on the operator's backs to demonstrate to us, and to you, that selling the gas from Prudhoe Bay and Pt. Thomson is the best answer for preventing waste and ensuring greater ultimate hydrocarbon recovery." She said AOGCC is looking to BP and Exxon to do that. She continued to say, "I guarantee they are not going to spend big bucks to build a line, if they don't think they are going to be able to prove to us that it's the right thing to do. If it's the right thing to do for them, it's the right thing to do for us."

CO-CHAIR MICCICHE said it is an interesting comment and not a lot of people realize that.

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SENATOR MCGUIRE thanked Ms. Foerster for her work. She asked if there is anything the committee needs to know about oil and gas development. She reflected on the debate over AGIA where AOGCC was not contacted or asked to participate. She asked Ms. Foerster to comment on that. She also asked Ms. Foerster to comment on the proposed gas line bill or any other bills.

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MS. FOERSTER said she respects the legislative process and recognizes that they reach out when necessary. She opined that with the gas line, in general, "the later it is and the lower the rate, the less the losses will be." The less oil that is left in the ground, the lower the losses will be. The more things that the operator plans and puts in place to mitigate those losses, such as their current process of gas cap water injection, looking to see if CO2 can be used as EOR, and other tried and proven tactics, the better off Alaska will be. She reiterated the statement that the large companies are not going to go forward if it is not financially beneficial to them. If they make more money, the state will make more money. She concluded that AOGCC's job will be to ensure that companies have "dotted the i's and crossed the t's."

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SENATOR GARDNER referred to an article in Petroleum News and asked if gas will be needed to develop heavy oil and viscous oil more than is used currently.

MS.FOERSTER said there will likely be a greater need for gas/fuel for reduction of viscosity. AOGCC has communicated to BP and Conoco that they are looking to them to see where gas fits into their viscous oil development. Gas is likely to be instrumental to viscous oil recovery.

SENATOR GARDNER summarized that viscous oil would be instrumental in increasing production, as opposed to reducing the decline. She asked if that adversely impacts options for gas export.

MS. FOERSTER maintained that viscous oil will never stop the decline.

SENATOR FAIRCLOUGH wished people to know that there is a 2 percent decline, rather than a 6 percent decline in Prudhoe Bay.

MS. FOERSTER pointed out that the legislature has done a lot to incentivize the increase in production.

CO-CHAIR MICCICHE thanked AOGCC for the presentation.

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There being nothing further to come before the committee the Senate Special Committee on TAPS Throughput was adjourned at 4:22 p.m.