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July 8, 2008

Water Docket (EPA-HQ-OW-2005-0025)  
Environmental Protection Agency  
Mailcode: 2822T  
1200 Pennsylvania Ave., NW.  
Washington, DC 20460

**SUBJECT:** Proposed Rule- Drinking Water Regulations for Aircraft Potable Water Systems

Gentlemen/Madam,

The Regional Airline Association (RAA) submits the following comments on behalf of our airline membership<sup>1</sup>.

**Summary of Proposed Rule:**

The Environmental Protection Agency proposes to amend the federal drinking water requirements for aircraft public water systems under the Safe Drinking Water Act. The existing federal drinking water standards were primarily designed to regulate water quality in stationary public water systems and the application of these requirements for water systems installed in a variety of aircraft creates significant implementation challenges.

**RAA Response:**

RAA member airlines fly more than 50% of nation's the scheduled passenger flights, operate some 40% of the domestic aircraft fleet and carry more than one out of every five airline passengers. Most notably, 70% of the U.S. communities with scheduled service – roughly 450 of 635 airports – have scheduled flights *exclusively* on regional airlines, and

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RAA's members are: Aerolitoral, Air Canada Jazz, Air Serv International, Air Wisconsin Airlines Corporation, AirNet Systems, American Eagle Airlines, Atlantic Southeast Airlines, Cape Air, Chautauqua Airlines, Colgan Air, Comair, CommutAir, Eagle Aviation, Empire Airlines, Era Aviation, ExpressJet, FedEx, Flight Options LLC, Go-Jet, Grand Canyon Airlines, Great Lakes Aviation, Gulfstream International Airlines, Horizon Air, IBC Airways, Island Air, Mesa Airlines, Mesaba Aviation, New England Airlines, Pinnacle Airlines, PSA Airlines, Piedmont Airlines, Republic Airlines, Salmon Air, Shuttle America, SkyWest Airlines, and Trans States Airlines.

RAA's members operate more than 2,300 advanced turbo prop and jet aircraft providing more than 14,000 daily flights in scheduled airline service.

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much of the U.S. relies on our members for their only access to the nation's air transport system. In this regard, RAA recognizes and shares the goal of ensuring clean and safe water for the flying public. Our member airlines have always placed the health and well being of their passengers and employees as their highest priority and that includes providing the most sanitary water available. With that stated, RAA strongly believes the proposed rule is unworkable for the regional aircraft fleet, and particularly at this perilous point in the industry's history.

If the EPA nonetheless rejects our request to withdraw this NPRM, RAA requests that EPA review the cost implications of each provision, particularly on the provisions that offer each of federal agencies, the FAA, FDA and EPA an opportunity to approve an air carriers potable water program differently. We request that the EPA be mindful of the current economic conditions facing the nation's airlines. As the daily headlines make clear every day, the U.S. airline industry is suffering through the worst financial crisis in its history, potentially more damaging than the shutdown following September 11, 2001 terrorist attacks. Skyrocketing fuel costs have caused more than a half dozen airlines to shut down already this year, and most others have cut hundreds of flights and announced layoffs totaling thousands of workers. Given this situation, it is essential that EPA fashion a rule that is truly cost effective.

It is important to note that absent food service, the FAA does not require potable water systems on aircraft. However, many of our member airlines provide potable water as an added convenience and service to passengers, and to satisfy the FDA definition of "food service". For the regional air carriers in particular, food service onboard aircraft has evolved over the years to simply providing passenger with packaged snacks and bottled beverages; the duration of most flights is so short that there simply isn't time to provide more food service. The FDA also view a flight attendant's handling of ice for beverages, the opening of beverage cans and the service of coffee as "food service". Potable water also serves as a backup water supply to bottled water for long flights and of course is used for hand washing after using the toilet; both uses are certainly viewed as conveniences for all but are not required by regulation.

Given the limited preparation of food service onboard regional aircraft, we are concerned that if the EPA does not adopt a rule that is manageable and cost effective, some regional air carriers may choose to deactivate their potable water systems. Most regional turboprop aircraft do not have potable water systems and are therefore not affected by this proposal. For example, the 19 seat turboprops which provide much of the Congressionally-mandated Essential Air Service to rural communities are not equipped or certified with lavatories. The regional jets (RJ) have potable water systems but about one half of this fleet does not have potable water in the galley. The operators of these aircraft serve coffee pre-boarded in urns along with other galley supplies before departure. Of the RJs that have potable water available in the galley, about half the aircraft have hot water available only for coffee or tea; since these aircraft are not built with a cold water spigot. Bottled water and canned drinks

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are always boarded for passenger and crew drinking on regional aircraft that provide beverage service. Should the supply of bottled water become depleted, the lack of water onboard for drinking is not a hardship since the typical regional flight lasts only about 60 minutes. All the RJ's have potable water in the lavatory for use in washing hands. The water used for toilet flushing is provided by an independent system and is not connected to the potable water system for all regional airplanes. Should the potable water become unavailable in the lavatory, the regional carriers typically provide hand cleaners in the form of gels or wipes.

We request that the EPA withdraw this proposed rule, and given the technically complex nature of this proposal, urge that EPA and FDA officials meet further with the various segments of the industry. These meetings will be much more productive than earlier sessions because of the information gathered during this rulemaking. There continues to be, in our view, considerable misunderstandings about the various responsibilities of the numerous regulatory agencies involved.

Another alternative might be for EPA to develop a separate rule for short haul air carriers. As far as we know, air carriers in short haul operations including all regional carriers typically offer very limited "food service"; and consequently, a backup water supply to providing bottled water for drinking isn't necessary. Most aspects of this proposal are unduly complicated. For example, the proposed rule could be revised to allow for an alternate sample collection procedure to compensate for the smaller volume potable water systems used on the RJ's. Certainly a single 100ml sample collection for a single water tap aircraft on both the initial and repeat sampling should be sufficient. A typical potable water system on an RJ consists of one 5 gallon tank and several feet of tubing. From a quality control viewpoint, a quarterly disinfection program will be more than effective in maintaining quality. Because there is very little water in the tank, most regional operators simply drain the tank every night to avoid water stagnation. Certainly in winter, it is common to drain the tank every night to avoid the water from freezing. The various options given operators who choose to monitor more frequently simply don't accommodate operators with very small potable water systems. We welcome the opportunity to work further with the EPA on examining the operations of regional aircraft and drafting a new rule that better accommodates regional operations.

### **Coliform Sampling (Part 141.803)**

RAA supports a periodic disinfection program and recognizes the need to monitor the results through periodic testing. We request that a provision be provided that provide for an alternative method of testing. The current proposal relies *exclusively* on testing only at EPA approved laboratories that are generally located at considerable distances from regional air carrier maintenance facilities. Should a carrier choose to disinfect on a quarterly basis, the air carrier must sample at least once yearly. Our request for an alternate method of testing however is based more to maintain quality control since a number of our members presently

use various coliform measuring instruments in-house to validate the effectiveness of their disinfection program. Further advances in technology will continue to improve testing protocols, and the EPA should fashion a rule that will offer incentives for advancements in validating water purity. As we stated above the typical potable water system on an RJ consists of one 5 gallon tank and several feet of tubing and in nearly half the fleet, potable water is not available in the galley. Given the size of our tanks, we see no need to take multiple samples and request that a one 100ml sample collection for a single water tap aircraft be allowed for both the initial and repeat sampling. Given the small potable tank that is installed on our regional aircraft, we consider our request to have a single collection for a single water tap as particularly important since our members have actually reported running out of water during the sample process.

There are several instances where the proposal states "If any routine or repeat coliform sample is total coliform positive, then that total coliform positive culture medium must be analyzed to determine if fecal coliforms or E. coli are present". This is very confusing. Do operators have the option to test for either fecal coliforms "or" or "and" E. coli? It would be clearer if it read "... analyzed to determine if fecal coliforms and / or E. coli are present".

#### **Aircraft Water System Operations and Maintenance Plan (Part 141.804)**

We also request that this proposed plan not be included "in a FAA approved or accepted air carrier operations and maintenance program". Aircraft water system disinfection process are already incorporated into an air carrier's maintenance program and should continue to be handled by current procedures to avoid redundancy. Other aspects of the program however (e.g. sampling, water boarding procedures, etc. are more appropriately addressed outside of the FAA area. We support an approach that allows the air carrier to operate and maintain the water system outside of the carrier's FAA programs while retaining the ability to reference and utilize aircraft related procedures within the approved FAA maintenance program.

This provision contradicts Part 141.803 by stating that disinfection and flushing must occur "no less frequently than quarterly". If an air carrier chooses to monitor more frequently it is our understanding that the "disinfection and flushing" interval can be greater than quarterly.

This provision should also clarify that other methods of "disinfecting" such as the use of ozone, ultraviolet light or other EPA approved methods, are acceptable. The reference to "disinfecting agent" and "disinfectant concentration" should be described as "where applicable".

There is no mention of the ability to amend the maintenance plan once it has been submitted. The operators should have the ability to amend their program dependent upon results of samples or taking advantage of other options. We might change frequency of

tasks (with approval) or for example, after experience is gained we may opt to change for quarterly disinfection with annual sampling to annual disinfection with monthly sampling.

Many operators do not schedule maintenance opportunities within 72 hour intervals unless a critical maintenance action is required. FAA minimum equipment list (MEL) requirements now require an inoperative potable water service for a regional jet to be fixed within 10 days (Category C). We also request that the proposed 72 hour interval be increased to at least 120 hours (5 days) since taking aircraft out of service for potable water issues could greatly inconvenience thousands of Americans whose only access to air service is via regional aircraft.

### **Notification of Passengers and Crew (Part 141.805)**

This provision is unduly complicated for regional operations and should be completely revised since if water is to be considered “non-potable” in the galley of a regional aircraft, the airline will simply turn the system off. The flight crew will be advised by the maintenance logbook that water for coffee service is not available, so it is unnecessary to provide notice specified by provision (d)(2) since the water is already unavailable and current maintenance procedures for an inoperative system currently exist.

Similarly should water be considered “non-potable” in a lavatory for a regional operator, the water for the galley can also be turned off and the flight attendant can advise passengers that water for hand washing is unavailable. It is unnecessary to provide notice specified by provision (d)(2) since the water is unavailable. Again it is common practice to provide hand cleaners in the lavatory when water for hand washing is unavailable.

In 141.802 (d) (2), there is discussion about the "Notice" that needs to be made when public access is restricted: While it is important to notify the crew that the water system has been disabled and is not to be used, it is redundant and could be confusing to passengers to be required to provide additional technical information. Once again, the air carriers manage all sorts of discrepancies / problems on a large variety of systems on the aircraft without such complex information having to be provided to the passengers.

Indeed we consider the various notification options provided by this provision as completely impractical for regional operations. It is redundant to current FAA procedures and we urge it be deleted for short haul operations.

### **Reporting Requirements (Part 141.806)**

The proposed rule requires reporting that is grossly excessive and very costly. By mandating the multitude of operational plans that have to be maintained per aircraft, we

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consider the total cost for recordkeeping will be more expensive than the process of actually maintaining the potable water systems. One example of this is the provision to have all sampling results reported within 10 days. Considering the number of tests being done, we request that this provision at least eliminate reporting samples that meet the EPA standards, thus alleviating costs associated with unnecessary reporting.

EPA reporting requirements within this one provision exceed what the airlines are now required to report to the FAA for airworthiness requirements. Specifically, this includes changes in status of any aircraft water system (active to inactive or vice versa): The water system can be, and is, deactivated (listed on the MEL) for any variety of reasons. There is no discernible public benefit to the EPA in knowing each instance an operator puts the water system on, or takes it off, MEL status. We doubt EPA is staffed to handle this information, and wouldn't public resources be better dedicated to enforcement of current rules affecting a much greater segment of the population?

Similarly the need to report all sampling results within 10 days is clearly excessive. Operators perform thousands of aircraft inspections, operational checks, function checks, etc. without having to report the findings to the FAA. We seriously question the benefit to EPA of having this one particular check deserve to have all results reported within 10 days. Again this is redundant to FAA requirements for any aircraft system.

While we recognize EPA's desire to know the status of each operator's potable water system, we suspect that EPA is not staffed to analyze the data of over 6,000 aircraft on a daily basis. We respectfully request that operators be allowed to report the status of their potable water system to the EPA on an annual or semi-annual basis.

Mandating a PWS operation and maintenance plan in addition to a coliform sampling plan for each aircraft is also unnecessary. Most, if not all, of the regional carriers are in their first year of Administrative Orders on Consent (AOC) and are just beginning to gather the data that will be effective in helping them create an effective operational plan moving forward. We request that you delay the implementation of the PWS operation and maintenance program until the carriers have had an opportunity to evaluate and process their internal data. We are also concerned that the proposed rule does not mention how an air carrier is to amend its maintenance plan once it has been submitted. If the carrier changes its cleaning and disinfection program schedule, what is the process that carrier must follow to make that change, and who must approve that change?

### **Recordkeeping Requirements (Part 141.807)**

We recognize the need of the EPA to audit test records described by (a) but see no need for a "5 year" retention period. RAA requests that (a) records be kept for 3 years.

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FAA regulations for maintenance actions generally require operators to keep records “until the work is repeated or superseded by other work or for one year after the work is performed”. This is presently applicable to the potable water system. Any inspector who wishes to audit and validate the condition of a system doesn’t require earlier records unless it is a “major repair or major alteration. We see no valid reason why a carrier should keep “disinfection and flushing” records for five years and certainly see no basis for “records of self inspection” being kept for 10 years. We request that (b) and (c) be deleted since they are redundant to current FAA recordkeeping requirements.

We request that (e) be modified by removing “in accordance with FAA requirements as we suggest that operation and maintenance plans be maintained outside the air carriers FAA programs.

We see most of our members simply shutting the water off in both the lavatory and gallery (as appropriate) should the water be considered non-potable. As we stated in our part 141.805 notification comments, we request provision (f) be deleted.

#### **Audits and Inspections Part 141.808**

We request that provision (b) and (c) be deleted as redundant since the testing and routine functional tests during maintenance will validate the condition of the potable water system. Again we see the potential for redundancy in this proposal. We suggest that EPA specifically allow these activities to be performed within an air carrier’s maintenance program as long as the air carrier can document that such inspection occurred within a three year time period.

#### **Supplemental Treatment (Part 141.809)**

This proposal is vague and could lead to further confusion and perhaps, reduced compliance. What is meant by “applicable” NSF/ANSI Standards since NSF and ANSI are continually revising and writing new standards. If they revise an “applicable” standard does this mean the air carrier must go out and buy new equipment to simply comply with the revised standard? RAA requests that this provision be deleted.

On numerous provisions we requested that maintenance procedures now covered by FAA regulations be deleted within this proposal. Similarly we also request that the requirements of the FDA also be deleted within this proposal. Often the point of receipt of water for the purpose of boarding on an aircraft is an airport controlled access point. This proposal places the airlines in direct responsibility for the watering points that may be not be under their control. Jurisdictional problems between the air carriers and the airport authorities could be created. The EPA should remove this provision as it is out of the scope of responsibility of the air carriers or otherwise clarify how EPA and FDA will regulate the entity that actually owns or controls the watering access point. It is not feasible nor is it the

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role of the air carrier to approve the watering access points owned and operated by the airports. The ultimate concern for air carriers with respect to FDA involvement is the comment regarding “Watering points not approved by the FDA.”. This general comment suggests that the FDA will take a more active role to approve such items as watering hoses, water trucks, water cabinets, etc. At this time RAA is not aware of any list of FDA approved watering devices, and as such at the least request that the EPA withhold this provision of the proposed rule until such list is made public. The prospect of FDA approved watering points, and or, devices unfortunately leave the proposal open to various interpretations and thus possible inconsistencies in reporting and enforcement requirements. For people using certain trucks or water cabinets, if they have not been “FDA Approved” how are the operators going to know if or when that device will be approved? If this proposal is adopted without a list of FDA approved watering points or devices, it will force all carriers to make their lavatories and galleys inaccessible or otherwise face non-compliance with the rule. This is a very serious concern for all air carriers. Additionally since many watering trucks and cabinets are leased from, or owned by, the airports, it would put the airlines in a position of having to be accountable for the actions and responsibilities on the airports. The air carriers and airports need to have more clarity and understanding of how the FDA would approve and enforce the designation of “FDA approved”. Again we request that you remove this provision.

**Violations (Part 141.810)**

The notification requirements in subpart (a) conflict with the notification requirements proposed in Part 141.805. Subpart (a) even implies that an air carrier must notify all passengers of a past violation even though they had long since boarded. We see no merit with this provision and request that it be deleted.

**Burden Estimate**

The cost assumptions for this rule significantly underestimate the actual costs the regional air carriers will incur should this rule be adopted. As one example this proposal assumes each airline has it’s own in-house testing facility for processing water samples. No regional airlines have such facilities and all are therefore required to send their samples out to an EPA approved test facility. Such test facilities are typically not located near a regional air carrier. Shipping test samples is complicated by the need to maintain the temperature of the sample when taken. Lastly the expertise of those who collect water samples is additional training and requires operators to either contract out the service or establish an additional training program for their own employees. We estimate the cost to take a test sample for each aircraft at \$766.00.

The record keeping requirements set out by this rule are not only costly but in most instances duplicative. Our members will certainly need to hire more employees just to maintain the records necessary for an EPA inspection. The cost estimate fails to account

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for the cost necessary to satisfy the FDA. As we stated above, the proposal requires that water be obtained from FDA approved sources. At this time there is no list of what is an FDA approved source. If the FDA produces a list of hoses and water cabinets, trucks, etc, it could require the airlines to make extensive new capitol investments, even if they have new systems. Once again, the costs associated with creating and maintaining the documentation around this proposed regulation far exceeds the costs estimated by this proposal.

**New Technologies** –This proposal negates the positive work and costly acquisitions that airlines are already making in the field of potable water systems. Simply put, the proposal addresses the status quo rather than attempting to address the actual reasons and causes for the problems in the potable water systems. Many of our members are using new technology equipment to assure the cleanliness and safety of the potable water systems on their aircraft. They have opted to invest their money in systems that make a difference in the quality of water. This proposal is largely an exercise in recordkeeping. Admittedly the proposed rule points out that the use of new technology is encouraged; however it provides no incentives to encourage the airlines to invest in such technologies. RAA requests that any proposed rule on potable water include exemptions from testing, or longer periods between tests, for those airlines that deploy efficient proven technologies. If the end goal is cleaner water, then the EPA should allow for alternative methods for reaching the end goal.

**Government Agency Jurisdiction** – Another troubling aspect of this proposed rule is the jurisdictional problems that arise by including the Federal Aviation Administration (FAA), the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), all squarely in an oversight role of the same program. Until now other government agencies worked in coordination with the FAA to promote maintenance programs on aircraft. Each airline is familiar with FAA procedures for reporting, jurisdictional issues, and rules of aviation maintenance. Under this proposal, the EPA now takes over some jurisdictional responsibilities, but within the same rule EPA also defers some of the reporting to the FAA and in other cases, the airlines are required to report to both agencies. This will most certainly create inconsistencies and confusion and will likely lead to an airline being out of compliance with one agency when it is in compliance with another agency for the same reporting requirement. The EPA needs to restrict the proposed provisions to simply the requirements for aircraft public water systems under the Safe Drinking Water Act. Reference to FAA and FDA responsibilities are redundant and inappropriate.

In the comment section of the rule, the EPA asks the regulated parties to comment on particular aspects of the NPRM. RAA member airlines have submitted comments on particular questions and are listed below:

**HPC Analysis** - The EPA requested comment on whether HPC should be allowed, required, or not considered as another indicator of water quality in addition to coliform monitoring. We request that HPC not be considered as another water quality indicator.

**Sample Temperature** – The EPA requested comment on whether the temperature of the hot taps should be measured to provide some indication of whether the temperature achieved is high enough to alter the microbiological results. RAA points out this question as an example of how the EPA has not worked with regional carriers to address unique aspects of our aircraft. While we would not support the idea of sampling from hot water taps, there are areas where hot water sampling cannot be avoided. For example, in the galleys of some regional jets, the only tap available is associated with the coffee maker. In this case the water only comes out at exceedingly hot temperatures. Therefore, if samples were required only from cold taps, some regional aircraft would be out of compliance as they could only take a hot water sample from the galley tap.

**Statistical Sampling** - The EPA requested comments on statistical sampling methodologies, especially whether such methodologies should be allowed in conjunction with onboard or other supplemental treatment such as adding a disinfectant or ultraviolet light. In our comments above on new technologies, we not only support the idea of a statistical approach for onboard and supplemental treatment systems, we request that the EPA consider a statistical provision that could act as a mechanism to minimize the sample collection volumes and frequency.

**Option for repeat sampling** – EPA requested comment on whether to disallow the option for repeat sampling in response to the original routine total coliform-positive if the aircraft has boarded water since the routine sample. RAA supports the ability of having the option for a repeat sampling. While the operating conditions of the regional airlines make this a nearly impossible task, the opportunity should be afforded to all airlines.

**Disinfectant Residual Monitoring** – The EPA is seeking comment on the belief that more frequent flushing and disinfection of the entire aircraft watering system as a treatment technique will ensure safer tap water in lieu of the residual disinfectant requirements applicable to stationary public water systems. Again, RAA would point to this request as an example of a provision that did not take into account the varying aircraft in the domestic fleet, particularly the regional fleet. Due to the typically very small volume of water available in a regional jet, the water turns over very quickly. Monitoring of residual disinfectant provides no added benefit.

**Time Frame for disinfection and flushing** – The EPA requested comment on whether the 72 hour timeframe for disinfecting an aircraft after a positive result is appropriate. We requested above a 120 hour timeframe for getting an aircraft to the appropriate maintenance facility. However, there should be a provision that voids the time requirement if the operator has the water system on the aircraft shut off. If there is no access to the water

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system by the traveling public then we question why any timeframe need be stipulated. Again we have another proposed regulation that is redundant to the FAA regulations.

**Aircraft Water System Operations and Maintenance Plan** - On page 19331, at the beginning of the page as a continuation of 7.C there is a comment about what can happen if an air carrier fails to perform: Forfeiture of the operating certificate if the air carrier fails to perform the prescribed program is certainly much too drastic of a measure. Does any other business that has a public water supply subject to the same punishment if it fails?

### **Concluding Remarks**

Again, we recognize the intent of this proposal and support an approach that achieves the desired results. However, we believe the proposed rule create multiple layers of reporting without any commensurate benefit. RAA strongly requests that the EPA withdraw this rule and offer the affected parties another opportunity to develop a cost effective rule that will enable the aviation industry to more effectively address the health and well being of our employees and passengers.

In closing, please also note our concurrence in and support of the official comments submitted by the Air Transport Association (ATA) on this issue. Thank you for your consideration and please contact us if we can provide anything additional.

Sincerely,

A handwritten signature in black ink, appearing to read 'Roger Cohen', with a long horizontal flourish extending to the right.

Roger Cohen  
President