

**ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE**

April 6, 2009

3:41 p.m.

MEMBERS PRESENT

Senator Lesil McGuire, Co-Chair
Senator Bill Wielechowski, Co-Chair
Senator Charlie Huggins, Vice Chair
Senator Hollis French
Senator Bert Stedman
Senator Gary Stevens
Senator Thomas Wagoner

MEMBERS ABSENT

All members present

OTHER LEGISLATORS PRESENT

Representative Craig Johnson

COMMITTEE CALENDAR

SENATE BILL NO. 177

"An Act repealing the termination of licensing and regulation of sport fishing operators and sport fishing guides and licensing and registration of sport fishing vessels; and providing for an effective date."

HEARD AND HELD

COMMITTEE SUBSTITUTE FOR HOUSE BILL NO. 134(RES)

"An Act relating to the terms and conditions of commercial passenger vessel permits for the discharge of graywater, treated sewage, and other wastewater; establishing a science advisory panel on wastewater treatment and effluent quality in the Department of Environmental Conservation; and providing for an effective date."

HEARD AND HELD

PREVIOUS COMMITTEE ACTION

BILL: SB 177

SHORT TITLE: NO REPEAL OF SPORT FISH GUIDE LICENSING

SPONSOR(S): SENATOR(S) MEYER

04/01/09 (S) READ THE FIRST TIME - REFERRALS
04/01/09 (S) RES, FIN
04/06/09 (S) RES AT 3:30 PM BUTROVICH 205

BILL: HB 134

SHORT TITLE: CRUISE SHIP WASTEWATER DISCHARGE PERMITS

SPONSOR(S): REPRESENTATIVE(S) HARRIS

02/13/09 (H) READ THE FIRST TIME - REFERRALS
02/13/09 (H) CRA, RES
02/17/09 (H) CRA AT 8:00 AM BARNES 124
02/17/09 (H) Moved CSHB 134(CRA) Out of Committee
02/17/09 (H) MINUTE(CRA)
02/18/09 (H) CRA RPT CS(CRA) NT 5DP
02/18/09 (H) DP: HARRIS, MILLETT, KELLER, HERRON,
MUNOZ
03/02/09 (H) RES AT 1:00 PM BARNES 124
03/02/09 (H) Heard & Held
03/02/09 (H) MINUTE(RES)
03/16/09 (H) RES AT 1:00 PM BARNES 124
03/16/09 (H) Heard & Held
03/16/09 (H) MINUTE(RES)
03/25/09 (H) RES AT 1:00 PM BARNES 124
03/30/09 (H) DP: WILSON, JOHNSON, NEUMAN
03/30/09 (H) NR: OLSON, EDGMON, GUTTENBERG, TUCK
03/30/09 (H) RES RPT CS(RES) NT 3DP 1DNP 4NR 1AM
03/30/09 (H) AM: SEATON
03/30/09 (H) DNP: KAWASAKI
04/01/09 (H) CORRECTED RES RPT CS(RES) NT 3DP 4NR
2AM
04/01/09 (H) KAWASAKI SIGNED AM
04/02/09 (H) MOTION TO RETURN TO SECOND FOR AM 1
WITHDRAWN
04/02/09 (H) TRANSMITTED TO (S)
04/02/09 (H) VERSION: CSHB 134(RES)
04/03/09 (S) RES, FIN
04/03/09 (S) READ THE FIRST TIME - REFERRALS

WITNESS REGISTER

SENATOR KEVIN MEYER
Alaska State Legislature
Juneau, AK

POSITION STATEMENT: Sponsor of SB 177.

CHARLES SWANTON, Director
Division of Sport Fish

Alaska Department of Fish and Game (ADF&G)
Juneau, AK

POSITION STATEMENT: Testified that the administration supports SB 177.

JACK CADIGAN, representing himself
Juneau, AK

POSITION STATEMENT: Testified in opposition to SB 177.

ROBERT L. JANES, representing himself
Valdez, AK

POSITION STATEMENT: Testified in opposition to SB 177.

MELVIN GROVE, representing himself
Mat-Su, AK

POSITION STATEMENT: Testified in opposition to SB 177.

ROD ARNO, Executive Director
Alaska Outdoor Council

POSITION STATEMENT: Testified in support of SB 177.

RON RAINEY
Kenai River Sportfishing Association

POSITION STATEMENT: Testified in support of SB 177.

PATRICK BOOKEY, Luck of the Irish
North Pole, AK

POSITION STATEMENT: Testified in opposition to SB 177.

GEORGE WIESE, Leisure Charters
Valdez, AK

POSITION STATEMENT: Testified in opposition to SB 177.

REPRESENTATIVE JOHN HARRIS
Alaska State Legislature
Juneau, AK

POSITION STATEMENT: Sponsor of HB 134.

LARRY HARTIG, Commissioner
Department of Environment Conservation (DEC)
Juneau, AK

POSITION STATEMENT: Testified that the current version of HB 134 addresses the administration's previous concerns.

LYNN KENT, Director
Division of Water
Department of Environmental Conservation (DEC)

Juneau, AK

POSITION STATEMENT: Provided information related to HB 134.

CHIP THOMA

Responsible Cruising in Alaska (RCA)

Juneau, AK

POSITION STATEMENT: Urged the committee to establish a sunset for compliance in HB 134.

CHRISTOPHER KRENZ, Ph.D.

Oceana

Juneau, AK

POSITION STATEMENT: Did not support the current version of HB 134

JOHN BINKLEY

Alaska Cruise Association

Fairbanks, AK

POSITION STATEMENT: Testified on HB 134 and urged continued compromise.

ACTION NARRATIVE

[3:41:26 PM](#)

CO-CHAIR LESIL MCGUIRE called the Senate Resources Standing Committee meeting to order at 3:41 p.m. Senators Wagoner, Huggins, French, Wielechowski, Stevens, and McGuire were present at the call to order.

SB 177-NO REPEAL OF SPORT FISH GUIDE LICENSING

[3:42:08 PM](#)

CO-CO-CHAIR MCGUIREI announced the consideration of SB 177.

SENATOR KEVIN MEYER, Alaska State Legislature, sponsor of SB 177, said this legislation provides continued oversight of sport fishing operators and guides. The licensing and reporting program has proven beneficial to the sport fishing industry and those who manage fishing resources. Legislation authorizing this program started in 2004 for the following reasons: 1) Alaska Department of Fish and Game (ADF&G) sought more credible information on guide numbers and activities; 2) to create basic standards for sport fish business operators and guides including liability insurance, first aid certification, and USGS vessel licensing if applicable; and 3) to increase the level of professionalism in the sport fish industry statewide. Many former skeptics now acknowledge the role these measures have

played in advancing the guiding profession, which has helped raise the standard of the sport fish industry statewide.

SENATOR MEYER concluded that SB 177 will permit ADF&G to continue to foster the high standards in sport fishing and guiding that everyone expects.

3:45:17 PM

CHARLES SWANTON, Director, Division of Sport Fish, Alaska Department of Fish and Game (ADF&G), said the data that ADF&G collects in its logbook program has allowed it to seek exemption from the national saltwater registry, which tries to get that same information. Other states do not have a similar logbook program and the information is difficult to collect from anglers.

He reported that ADF&G issues about 1,670 sport fishing business licenses and 1,981 sport fishing guide licenses that are issued annually. The logbook data comprises about 1.8 million clients taken out over the course of the last three years. He noted that ADF&G hopes to markedly reduce the amount of paper used in the program over the next two years.

CO-CHAIR WIELECHOWSKI asked if the administration supports SB 177.

MR. SWANTON answered yes.

JACK CADIGAN, Juneau, said he is representing himself, but he feels he can speak for many other saltwater charter operators who are against SB 177. He is a retired Coast Guard captain and a licensed charter fishing operator. He doesn't object to the state requiring licensing and regulating of various industries and occupations, but it seems that charter fishing in navigable waters within Alaska is already heavily regulated. The competency and integrity of the operators is therefore ensured at a substantial cost in user fees and licenses. He submitted that it doesn't cost the state anywhere near \$100 to annually provide a charter applicant with a license and sticker. Indeed, in 2010 the annual fee for many Alaska business licenses will be half that or less. In addition to an Alaska fishing guide license, the charter operator and crew must purchase a sport fishing license, even though prohibited from fishing while on a charter. Charter operators must also purchase a state business license. Depending on location, operators must also possess a local sales tax license. The federal government requires a Coast Guard license, a transportation worker identification

certificate (TWIC), enrollment in a drug testing program, and current certificates in first aid and CPR. The aggregate cost to the charter operator is \$1,100 over a five-year period or \$1,600 if SB 177 is enacted. This is exclusive of keeping first aid and CPR certifications current. The charter industry is rigidly controlled and receives random inspections by state and federal authorities to ensure compliance.

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MR. CADIGAN said that in addition to money what the state gets in return for its licensing program is a detailed log sheet for analysis of every charter. The logs list rod hours and dates, the name and license number of the fisher, the fish species and where it was caught. If halibut are caught, the fisher must certify that by signing on the back of the log sheet. Failure to submit the log sheet on time results in a hefty fine to the charter operator.

MR. CADIGAN suggested that rather than charging for licenses, it would be more reasonable for the state to pay a modest stipend to those who submit the logs. It takes considerable time and effort for charter operators to deliver for analysis this apparently important information. He submitted that it would be most reasonable to allow this program to sunset by not passing SB 177.

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SENATOR HUGGINS asked how these requirements have accumulated over the years.

MR. CADIGAN said the Coast Guard has for some time required all charter operators in the navigable waters of the U.S. to be appropriately licensed. He first received his license in 1952. The TWIC is a recent requirement by the Department of Homeland Security to ensure that people working on the waterfront have undergone background checks. He isn't sure when the requirements for CPR and first aid were instituted. The random drug testing program probably came in 15-20 years ago.

SENATOR WAGONER asked if drug tests are required more frequently than when renewing a license.

MR. CADIGAN said charter operators [and their crew] must enroll in an annual random drug testing program or have had a drug test within six months of a random test. This is a Coast Guard requirement. Responding to questions from Senator Wagoner he

added that this is a requirement for operators that carry passengers.

[3:54:06 PM](#)

ROBERT L. JANES, representing himself, Valdez, said he is a licensed charter captain and he opposes SB 177. His view is that the program instituted in 2004 is discriminatory and was justified by inherently erroneous testimony from Rob Bentz, [the former Deputy Director, Division of Sport Fish, Alaska Department of Fish & Game]. He pointed out that sport fishing operators are required to pay a number of fees and acquire certifications that the commercial longline fisherman isn't required to pay.

[3:58:14 PM](#)

MELVIN GROVE, representing himself, Mat-Su, said he opposes SB 177. He provides a service transporting Alaskans from the dock to a fishing boat so that people can harvest their own resource. He understands that he must pay the government to operate his business, but when the state instituted a new \$100 sport fish guide license it seemed to break with its past licensing policy, which is that fees cover only the cost of issuance. He pointed out that it only costs the commercial halibut fisherman \$25 to harvest a public resource yet the halibut charter guide must pay \$100 to provide a service so the public can harvest their own resource. He questions how this can be justified.

In 2004 ADF&G testified that the reporting requirements would provide comprehensive information on the impact of guided sport fishing activities. This will lead to better regulations to protect the states sport fishing resources. None of this happened and nothing has improved. Even after the guides submit detailed reports ADF&G contacts the fishers to verify their success. He asked why guides should be put to the trouble if the department is going to do that.

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ROD ARNO, Executive Director, Alaska Outdoor Council, said this 10,000 member statewide organization continues to support the legislation originally passed in 2004. The only concern relates to some of the intent of the legislation. In particular, the data has not been used to legitimize the allocation process. Also, AOC was told that information on the economic impacts and contribution of sport fish in Alaska still can't be used when looking at the economic importance of the resource. This legislation won't change that, but in order for it to be

effective the Board of Fisheries needs to see this information as being legitimate.

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RON RAINEY, Kenai River Sportfishing Association (KRSA), said he is speaking in support of SB 177. The log book program has not been successful because data compilation and reporting is difficult. If the reports were in digital format the information would be readily available for allocation decisions the next day. He lives at mile 10 of the Kenai River and the fishing pressure on the lower end of the river has increased tenfold in the last 20 years. Clearly there is a need for daily reports on fish catches so ADF&G can use that information in their decision making. He won't argue with the assertion that the \$100 fee is probably too much, but digital reporting would be an invaluable aid in managing the resource. KRSA hardly endorses passage of SB 177, he said.

SENATOR WAGONER said he will support the bill.

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PATRICK BOOKEY, Luck of the Irish, North Pole, said this is nothing but a big tax on charter operators. His documentation fees for life rafts, drug testing, and various other fees cost nearly \$3,000 per year and the log book program consumes about 30 minutes of his time each day. For years ADF&G touted the best creel surveys in the nation and he questions what happened to that. This appears to be nothing more than a tax on the public users of this resource and he would like the program to sunset.

SENATOR WAGONER pointed out that life rafts have nothing to do with this fee.

MR. BOOKEY said it's just another requirement and fee by the U.S. Coast Guard to maintain and operate a business. No other water-based business is required to have them and have them inspected yearly.

SENATOR WAGONER clarified that commercial fishermen that fish past three miles are required to carry an inspected life raft. Responding to an assertion that Prince William Sound fishermen don't carry inspected life rafts, he pointed out that they are not outside of state waters.

MR. BOOKEY said he sees them fishing outside the three-mile limit all the time.

GEORGE WIESE, Leisure Charters, Valdez, said he too objects to the sport fishing guide fee. It's excessive compared to what commercial fishers pay. Acknowledging that it's not part of the bill, he said he also objects to having to get a sportfishing license only to be told he can't fish.

CO-CHAIR MCGUIRE closed public testimony.

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SENATOR WAGONER observed that the difference in requirements between commercial and sportfishing doesn't have a lot to do with this. However, just today he checked and found that in Cook Inlet a commercial vessel license to fish for salmon costs \$60 per year and a permit card costs \$75. In Prince William Sound a vessel license costs \$375 per year and the permit card costs \$370. The point is that commercial fishers pay much more than \$25 to fish halibut or salmon, he said. He understands that the guide fee is expensive, but he believes that there are good reasons for that expense.

SENATOR HUGGINS said he is not familiar with the whole concept, but he is surprised that this fee was excluded when the administration pushed to lower licensing fees. He asked if anyone knows why.

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MR. SWANTON said he believes that the difference stems from the fact that the fees are not housed in the same area. Commercial licensing is occupational while the sportfishing guide fee resides within the codified regulations of ADF&G.

SENATOR HUGGINS asked if the department supports equal opportunity to pay.

MR. SWANTON said he is not prepared to discuss the actual fees. "Right now, they are what they are." The program isn't completely solvent right now and to a certain extent ADF&G would like to address that internally while the program is updated.

SENATOR HUGGINS said the administration owes it to the citizens to coordinate among the departments.

CO-CHAIR MCGUIREI announced she would hold SB 177 in committee.

HB 134-CRUISE SHIP WASTEWATER DISCHARGE PERMITS

[4:15:09 PM](#)

CO-CHAIR MCGUIREI announced the consideration of HB 134. [Before the committee was CSHB 134(RES)].

REPRESENTATIVE JOHN HARRIS, Alaska State Legislature, said HB 134 pertains to the economic development of Southeast communities and the regulation of discharges from cruise ships. As per a citizen's initiative, levels of discharge from cruise ships are collected measured at the point of discharge. He compared this to exhaust coming from the tailpipe of an automobile. The initiative further requires a particular discharge level to be met by 2010, but technology is not available to meet that requirement. The only option would be for the ships to build larger holding tanks and discharge three miles offshore in federal waters.

HB 134 seeks to create a waiver in law until the technology is available to meet the 2010 standard. Up until now, DEC has been doing this through regulation. We don't want the industry to simply build larger holding tanks and then dump even worse water in deeper federal waters. We want ships to be able to discharge in Alaska's waters in a manner that lives up to the 2010 standard.

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REPRESENTATIVE HARRIS deferred technical questions to the DEC representatives.

SENATOR STEVENS asked if the cost of the technology will be considered.

REPRESENTATIVE HARRIS said DEC will make that sort of determination. The current problem is that the instrumentation doesn't conform to the size of the ship. The technology is available for much larger ships, but it is too cumbersome and would require extensive rebuilding. Some would say that building larger holding tanks is a technology, but that doesn't solve the problem. DEC says it needs the ability to keep the industry's feet to the fire until economically feasible technology is available. Hopefully that will be sooner than later, he added.

SENATOR HUGGINS asked if the discharge standard is universal.

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REPRESENTATIVE HARRIS said no; the standard in the initiative is higher. The effluent discharge standard for a sewage treatment plant is much lower, but the public hasn't asked for that

standard to be changed. The public did ask for this discharge standard for large cruise ships and that has to be respected. At the heart of the matter is the fact that only cruise ships have measurements taken at the point of discharge; mixing zones are not allowed. The initial bill eliminated the phrase "at the point of discharge." Under the mixing zone standard, every ship today would have met the 2010 standard; all ships did not meet the 2010 standard under the point of discharge measure. Ammonia and copper are particularly problematic under the stricter standard. The issue comes down to the amount of time that cruise ships have to meet the standard and under what conditions. HB 134 doesn't eliminate the standard; it places a waiver in statute and the time frame is determined by the Legislature.

SENATOR HUGGINS said this appears to be a compromise.

REPRESENTATIVE HARRIS agreed; he was asked to carry the initial bill and the administration is now on board. He added that DEC had been issuing a waiver that was created by regulation, but not necessarily allowed under the initiative.

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LARRY HARTIG, Commissioner, Department of Environment Conservation (DEC), said DEC has been working with Representative Harris and the co-chairs of the House Resources Committee to address the concerns the administration had with the original version of HB 134. He believes everyone was guided by the common goal of protecting Alaska's clean water. The real issue was how to coax a major industry to reach a standard that it cannot reach today. Current Alaska statute leaves the cruise ship companies in the difficult position of discharging in federal waters or discharging in violation of the state standard.

COMMISSIONER HARTIG explained that DEC has provided a compliance schedule in a general permit it issues to cruise ships. He clarified that this isn't a waiver. DEC has statutory and regulatory authority to include compliance schedules in permits, but there are severe restrictions. To develop a compliance schedule DEC has to evaluate what technology can achieve for water treatment on cruise ships, but EPA hasn't looked at water treatment for the cruise ship industry. Because of this gap, DEC had to use its judgment for the compliance schedules.

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In an effort to explore this further, DEC invited national and international experts to participate in a conference that was

open to the public. They learned definitively that there is no existing technology to allow cruise ships to consistently meet the point of discharge water quality standards for ammonia, copper, nickel, and zinc. HB 134 adds a section stating that as long as cruise ships employ the most technologically effective and economically feasible treatment, DEC is allowed to relax the standard. That being said, it is intended to be temporary and provisions in the bill provide technology forcing elements.

COMMISSIONER HARTIG said any permit that DEC issues or reissues would require the cruise ship to meet the water treatment achievable at the time. DEC would appoint an 11 member advisory panel with at least four members coming from coastal communities, the cruise industry, the commercial fishing industry, and non-governmental organizations with an interest in water quality issues. The advisory panel and DEC would evaluate the reports from the cruise ship companies and the technology, and convene additional technology conferences in 2011 and 2013, and periodically report back to the Legislature. If you had to step in you would be acting with knowledge not speculation. It is DEC's perspective that it is extremely important to be able to regulate things based on science, he said.

HB 134 includes an important anti-backsliding provision, which means that permits for next cruise season will be rewritten to include the achievable technology information learned from the technology conference. Compliance schedules may still be used, but whenever a permit is reissued the standards could not be less than in the previous permit. This will continue to drive the industry toward the goal.

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CO-CHAIR WIELECHOWSKI asked how many cruise ships come to Alaska.

COMMISSIONER HARTIG deferred to Lynn Kent for an exact number.

LYNN KENT, Director, Division of Water, Department of Environmental Conservation (DEC) about 30 different large cruise ships come to Alaska each year.

CO-CHAIR WIELECHOWSKI asked how many people come to Alaska on cruise ships every year.

COMMISSIONER HARTIG replied about 1 million come each year.

CO-CHAIR WIELECHOWSKI asked how many gallons of waste are being discharged.

MS. KENT said she doesn't have the specific information, but DEC does collect that information from all vessels that have permits and choose to discharge in Alaska waters.

CO-CHAIR WIELECHOWSKI asked for an estimate.

MS. KENT said it would be in the millions of gallons. Responding to additional questions, she explained that about 10 or 12 vessels were permitted to discharge in Alaska waters last year. They meet Alaska water quality standards for everything except ammonia, nickel, copper, and zinc.

CO-CHAIR WIELECHOWSKI asked if any ships currently have the technology to meet the 2011 standard.

MS. KENT replied there are no vessels that are discharging that can meet all of the water quality standards all of the time.

CO-CHAIR WIELECHOWSKI said he understands that some organizations attending the technology conference indicated that the technology is available.

MS. KENT said what they learned at the conference is that there are technologies that can treat ammonia and technologies that can treat metals. They have been tried and used in shore-based facilities, but those systems are not readily available for installation and testing on ships. There is a possibility that certain things can be treated sooner than others and HB 134 allows DEC to stage the requirements. For example, when technology is available to treat ammonia it can be installed immediately.

CO-CHAIR WIELECHOWSKI asked if there could be a detrimental impact on fish that are in areas where this waste is discharged.

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MS. KENT replied DEC has been involved in many studies including a recent one that tested dilution in the Skagway harbor. That study showed that under most conditions the water quality standards would be met within 15 meters of the vessel.

COMMISSIONER HARTIG added that the Skagway study tested stationary vessels and DEC could require that vessels could only discharge while underway and away from sensitive fishing areas

and communities. A vessel traveling at six knots has a 60,000 dilution factor so it would be extremely unlikely that an aquatic organism would encounter harmful concentrations of waste.

CO-CHAIR WIELECHOWSKI asked what happens to the discharged aluminum, copper zinc, and nickel.

COMMISSIONER HARTIG replied these elements and compounds already exist in the water; the question is if they are concentrated to the point of harming. HB 134 doesn't change existing requirements for permits including disallowing discharge in areas where a material could accumulate and concentrate to the point that it is harmful to organisms.

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CO-CHAIR WIELECHOWSKI said he can't help but think that at some point the accumulation would be dangerous to aquatic life.

COMMISSIONER HARTIG said if that rationale applies, there are other sources of copper and ammonia that are larger than cruise ship discharges. He reiterated that DEC would not allow anyone to discharge material to the point of it being a toxic situation.

CO-CHAIR MCGUIRE recognized that Senator Stedman joined the committee some time ago and Representative Johnson is in the audience.

SENATOR HUGGINS asked Commissioner Hartig to identify the larger sources of ammonia and copper that he mentioned.

COMMISSIONER HARTIG named domestic wastewater treatment plants. For example, this city's wastewater treatment plant has higher levels of copper than DEC sees on cruise ships, he said.

SENATOR HUGGINS said he isn't familiar with Juneau's treatment system, but he assumes that it goes into the same area every day and doesn't have a moving dilution factor.

COMMISSIONER HARTIG said they do discharge into the marine environment at a fixed location. The dilution is a result of whatever current there may be.

SENATOR HUGGINS asked if there have been fish kills from the discharges from Juneau's treatment plant.

MS. KENT replied she is not aware of any reports of fish kills associated with domestic wastewater discharge from Juneau or any other community.

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SENATOR STEDMAN asked if the point of discharge at the local treatment plant would be comparable to the point of discharge on a cruise ship.

MS. KENT said she does not have the data in front of her, but she recalls that for the four parameters under discussion the levels discharged from the community system are relatively similar to the levels discharged by cruise ships.

SENATOR STEDMAN asked the effect 15-30 feet from the point of discharge, if the ship is traveling at six knots, and if it is traveling 25 knots.

MS. KENT replied she doesn't recall whether the mixing zone for the Juneau Douglas plant is 90 feet or 90 meters. When a cruise ship is underway at six knots the dilution factor is 50,000, which means that contaminants would be undetectable in the water behind the cruise ship.

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SENATOR FRENCH asked if there is a record of the number of cruise ships that dump in federal waters.

COMMISSIONER HARTIG said DEC has general permits it issues to cruise ships and if they choose to operate under the permit, DEC receives monthly reports on what is in the discharged waste and the volumes. They can also elect not to discharge under that permit.

SENATOR FRENCH asked how many cruise ships elect not to have a permit and instead dump in federal waters.

MS. KENT said last year 12 ships were covered under the general permit.

SENATOR FRENCH summarized that 12 ships are operating under the DEC permit and 19 dumping in federal waters. He asked if it's irrational to deduce that the state's water standards are chasing people off to dump in the ocean.

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COMMISSIONER HARTIG said the cruise companies are in that predicament. They either have to comply with requirements for which technology doesn't currently exist or they have to discharge three miles offshore.

SENATOR FRENCH asked if anything prohibits the 12 cruise ships from dumping three miles offshore.

COMMISSIONER HARTIG replied a ship that is three miles offshore is under EPA's more relaxed jurisdiction. "We have very strict standards in the state water."

SENATOR FRENCH asked if subsection (e) will at some point go away or if there will be an ongoing effort to improve the permits every year.

COMMISSIONER HARTIG said he's reluctant to speculate on when the technology might be available, but he knows that the cruise ships are pretty darn close.

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MS. KENT clarified that there were 31 cruise ships last year; 12 were not permitted and 19 were permitted. Some of the 19 ships chose not to discharge under the DEC permit and instead discharged in federal waters.

COMMISSIONER HARTIG said one issue is that some of these ships didn't have the capacity to hold its waste.

SENATOR STEDMAN asked for an explanation of the donut holes and their effect in Chatham, Frederick Sound, and Stephens Passage. He noted that Glacier Bay also is under federal jurisdiction.

[4:53:26 PM](#)

MS. KENT said she believes that the donut holes have been closed for purposes of wastewater discharge. She said she isn't sure about Glacier Bay, but she would get an answer.

CO-CHAIR WIELECHOWSKI asked how many gallons of wastewater a ship can typically hold and how much can be released at one time.

MS. KENT said vessels vary, but some can hold thousands of gallons. The discharge is generally dependent on the size of the discharge port.

CO-CHAIR WIELECHOWSKI asked for specific information on how much each ship can hold, if the entire tank can be released at one time, and the definition of "economically feasible."

4:55:29 PM

COMMISSIONER HARTIG said that is standard terminology that is applied to any discharger in the state. If anybody wants to discharge pollutants into state waters that already have a quality that exceeds what is necessary to protect aquatic life and other uses, DEC does an anti-degradation analysis to determine whether or not it is appropriate to allow degradation of that clean water. Part of that is to look at whether the most technologically effective methods for pollution reduction are being used and if they are economically feasible. DEC has not defined that in regulation, but relies on EPA standards. In this case there are no EPA standards so they use the best professional judgment of the engineers and scientists putting the permit together.

CO-CHAIR WIELECHOWSKI asked if he has experienced that the definition of economically feasible has a wide range.

COMMISSIONER HARTIG said he has been involved in trying to get permits for 25 years and it hasn't been a problem. The treatment technologies are known and are progressing.

SENATOR FRENCH asked if "economically feasible" takes into account the underlying economics of the industry that is being regulated.

COMMISSIONER HARTIG said he really hasn't seen that. What he has seen is that when an onshore industry is using a technology and the cruise ships are not, the differences and the economic hurdles are examined and compared.

4:59:15 PM

MS. KENT added that the private sector is on notice that there is a need for technology to meet the more strict requirements for treatment of ammonia and metals. Companies that build onshore facilities now are looking at their applicability for vessels. DEC judges economic feasibility based in part on the commercial availability of such facilities.

CO-CHAIR MCGUIRE asked Ms. Kent if she had any further testimony or information to contribute.

MS. KENT said she has found information indicating that vessels are voluntarily holding their waste when they are in Glacier Bay. In response to Senator Wielechowski's earlier request for information about rate of discharge, she said the general wastewater discharge rate is 10,000-15,000 gallons per hour. She will get information regarding the wastewater holding tank capacity of each vessel to the committee later.

CHIP THOMA, Responsible Cruising in Alaska (RCA), Juneau, said the Alaska voters approved this initiative in 2006, and HB 134 extends the time for cruise ships to comply with the water quality standards. RCA supports a reasonable time within which to comply, but would also like closure on the issue. The sunset provision in subsection (e) perhaps should have a date of January 1, 2014. Five seasons is an adequate length of time, he said.

MR. THOMA said the DEC water division status report that is in the bill packet clearly describes the improvements that each cruise line is making. They all are doing amazingly well with the exception of Princess Cruises and Holland America. HB 134 addresses these problem ships. Many of the ships are making technological advances and many are already in compliance. As a result, the term "economically feasible" may be moot. If cost is the only impediment to install proper wastewater treatment for ammonia and suspended metals, the state could establish a no interest loan program for installing new cruise ship technology. He noted that the City and Borough of Juneau has provided no interest loans so that companies can install quieter engines in their flight seeing planes. This could be adapted on the state level if there really is a cost problem with installing these technological advances, he said. \$70 million per year in taxes is coming in from the cruise ships so there's an adequate amount to do that.

Responding to Senator Steven's question about weighing the cost of installing the technology, he said some of the ships already have adequate technology and the no interest loan is another option. Larger holding tanks may not be the technology everyone envisions, but they do solve the problem, he said. Clarence Strait, Sumner Strait, Frederick Sound, Lynn Canal, and Icy Straits are areas where fish migrate and whales feed. This is also where one ship after another discharges millions of gallons of wastewater as they transit these passages.

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MR. THOMA said the federal government prohibits cruise ships from discharging while in Glacier Bay so all that discharging is done right outside in Icy Strait near Point Adolphus. That area was formerly a donut hole and is again being used by ships that have to discharge because they don't have sufficient holding capacity to wait and discharge in federal waters. He noted that according to the DEC report, the major source of the copper and zinc in wastewater is the shipboard piping that is leaching. Princess and Holland America are the only lines that have refused to replace their piping.

MR. THOMA again suggested the committee amend the bill to sunset subsection (e) and look at the term "economically" because that's not the question. It's whether the technology is available in a size that can fit onboard the ship.

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SENATOR STEDMAN said he's curious to know how measurements can be taken from a ship that is moving at 25 knots or more.

MR. THOMA said DEC established a science panel in 1999 and 2000 to look at mixing zones. They came up with the dispersing formula, but it's based on engineering so none of it is scientific.

SENATOR STEDMAN said he'd like to learn more because it would seem that the dilution factor would be greater when traveling at speed instead of tied to the dock.

SENATOR FRENCH asked Mr. Thoma if he believes that discharging in federal waters is a good option for the cruise ships.

MR. THOMA replied he would much rather they discharge in federal waters than in areas where fish migrate and whales feed.

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SENATOR STEVENS asked if some of the ships have actually replaced all their copper piping.

MR. THOMA said yes. He paraphrased and commented on pages 3-5 of the DEC report as follows:

On page 3 the Silver Shadow fine-tuned its existing wastewater treatment system, replaced some of its piping and bows. Norwegian Cruise Line - replacement is being done primarily to address maintenance problems, bursting pipes, but this also may reduce the

amount of metals in the ships' affluent. They're replacing sections of the metal potable water.

Then on page 4 the Seven Seas Mariner met the long term effluent limits for nickel, replaced corroded metallic piping and valves. Celebrity Royal Caribbean those ships consistently discharge outside of Alaska waters and many of the ships have replaced many portions of their potable water piping with non metallic piping.

Then you go to Princess and Holland and you find that has not been done. Princess is saying they produce drinking water that is very soft and may corrode their pipes and leach metals into their wastewater effluent. However, Princess did not provide any details regarding the actions that they would take to avoid this such as bunkering water, increasing the ratio of drinking water or changing out their pipes. Same thing with Holland America - five of the HAL ships consistently exceeded the long term effluent levels for ammonia and metals. The Statendam met them for copper. Sample data indicate bunkered water contains elevated levels of metal. Drinking water produced by the vessels also contains significant amounts of metals. They're generating about 60 percent of their water onboard the ships with their own evaporation systems all made out of copper pipes. So the combination of copper pipes in 2,000 staterooms, kitchens and everywhere else plus the water making facilities, you've got an incredible amount of copper leaching and zinc leaching going on.

That is the source of the problem on Princess and Holland America ships. The other ships are addressing it. They realize it's the problem. They're trading out their pipes for flex tubing. So this whole discussion of bunkered water and high levels of copper in Southeast, that's not the problem. It's onboard the ships itself.

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CO-CHAIR WIELECHOWSKI asked if he agrees with Commissioner Hartig's assertion that tremendous dilution occurs in the ocean.

MR. THOMA said he is not an expert, but he's always been told that the DEC science panel developed the formula for the

dilution factor based on engineering. They released dye and noted when it could no longer be seen.

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CHRISTOPHER KRENZ, Scientist, said he represents Oceana, which is a nonprofit ocean conservation organization that has over 200 years of life experience and work in Alaska. He said that the State of Alaska has been a world leader in responsibly managing cruise ship pollution and Oceana would encourage continuation of that leadership by maintaining the existing protections for marine resources. The current version of HB 134 would increase the amount of pollution dumped into coastal waters and eliminate an important incentive to reduce the discharge of pollutants and contravene the clearly stated will of Alaska voters. Alaska coastal resources are vital and the vast quantities of waste that cruise ships discharge into the marine environment threaten the resources upon which Alaskans and the industry depend.

HB 134 would alter a key provision of the law that voters passed by initiative requiring stringent regulation of cruise ship pollution. Cruise ship would be allowed to discharge into mixing zones, which are areas in which pollutant levels can exceed applicable state water quality standards. The copper, zinc, nickel and ammonia pollutants for which the cruise ship industry might seek mixing zones are toxic to marine life. Copper and ammonia are toxic at very low concentrations that are just above the state's water quality standard. Science based limits for these pollutants are contained in the state's water quality standards. These standards represent the best scientific determination of acceptable levels of pollutants based on an agreed level of risk to human health and the health of the environment. Under current law cruise ships are required to meet these standards. Any statement that changing this requirement to allow mixing zones would improve the scientific basis for regulations is false. Science has determined the appropriate limits and any policy choice to allow cruise ships to exceed those limits would be a mistake.

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MR. KRENZ said the requirement that cruise ships meet discharge limits at the point of emission is an important incentive to implement existing technologies and keep the pollution out of Alaska waters. Many vessels are already meeting this requirement at least at times. Recent research indicates that promising technology exists and simply must be implemented on other cruise ships. The incentive to do so should not be eliminated. Alaska's waterways are finite and we should minimize the pollution that

is dumped while striving to eliminate pollution all together. We encourage the committee to maintain protections for Alaska waters and incentives to improve those protections by opposing altering the state cruise ship initiative or at the least amending this bill to establish a deadline for any exemption.

CO-CHAIR WIELECHOWSKI asked if he is able to answer scientific questions.

MR. KRENZ replied he has a Ph.D. in marine ecology.

CO-CHAIR WIELECHOWSKI noted the earlier testimony about the dilution factor and asked if he believes that allowing cruise ships to dump wastewater into Alaska waters is hazardous to marine life.

MR. KRENZ said the written testimony he submitted addresses this in greater detail, but a lot of aquatic life is impacted by very low concentrations of copper. This includes organisms throughout the food web from algae to zooplankton to shellfish fish and fish. Animals in early life stages, such as mussels and clams in the larval phase, may be particularly sensitive to copper toxicity. Sub-lethal impacts to salmon occur at very low concentrations and can impair the ability to smell, which is critical for migration and finding natal stream. Copper is also known to affect salmon's immune response, brain function, and metabolism. Many species can bio-accumulate copper concentrations hundreds of times higher than concentrations in the surrounding water. He noted that his submitted testimony references those statements with citations.

MR. KRENZ opined that dilution is never the solution. When a cruise ship is dumping underway dilution is great, but fecal coliform levels are a concern when multiple ships with many passengers are transiting the same area day after day. Another concern is that it basically allows mixing zones in any area in Southeast Alaska that cruise ships are allowed to go. A difference between a cruise ship and a municipal wastewater treatment plant is that the municipal discharge is confined to a particular area.

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MR. KRENZ said this would allow mixing zones. Juneau is one place to have polluted water and is confined, and this it throughout Southeast Alaska.

CO-CHAIR WIELECHOWSKI noted that he saw a presentation indicating that concentrations of copper at a couple parts per billion have a tremendous impact on the ability for salmon to get around. He asked if copper, lead, zinc, and ammonia evaporate or accumulate over time when they're dumped into the ocean.

MR. KRENZ replied it differs depending on the particular pollutant. Ammonia will be broken down and used by marine algae and others as a nutrient. The heavy metals don't disappear so they are of particular concern with respect to accumulation in the environment.

CO-CHAIR WIELECHOWSKI asked if copper, zinc and nickel sink to the bottom and get into shellfish and bottom feeders or continue to circulate in the ocean.

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MR. KRENZ said that isn't his area of expertise, but he understands that copper sinks into the sediments.

JOHN BINKLEY, Alaska Cruise Association, Fairbanks, said he represents nine cruise lines and about 100 small businesses that depend on cruise ship passengers. He said he certainly agrees with Mr. Krenz's statement that Alaska has the highest standard in the world for cruise ship wastewater discharge. Alaskans should be proud of the standards and that they were set by DEC, the independent scientists on the science panel and industry working in cooperation. As a result, industry went out and invested over \$200 million in shipboard systems that achieve the highest standards achievable. That is success, he said.

If the cruise line industry had been mandated to achieve an unreasonable standard, it could have spent that \$200 million to reconfigure their ships to increase tankage so that they could ignore the Alaska standards and discharge beyond three miles in federal waters. "But we didn't." Alaska and the industry did it right and now the Alaska standard is what everybody else looks to. Now when these ships transit the world they discharge at an extremely high standard. In fact, some companies have installed the technology on all their ships.

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MR. BINKLEY said this shows that when industry works with regulators it can improve the water quality of the ocean. He urged the committee to continue the compromise by getting rid of the five words. They set a standard that none of the other 1,000

or so Alaska discharge permits has to meet. In fact, he would challenge the sponsors of the initiative to show even one permit to discharge wastewater into U.S. waters that has to meet the "at the point of discharge" standard. This standard is unreasonable to achieve, and if the current compromise is sunsetted, there will be no incentive for industry to invest money to improve their existing systems. Instead it would be inclined to look at reconfiguring their ships to have larger holding tanks and Alaska's standards would become irrelevant because no one would apply for permit. He urged the committee to pass the House resources version of the bill. He added that he has the answers to many of the questions that Senator Wielechowski asked.

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CO-CHAIR MCGUIRE invited him back to a subsequent hearing because the committee is under time constraints today. She asked others who wanted to testify to contact her office.

SENATOR STEVENS asked if it's true that shipboard copper piping is the source of most of the copper and zinc found in the discharge, and if he believes that all cruise ships would replace their copper piping if they were allowed more time.

MR. BINKLEY said he is surprised at the expertise of Mr. Thoma with regard to shipboard piping. He knows that the Star Princess, which had five of the eight violations, was constructed in 2002 with stainless steel main piping and copper feeder pipes to staterooms. It is not an old ship with corroded copper pipes. He explained that anytime water runs through pipes it will pick up small parts per billion of whatever material the pipe is made of. If the pipe is galvanized the water will pick up particles of zinc, if the pipe is stainless steel the water will often pick up particles of nickel, if the pipe is copper the water will pick up particles of copper. Unless the pipe is made of glass or ceramics it will pick up minute amounts that are small enough to be difficult to measure. He offered to get the details of the piping on each of the 31 ships.

CO-CHAIR MCGUIRE announced she would hold HB 134 in committee.

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There being nothing further to come before the committee, Co-Chair McGuire adjourned the Senate Resources Standing Committee at 5:30 p.m.