ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE
March 16, 2009
1:15 p.m.

MEMBERS PRESENT

Representative Craig Johnson, Co-Chair
Representative Mark Neuman, Co-Chair
Representative Bryce Edgmon
Representative Kurt Olson
Representative Paul Seaton
Representative Peggy Wilson
Representative David Guttenberg
Representative Scott Kawasaki
Representative Chris Tuck

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

HOUSE BILL NO. 134
"An Act relating to the terms and conditions of commercial vessel permits for the discharge of graywater, treated sewage, and other waste water; and providing for an effective date."

- HEARD AND HELD

PREVIOUS COMMITTEE ACTION

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)

WITNESS REGISTER

LARRY HARTIG, Commissioner
Department of Environmental Conservation
Juneau, Alaska
POSITION STATEMENT: During hearing on HB 134, answered questions and provided information.

LYNN TOMICH KENT, Director
Division of Water
Department of Environmental Conservation
Anchorage, Alaska
POSITION STATEMENT: During hearing on HB 134, answered questions and provided information.

REINALDO GONZALEZ, Ph.D.
Associate Environmental Engineer
Burns & McDonnell Engineering Company
Kansas City, MO
POSITION STATEMENT: During hearing on HB 134, answered questions.

ACTION NARRATIVE

1:15:14 PM

CO-CHAIR MARK NEUMAN called the House Resources Standing Committee meeting to order at 1:15 p.m. Representatives Neuman, Johnson, Olson, Edgmon, Guttenberg, Tuck, Kawasaki, Seaton, and Wilson were present at the call to order.

HB 134-CRUISE SHIP WASTEWATER DISCHARGE PERMITS

1:15:35 PM

CO-CHAIR NEUMAN announced that the only order of business would be HOUSE BILL NO. 134, "An Act relating to the terms and conditions of commercial vessel permits for the discharge of graywater, treated sewage, and other waste water; and providing for an effective date." [Before the committee was CSHB 134(CRA).]

CO-CHAIR NEUMAN said the committee would continue discussion of Amendment 1 which was offered by Representative Seaton at the

3/2/09 hearing, but not adopted. He noted that discussions have occurred with Larry Hartig, Commissioner of the Department of Environmental Conservation (DEC), and that for the next hearing the commissioner has agreed to come up with some proposals for the technology-forcing aspect of HB 134.

1:17:26 PM

REPRESENTATIVE SEATON commented that the compliance date is fast approaching and something needs to be done to ensure there is progress toward water quality. The point of his amendments is to keep the state moving in that direction while still allowing the industry to function. He said he would like to offer either an amendment to Amendment 1 or a substitute amendment in order to make it available for public review.

CO-CHAIR NEUMAN responded that under the committee's rules, amendments must be given to members at least 24 hours in advance of the hearing. Exceptions can sometimes be made for small amendments, but this is a five-page amendment, he said.

1:19:35 PM

CO-CHAIR NEUMAN read a portion of a March 12, 2009, letter from Ketchikan Mayor Bob Weinstein [original punctuation provided]:

> Furthermore, I have tried - with little success to date - to engage the initiative sponsors in a process to sit down and develop a fair way of distributing the proceeds of the passenger fees to benefit the ports of call actually impacted by the ships and their passengers and crews. I am still willing to do that.
>
> I am not willing, however, to have them tell us what ou[r] capital priorities should be.

CO-CHAIR NEUMAN said it bothers him that all the parties do not appear to be reaching out to the communities that are affected by this; however, the communities are talking to legislators. He refused to accept Representative Seaton's amendment right now, saying it is unfair to communities that will be impacted to not have a chance to review the amendment.

REPRESENTATIVE SEATON noted that he is trying to have that same conversation. If people are talking about an amendment with provisions that will definitely be changed, then they are commenting on past instead of current information. He said his

revised amendment will be posted on his website and is labeled 26-LS0570\E.3, Bullard, 3/16/09, should the public wish to review it. He agreed not to move his amendment.

1:21:46 PM

CO-CHAIR NEUMAN reiterated that Amendment 1 was not accepted at the time it was offered for discussion and it might be more appropriate to offer a substitute amendment.

REPRESENTATIVE SEATON withdrew Amendment 1 and moved that the committee adopt Amendment 2, labeled 26-LS0570\E.3, Bullard, 3/16/09, which read as follows:

Page 1, line 2:
Delete "**waste water;**"
Insert "**wastewater; relating to wastewater, sewage, and treatment projects in certain communities, including shore-based wastewater treatment facilities that serve commercial passenger vessels; and relating to the regional cruise ship impact fund;**"

Page 1, following line 4:
Insert new bill sections to read:
"*** Section 1.** AS 43.52.230(a) is amended to read:
(a) The proceeds from the tax on travel on commercial passenger vessels providing overnight accommodations in the state's marine water shall be deposited in a special ["] commercial vessel passenger tax account ["] in the general fund. The legislature may appropriate money from this account for the purposes described in (b) **- (d)** [AND (c)] of this section, for state-owned port and harbor facilities, other services to properly provide for vessel or watercraft visits, to enhance the safety and efficiency of interstate and foreign commerce, and [SUCH] other lawful purposes as determined by the legislature.
*** Sec. 2.** AS 43.52.230 is amended by adding a new subsection to read:
(d) The legislature may appropriate money deposited into the regional cruise ship impact fund to the Department of Environmental Conservation for planning, designing, building, modifying, constructing, or rehabilitating wastewater and sewage systems and treatment works in a port of call in which commercial passenger vessels load or unload passengers

to ensure that treated wastewater generated by commercial passenger vessels, when combined with untreated sewage, treated sewage, graywater, and other wastewater generated by the community, is not discharged in a manner that violates any applicable effluent limits or standards under state or federal law, including Alaska Water Quality Standards governing pollution at the point of discharge."

Renumber the following bill sections accordingly.

Page 1, line 6:
Delete "The"
Insert "**Except as provided under AS 46.03.464(a), the** [THE]"

Page 1, line 11:
Delete "[AT THE POINT OF DISCHARGE]"
Insert "at the point of discharge"

Page 2, line 9:
Delete all material and insert:
"*** Sec. 4.** AS 46.03.462(b), as amended by sec. 3 of this Act, is amended to read:
(b) **The** [EXCEPT AS PROVIDED UNDER AS 46.03.464(a), THE] minimum standard terms and conditions for all discharge permits authorized under this section require that the owner or operator
(1) may not discharge untreated sewage, treated sewage, graywater, or other wastewaters in a manner that violates any applicable effluent limits or standards under state or federal law, including Alaska Water Quality Standards governing pollution at the point of discharge;
(2) shall maintain records and provide the reports required under AS 46.03.465(a);
(3) shall collect and test samples as required under AS 46.03.465(b) and (d) and provide the reports with respect those samples required by AS 46.03.475(c);
(4) shall report discharges in accordance with AS 46.03.475(a);
(5) shall allow the department access to the vessel at the time samples are taken under AS 46.03.465 for purposes of taking the samples or for purposes of verifying the integrity of the sampling process; and

(6) shall submit records, notices, and reports to the department in accordance with AS 46.03.475(b), (d), and (e).

*** Sec. 5.** AS 46.03 is amended by adding a new section to read:

Sec. 46.03.464. Shore-based wastewater treatment facilities. (a) Notwithstanding AS 46.03.462(b)(1), the Department of Environmental Conservation may provide an annual waiver from the point of discharge requirement imposed under that paragraph for a discharge of treated wastewater from a commercial passenger vessel that is capable of discharging treated wastewater to a shore-based wastewater treatment facility. The waiver may be extended for additional one-year periods through December 31, 2013, if

(1) the commissioner certifies that one or more shore-based wastewater treatment facilities are operational or in the process of being constructed; and

(2) as a condition of the waiver, while present in a community with an operational shore-based wastewater treatment facility to load or unload passengers, the vessel

(A) discharges its treated wastewater to the facility; or

(B) complies with the terms and conditions of AS 46.03.462(b)(1), notwithstanding the waiver provided under this section.

(b) An annual waiver granted under (a) of this section may be extended after December 31, 2013, for additional one-year periods if

(1) the commissioner, after consultation with representatives of the cruise ship industry and communities in which commercial passenger vessels load or unload passengers, certifies that additional shore-based wastewater treatment facilities are

(A) necessary; and

(B) in the process of being constructed or operated; and

(2) as a condition of the waiver, while present in a community with an operational shore-based wastewater treatment facility to load or unload passengers, the vessel

(A) discharges its treated wastewater to the facility;

(B) complies with the terms and conditions of AS 46.03.462(b)(1), notwithstanding the waiver provided under this section.

(c) In this section, "shore-based wastewater treatment facility" means a wastewater treatment facility located in a community in which commercial passenger vessels load or unload passengers that

(1) does not violate any applicable effluent limits or standards under state or federal law, including Alaska Water Quality Standards governing pollution at the point of discharge; and

(2) is capable of receiving discharges of treated wastewater from commercial passenger vessels.

*** Sec. 6.** AS 46.03.464 is repealed.

*** Sec. 7.** TRANSITION: REGULATIONS. The Department of Environmental Conservation may proceed to adopt regulations to implement its responsibilities under this Act. The regulations take effect under AS 44.62 (Administrative Procedure Act), but not before the effective date of the statutes implemented by the regulations.

*** Sec. 8.** The uncodified law of the State of Alaska is amended by adding a new section to read:

NOTICE. If the excise tax is found unconstitutional as described in sec. 9(1) of this Act, the attorney general shall promptly notify the revisor of statutes, the commissioner of environmental conservation, and the commissioner of revenue of the date that the excise tax was found unconstitutional.

*** Sec. 9.** Sections 4 and 6 of this Act take effect on the earliest date of the following:

(1) a court of competent jurisdiction enters a final judgment on the merits that is no longer subject to appeal or petition for certiorari holding that the excise tax levied on travel aboard commercial passenger vessels under AS 43.52.200 is unconstitutional;

(2) AS 43.52.200 is repealed; or

(3) December 31, 2016.

*** Sec. 10.** Sections 3 and 5 of this Act take effect January 1, 2010.

*** Sec. 11.** Except as provided in secs. 9 and 10 of this Act, this Act takes effect immediately under AS 01.10.070(c)."

CO-CHAIR JOHNSON objected to Amendment 2.

1:24:34 PM

CO-CHAIR JOHNSON moved that Amendment 2 be tabled to provide the public with time to review it and members the time to discuss it and work through any problems by the next committee meeting.

CO-CHAIR NEUMAN agreed. He said he wants to ensure that Commissioner Hartig has the time to work on a solution that the commissioner feels will meet the goals of the 2006 Cruise Ship Initiative ("the initiative"). He offered his opinion that DEC, as the regulating authority on this issue, should take the lead.

REPRESENTATIVE GUTTENBERG requested that committee members and the public be given 24 hours to look at Amendment 2, as well as any new amendment that may come back from Commissioner Hartig. He said he would appreciate being able to walk through the amendment and talk to regulators at DEC and beyond, as well as the sponsors of HB 134 and the initiative sponsors.

1:27:43 PM

CO-CHAIR NEUMAN requested an explanation of mixing zones.

LARRY HARTIG, Commissioner, Department of Environmental Conservation, deferred to Lynn Kent.

LYNN TOMICH KENT, Director, Division of Water, Department of Environmental Conservation, explained that DEC first sets Water Quality Standards under which specific numeric limits are established for each type of contaminant. These limits are designed to protect a use of a waterbody, she continued. For example, DEC sets a numeric limit for copper that is designed to protect human health for drinking water purposes. A numeric limit for copper is also set for the protection of aquatic life. The aquatic life standard is more stringent because aquatic life is more sensitive to copper than are humans. Wastewater discharge permits are based on the most stringent criteria, which for copper is the criteria for aquatic life.

1:29:48 PM

MS. KENT noted that even with the best treatment technology, treated wastewater discharge may still have low levels of pollutants. A mixing zone is the area where treated wastewater is allowed by DEC permit to mix with the waterbody. Mixing zones are only authorized in the context of a permit, and all DEC permits go through a public comment period. The regulations

that DEC has to consider when authorizing a mixing zone are designed to protect aquatic life, among many other things, she said. To authorize a mixing zone, DEC must make about 19 different findings via its regulations.

MS. KENT explained that under the first finding, DEC must "ensure that the effluent is treated to remove, reduce, and disperse pollutants using the most effective, technologically and economically feasible methods, and at a minimum are consistent with statutory and regulatory treatment requirements." Other requirements that must be met before a permit can be authorized include ensuring that a mixing zone: is as small as practicable; will not impair the overall biological integrity of a waterbody; will not preclude or limit established processing activities and commercial, sport, personal use or subsistence fisheries; will not result in any reduction in fish or shellfish population levels; will not affect endangered or threatened species, will not form a barrier to migratory species, and will not contain bio-accumulative contaminants.

1:31:53 PM

MS. KENT called attention to the division's fact sheet about mixing zones provided in the committee packets. She said that for shore-based seafood processing facilities operating under a general permit, the mixing zone is for "residues, dissolved gas, oil and grease, pH, color, turbidity, fecal coliform, chlorine, and temperature." This permit defines a mixing zone in marine waters as a "cylindrical volume with a horizontal radius of 100 feet from the diffuser and the full depth of the waterbody." She pointed out that all of the Water Quality Standards that the mixing zone is authorized for must be met at the edge of that mixing zone.

MS. KENT discussed the mixing zone for the Mendenhall Wastewater Treatment Plant in Juneau which discharges municipal wastewater into the Mendenhall River. She said this mixing zone is for "fecal coliform, dissolved oxygen, pH, metals, and nutrients. The mixing zone is defined as an area within a rectangle centered over the diffuser with a width of 30 meters and extending both upstream and downstream for a distance of 150 meters and for the full depth of the river. She explained that the diffuser is the end of the pipe and the distance is both upstream and downstream because the Mendenhall is a tidally-influenced river. The mixing zone provides for a dilution of 10:1, she added.

1:33:46 PM

REPRESENTATIVE SEATON understood that at the Mendenhall facility the Water Quality Standards for wastewater discharge would have to be met at a dilution of up to 10:1.

MS. KENT answered that the Water Quality Standards must be met by 150 meters both upstream and downstream of the end of the pipe, depending on the tidal stage. In further response, she said it is correct that the design is for a 10:1 dilution.

CO-CHAIR NEUMAN asked what the ratio is for a cruise ship.

MS. KENT replied that for a cruise ship underway it is 50,000:1. She said this very high dilution rate is because the vessel is moving and there is a lot of turbulence so the mixing occurs almost instantaneously.

1:35:03 PM

REPRESENTATIVE SEATON calculated that the dilution ratio for cruise ships is therefore 5,000 times that of the Mendenhall treatment plant. He asked if this means that cruise ships can discharge 5,000 times more copper from the end of the pipe.

MS. KENT responded that DEC's anti-degradation policy and mixing zone regulations do not allow the department to let a cruise ship reduce the level of treatment that it is already achieving. Therefore, even if mixing zones are allowed for cruise ships, DEC could not allow any backsliding and the cruise ships would still have to meet the highest treatment technology available requirement.

1:36:50 PM

REPRESENTATIVE WILSON asked whether all of the cruise ships are under the 50,000:1 requirement or are some doing something different.

MS. KENT explained that that is the dilution DEC has calculated doing dilution studies. The wastewater discharge permit that cruise ships are currently operating under has both interim limits and long-term limits that take effect in 2010. The long-term limits are based on meeting the Water Quality Standard at the point of discharge. The interim limits are based on roughly what the cruise ships are able to obtain today. In further

response, Ms. Kent reported that the cruise ships are not meeting the long-term effluent limits right now. The ships are using a variety of advanced wastewater treatment systems that all produce a pretty high level of treatment on the water, but none of them achieve the end-of-the-pipe Water Quality Standards for all parameters at all times.

CO-CHAIR NEUMAN commented that the discussion is in regard to end of pipe and allowing DEC to use mixing zones, as is typically done.

MS. KENT agreed. She said HB 134 as originally introduced would delete the language "at the point of discharge" and would allow DEC, under certain circumstances, to authorize mixing zones. The department could not allow the vessels to discharge concentrations of contaminants that are higher than what they are discharging now, but it would give some flexibility on where DEC measures compliance for those discharges.

1:39:43 PM

REPRESENTATIVE TUCK inquired what the copper standards are for drinking water versus aquatic life.

MS. KENT answered that she did look up the various levels as per Representative Tuck's question at a prior hearing, however she said she did not look up the drinking water standards because marine waters are not protected for drinking water, and the cruise ships all discharge to marine rather than fresh water.

REPRESENTATIVE TUCK said he is asking about copper because he understands that some cruise ships are taking on drinking water that contains more copper than is allowed for marine discharge and he is curious as to what the difference is between the two standards.

MS. KENT stated that the Water Quality Standard for copper for protection of aquatic life is significantly more stringent than it is for protection of human health in drinking water.

1:41:15 PM

REPRESENTATIVE TUCK asked whether DEC would use the same mixing zone standards for all ships regardless of the different technologies onboard the different ships.

MS. KENT replied that the mixing zones are based on the Water Quality Standards and what is happening in the waterbody, more so than they are based on the type of technology that is available on the vessel. In all other instances, DEC's Water Quality Standards and mixing zone regulations apply to the impact on the waterbody as opposed to who the discharger is. Cruise ships are the only place where the law requires DEC to look directly at the type of discharger.

1:42:18 PM

REPRESENTATIVE TUCK inquired whether the mixing zone would change depending on what waterbody the cruise ship is in.

MS. KENT responded, "Absolutely." It is clear from the department's dilution studies to date that the mixing zone for an underway vessel with an advanced wastewater treatment system is so small as to be almost immeasurable. However, a mixing zone could be denied in instances where the discharge is into a protected waterbody without a lot of flow. In further response, Ms. Kent said DEC is focused on the impacts to the waterbody, so authorization of a mixing zone by DEC would be based on the characteristics of the waterbody, the flow, the effluent, the tidal stages, and so forth.

REPRESENTATIVE TUCK asked whether most ships in Alaska discharge continually or do they have holding tanks so they can discharge where need be.

MS. KENT explained that some vessels have the capability of holding while in Alaska waters without having to change their itineraries, while some probably cannot do this.

1:44:49 PM

REPRESENTATIVE SEATON inquired how Commissioner Hartig plans to provide for ongoing improvement of technology and moving toward better Water Quality Standards.

CO-CHAIR NEUMAN offered his belief that the commissioner is held to this standard by statute.

COMMISSIONER HARTIG said the administration recognizes that the people who voted for the initiative wanted to raise the bar for cruise ship discharge, but the bar may have been raised too high. Research of the technology and discussions with the industry and treatment system vendors, indicates a consensus

that the cruise ships cannot meet all water quality criteria in the pipe. So the question is where the bar can be set. There is a lack of science, engineering, and economic information as to where to set that bar and how long it will take to get there. The department is looking at how to gather this information to make good judgment on where technology-forcing is appropriate and how it is done under what terms.

COMMISSIONER HARTIG further stated that DEC is looking at how to raise the bar as directed by the initiative without driving the cruise industry out of the state. The technology conference would have found the "silver bullet" if there was one to be found, so getting there will have to be done in steps. He said he sees the focus of discussions with the sponsor and others as being an exploration of options. Perhaps it is too broad to say that DEC is taking the lead on this, he continued. The department is offering to engage itself to try to add an element to HB 134 that is more in line with the expectation of the initiative, and that is some element of technology-forcing.

1:48:07 PM

CO-CHAIR NEUMAN said he asked the commissioner to somewhat take the lead on this because of the commissioner's statement that the bar set by the initiative is not achievable.

Commissioner Hartig clarified that he said the bar is not achievable at this time.

CO-CHAIR NEUMAN recounted that Representative Harris introduced a bill that he thought would solve this problem. Now Representative Seaton wants to impose regulations on land-based wastewater treatment plants in communities across Alaska. He said he thinks Representative Seaton's amendment should be brought forward as a separate bill because it deals with communities while the initiative deals with cruise ships. He asked whether Commissioner Hartig thinks DEC can ensure that Alaska's waters stay clean.

COMMISSIONER HARTIG answered yes, that is DEC's intent. The department believes that with the regulatory tools it has, any authorized mixing zone, whether for cruise ships or any other industry, will have to meet a high standard. The department goes over the 19 criteria mentioned by Ms. Kent carefully, and will not sacrifice Alaska's water quality for any industry.

1:50:14 PM

CO-CHAIR NEUMAN noted that Ms. Kent also said DEC is continuing to upgrade its regulations to make sure that the most advanced technology is used by all industries working within Alaska.

COMMISSIONER HARTIG said the anti-degradation provision mentioned by Ms. Kent applies to any permit whether or not it has mixing zones. If a mixing zone is authorized, there is a separate requirement that treatment be done by using the most efficient technology currently available. Both regulations require waste reduction prior to treatment. The department does not at this point have provisions that look beyond the current horizon; however, that is an element of the initiative. The February 2009 technology conference found that there may be some technologies down the road, although it is unknown how far. He said he would be looking at how DEC should go about exploring the science and engineering questions so the department can firm up its understanding of when these might occur and encourage the technologies that would make sense in Alaska.

CO-CHAIR NEUMAN said he hopes Commissioner Hartig will bring these back to members.

1:51:48 PM

REPRESENTATIVE WILSON commented that she is concerned about fish as well as human health because fishing is the main source of income for most of her constituents. She asked what the exact numbers are for how high copper can go before affecting fish.

COMMISSIONER HARTIG clarified that Ms. Kent was talking only about the copper standard. It is not always true that the standard is stricter for aquatic life than it is for drinking water. Sometimes it is the other way, he explained. There are different standards set for each contaminant. Science is always advancing the knowledge about what the effects may be on humans or aquatic life. The department's regulations are based on the federal Clean Water Act which requires a review of the standards every three years. During this review, DEC solicits public review, looks at what other states are doing, and talks to other Alaska agencies as well as federal agencies. He said the Environmental Protection Agency (EPA) provides guidance as to what new science the state should look at. Based on new information, DEC determines what regulations need to be updated. Updating is therefore a constant process.

1:53:59 PM

REPRESENTATIVE GUTTENBERG inquired whether it is the technology or the engineering that is not yet there.

COMMISSIONER HARTIG deferred to Ms. Kent.

MS. KENT replied that one of the things learned at DEC's February 2009 technology conference was that there is certainly technology available that will treat wastewater to meet Alaska's Water Quality Standards at the point of discharge. But what was also learned is that sizing it and conducting the engineering necessary to put it onboard the confined space of a cruise ship is the challenge and will take a bit of time.

1:55:30 PM

REPRESENTATIVE EDGMON asked whether there is enough data to provide an understanding about the cumulative effects of copper and the other pollutants on the marine environment where cruise ships operate.

COMMISSIONER HARTIG deferred to Ms. Kent.

MS. KENT responded that DEC has looked at dilution studies done by the EPA on moving vessels and has conducted its own studies on stationary vessels. For moving vessels the dilution ratio is very high and it is virtually impossible to monitor for cruise ship waste behind the vessel when it is underway. Last summer the department collected field data to calculate dilution that might occur under a worst case scenario. Skagway was selected for this because the cruise ships are in a confined area with very limited flushing. Even in this worst case scenario, under some of the assumptions made about the data Alaska's Water Quality Standards would be met within 15 meters of a discharging vessel. Using other assumptions, specifically the very highest values that have been recorded in the last year from cruise ship discharges, it would take greater than 15 meters from the vessel to meet Alaska's Water Quality Standards. She said that if DEC had the ability to authorize mixing zones for cruise ships, the department would be looking at very specific waterbodies and situations where a mixing zone would not have a negative impact on the water quality.

1:58:04 PM

REPRESENTATIVE EDGMON surmised that determination of the cumulative impacts is still a work in progress.

MS. KENT said DEC does not think there is a problem in terms of cumulative impacts from vessels that are underway.

MS. KENT, in response to Co-Chair Neuman, confirmed that from a discharge perspective of ships underway, there is no cumulative impact of contaminants.

1:58:50 PM

CO-CHAIR NEUMAN inquired whether a glass of Juneau's tap water poured overboard would meet the point-of-discharge requirements.

COMMISSIONER HARTIG deferred to Ms. Kent.

MS. KENT answered that she does not have Juneau's data, but there are points of call where the bunkered water delivered to cruise ships is higher in copper than the aquatic life criteria. So, if there was a mixing zone authorized for the glass of water, there probably would not be a problem given the dilution factor. She pointed out that all of Alaska's shore-based wastewater treatment facilities have authorized mixing zones, so if the drinking water source exceeds the Water Quality Standards in the receiving water, it is usually dealt with through the mixing zone or the treatment process.

2:00:10 PM

CO-CHAIR NEUMAN asked whether the answer to his question is yes or no.

COMMISSIONER HARTIG said DEC is requiring source reduction evaluations from the cruise ship companies to determine how the ships can reduce their intake of copper and other pollutants of concern. Some of the ships have looked at where they get their bunkered water because it can have an impact. Some of the ships are looking at switching out the vessel's piping and some have already done this. Copper in a community system can be coming from the pipes and not the water source, he added. The amount of copper in the water can depend on where the water is drawn and the length of time that it has been in the pipes.

2:01:18 PM

CO-CHAIR NEUMAN maintained that the source of copper is from the bunkered water supplied by the communities and not from the ships themselves.

COMMISSIONER HARTIG said there is something to that and the vessels are looking into this as a means of reducing the amount of copper that they are discharging.

CO-CHAIR NEUMAN repeated his question about whether dumping a glass of Juneau drinking water overboard would violate the Water Quality Standards for point of discharge.

COMMISSIONER HARTIG stated that he does not know what those water quality parameters are, but he will get them to the committee so the question can be answered definitively.

CO-CHAIR NEUMAN said the committee has received information that the drinking water at most of the ports of call would violate the point-of-discharge requirements.

2:02:46 PM

REPRESENTATIVE TUCK inquired whether it was DEC that gave the extensions to what was originally passed by the initiative and, if so, what were the conditions that DEC did that. He further asked whether it would be possible for DEC to extend the time for meeting the standards set by the initiative.

COMMISSIONER HARTIG confirmed that the 2010 deadline came from DEC. The initiative would have required the cruise ships to meet the end-of-pipe standards much earlier. The deadline was extended because DEC knew from the cruise ships' discharge data that they could not meet that deadline and more time was needed to find the technology or do source reduction to meet the standard. The department has statutory and regulatory authority to put compliance schedules in discharge permits, he explained, but when this is done DEC must be able to say that the schedule will lead toward compliance and has definitive steps for getting there. The first general permit issued for cruise ships included a schedule of two years, which was the minimum time that DEC thought it would take to reach Water Quality Standards in the pipe. The steps included in the permit were not well defined because DEC itself did not know what the steps were. But the permit requires the cruise ships to provide source reduction evaluations delineating what is in their discharge, where it is coming from, what steps can be taken to reduce that, and the progress that has been made. One purpose of the February 2009 technology conference was to learn whether the deadline needs to be extended and, if so, how far does it need to be extended. So, the short answer is that DEC could extend

the deadline, but there must be a good statutory basis for doing so and it must show that compliance can be achieved over time and outline the steps that will be used for getting there - and this is what DEC is still searching for.

2:05:26 PM

REPRESENTATIVE WILSON understood that the technology and engineering are available [for achieving end-of-pipe standards] on land, but that currently the equipment is too large to put on a vessel; so the hope is to develop equipment that will fit on a ship.

COMMISSIONER HARTIG replied that this is an over-simplification as there are also energy requirements. He deferred to Ms. Kent.

MS. KENT deferred to DEC's contractors and their subcontractors who conducted the February 2009 technology conference and are familiar with the shore-based systems.

CO-CHAIR NEUMAN interjected that he has heard that another problem is the prohibitive cost.

2:06:59 PM

REPRESENTATIVE WILSON said her question is why the shore-based technology cannot be used onboard ships.

REINALDO GONZALEZ, Ph.D., Associate Environmental Engineer, Burns & McDonnell Engineering Company, explained that his company provides consulting services to DEC in regard to technologies available on land for treatment of ammonia and metals, the specific metals being copper, zinc, and nickel. He said his company has provided its experience in treating ammonia and those metals to levels close to the 2010 standards and sometimes lower than those. However, his company has not had any experience with all of those combined. Space is not normally an issue for land-based facilities, he pointed out, and so it is very challenging to fit or find a way of bringing this technology into a ship. Not only is this due to size, but also because the standards for the cruise industry are completely different from the standards for land-based. He said that so far his company does not know of any cruise ship that has installations that can comply with all of these standards when all of these compounds are combined in the wastewater. He advised that pilot testing will likely be needed to see what will work.

2:09:44 PM

REPRESENTATIVE GUTTENBERG asked whether the "sub-account" money flows into DEC or the general fund.

COMMISSIONER HARTIG responded that there is the $4 per passenger cruise ship tax that was there before the initiative and some of that money currently funds DEC's permitting program. The sub-account is a potential source for funding activities like the February 2009 technology conference, but it is different than the $4 tax.

2:10:57 PM

REPRESENTATIVE SEATON inquired whether the advanced wastewater treatment plants on the cruise ships in Alaska were installed as a result of the 2006 initiative, DEC regulations, legislation, or because the cruise ships wanted to.

COMMISSIONER HARTIG deferred to Ms. Kent as this happened before his time at DEC.

MS. KENT said some of this was before her involvement, but there was a time when there was significant public interest in cruise ships and discharges from cruise ships. The companies met voluntarily in a work group with DEC and members of the public to look at the cruise ship discharges. The cruise ships voluntarily conducted sampling to determine the quality of the discharges. In the end, the cruise ship industry and DEC endorsed legislation that became the regulatory scheme for the initial DEC regulations. She said there were federal actions occurring at about the same, but she is unsure of the sequencing for that. So, it was a voluntary effort by the cruise ships to significantly upgrade the treatment capabilities.

2:12:46 PM

CO-CHAIR NEUMAN commented that everyone working together sounds like a good way of doing business.

MS. KENT agreed.

CO-CHAIR NEUMAN held CSHB 134(CRA). He requested Commissioner Hartig to work with the sponsor and the co-chair and come back with information.

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 2:13 p.m.