



ALASKA  
Department of  
Environmental  
Conservation

## Cruise Ship Waste Water Science Advisory Panel

Teleconference  
February 8, 2011  
Draft Summary

### Welcome and Identification of Participants

#### Panel Members:

Mark Buggins  
Ken Fisher  
Reinaldo Gonzalez  
Juha Kiukas  
Lincoln Loehr  
Steve Reifentstahl  
Michelle Ridgway  
Lamberto Sazon  
Thomas Weigend

Krista Webb (Facilitator)

#### DEC:

Rob Edwardson  
Ed White  
Albert Faure  
Sharmon Stambaugh

#### Public:

Scott Guesno (USCG)  
Chip Thoma (Responsible Cruising in Alaska)  
Mike Tibbles (ACA)  
Shelly Wright (SE Conference)  
Dwight Hutchinson (Princess)  
Seth Penzel (Princess)  
Bill Morani (HAL)  
Jon Turvey (HAL)  
Ed Schoenfeld (Coast Alaska Radio)

### Replies from Cruise Ship Industry regarding individual systems

A summary of the replies to the Panel request for information from the cruise ship operators (Attachment 1) had been distributed to the Panel members prior to the meeting. Most of the Panel did not articulate an opinion of the replies. Thomas Weigend said he thought that the responses provided a good baseline overview of systems used currently on cruise ships. Discussion on the comments was tabled for Panel to review the responses and identify how they would process the information.

### Information from Barrow Wastewater Treatment Plant

The Panel reviewed the information requested from the Barrow wastewater treatment plant regarding their membrane filtration system (Attachment 2). Reinaldo Gonzalez pointed out that the Barrow system does not remove metals – it works well for ammonia but requires an additional polishing step for metals. Lincoln Loehr pointed out that Holland America was installing systems by same manufacturer. Jon Turvey

interjected that it is not confirmed that Holland America is installing the same type of system.

Lincoln Loehr noted that he had looked for the individual permit for the Barrow WWTP, but could not find one because the Barrow system is covered under a General Permit. Later in the meeting, Sharmon Stambaugh said she would find and distribute the Plan Review for the Barrow WWTP which would provide similar detailed information regarding the influent assumptions to that required in an individual permit.

### **Vendor Specifications**

The Panel reviewed the vendor specifications prepared by Juha Kiukas. There was a long discussion, during this part of the agenda and during the public comment portion of the agenda, of what influent concentrations to provide to vendors. The issue is how to account for the significant variability of influent concentrations and volumes. The Panel discussed whether to provide a conservative estimate based on the EPA data set (the values currently in the draft) or to provide a range, or a maximum assumed value, or statistics from a larger data set (CPVEC sampling data).

During the public comment period, Jon Turvey cautioned the Panel not to make the influent assumptions of the specifications too simple. The Panel discussed the concern that if the specifications are too simple, they will not generate useful proposals; however, if they are too complicated, it may be hard to get responses from vendors. Panel agreed that bids should account for variability in systems. Unlike municipalities, ships do not have many feet of pipeline to equalize influent. Albert Faure pointed out that many cruise ships have the capability, but do not equalize adequately.

The Panel concurred that vendor specifications should incorporate reasonable variability. Michelle Ridgway suggested preparing a template for DEC and others to compile the available data from the Cruise Ship Program in order to identify appropriate assumptions for influent concentrations. Panel discussed using the format used to submit engineering data for NPDES and APDES permit applications to characterize variability. Reinaldo Gonzalez offered to circulate the typical statistical graphs (probabilities of exceedence) Burns and McDonnell typically uses when requesting bid specifications.

The Panel discussed how to identify potential vendors to send the specifications to. The list of vendors will be compiled from the following sources:

- 1) List from first technology conference (OASIS)
- 2) Juha Kiukas
- 3) Reinaldo Gonzalez
- 4) Thomas Weigend
- 5) Ed White (DEC)

Vendor lists and influent data (to verify the values currently in the specifications) will be sent to Krista Webb for compilation by Friday, February 11, 2011.

The request for proposals will need a compelling cover letter describing the Panel's work and what the intended outcome for vendors will be. OASIS will prepare first draft

of letter for Panel/DEC review. The Panel determined that submitters of relevant ideas/proposals will be invited to present to the cruise industry and State of Alaska at the Science Advisory Panel Technology Conference scheduled for Fall 2011.

Juha Kiukas cautioned to not have the deadline for ideas/proposals be right before the next conference call.

### **Report Outline/Draft**

The Panelists looked at the draft report posted on the document collaboration site (acrobat.com). Panelists can edit and add comments and all changes will be tracked by version and author.

By Monday February 14, 2011 Krista Webb will post a "To Do" list to the Acrobat site.

By February 22, 2011, Panelists should review the current draft of the document and identify in the To Do list what sections they will draft and identify what tasks may be required to draft individual sections.

### **Next Meeting**

The next meeting will be a conference call scheduled in April 2011.

### **Public Comment**

Chip Thoma of Responsible Cruising in Alaska reiterated his testimony from the last face to face meeting that there would be four docks hooked to the Juneau Douglas waste water treatment plant by 2013 that would accept gray water from cruise ships. The Princess dock is already hooked up and two more public and one more private dock are in the plans. He thinks there is a lot of interest from assembly to do that.

Jon Turvey of Holland America cautioned the Panel to not disregard the inherent variability in the waste water systems on cruise ship (time of day, piping). He requested the Panel not gloss over variability just because it is easier to get bid back. He asked the Panel to look at the SRE report from Princess relative to pilot study with Hamworthy. Specifications must provide realistic variability in influent or bids will not be worth much. He disagreed that ships have adequate equalizing capacity to reduce variability in influent concentrations.

The meeting was adjourned after further discussion of the complications of estimating influent variability.