SENATE FINANCE COMMITTEE
February 6, 2013
9:02 a.m.

9:02:08 AM

CALL TO ORDER

Co-Chair Meyer called the Senate Finance Committee meeting to order at 9:02 a.m.

MEMBERS PRESENT

Senator Kevin Meyer, Co-Chair
Senator Anna Fairclough, Vice-Chair
Senator Mike Dunleavy
Senator Lyman Hoffman
Senator Donny Olson

MEMBERS ABSENT

Senator Pete Kelly, Co-Chair
Senator Click Bishop

ALSO PRESENT

Lynn Kent, Deputy Commissioner, Department of Environmental Conservation; Michelle Bonnet Hale, Director, Water Division, Department of Environmental Conservation.

SUMMARY

SB 29 CRUISE SHIP WASTEWATER DISCHARGE PERMITS

SB 29 was HEARD and HELD in committee for further consideration.

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Co-Chair Meyer discussed the meeting's agenda. He noted that there was a House companion bill to SB 29 and that the two bills might be joined in the future.

#sb29
SENATE BILL NO. 29

"An Act relating to the regulation of wastewater discharge from commercial passenger vessels in state waters; and providing for an effective date."

LYNN KENT, DEPUTY COMMISSIONER, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, introduced herself and extended Commissioner Hartig's apologies for being unable to attend the meeting. She related that the commissioner was attending meetings in Anchorage.

Ms. Kent stated that some of the Department of Environmental Conservation's (DEC) authorities regarding cruise ship wastewater discharges were not in SB 29 and would continue to apply. She related that the bill required cruise ships to comply with the same permitted discharge requirements as other dischargers in Alaska. She pointed out that the history of the bill started in 1999 and stated that there was a time in history when cruise ships were not doing a good job treating wastewater that was discharged into Alaskan waters. In 2004, the vessels that were discharging in Alaska had switched to advanced wastewater treatment systems; the new treatment systems were the best technology available at the time and produced a higher quality effluent than most of the shore-based sewage treatment facilities.

Ms. Kent relayed that in 2006, a ballot initiative was passed that included provisions for taxing cruise ships and putting ocean rangers on board; for the purposes of the bill, the initiative required DEC to issue a permit to the cruise ships that wanted to discharge wastewater in Alaska. She related that Alaskan waters extended three miles off shore and that beyond that distance, the waters were federal. The ballot initiative required that the cruise ship wastewater discharge meet Alaska's water quality standards at the point of discharge. The Federal Clean Water Act required states to protect the uses of water bodies; uses included potable fresh water, the protection of aquatic life in marine waters, contact recreation, and other uses. The department set in regulation how much of a particular pollutant could be in a water body, while still protecting the uses of that water body. There was a process for setting the water standards that relied on the latest science. She remarked that there was a thorough process for setting standards and that the legislation did not propose to change the standards that applied to the protection of a water body. She furthered that the standards were set to

relate to ambient water, such as oceans, rivers, and streams. She concluded that the standards were used to evaluate permits to discharge treated wastewater in the water body; the department set permit limits to protect the uses in the water body.

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Ms. Kent discussed the point of discharge requirement and explained that it meant that cruise ships were required to meet the standards to protect the uses of a water body in the pipe before it was discharged in that water body; this was in contrast to how DEC treated other dischargers in the state in terms of permitting. Permits for all other wastewater discharges from other types of facilities were allowed to request approval for a mixing zone. She explained that a mixing zone was authorization in a permit that had gone through a public review and comment period; furthermore, a mixing zone was an exception to the water quality standards that allowed a discharger to discharge into an area in a body of water at levels above the quality standards as long as the standards were met at the edge of the mixing zone. She expounded that the mixing zone approach was approved by the Environmental Protection Agency (EPA) and was used by all the other states. She related that mixing zones recognized the difficulty of meeting the water quality standards at the point of discharge and provided a little relief through the permitting process. She relayed that approval for a mixing zone was not easy to obtain and that there were a number of requirements in order to qualify. The department was required to look at the cumulative effect of multiple dischargers in the same water body.

Ms. Kent stated that another requirement was that the effluent had to be treated to remove, reduce, and disperse the pollutants using the most effective technology that was economically feasible, and to do so at a minimum that was consistent with statutory and regulatory treatment requirements. Mixing zones could not be authorized if they would create a public-health hazard that would preclude or limit existing uses of the water body for water supply or contact recreation. Mixing zones could not preclude or limit established processing or fishing, could not result in a reduction of fish or shellfish populations, etc. The department's permits stated the conditions of discharge, the limits to comply with the mixing zone, and the

monitoring requirements. She offered that the 2006 citizens initiative had precluded DEC from issuing cruise ships permits allowing mixing zones. She pointed out that the department required the monitoring of cruise ships' treated wastewater; however, cruise ships had been unable to meet all of the water quality standards at the point of discharge.

Ms. Kent related that in 2009, the legislature passed HB 134, which temporarily allowed cruise ships to have mixing zones; the authority would sunset in December of 2015. She stated that HB 134 had also convened a science advisory panel that had 11 members. The panel's mission was to examine the wastewater treatment systems that were currently on board cruise ships and the level of effluent quality achieved by the advanced wastewater systems. The panel looked at whether there were new and emergent technologies that could do a better job with wastewater treatment and also looked at the engineering and economic feasibility of making improvements to the effluent quality. She concluded that the panel's main mission was to look at treatment methods that would result in cruise ships meeting the water quality standards at the point of discharge. She pointed out that the science advisory panel had met 14 or 15 times and the meetings were open to the public; they had reviewed a tremendous amount of data and looked at issues and systems onboard vessels.

Ms. Kent stated that the panel had found that the cruise ships meet all the standards at the point of discharge with the exception of four parameters; ammonia and three dissolved metals, including copper, nickel, and zinc were not being met. The panel had found that the current advanced wastewater treatment systems onboard cruise ships were the most effective and proven treatment systems that were available. She discussed that there were a variety of manufacturers of the treatment systems and that as a result, there was some variation in the effluent quality from ship to ship. She continued that the science advisory panel had not found any "silver bullet" treatment method that would allow cruise ships to meet the water quality standards at the point of discharge for the remaining four parameters. She added that the panel had found that given the current quality of effluent and the large dilution factors in the ocean, there would be very little, if any, demonstrable environmental benefit in requiring cruise ships to adopt potential additional treatment methods. She

related that the panel had questioned whether smaller incremental improvements would still be economical when all four water standards would continue to be unmet at the point of discharge. She pointed out that DEC had other authorities to dictate when, where, how, and what cruise ships could discharge. Under the legislation, all of DEC's water standards and permitting requirements would remain in place, as well as DEC's ability to look at potential future technologies.

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Ms. Kent stated that the science advisory panel released a preliminary report to the legislature in January of the current year and that a final report would be due January of 2015. She communicated that the panel's report was not a draft report, but was a complete and thorough evaluation of existing, new, and emerging treatment systems; DEC had concurred with the panel's report. She stated that SB 29 would remove the point of discharge requirement in order to allow the cruise ships to apply for a mixing zone and be treated like other dischargers in Alaska; however, cruise ships would be statutorily required to continue to use an advanced wastewater treatment system if they wanted to meet the threshold to apply for a mixing zone. She stated that the bill removed a requirement that was impossible for cruise ships to meet currently.

Ms. Kent relayed that the bill gave DEC guidance on what advanced wastewater treatment systems were and allowed it to consider an application for a mixing zone for system that treated to the same quality as the advanced wastewater treatment systems. She noted that the bill pertained to small commercial passenger vessels in addition to larger cruise ships. She pointed out that the bill continued an option that was established by the legislature in 2009 for the small cruise ships to operate under alternative terms and conditions; these small ships were not required to have advanced wastewater treatment systems or meet the point of discharge requirements. She explained that it would be extremely difficult for the smaller vessels with limited space to install the advanced treatment systems. The alternative terms also allowed the smaller cruise ships to have their best management plans approved for five-year terms rather than three-year terms.

Ms. Kent stated that SB 29 eliminated a law that required that a subsequent permit could not be less stringent than the previous one. She explained that the state had an anti-backsliding provision in law for all of DEC's other permittees that allowed for certain exceptions; the problem with the anti-backsliding provision in the cruise ship law was that there were no exceptions. She explained that currently, DEC would be unable to approve a plan for a cruise ship to reconfigure its wastewater treatment facilities in a way that treated one parameter not as well in exchange for treating three or four others significantly better. She provided another example of how the anti-backsliding provision could restrict DEC's options. The bill included a transition provision that allowed the current general permit to be in effect until December of 2015 and allowed a seamless transition from the old law to the new law. The legislation called for the science advisory panel's sunset, technology conferences, and the final report to the legislature. The bill did not change existing statutes that allowed the state to continue looking at technology improvements in the future and did not change the requirement to use new technologies when they became available. She offered that the legislation was consistent with how DEC viewed wastewater discharges and shared that the department regulated based on the effects to water quality rather than who the dischargers were. She added that the bill would be consistent with how the department permitted other wastewater dischargers.

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Ms. Kent discussed the department's zero fiscal note and communicated that the changes to the permitting regime would have no fiscal impact on the department. The department's operating budget for cruise ship permitting and water quality work was paid for by a legislative appropriation from the Commercial Passenger Environmental Compliance Fund, which was funded by cruise ship passenger fees. She mentioned that DEC had not sought additional funding when the advisory panel was created in 2009. She concluded that the department had been able to fund the panel's work within the existing budget and it was looking forward to returning to work that had been deferred for the last few years.

Senator Dunleavy inquired if the Alaska Ferry System was held to same standard, a higher standard, or a lower

standard as cruise ships. Ms. Kent responded that there were five cruise ships in Alaska that were considered to be small commercial passenger vessels and that these smaller ships operated under best management practices and alternative terms and conditions.

Senator Dunleavy restated the question and asked if the ferry system was held to a higher, lower, or the same standard as the cruise ships that were referenced in the bill. Ms. Kent responded that she had misspoken and that there were five state ferries that were considered small commercial passenger vessels and that these ferries were regulated under the same terms and conditions as other small commercial passenger vessels.

Senator Dunleavy reiterated the question. Ms. Kent replied that the five ferries were held to the same standard as all other small commercial passenger vessels; the ferries would have to submit a plan for alternative terms and conditions, as well as best management practices.

Senator Olson inquired if the Alaska Marine Highway System's ferries were held to the same standard as the cruise ships that had greater than 250 berths. Ms. Kent responded that the larger vessels were those that had 250, or more, lower berths; smaller vessels were those that had 249 lower berths or less. The large commercial vessels had a permit requirement and the point of discharge requirement. She related that the small commercial passenger vessels had to comply with the same requirements as the other small commercial passenger vessels; small commercial passenger vessels were not currently required to meet the water quality standards like the large vessels.

Senator Olson restated Ms. Kent's response and offered that the ferries were held to the same standard. Ms. Kent responded in the affirmative.

Ms. Kent interjected that the smaller commercial passenger vessels currently had relief from the point of discharge requirement. The current law removed that relief for the larger and smaller vessels at the end of 2015; at this time, all cruise ships would have to meet water quality standards at the point of discharge.

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Vice-Chair Fairclough asked how many communities applied for a discharge permit onshore. Ms. Kent replied that she had asked her staff the question, but that it was not easy to discern the difference between facilities that discharged in fresh water versus marine water. She added that there were over 100 communities that discharged into marine waters.

Vice-Chair Fairclough asked if Anchorage discharged to marine waters. Ms. Kent responded in the affirmative.

Vice-Chair Fairclough inquired if Juneau discharged into fresh water. Ms. Kent replied that the Juneau-Douglas plant discharged into marine waters.

Vice-Chair Fairclough queried if the discharge permit for Juneau had a higher or lower standard than the current law for cruise ships in terms of the amount of zinc, nickel, ammonia, or copper that was allowed. Ms. Kent replied that there were unique circumstances for some of the domestic wastewater dischargers in Alaska's marine waters. She believed that there were seven communities that were authorized to discharge with only "primary treatment," which was a low level of treatment. All other marine dischargers were required to treat to "secondary treatment," which was a higher level of treatment.

MICHELLE BONNET HALE, DIRECTOR, WATER DIVISION, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, stated that she could not speak specifically to limits in individual permits; however, in general, many of the domestic wastewater treatment facilities had limits; often, they did not have limits for the metals that were limited in the cruise ship permits. The limits were set based on a "reasonable potential to exceed water quality standards or water quality criteria." She added that when domestic wastewater facilities did have limits, they were less stringent than the cruise ship general permit limits. She pointed out that onshore domestic wastewater treatment facilities were limited for other constituents, but not often the same ones as the cruise ships.

Vice-Chair Fairclough inquired if the onshore facilities could discharge zinc, nickel, ammonia, and copper at a higher level than the cruise ships currently could. Ms. Hale responded that sometimes that was the case.

Vice-Chair Fairclough acknowledged that it was difficult and noted that she did not mean to "split hairs." She observed that the state was making a decision based on economics, the ability of some communities to achieve compliance, and an effort to continuously raise the water quality standards. She explained that she was trying to understand, specifically in Southeast waters, the coastal communities that were "making that choice"; furthermore, she wanted to understand the economics involved in attaining less discharge into the water. She noted that the industry was asking for the same economic consideration that the coastal communities had. She wondered if it was acceptable for Haines not to improve its system to a higher level and noted that there would be large fiscal consequences to improving the system in Anchorage; she wanted to understand that "those communities" were making the same determinations through a public process.

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Vice-Chair Fairclough inquired if there was discharge in the Haines and Ketchikan areas into marine waters and further queried if the two communities had mixing zones. Ms. Kent replied that the wastewater dischargers from the domestic facilities, with maybe one exception, had permitted mixing zones; the permits went through a five-year review that included public comments and review. She stated that Vice-Chair Fairclough raised a good point and that it was very expensive for a community to design, construct, and operate wastewater treatment facilities. She concluded that the facilities did a good job within their means and that DEC attempted to push them at each permit cycle to do better.

Vice-Chair Fairclough mentioned that she had a biologist working on her staff and noted that fish processing expelled ammonia. She inquired if fish processors were required to comply with mixing zone permits when they were discharging into marine waters. Ms. Kent responded that in many cases, processors were required to have a mixing zone permit primarily for the discharge of the seafood waste, which needed to be ground up before it was discharged. Vice-Chair Fairclough inquired if Ms. Kent was referring to primary treatment rather than secondary. Ms. Kent replied that the primary and secondary treatment requirements only applied to domestic wastewater; seafood processors were considered an industrial operation with an industrial

discharge. She concluded that seafood processors must have a permit for their discharge from processing activities and that the permits almost always included a mixing zone.

Senator Hoffman noted that Section 1 of the bill removed the more stringent requirements for discharge. He observed that cruise ships would have to apply for the mixing zones and inquired if DEC had considered moving those mixing zones. He further queried what the status of the mixing zones would be if the more stringent requirements for discharge were removed and if the department anticipated that mixing zones would remain the same. Ms. Kent responded that the current law gave temporary relief to cruise ships for meeting all the water quality standards at the point of discharge. She stated that in the current permit, cruise ships did have the equivalent of a mixing zone. She offered that future permits, in almost all circumstances, were as stringent as or more stringent than the previous permit. She stated that on any given year, there were 27 or 28 cruise ships coming into Alaska and that only 17 or 18 of the ships were permitted to discharge in the state's waters; only 7 of those were permitted to discharge while in port. She explained that a permit for a cruise ship to discharge in port had more stringent effluent limits than the limits for discharging while the ships were underway. The department had the ability to place a multitude of controls on when, where, what, and how the cruise ships could discharge.

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Senator Hoffman noted the removal of the stringent requirements and inquired if the mixing zones would be moved by the department when the zones applied or if there would be no change in those locations. Ms. Kent replied that every time a permit cycle was done, the permits went through a public review and comment period and that the public often commented on the specifics of discharges. She could not guarantee that the mixing zones would not change, but offered that she could characterize the zones in the current permit; when a vessel was underway at 6 knots or more, there was a 50,000 to 1 dilution. She furthered that when a discharge occurred at the levels that were specified under the current permit, the water quality standards were met within seconds of discharge and concluded that there was not a trail of pollution behind the cruise ships. She furthered that for vessels that discharged in port, there

were more stringent effluent limits; the water quality for these vessels were met within meters of the discharge point.

Senator Hoffman wondered if the department felt that the mixing zones should be further addressed in the legislation given the removal of the stringent requirements. Ms. Kent responded that she did not believe so and that DEC had all the necessary authority to ensure the protection of water quality.

Senator Dunleavy pointed to Ms. Kent's testimony that the bill removed a requirement that was impossible to meet. He inquired if the requirement was impossible to meet because the technology did not exist, or whether it was something inherent to the cruise industry. Ms. Kent replied that a previous science panel, a conference by DEC, and the current science panel had all arrived at the conclusion that the advanced wastewater systems were the best available; although there were certain things that could be done in a laboratory or other settings, there were currently no other treatment systems that could be installed on cruise ships that would allow them to meet the existing water quality standards at the point of discharge.

Senator Olson noted that the point of discharge requirement was the key to the discussion and was one of the priorities. He asked what kinds of materials the cruise ships were discharging. He queried if the discharges were raw sewage or grey water and wondered how the discharges were treated. He referenced an earlier comment by Vice-Chair Fairclough and wondered how the state knew that the chemicals used in the treatment process were not harming the environment.

Ms. Kent replied that the permit only allowed cruise ships to discharge treated wastewater that had been through the advanced wastewater system. She stated that permit limits were set by the type of treatment system that the vessel had. She reiterated that there were different manufactures of the advanced wastewater treatment systems and that each had a slight difference in the level of success; however, all the advanced wastewater treatment systems treated to a very high standard. She shared that the requirements became significantly less stringent in waters outside of the state's jurisdiction; these waters were managed under the federal regime and only required a Type II marine

sanitation device. She explained that a Type 2 marine sanitation device basically consisted of a macerator and chlorination. She responded to the last question and stated that the permit did include a limit for chlorine for the vessels that discharged in Alaska.

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Senator Olson inquired how the state verified what the cruise ships were discharging and wondered if samples were taken. Ms. Kent responded that the permit included significant number of monitoring requirements and that cruise ships had to take their first samples within ten days of their first visit to Alaska each year; additionally, there were requirements for monitoring some things daily, while others were monitored twice per season. She pointed out that ammonia, copper, nickel, and zinc were monitored twice per month.

Senator Olson surmised that DEC had been involved in the formulation of the bill and inquired it felt that commercial fishermen, subsistence and personal use gatherers, or the mariculture industry should be concerned with the relief the legislation would give to cruise ships. Ms. Kent did not believe they should be concerned and noted that the water quality standards were designed to protect marine life in the water body. Given the dilution that occurred and the high quality of the discharge, she did not think there was a concern.

Senator Olson wondered if the mixing zone locations would be published in order to inform the public as to where they were. Ms. Kent replied that the mixing zones for cruise ships that were underway would be limited by the distance from shore and how fast the cruise ship was moving. She related that the zone could not be drawn on a map because they were right next to ships, even when the ship was moving. Senator Olson interjected that the assertion was based on the assumption that a ship was traveling 6 knots. Ms. Kent responded in the affirmative and relayed that DEC required the ships to be moving a certain speed to be able to discharge. For vessels that were approved to discharge in a port, the mixing zone was within meters of the vessel. She stated that in order to have overlapping mixing zones in port, two of the seven approved port dischargers would have to be in same location at the same time and would have

to be docked within meters of each other. She concluded that cruise ships did not dock within meters of each other.

Senator Olson stated that he had been a commercial fisherman and offered that fisherman were always concerned with what was being put into the water. He asked if DEC had considered establishing reasonable "no-discharge zones," so that fisherman could have a reasonable assurance that certain areas were free of discharges. Ms. Kent replied that DEC had done that sort of thing through the permitting process and had even done so for the small commercial passenger vessels.

Senator Olson inquired when the sunset was for the science advisory panel and wondered what the reason for the sunset was, given that there was an ongoing report that was not due until 2015. Ms. Kent responded that science advisory panel was due to sunset at the end of 2015 and that the panel had already conducted a very thorough look at the technologies that were available; the current science panel had reconfirmed the findings of the previous panel and the DEC conference on cruise ship wastewater technologies. She shared that the department was unsure what the current science advisory panel would do over the next three years, particularly because the department retained the authority to conduct additional technology conferences and to examine technology "at least" with every permit cycle.

Senator Olson commented that the bill seemed premature, given that the final report was not coming out until 2015 and inquired why the legislation was being heard before a final report had come out. He noted that the legislature only had a draft and did not even have a preliminary report. Ms. Kent replied that the science advisory panel had produced a preliminary report that was not a draft report; furthermore, the report had many previous drafts and was a complete final preliminary report. She stated that the preliminary report contained everything the panel knew about the current state of technology for cruise ships and also projected that there would not be any technologies in the near future that would allow cruise ships to meet all the water quality standards at the point of discharge. She concluded that there was no one technology or combination of technologies that would satisfy the last four parameters.

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Senator Olson stated that an inadvertent discharge that was too close to shore was a "nightmare" and mentioned the running aground of the Costa Concordia. He inquired if the legislation addressed a situation like the Costa Concordia grounding. Ms. Kent replied that the existing law, which did not change under the bill, provided an exemption for discharges that were made to protect life and safety at sea. She opined that if the state had an accident like the Costa Concordia, untreated sewage in the water would probably be the "least of our worries"; the department would be more concerned about human lives and oil spills. She added that DEC had an entire spill prevention and response division.

Senator Olson acknowledged that life and health was a concern, but was worried that diseases could be held in wastewater holding tanks. He thought there should be concern regarding what people in coastal areas would be encountering in the event of an accident, particularly regarding close-proximity contact recreation or fish harvesting. Ms. Kent replied that DEC could not stop a release, but that the department had zero tolerance for contamination of seafood. She relayed by example that if there were shellfish beds in proximity to a discharge from an accident such as the Costa Concordia, the department would probably shut down the consumption of seafood from that area for a period of time.

Co-Chair Meyer noted that the meeting was being held for inquiries and encouraged committee members to ask questions.

Co-Chair Meyer noted that DEC had stated that the technology did not currently exist to meet the standards on cruise ships and observed that the department did not see a reason for the science advisory panel to continue. He pointed out that technology changed constantly and inquired if the department was monitoring the latest technology. He added that there could be a time in the near future when technology would reach the point where the higher water quality standards were achievable. He thought that everyone wanted the standard to be as high as possible for Alaska's water and inquired if the department could provide some assurance regarding how new technologies were monitored.

Ms. Kent replied that there were a couple of ways that DEC monitored technology and several places where the department had monitoring authority. She pointed out that the regulations specified that anyone who was applying for a mixing permit was required to use the most technologically effective and economically feasible treatment methods, which had to be consistent with any state and federal laws pertaining to that particular type of discharge. The department had other statutory authorities that allowed it to examine and evaluate technologies. She pointed out that the department did not regulate what types of treatment systems someone used, but regulated what came out of the end of the pipe. She furthered that as there were better treatment methods available, DEC could tighten the effluent limits on a permit.

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Co-Chair Meyer inquired if DEC worked with states to determine the best technology and wondered how Alaska's standards compared to other state's standards for cruise ships. Ms. Kent responded that the department did examine what other states were doing and that currently Alaska had the only cruise ship program in the world that it was aware of. She added that the science advisory panel had examined the issue from a technology perspective instead of a standards perspective.

Co-Chair Meyer asked about the science advisory panel's memberships and wondered whether its members were scientists. Ms. Kent replied that the panel's members were required by law to have experience in wastewater discharge; there were specific requirements that the panel must have a representative of coastal community domestic wastewater management, a representative of the cruise ship industry, a representative of the commercial fishing industry, and a non-governmental organization with an interest in water quality matters. She relayed that the panel had expertise in wastewater plant design and operation, wastewater engineering and science, ship engineering design and construction, environmental science, shipping economy, and fisheries and environmental policy. She detailed that the panel imported members from Europe who had a significant amount of experience with the design of ships and the design of the wastewater treatment systems to go onboard the vessels.

Co-Chair Meyer inquired if the panel's members had PhDs. Ms. Kent responded that there were four or five PhDs on the panel. She furthered that there was a good variety of expertise on the panel.

Co-Chair Meyer inquired if the fishing industry was represented on the panel. Ms. Kent responded in the affirmative.

Vice-Chair Fairclough inquired how the ocean ranger program had been implemented and how many ocean rangers were currently monitoring discharges on cruise ships. Ms. Kent responded that the ocean rangers were a part of the citizens initiative that passed in 2006, which required a Coast Guard licensed marine engineer to be onboard all large cruise ships entering Alaskan waters; the marine engineer's purpose was to monitor the cruise ship's compliance with state and federal environmental sanitation and waste laws. She added that the marine engineer did not have any enforcement authority, but produced a daily report for DEC; furthermore, the engineer did not conduct any actual monitoring, but looked at the vessel's logs and record books to see where the discharges occurred. She noted that the marine engineers were funded by a passenger head tax. She concluded that in 2012, DEC had ocean rangers onboard about 88 percent of the passenger days in Alaska. She concluded that the ocean ranger coverage was at a high level and that DEC did not have similar coverage for any other industry.

Vice-Chair Fairclough pointed out that the state was ramping up a training program to make sure that ocean rangers would be on each vessel. She inquired if the goal was to have ocean rangers on every vessel. Ms. Kent replied that DEC wanted all the ocean rangers to be Alaskans and relayed that the department had a lot of challenges finding a sufficient number of applicants with the requisite training and certification. She relayed that there was also a challenge surrounding the issue of a seasonal job versus a year-round job and explained that even though there were a lot of marine engineers in Alaska, they were mostly fully employed. She stated that there were 21 ocean rangers the prior year, 7 of which were Alaskans. She concluded that the department conducted advertising and encouraged Alaskans to apply.

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Vice-Chair Fairclough asked if the ocean rangers were assigned to different vessels or one particular route and crew. She commented that too much familiarity between the rangers and the vessel's crew might lead the rangers to complacency or unwillingness to report as aggressively as they should. Ms. Kent responded that with 21 ocean rangers and 28 vessels there had to be some rotation, but she was unsure how often the rotation occurred or how many vessels in a given year that an ocean ranger would be on in a given year.

Vice-Chair Fairclough requested a visual of how the state tested mixing zones for a vessel that was underway. Ms. Kent replied that mixing zones for a vessel that was underway were very different from a fixed mixing zone. She explained that for fixed mixing zones, the department could monitor the water quality standards in the ocean at the edge of the permitted mixing zone in order to ensure that requirements and water quality standards were met. For vessels that were underway, the department relied on studies that examined the level of dilution that occurred in the water immediately next to the discharge point; those studies indicated that there was at least a 50,000 to 1 dilution that occurred within seconds of the discharge. She concluded that the discharge would probably be undetectable after a few seconds had passed.

Vice-Chair Fairclough inquired if the discharge would be clear or grey water. Ms. Kent responded that the terms "grey water" and "black water" referred to the source of wastewater; grey water came from the galley, showers, and laundry, while black water came from toilets. She shared that once wastewater was treated through an advanced wastewater treatment system, it became clear.

Vice-Chair Fairclough queried if there was a reason that the state was not requiring cruise ships to discharge into land based facilities. Ms. Kent replied that there were some vessels that currently discharged into land-based facilities and that those vessels did not need a permit from DEC to do so; however, there were technical challenges associated with discharging into shore based facilities.

Vice-Chair Fairclough observed that there were areas where channels converged or "donut holes," which were outside of

the 3-mile limit and allowed the dumping of effluent. She pointed out that although the donut holes were outside of the 3-mile limit, they were still inside of coastal communities' concerns. She inquired if SB 29 eliminated the donut holes that were a concern to some fisherman. Ms. Kent replied that the donut holes had been eliminated for the purposes of a state permit by DEC's definition of waters that were covered. She further explained that if someone wanted to discharge into a donut hole, DEC required a permit to do so.

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Senator Olson requested a comment on why a member of the science advisory panel had been removed. Ms. Kent responded that there was a candidate that the administration had initially wanted to place on the panel, but that there had been concerns with that individual's strong advocacy role in the citizens initiative; the concerns surrounded whether or not the individual would contribute to the panel or detract from the deliberations. She stated that the science advisory panel's mission was to look at wastewater treatment technologies and that although there were members who had an interest in water quality, the main focus of the work was to find out if there were existing technologies that could do a better job.

Senator Hoffman noted that Section 7 of the bill provided for an immediate effective date and inquired if it gave the department any implementation concerns versus having a fixed date. Ms. Kent replied that the current permit expired in early April, but that the first cruise ship needing coverage would arrive near the end of April. She explained that if the bill passed, the effective date would allow DEC to extend the current permit without having a time crunch.

Senator Hoffman wondered why the effective date was not April 1. Ms. Kent responded that the legislature could make changes to the effective date. Senator Hoffman interjected that he was inquiring what DEC's position was regarding the legislation having an immediate effective date versus a fixed effective date. Ms. Kent replied that the department had not considered alternatives to the immediate effective date, but that it certainly could.

Co-Chair Meyer noted that there were different standards for Alaska's ferries that carried fewer than 250 passengers than there were for the cruise ships that carried more than 250 passengers. He inquired if the standards were more stringent for vessels that carried more passengers. Ms. Kent stated that the law made a distinction between large and small commercial passenger vessels and that five of the state ferries were considered small commercial passenger vessels. She explained that the both the small and large commercial passenger vessels had relief under the current law from meeting the water quality standards at the point of discharge requirement; without the legislation, the point of discharge requirement would take effect for the 2016 cruise ship season for both large and small vessels.

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Co-Chair Meyer surmised that the large state ferries were not held to the standard as the cruise ships, but would be held to the same standard by 2015. Ms. Kent explained that currently, only the large commercial passenger vessels were required to have a permit from DEC and that the small vessels, including the five ferries, had to submit a plan for alternative terms and conditions and comply with the plan; all the vessels would all have to meet the point of discharge requirement and would need a permit in 2015.

Senator Olson restated that the state ferries were under the same standards as small vessels because they had less than 250 berths and that cruise ships that had over 250 berths were held to a stricter standard for wastewater discharges. Ms. Kent responded that Senator Olson was correct "for right now."

Co-Chair Meyer inquired if monitoring wastewater discharge was part an ocean ranger's job. Ms. Kent replied that the ocean rangers did look at activities that were occurring onboard the vessel for compliance with state and federal requirements. She offered that the term "monitor" probably meant one thing to DEC and something else to other people; DEC considered monitoring to generally mean taking a sample and sending it into a laboratory. She explained that ocean rangers monitored in the sense that they were onboard and were watching the activities of the vessel while it was in Alaskan waters. She furthered that the ocean rangers were examining the ship's logbooks for when it was discharging or not discharging, when the valves were opened, or if

there were any upsets to the system. She offered that the ocean rangers served an "eyes and ears" function on cruise ships. She added that the legislation did not make any changes to the ocean ranger program.

Co-Chair Meyer offered that cruise ships were currently held to a higher standard than any other vessels in the state and that the higher standard was impossible to meet with the current technology. He offered that the purpose of the bill was to set a standard that cruise ships were able to meet with the current technology and inquired if this was the correct interpretation of the bill's intent. Ms. Kent replied in affirmative.

Co-Chair Meyer discussed the following meeting's agenda.

10:07:30 AM

SB 29 was HEARD and HELD in committee for further consideration.

10:07:48 AM
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ADJOURNMENT

The meeting was adjourned at 10:07 a.m.