HB

522

ALASKA STATE LEGISLATURE

Representative Bruce Weyhrauch

HOUSE DISTRICT 4

ALASKA
STATE CAPITOL
JUNEAU, ALASKA
99801-1182

(907) 465-3744
FAX (907) 465-2273

MEMORANDUM

TO: Committee Members
House Resources

FROM: Rep. Bruce Weyhrauch BW

DATE: March 5, 2004

SUBJECT: HB 522 – Small Commercial Passenger Vessels

In committee, Mr. Chip Thoma, a member of the public, raised concerns about the department's ability to effectively regulate the small commercial passenger vessels under the regulatory scheme outlined in HB 522. In response, we would like to offer the committee a letter from John Waterhouse, P.E.. Mr. Waterhouse is a marine engineer who has worked extensively with the marine industries. Specifically, we asked Mr. Waterhouse to explain what circumstances involving retrofitting necessitate stability testing and/or re-licensing of a vessel by the United States Coast Guard.

We'd like to emphasize to the committee that the intent of HB 522 is to enable the department and the industry to manage their wastewater issues using the tools of Best Management Practices. This legislation in no way exempts the small commercial passenger vessels from Alaska's rigorous environmental protection laws.

Thank you for the time you and your staff have taken to review this important issue, and I look forward to continuing to work with the Resources committee next week.

Attachment: Letter from Elliot Bay Design Group

Representative _Bruce_Weyhrauch@legis.state.ak.us
www.akrepublicans.org/weyhrauch/

Elliott Bay Design Group

Architectural & Engineering Services for the Marine Industry

5301 Shilshole Ave NW
Suite 200
Seattle, WA 98107
tel 206 782 3082
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March 2, 2004

Ref: J04029-01L

Mr. Bryce Brockway
Cruise West
2401 4th Avenue, Suite 700
Seattle, WA 98121

Subject: **Limitations on Modifying Small Commercial Passenger Vessels**

References: a. Alaska House Bill 522, "An Act relating to discharges from small commercial passenger vessels; and providing for an effective date."

b. Assessment of Cruise Ship and Ferry Wastewater Impacts in Alaska. Alaska Department of Environmental Conservation, Juneau, Alaska, February 9, 2004.

Dear Mr. Brockway,

I have read the proposed House Bill 522 relating to small commercial passenger vessels (Reference a). As you know, I am a naval architect with extensive design experience in vessels such as cruise ships and ferries, including the Alaska Marine Highway System fleet, the Inter-Island Ferry Authority ferry, the Cruise West fleet, Lindblad Expeditions fleet, and Glacier Bay Tours and Cruises fleet. I am registered in Washington State as a professional engineer in the disciplines of naval architecture and marine engineering. Based on my professional opinion, the wastewater management systems on existing vessels cannot be readily changed to meet the Alaska Department of Environmental Conservation Standards for reasons outlined below. The combination of U.S. Coast Guard regulations, licensing requirement, and vessel construction practices makes the addition of new treatment equipment and holding tanks technically infeasible.

Regulatory environment - Small commercial passenger vessels that operate under the U.S. flag are regulated by the U.S. Coast Guard and carry a certificate of inspection showing compliance with all safety requirements. To qualify as a small passenger vessel they must admeasure less than 100 gross tons. Please note that gross tonnage is a measure of internal volume and not weight. Their design and construction are principally regulated under Subchapter K of Chapter 46 of the Code of Federal Regulations which applies to vessels that carry 50 or more passengers in overnight service or more than 150 passengers in day service. If changes are made to a vessel

that increase its admeasurement to more than 100 gross tons, the vessel is no longer considered a small passenger vessel by the U.S. Coast Guard and is subject to a different "license" or certification.

Wastewater Management – As detailed in Reference b, small cruise ships generally meet all wastewater discharge requirements while underway. During stationary discharge, "small ship effluent may not meet Alaska Water Quality Standards for free chlorine, fecal coliform, copper and zinc in receiving water." One potential solution would be to retain all graywater and blackwater while the vessels are stationary. However, per Table 24 of the reference, most of the small passenger vessels have inadequate tankage to hold all of the graywater and blackwater produced during a 12 hour period. Adding additional volume to the existing tankage and/or new treatment equipment is not simple and, depending on the vessel, may be impossible due to space and weight constraints.

Limited Space – As evidenced by the word "small," these vessels are very limited in space. Typically their machinery, tankage, storerooms, and crew quarters are all below the main deck. For many of the vessels there are also some passenger cabins below the main deck. Space is at a premium. Increasing the capacity of wastewater tanks below the main deck will likely result in some other space being made smaller. Adding tankage above the main deck is impractical since drain lines rely upon gravity to function. Space could be added to the vessel by lengthening the hull but that is expensive and likely increase the internal volume beyond the 100 Gross Ton admeasurement limit.

Weight Limits – Per Archimedes Principle, when weight is added to a vessel, the vessel must displace more water to compensate and hence sits lower in the water. This reduces the volume of hull remaining above the water, also known as the reserve buoyancy. Reserve buoyancy is what keeps an intact, undamaged vessel from foundering in storms at sea and is what keeps the vessel afloat after damage occurs due to a grounding or a collision. USCG stability regulations for both intact and damaged stability strictly govern the amount of reserve buoyancy. Adding weight in the form of additional tankage for waste water would require that an equal amount of weight would need to be removed. The only discretionary weights that could be removed are passengers, crew members, fuel, potable water, or provisions. All of these will have an economic impact on the operator.

Even if the vessel has sufficient reserve buoyancy to handle additional weight, the fact that the weight is a liquid can cause a loss of stability due to the "free surface effect." As the vessel heels to one side, liquid is free to move over to that side, causing additional heeling force, which is de-stabilizing. The stability letter issued to the vessel by the U.S. Coast Guard strictly limits the number of tanks that can be "slack" or contribute to the free surface effect. Compensating changes may need to be made to cancel any additional free surface effect. Such changes could be moving weights from high in the vessel to lower in the vessel, constructing tanks with a geometry that limits the free surface effect, or keeping other tanks either full or empty. The latter is extremely difficult to manage since liquid levels in fuel oil tanks and potable water tanks are constantly in flux. In general, small passenger vessels have tight stability limits and cannot tolerate weight changes.

The weight issues can be overcome by adding volume to the hull but this again can affect the admeasurement and vessel licensing.

If you desire more information regarding limits to altering a vessel, or wish to discuss a specific vessel, please let me know.

Sincerely,

EXPIRES 11/16/04

John W. Waterhouse, P.E.
President

Elliott Bay Design Group

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March 4, 2004

Ref: J04029-02L

Mr. Bryce Brockway
Cruise West
2401 4th Avenue, Suite 700
Seattle, WA 98121

Subject: **Limitations on Modifying Small Commercial Passenger Vessels**

References: a. Marine Safety Manual, COMDTINST M16000.9, United States Coast Guard, 24 Sept 1990

Dear Mr. Brockway,

I understand that you seek clarification as to when a vessel might require additional stability testing or re-licensing. Currently, the U.S. Coast Guard requires stability testing when a new vessel is constructed prior to issuing the certificate of inspection (COI) or license that allows the vessel to be used for carrying passengers. Only if changes are made to the vessel is re-testing of the stability required. Reference (a) contains the following language as to when a re-test is required:

Marine Safety Manual 6.D.4. Evaluation of Weight Changes to Lightship. During its service life a vessel may be modified without changing its buoyant hull form. A complete inclining is required unless the changes are minor or do not adversely impact the vessel's stability. Weight calculations are acceptable if the MSC determines they are accurate, or acceptable penalties in VCG are applied to the calculations. The nature of the weights changed is critical to the accuracy of calculations. Often, miscellaneous changes with a total weight greater than 2 percent of lightship displacement will necessitate a deadweight survey (or even a complete inclining) to verify calculations. Weight changes should be combined for the total change, when determining if a test is necessary, since the errors associated with weight additions and weight deletions are cumulative. If a deadweight survey proves the calculations to be inaccurate, a complete inclining may be necessary.

Please note that the 2 percent value refers to the total weight change, which is the sum of weights removed, weights relocated, and weights added. Vessels typically gain weight over time due to layers of paint, accumulated engine parts, additional stores, and minor changes to the equipment

or furnishings. This normal weight growth must be included in the total weight value. On most vessels, changes to the wastewater tankage and treatment system, combined with normal weight growth will almost certainly exceed 2% of the lightship displacement.

As noted in my previous letter, the vessel's COI is also based upon the admeasured volume of the vessel. If that volume is changed by lengthening the hull or adding sponsons to increase buoyancy then the gross tonnage must be re-measured and the stability must be re-tested. Once again, I caution that tonnage refers to volume in this case, not weight. This dates back to when vessels carried casks of wine, known as tuns, or tons, in their holds. In our modern measurements, one gross ton is equal to 100 cubic feet. If modifications to a vessel increase the admeasurement to over 100 gross tons then the vessel is no longer considered a small passenger vessel and must be re-licensed. Many of the small overnight passenger vessels have admeasurement values of 90 to 99 tons so there isn't much margin for change.

In closing, let me be clear that adding weight to a vessel can adversely impact the stability and have major consequences for an operator. As you know, the U.S. Coast Guard has strict requirements to ensure safe operation of passenger vessels. Most vessels have been designed to the limit of those requirements with little margin for change. A stability test can be the catalyst for expensive alterations to keep the stability in compliance with USCG requirements.

Sincerely,

EXPIRES 11/16/04

John W. Waterhouse, P.E.
President

ALASKA STATE LEGISLATURE

REPRESENTATIVE BRUCE WEYHRAUCH

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STATE AFFAIRS COMMITTEE

HB 522

Small Cruise Ship Discharge

Sponsor Statement

In 2001, the Alaska Legislature enacted the Commercial Vessel Environmental Compliance Program via HB 260. This was a collaborative effort by the cruise ship industry, the Legislature, and the Department of Environmental Conservation that established stringent guidelines for black and grey wastewater disposal in Alaska waters. Since passage of HB 260, most large cruise ships discharging into Alaskan waters have installed advanced wastewater treatment systems resulting in dramatically improved water quality samplings, according to a recent report authored by DEC.*

In addition to the large cruise vessels, HB 260 also required the small cruise vessels to comply with the same standards. Even though the smaller vessels contribute approximately 3% of the wastewater discharged in Alaskan waters in 2001, the assumption was made that environmental technologies developed by the large vessels could "filter down" and be applied to the smaller vessels. HB 260 gave the industry, including the small commercial vessels until July 2004 to comply.

As it turned out, the technological advances route wasn't a simple fit for the smaller vessels and consequently, these vessels cannot feasibly comply with the Commercial Vessel Environmental Compliance Program. According to the Assessment Report, the small vessel's trouble spot are readings that exceed the Alaska Water Quality Standards (AWQS) while stationary. The discharge met the AWQS while underway due to the large dilution factor. As a consequence and in order for these vessels to continue plying Alaskan waters, an alternative regulatory scheme that takes focuses on minimizing discharge is required.

Recently, such an alternative plan has been devised. The Small Commercial Vessel Association and the DEC have reached an accord that both protects Alaska waters and enables the small cruise ship industry to continue operations in the state. The plan set out in HB 522 deals in terms of "Best Management Practices" or BMPs for small vessels that currently operate in Alaskan waters. HB 522 also stipulates that new vessels constructed after January 1, 2004 be engineered to comply with the Compliance Program if they are to be used in Alaskan waters. This is an agreeable solution that will work for Alaska's environmental and business communities.

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*Assessment of Cruise Ship and Ferry Wastewater Impacts in Alaska
Alaska Department of Environmental Conservation
Commercial Passenger Vessel Environmental Compliance Program
January 23, 2004

Released: 2/26/04
Contact: Linda Sylvester
465-4963

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
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MEMORANDUM January 26, 2004

SUBJECT: Authority of the Department of Environmental Conservation to adopt regulations on interim protective measures for small passenger vessels (Work Order No. 23-LS1560)

TO: Representative Bruce Weyhrauch
Attn: Linda Sylvester

FROM: Donald M. Bullock Jr.
Legislative Counsel

You asked whether the Department of Environmental Conservation (DEC) had the authority to adopt regulations under AS 46.03.460 - 46.03.490 or ch. 1 FSSLA 2001, relating to interim protective measures applicable to discharges by the owner or operator (O/O) of a small commercial passenger vessel (SCPV). You also asked if DEC can decline to approve a plan for interim protective measures submitted by the O/O of a SCPV in the absence of regulations relating to standards for interim protective measures.

The answer to your first question is straightforward. The DEC is clearly authorized to adopt regulations to carry out the purposes of the commercial passenger vessel environmental compliance program, which would include regulations relating to interim protective measures and terms and conditions of vessel discharges. The answer to the second question is more complex. DEC must extend the time for compliance with AS 46.03.463 when the O/O of a SCPV submits a plan for interim protective measures; however, the law is not clear concerning the length of the extension and what constitutes acceptable interim protective measures.[1] While some procedural regulations might be helpful to the public, it is my opinion that decisions about the length of the extension and the acceptability of a plan for interim protective measures are within the authority and discretion of DEC without the adoption of regulations by the department because those decisions must be made on a case-by-case basis, not using general criteria.

Discussion

Regulatory authority of DEC

The commercial passenger vessel environmental compliance program, AS 46.03.460 - 46.03.490, was enacted in 2001 for the purpose of regulating vessel discharges into the

[1] The use of the word "shall" in the last sentence of both AS 46.03.463(b) and (c) requires the department to extend the time for compliance with these subsections. As discussed below, however, other requirements for alternative terms and conditions still apply.

Alaska environment. The law applies to all commercial passenger vessels operating in Alaska with overnight accommodation for at least 50 passengers.[2]

Under AS 46.03.460(b), DEC is granted the general authority to adopt regulations to carry out the purposes of the program and is directed to use negotiated rule making procedures when appropriate. DEC is also given specific authority to adopt regulations relating to the protocols for fecal coliform (AS 46.03.463(b) and (c)); standards for other parameters for discharges (AS 46.03.463(d)); the incorporation of standards in federal and other applicable laws (AS 46.03.463(e)(3)); and the time and manner for an O/O to pay the environmental compliance fee (AS 43.03.480(d)). In addition to the regulatory authority granted within the program, DEC has the authority under AS 46.03.020(10) to adopt regulations "necessary to effectuate the purposes of [AS 46.03]."

Within the broad scope of this regulatory authority, DEC may adopt regulations relating to procedures for establishing alternative terms and conditions of vessel discharges. Through the use of the word "may" in the authorizations, the adoption of regulations is at the discretion of the department. Therefore, in response to your question concerning whether DEC has the regulatory authority to put standards for interim protective measures in place, the answer is yes. Once adopted, the regulations may continue to have effect consistent with the statutory authority and may be amended at the department's discretion.

Authority of DEC to disapprove a plan for interim protective measures

With regard to your question concerning whether DEC can decline to approve the plan for interim protective measures without adopting regulations, I think it is helpful to look at the special provisions for SCPVs in ch. 1 FSSLA 2001. Also, to understand the effect of the commercial passenger vessel environmental compliance program on the issues you raise, we must look at both the section you identified—AS 46.03.463—and the preceding section—AS 46.03.462. While the former section relates to prohibited discharges and limitations on discharges, the latter section describes the terms and conditions under which a vessel may discharge into the state's environment. I believe the alternative terms and conditions of vessel discharges provided for in AS 46.03.462 should be read together with the plan for interim protective measures that an O/O may submit under AS 46.03.463.[3]

Unlike AS 46.03.463, there are no special provisions for SCPVs in AS 46.03.462. All owners or operators are required to comply with either the standard terms of conditions

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[2] Vessels in innocent passage through Alaska are exempt from the program under AS 46.03.487.

[3] The Alaska Supreme Court generally construes statutes in *pari materia* where two statutes were enacted at the same time, or deal with the same subject matter. *Underwater Constr., Inc. v. Shirley*, 884 P.2d 150, 155 (Alaska 1994).

provided for in AS 46.03.462(b) or the alternative terms and conditions approved by DEC under AS 43.03.462(c). Thus, SCPVs must comply with either the standard terms in or the alternative terms and conditions approved by DEC in order to discharge from vessels in Alaska.

While other standard terms and conditions in AS 46.03.462(b) relate to recordkeeping, testing, reporting, and access, AS 46.03.462(b)(1) is the only standard or condition that restricts the amount of suspended solids and coliform that may be discharged into the environment. In the case of an SCPV not capable of meeting the limitations on suspended solids and coliform in AS 46.03.463(b) and (c), the O/O of an SCPV may submit a plan for interim protective measures. Under the same subsections, DEC is required to extend the time for the vessel to comply with the limitations.

Under AS 46.03.462(c), DEC may set alternative terms and conditions of vessel discharges for an O/O who cannot practicably comply with the standard set. Under the maxim expressio unius est exclusio alterius,[4] these are the only three situations in which an exception may be permitted. Of the three situations, two do not impact the environment beyond the discharge allowances under AS 46.03.463(b) and (c).

The three situations described in AS 46.03.462(c) in which DEC may set alternative terms and conditions for an O/O who cannot practicably meet the standard set are as follows:

> (1) [T]he vessel owner or operator demonstrates to the department's reasonable satisfaction that *equivalent environmental protection* can be attained through other terms or conditions appropriate for the specific configuration or operation of the vessel;
>
> (2) the vessel owner or operator agrees to make necessary changes to the vessel to allow it to comply with the standard terms and conditions of vessel discharges under (b) of this section but demonstrates to the department's reasonable satisfaction that additional time is needed to make the necessary changes; or
>
> (3) an experimental technology or method for pollution control of a discharge is being used or is proposed as one of the alternative terms and conditions of vessel discharges and the department determines that the experimental technology or method has a reasonable likelihood of success in providing *increased protection for the environment.* [Emphasis added.]

As you can see, the emphasized language in paragraphs (c)(1) and (c)(3) provides for equal or better protection to the environment. Only (c)(2) can be read to allow DEC to

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[4] Under the principle expressio unius est exclusio alterius, courts presume that a statute designating only certain things or acts excludes all things or acts not designated. *Angnabooguk v. Dep't of Natural Res.*, 26 P.3d 447, 455 (Alaska 2001)

set lower standards and conditions for an O/O of an SCPV unable to meet the discharge limitations in AS 46.03.462(b) and (c).

To qualify under AS 46.03.462(c)(2), an O/O must agree to make changes necessary to implement the standard terms and conditions and demonstrate that the O/O needs additional time to do so. Reading this paragraph in conjunction with (c)(1) and (c)(3), which permit no increased environmental impact, leads to the likelihood that (c)(2) allows some greater degree of environmental impact. In other words, during the interim in which the standard terms and conditions cannot be met, DEC may permit a higher proportion of suspended solids and coliform in discharges from the vessel. This option allowing a higher level of contamination is consistent with the authority in AS 46.03.463(b) and (c) to allow an O/O of an SCPV to submit a plan for interim protective measures.

In making its determination based on the alternative in AS 46.03.462(c)(2), DEC must decide the length of time necessary for the SCPV to meet the ordinary terms and conditions and the degree to which discharges from the vessel may exceed the standard limitations. The department is directed to make these decisions on a case-by-case basis, as opposed to establishing specific criteria for interim protective measures.

It is clear that neither AS 46.03.462 nor AS 46.03.463 allows the O/O of an SCPV to discharge untreated sewage. It is also clear that any upward variation from the discharge standards for suspended solids and coliform is only temporary. The statutes leave the determination of pollutant levels and time for compliance to DEC.

Except in limited situations, a person may not discharge untreated sewage from a commercial passenger vessel into the marine waters of Alaska.[5] Thus, DEC clearly has the authority to reject a plan for interim protective measures that includes the discharge of untreated sewage. This authority is clear in the statute and needs no further interpretation by the department.

The DEC also has clear authority to reject a plan for interim protective measures that is not accompanied by an agreement by the O/O to make necessary changes to comply with the standard terms and conditions. The agreement to make necessary changes is a condition precedent to the grant of alternative terms and conditions; the violation of the agreement by the O/O can be a basis for DEC to disapprove alternatives.[6] Once again, this authority is statutory and requires no regulatory interpretation by the department.

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[5] AS 46.03.463(a). The exception for allowing the discharge of untreated sewage is for securing the safety of the vessel or saving life at sea.

[6] AS 46.03.462(c)(2). The O/O also has the burden of proving, to the department's reasonable satisfaction, that additional time is needed to make the necessary changes.

Ultimately, the duration of the plan for interim protective measures and the amount of suspended solids and coliform allowed in the discharges are to be decided by DEC on a case-by-case basis. In reaching its decisions, the department should consider the intent to limit discharges into Alaska's environment while also being mindful of the concern of the legislature for SCPVs operating in Alaska.[7] The department has the authority to exercise its discretion and to deny plans for interim protective measures without adopting regulations.

Conclusion

The DEC has the discretionary authority to adopt regulations and may adopt regulations relating to the approval of a plan for interim protective measures submitted by a small commercial passenger vessel. However, the legislature gave the department sufficient authority to approve or deny plans for interim protective measures without the need of additional regulations.[8]

If I may be of further assistance, please advise.

DMB:med
04-084.med

[7] At the time of enacting ch. 1 FSSLA 01, the legislature included a number of special provisions for those smaller vessels, including delaying the effective date of the fee and specifically providing for interim relief from vessel discharge limitation provisions. The effective date for those provisions was extended to January 1, 2004, by sec. 7 ch. 1 FSSLA 01.

[8] DEC is subject to the adjudication provisions of the Administrative Procedure Act. AS 44.62.330(a)(44). The Act provides remedies for persons denied relief by the department.

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
HOUSE BILL 524
"RELATING TO THE PROTECTION OF LAND AND WATER FROM WASTE DISPOSAL"
MARCH 3, 2004

House Bill 524 clarifies the statutory foundation for a rational water protection program. It is an integral piece of the Department of Environmental Conservation's (DEC) "Raindrops to Oceans" initiative to move the State of Alaska to a comprehensive and rational program for protecting Alaska's water as it flows through the hydrologic cycle, from raindrops to oceans.

What the bill does:

HB 524 replaces specific statutory references to "permits" with the broader term "authorization" and **allows DEC to select from a range of tools to authorize waste disposal activities depending on risk**. Tools include:

- **Individual permits.** This is the conventional permit issued to a specific facility for a particular disposal activity. Individual permits are used to authorize larger, more complex, larger volume, and higher risk activities.
- **General permits.** General permits are used to authorize a number of similar activities in a geographic area. Persons that wish to be covered by the general permit notify DEC of their intent to operate in compliance with the permit. General permits are used to authorize lower risk activities.
- **Permits by rule.** The "permit by rule" tool is used to authorize low-risk activities by promulgating requirements in regulation. Permits by rule are used for low-risk activities.
- **Plan approvals.** Sewerage systems and treatment works that do not discharge can be authorized by approving plans.
- **Provides for integrated waste management permits** for complex facilities requiring more than one DEC permit.

Allows administrative extension of DEC permits. HB 524 allows DEC to develop regulations under which the agency may extend expiring individual and general permits beyond their expiration date.

Expands requirements for proof of financial responsibility for harmful mining waste. Proof of financial responsibility authority is used to make sure that owners of large solid waste disposal facilities have set aside enough money to properly close the facilities. For mining activities, rather than requiring separate financial assurance, HB 524 allows DEC to accept financial assurance provided to a state or federal land management agency.

Modifies the definition of "solid waste" to make the term more specific and **adds a definition for "municipal solid waste"** to help distinguish municipal solid waste from industrial and other forms of solid waste. HB 524 also allows DEC to exempt small landfills that accept household hazardous waste from providing proof of financial responsibility.

FISCAL NOTE

STATE OF ALASKA
2004 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: HB522-EC-AWQ-3-1-04
() Publish Date:

Revision Date/Time (Note if correction):
Title: Small Cruise Ship Discharges
Sponsor: House State Affairs Committee
Requester: House Resources Committee

Dept. Affecte: Environmental Conservation
RDU: Air and Water Quality
Component: Water Quality
Component No.: 2062

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

OPERATING EXPENDITURES	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Personal Services	0.0	0.0	0.0	0.0	0.0	0.0
Travel	0.0	0.0	0.0	0.0	0.0	0.0
Contractual	0.0	0.0	0.0	0.0	0.0	0.0
Supplies	0.0	0.0	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0	0.0	0.0
Land & Structures	0.0	0.0	0.0	0.0	0.0	0.0
Grants & Claims	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CHANGE IN REVENUES (0)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1003 GF Match	0.0	0.0	0.0	0.0	0.0	0.0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0.0	0.0	0.0	0.0	0.0	0.0
1037 GF/Mental Health	0.0	0.0	0.0	0.0	0.0	0.0
Other (Commercial Passenger Environmenta	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2004) cost: 0.0
Mark this box (X) if funding for this bill is included in the Governor's FY 2005 budget proposal:

POSITIONS

Full-time	0	0	0	0	0	0
Part-time	0	0	0	0	0	0
Temporary	0	0	0	0	0	0

ANALYSIS: *(Attach a separate page if necessary)*

This bill will not have a financial impact on the Commercial Passenger Vessel Environmental Compliance Program. The cost to administer the program remains unchanged.

Prepared by: Lynn J. Tomich Kent, Water Programs Manager — Phone 907-465-5312
Division: Air and Water Quality — Date/Time 3/1/04 1:51 PM
Approved by: Kurt Fredriksson, Deputy Commissioner — Date 3/1/2004
Agency: Environmental Conservation

(Revised 12/2003 OMB)

Ray Gillespie

From: "Waterhouse, John" <JWaterhouse@ebdg.com>
To: "'Raygillespie@ak.net'" <raygillespie@ak.net>
Sent: Wednesday, March 03, 2004 8:26 AM
Subject: FW: RevisedJ04029-01L.doc

-----Original Message-----
From: Waterhouse, John
Sent: Tuesday, March 02, 2004 5:38 PM
To: 'bryceb@cruisewest.com'
Subject: RevisedJ04029-01L.doc

Here is a revised version per our telecon w/Ray Gillespie

March 2, 2004

Ref: J04029-01L

Bryce Brockway
Cruise West
2401 4th Avenue, Suite 700
Seattle, WA 98121

Subject: **Limitations on Modifying Small Commercial Passenger Vessels**

References: a. Alaska House Bill 522, "An Act relating to discharges from small commercial passenger vessels; and providing for an effective date."

b. Assessment of Cruise Ship and Ferry Wastewater Impacts in Alaska, Alaska Department of Environmental Conservation, Juneau, Alaska, February 9, 2004.

Dear Mr. Brockway,

I have read the proposed House Bill 522 relating to small commercial passenger vessels (Reference a). As you know, I am a naval architect with extensive design experience in vessels such as cruise ships and ferries, including the Alaska Marine Highway System fleet, the Inter-Island Ferry Authority ferry, the Cruise West fleet, Lindblad Expeditions fleet, and Glacier Bay Tours and Cruises fleet. I am registered in Washington State as a professional engineer in the disciplines of naval architecture and marine engineering. Based on my professional opinion, the wastewater management systems on existing vessels cannot be readily changed to meet the Alaska Department of Environmental Conservation Standards for reasons outlined below. The combination of U.S. Coast Guard regulations, licensing requirement, and vessel construction practices makes the addition of new treatment equipment and

holding tanks technically infeasible.

Regulatory environment - Small Commercial Passenger vessels that operate under the U.S. flag are regulated by the U.S. Coast Guard and carry a certificate of inspection showing compliance with all safety requirements. To qualify as a small passenger vessel they must admeasure less than 100 gross tons. Please note that gross tonnage is a measure of internal volume and not weight. Their design and construction are principally regulated under Subchapter K of Chapter 46 of the Code of Federal Regulations which applies to vessels that carry 50 or more passengers in overnight service or more than 150 passengers in day service. If changes are made to a vessel that increase its admeasurement to more than 100 Gross Tons, the vessel is no longer considered a small passenger vessel by the U.S. Coast Guard and is subject to a different "license" or certification.

Wastewater Management - As detailed in Reference b, small cruise ships generally meet all wastewater discharge requirements while underway. During stationary discharge, "small ship effluent may not meet Alaska Water Quality Standards for free chlorine, fecal coliform, copper and zinc in receiving water." One potential solution would be to retain all graywater and blackwater while the vessels are stationary. However, per Table 24 of the reference, most of the small passenger vessels have inadequate tankage to hold all of the graywater and blackwater produced during a 12 hour period. Adding additional volume to the existing tankage and/or new treatment equipment is not simple and, depending on the vessel, may be impossible due to space and weight constraints.

Limited Space - As evidenced by the word "small," these vessels are very limited in space. Typically their machinery, tankage, storerooms, and crew quarters are all below the main deck. For many of the vessels there are also some passenger cabins below the main deck. Space is at a premium. Increasing the capacity of waste water tanks below the main deck will likely result in some other space being made smaller. Adding tankage above the main deck is impractical since drain lines rely upon gravity to function. Space could be added to the vessel by lengthening the hull but that is expensive and likely increase the internal volume beyond the 100 gross ton admeasurement limit.

Weight Limits - Per Archimedes Principle, when weight is added to a vessel, the vessel must displace more water to compensate and hence sits lower in the water. This reduces the volume of hull remaining above the water, also known as the reserve buoyancy. Reserve buoyancy is what keeps an intact, undamaged vessel from foundering in storms at sea and is what keeps the vessel afloat after damage occurs due to a grounding or a collision. USCG stability regulations for both intact and damaged stability strictly govern the amount of reserve buoyancy. Adding weight in the form of additional tankage for waste water would require that an equal amount of weight would need to be removed. The only discretionary weights that could be removed are passengers, crew members, fuel, potable water, or provisions. All of these will have an economic impact on the operator.

Even if the vessel has sufficient reserve buoyancy to handle additional weight, the fact that the weight is a liquid can cause a loss of stability due to the "free surface effect." As the vessel heels to one side, liquid is free to move over to that side, causing additional heeling force, which is de-stabilizing. The stability letter issued to the vessel by the U.S. Coast Guard strictly limits the number of tanks that can be "slack" or contribute to the free surface effect. Compensating changes may need to be made to cancel any additional free surface effect. Such changes could be moving weights from high in the vessel to lower in the vessel, constructing tanks with a geometry that limits the free surface effect, or keeping other tanks either full or empty. The latter is extremely difficult to manage since liquid levels in fuel oil tanks and potable water tanks are constantly in flux. In general, small passenger vessels have tight stability limits and cannot tolerate weight changes.

The weight issues can be overcome by adding volume to the hull but this again can affect the

admeasurement and vessel licensing.

If you desire more information regarding limits to altering a vessel, or wish to discuss a specific vessel, please let me know.

Sincerely,

EXPIRES 11/16/04

3/3/2004

CRUISE WEST ECONOMIC IMPACT

	2003	2002
Hotel costs.....	$ 2,690,689	$ 2,966,745
Land Tour and Included Shorex costs...	$ 2,787,648	$ 3,259,351
Optional Shorex and Alaska POS costs.....	$ 1,144,532	$ 1,176,992
Optional Air Costs.....	$ 2,866,814	$ 2,328,588
Marketing Costs.....	$ 2,383,166	$ 2,158,972
Fuel Costs.....	$ 1,293,824	$ 1,325,019
Alaska Payroll.....	$ 1, 250,000	$ 1,300,000
TOTAL ALASKA ECONOMIC IMPACT	**$ 14,416,682**	**$ 14,515,667**

LINDBLAD EXPEDITIONS ECONOMIC IMPACT

The following is a summary of what Lindblad Expeditions (LEX) will spend in Alaska in 2004:

1. Tours, transfers, entry fees, etc. To suppliers such as Sitka Tours, Princess in Juneau, various businesses and individuals in Sitka, Petersburg, and Juneau: $270,000.

2. Options sold onboard for activities such as flight seeing in Petersburg and Juneau and fishing in Sitka and Juneau: $80,000.

3. Docking, water, garbage removal, agency fees, laborers, miscellaneous wharfage fees, etc.: $120,000.

4. Bunkers: $180,000.

5. Provisions and other miscellaneous local purchases: $50,000.

6. Guest spending ashore during voyage: $180,000.

7. Guest independent travel in Alaska pre and post voyage: $150,000.

8. Land costs for pre-sold extension to Anchorage and Denali national Park: $520,000.

9. Tickets on Alaska Airlines: $700,000. (even though this isn't a direct purchase in Alaska, there is indirect benefits as a result to employees of Alaska Airlines in Alaska and local support services)
   Total excluding Alaska Airlines tickets: $1,550,000.
   Total including Alaska Airlines tickets: $2,250,000.

10. In addition, LEX spends about $500,000 promoting Alaska, mostly through direct mail to consumers.
    - 16-page Alaska brochure mailed to approximately 510,000 households. *
    - Catalog of all LEX offerings , including 5 pages dedicated to Alaska mailed to approximately 890,000 households.*

    * Figures are for 2003. 2004 will be similar

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NEW WORLD
SHIP MANAGEMENT COMPANY, LLC

M/S Nantucket Clipper • M/S Yorktown Clipper • M/S Clipper Adventurer • M/S Clipper Odyssey

20 February 2004

The State Legislature of Alaska
Juneau, Alaska

Re: Economic Impact of the Operations of Clipper Cruise Line

Honorable Senators and Representatives:

A review of actual expenditures in Alaska for 2003 for the operations of the two small cruise ships operated by Clipper Cruise Line, the MV Yorktown Clipper and the MV Clipper Odyssey, reveals the following data:

▪ Fuel and lubricating oil purchases:	$ 525,000
▪ Port Charges: (includes dockage, pilotage, stevedoring, trash removal, etc.)	$ 614,000
▪ Provisions: (includes local purchases, freight & handling)	$ 253,200
▪ Alaska Airlines tickets (includes passengers & crew)	$ 425,000
▪ Ground Operations: (includes pre and post-cruise hotel nights, shore excursions, transfers, flight-seeing, etc.)	$ 650,900
▪ Brochure Production : (includes all costs, printing, postage, etc . connected with promoting Alaska)	$ 550,000
▪ Individual Cruise Passenger Expenditures Ashore: (2873 passengers in 2003 x $350 per person)	$1,005,600
Grand Total	$ 4,024,100

Please feel free to contact me if I may provide any further information.

Sincerely,

Captain Gary B Welsh
Vice President
Marine Operations
New World Ship Management