



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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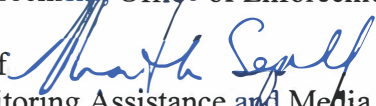
MEMORANDUM

OFFICE OF
WATER

SUBJECT: Process to Identify and Quantify Violations of the Aircraft Drinking Water Rule

FROM: Mindy Eisenberg, Acting Chief 
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Office of Ground Water and Drinking Water

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TO: Regional Drinking Water and Enforcement Program Managers

To enhance national implementation of the Aircraft Drinking Water Rule (ADWR), this memorandum provides guidance on the process EPA will follow to identify and quantify violations. Under the ADWR, 40 C.F.R. §§ 141.800 – 810, violations may generally occur under two broad categories: routine requirement failures and corrective action failures.

(1) *Routine Requirement Failures.* These violations occur when an air carrier does not comply with a specific routine requirement or an aircraft public water system (PWS) has an *E. coli*-positive (EC+) sample result. The Aircraft Reporting and Compliance System (ARCS) database will generate only one type of potential violation per failed routine event. The types of potential violations are:

- M = monitoring violations
- MCL = maximum contaminant level violations
- TT = treatment technique violations
- R = reporting violations
- OT = other violations

(2) *Corrective Action Failures.* Violations under this category are a result of an air carrier failing to perform the corrective action(s) §141.803 specifies in response to a *routine requirement failure*, a total coliform-positive (TC+) and *E. coli*-negative (EC-) sample result, or an EC+ sample result. Although the corrective actions an air carrier must take consist of several

different requirements, ARCS will generate only one potential TT violation per corrective action event regardless of the number of individual requirements the air carrier has failed to meet during that event.

Process in ARCS and Regional Staff Role

To reduce the Regional implementation burden, EPA Headquarters built and manages ARCS. ARCS is a centralized web-based data collection and management system that allows air carriers and their representatives, and EPA to enter and view aircraft PWS data. ARCS helps automate regulatory oversight and compliance determinations by performing logic checks on data as entered by the air carrier and generating “potential violations.” In accordance with the June 2011 ADWR Compliance and Enforcement Strategy (attached), the Regions should review “potential violations” in ARCS along with any additional information provided by air carriers and input a “preliminary finding” (i.e., *violation, reject or delete*). When an air carrier logs into ARCS, it will be notified of any “potential violations” and “preliminary findings” that appear in ARCS for their aircraft PWSs.

For the *corrective action failure* violation, ARCS will generate one potential violation (i.e., TT) per corrective action event. This means that ARCS will generate a single potential TT violation if the air carrier fails to report completion of one, several, or all of the requirements that make up the corrective action event. Despite entering just one potential TT violation for the uncompleted corrective action event, ARCS will track whether or not each of the separate requirements was reported as completed and make available to the Regions the status of the specific requirements as follows:

- Failure to collect follow-up samples as a result of an EC+ result;
- Failure to perform corrective disinfection and flushing as a result of EC+ or, TC+ and EC-;
- Failure to collect repeat or follow-up samples as a result of TC+ and EC-;
- Failure to restrict public access to the aircraft water supply by not providing public notification to crew or, crew and passengers (for EC+ and non-EC+);
- Failure to restrict public access to the aircraft water supply by not providing alternatives to water or other measures (for EC+ and non-EC+).

For example, if an air carrier reports that it failed to perform routine sampling, a potential monitoring (M) violation will be generated in ARCS, alerting the air carrier of its requirement to undertake corrective action. The corrective action requirements for this type of violation are: 1. Restrict public access which includes providing public notification (PN), and providing alternatives (e.g., bottled water); 2. Disinfect and flush; and 3. Collect follow-up samples before providing water for human consumption. If the air carrier fails to perform one or more of these actions, only one potential treatment technique (TT) violation will be generated in ARCS for that corrective action event. The potential routine requirement violation (M) and the related potential corrective action violation (TT) will remain “open” (i.e., not returned to compliance) in ARCS until either all requirements are met or EPA determines that there was no violation. Subsequently, the air carrier is not allowed to return to its routine monitoring schedule until all the corrective actions are performed on the aircraft PWS and reported to ARCS. Additionally, if the air carrier fails to report in accordance with the regulations, a potential reporting (R) violation will be generated in ARCS, and remain “open” until the air carrier reports the missing data to ARCS.

A Region's preliminary finding of violation and its decision whether or not to initiate an enforcement action for an air carrier's *routine requirement failures* and/or *corrective action failures* will be entered and based on the data in ARCS. For those violations that result in enforcement action, the Regions must also enter the violation and enforcement related data into the Integrated Compliance Information System (ICIS), EPA's official database of record for all federal compliance and enforcement activities (as explained in the June 2011 ADWR Compliance and Enforcement Strategy). In addition, any compliance audits the Region performs must be entered into ICIS as an inspection.

If you have any questions or concerns, please contact Cindy Y. Mack at 202-564-6280 or Matthew Reed at 202-564-4719 of the Drinking Water Protection Division's Protection Branch, and Carol DeMarco at 202-564-2412 of the Water Enforcement Division's Municipal Enforcement Branch, or Kenneth Harmon at 202-564-7049 of the Monitoring Assistance and Media Programs Division's Water Branch.

cc: Ann Codrington, Director, Drinking Water Protection Division
Mark Pollins, Director, Water Enforcement Division
Ed Messina, Acting Director, Monitoring, Assistance and Media Division

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Attachment: ADWR Compliance and Enforcement Strategy



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

JUN 15 2011

SUBJECT: Aircraft Drinking Water Rule National Compliance and Enforcement Strategy

FROM: Mark Pollins, Director
Water Enforcement Division



TO: Drinking Water Managers
Regions 1 – 10

I. INTRODUCTION

This document sets forth the United States Environmental Protection Agency's (EPA) National Compliance and Enforcement Strategy (NCES or Strategy) for the Aircraft Drinking Water Rule (ADWR), 40 C.F.R. §§ 141.800 - 810, which EPA promulgated under the Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300f - 300j-26. EPA Regions will implement the ADWR program and monitor compliance, respond to violations with appropriate and timely enforcement, and ensure corrective action is performed by the regulated party. The purpose of the NCES is to promote a nationally consistent compliance and enforcement framework for the ADWR. It sets forth the principles, practices, and tools for EPA to ensure fair, effective, and consistent enforcement throughout the aircraft public water system (PWS) universe. Implementing the NCES for the ADWR will:

- Protect public health;
- Ensure air carrier accountability;
- Establish a consistent enforcement approach among EPA Regions and regulated air carriers;
- Promote routine, open communications among EPA, the Food and Drug Administration (FDA), the Federal Aviation Administration (FAA), regulated air carriers, the public, and other interested stakeholders;

- Create efficiencies by using the new ADWR Reporting and Compliance System (ARCS) to retrieve air carrier information and track compliance and enforcement information;¹ and
- Provide transparency through the use of a public interface with specific compliance and enforcement information.

II. COMPONENTS OF THE STRATEGY

- ARCS – For reporting, compliance monitoring and enforcement tracking of the ADWR;
- Escalation of enforcement responses; and
- Effective communications among EPA Regions, Headquarters, and regulated air carriers.

III. COMPLIANCE AND ENFORCEMENT

It is important that EPA is consistent in its enforcement responses to ADWR violations to ensure protective and effective implementation of the rule and a level playing field for all regulated air carriers.

A. Compliance Monitoring

EPA will use ARCS to collect air carrier information, track the status of each aircraft PWS, and review pending and past compliance and enforcement actions.² Additionally, Regions will input all new compliance and enforcement activities into the system for future use.

i. Information Gathering

ARCS is designed to provide up-to-the-minute information on every regulated air carrier in the system. Regions will use ARCS as the first step in performing any compliance audit activities. Upon receiving notification from ARCS regarding a potential violation of the ADWR, the assigned Regional enforcement personnel should query ARCS for all pertinent information about

¹ EPA's Integrated Compliance Information System (ICIS) is the system of record for all federal compliance and enforcement activities. Accordingly, Regions must enter all ADWR compliance and enforcement information into ICIS and also into ARCS. EPA will work to establish communication bridges between ARCS and ICIS.

² See footnote 1 about the need for Regions to enter all ADWR federal compliance and enforcement information into ICIS.

the air carrier. The air carrier's history in ARCS will provide a detailed picture of any ongoing or past violations. Any evidence of recalcitrance should be considered in determining an appropriate enforcement response, including whether to issue an administrative compliance order or penalty assessment against the air carrier for noncompliance.

ii. Automatic Initiation of Compliance Assistance

ARCS was designed not just as an information-gathering tool for EPA. It also provides electronic compliance assistance to air carriers. Unless an air carrier chooses to de-select the electronic reminders option, it will receive electronic messages reminding it to perform required activities, such as regularly scheduled coliform monitoring and routine flushing and disinfection. When an air carrier is 30 days from a deadline for a routine event, ARCS scans its memory to see if the required information has been submitted. If it has, then ARCS will do nothing further. If ARCS does not find the required information in its memory, the system will automatically send the air carrier a status report indicating the information has not yet been received, which can help serve as a reminder of the upcoming deadline.

The status report (*i.e.*, automated compliance assistance) sent from ARCS to air carriers will include standard language, reminding air carriers they remain responsible for compliance with ADWR and that the status report shall not be construed as a waiver of EPA's right to take enforcement action. Further, EPA has no responsibility for an air carrier's failure to comply with any provisions of ADWR in the event ARCS fails to send electronic reminders.

B. Enforcement

The Regions will consult with the Office of Enforcement and Compliance Assurance (OECA) before taking any formal enforcement action in response to a carrier's noncompliance.³ For most violations of the ADWR, the regulations prescribe specific corrective actions an air carrier must take to return to compliance, along with time frames within which an air carrier must act.

The Regions, in consultation with OECA, should follow a standard escalation process for enforcement as with any violation of the Public Water System Supervision Program, which includes:

- Calling or emailing an air carrier;
- Issuing a notice of violation;
- Issuing an administrative compliance order under SDWA Section 1414;

³ In October 2012, OECA will revisit the consultation role between the Regions and Headquarters under the ADWR.

- Issuing an administrative order assessing penalties under SDWA Section 1414;
- Issuing an emergency order under SDWA Section 1431; and/or
- Initiating a judicial action under SDWA.⁴

It should be noted the list above need not be followed sequentially if circumstances demand an urgent approach.

i. Informal Enforcement Action

The initial response of an informal notification (*e.g.*, a phone call) should be applied to situations involving the failure to comply with reporting requirements such as:

- Failure to report a change in inventory;
- Failure to report the completion of a coliform sampling plan;
- Failure to report the frequency of coliform monitoring;
- Failure to report that public notification occurred;
- Failure to report other related reporting requirements under the ADWR; and/or
- Failure to comply with recordkeeping requirements.

If a failure to report is accompanied by an actual failure to complete a specific requirement, then Regions should move to an appropriate formal enforcement response. For example, if an air carrier completed a coliform sampling plan, but failed to report that they had completed it, then an informal approach may be appropriate. If the air carrier failed to report completion of a coliform sampling plan *and* failed to actually develop the plan for its aircraft, then the Region should take a formal action against the air carrier.

ii. Formal Enforcement Action

Formal enforcement action should be taken when an aircraft PWS fails to meet requirements other than those strictly related to reporting requirements, with the exception of failing to provide public notification to passengers and/or crew required under 40 C.F.R. § 141.805. An appropriate formal enforcement action could be to send an administrative compliance order to

⁴ For any civil or criminal referral to the United States Department of Justice alleging violations of ADWR, the Region must receive OECA concurrence that the proposed action is appropriate.

the air carrier that includes a description of the specific violation(s), corrective action(s) and deadline(s). The following examples would be appropriate situations warranting a formal enforcement response:

- Failure to perform routine disinfection and flushing;
- Failure to perform corrective disinfection and flushing;
- Failure to restrict public access to the aircraft water supply;
- Failure to collect coliform samples, routine, repeat or follow-up;
- Failure to develop a coliform monitoring and sampling plan; and/or
- Failure to perform self-inspection.

Additionally, when informal enforcement is ineffective, or the gravity of the violation raises it beyond a minor infraction, formal action should be taken. Formal action should be taken in circumstances when an air carrier fails to respond to an initial informal action, or when an air carrier's pattern of repeated violations indicates a disregard for the ADWR requirements.

When an air carrier fails to perform corrective actions related to an *E. coli* positive sample result, formal enforcement should be taken immediately.

iii. Enforcement Timeframe

Consistent, timely enforcement actions are an important component of the Strategy. Regions should initiate enforcement responses within 30 calendar days after identifying a violation (*e.g.*, being notified by ARCS of potential air carrier violations or identifying violations during an inspection).

iv. Non-Reporting Air Carriers

The first compliance deadline for air carriers regulated under ADWR was April 19, 2011. Regions should use tools like FAA databases and contacts, and SDWA Section 1445 information requests to identify any non-reporting air carriers and bring them into compliance. To effectively implement and enforce ADWR for the entire air carrier universe, Regions are expected to put forth an active effort to locate these air carriers and initiate contact.

IV. COMMUNICATIONS

This Strategy encourages EPA Headquarters and Regions to work in partnership to achieve a high level of compliance with the national ADWR program. The emphasis for close coordination and communication will help ensure the highest level of effectiveness and consistency.

Regions should also establish proper communication and coordination with FDA offices and personnel in accordance with a forthcoming revised EPA/FDA Memorandum of Understanding.

V. PROVIDING SUPPORT

This Strategy encourages Regions to request support from the Office of Ground Water and Drinking Water (OGWDW), OECA, and the Office of General Counsel when needed. OGWDW is prepared to provide support on any programmatic issue or regulatory interpretation that the Regions may have in addition to providing technical support with ARCS. OECA is available to provide any compliance and enforcement related support, and will be available for any issues related to compliance and enforcement activities, and tracking information in ICIS.

Violations and Corrective Actions Table

ROUTINE REQUIREMENT FAILURES -- VIOLATIONS AND CORRECTIVE ACTIONS

ADWR Violation	Violation Type	ADWR CFR Violation/Requirement	Corrective Actions Identified in ADWR
Failure to perform routine disinfection and flushing	TT	§141.810(a); §141.803(b)(3) and (f)	<p><u>NON-FECAL EVENTS</u> Air carriers must complete the following actions for these non-fecal-related failures as specified under §141.803(c)(3)(ii):</p> <ol style="list-style-type: none"> 1) Restrict public access to aircraft water system <u>within 72 hours</u>, which includes: <ul style="list-style-type: none"> • Physically disconnecting/shutting off aircraft water system, where feasible, or otherwise preventing the flow of water through the tap(s). • Providing public notification to passengers and crew per §141.805. • Providing alternatives to water from the aircraft water system (e.g., bottled water, antiseptic hand gels). 2) Conduct disinfection and flushing. 3) Collect follow-up samples. Once samples are collected, aircraft water can be provided for human consumption.
Failure to collect routine coliform samples and failure to return to routine monitoring frequency	M	§141.810(a); §141.803(b) and (f); §141.803(c)(1)	
Failure to collect correct number of samples	M	§141.810(a); §141.803(b)(4); §141.803(b)(1) and (2)	
An air carrier boards water from a watering point (non-EC+ event) not in accordance with FDA, EPA NPDWRs, or procedures in its operations and maintenance plan, and fails to perform the required corrective actions	TT	§141.810(a); §141.803(i)	
Any EC+ sample in any monitoring period (routine and/or repeat)	MCL	§141.810(b); §141.803(c)(2)	<p><u>FECAL EVENTS</u> Air carriers must complete the following actions for these fecal-related failures as specified under §141.803(c)(2)(i), (ii), and (iii):</p> <ol style="list-style-type: none"> 1) Restrict public access to aircraft water system <u>within 24 hours</u>, which includes: <ul style="list-style-type: none"> • Physically disconnecting/shutting off aircraft water system, where feasible, or otherwise preventing the flow of water through the tap(s). • Providing public notification to passengers and crew per §141.805. • Providing alternatives to water from the aircraft water system (e.g., bottled water, antiseptic hand gels). 2) Conduct disinfection and flushing prior to resumption of unrestricted public access to the aircraft water system, or no later than 72 hours if the aircraft water system cannot be physically disconnected/shut off to the crew and passengers. 3) Collect follow-up samples. Follow-up samples results must be TC- before aircraft water can be provided for human consumption.
An air carrier boards water from a watering point (if known to be EC+) not in accordance with FDA, EPA NPDWRs, or procedures in its operations and maintenance plan, and fails to perform the required corrective actions	TT	§141.810(a); §141.803(h)	

ADWR Violation	Violation Type	ADWR CFR Violation/Requirement	Corrective Actions Identified by EPA Headquarters and Regions
<p>Failure to comply with the reporting requirements</p> <p><i>This includes failure to report required information, results, or actions to EPA.</i></p>	R	§141.810(d); §141.806	Should require air carrier to report missing data.
<p>Failure to comply with the recordkeeping requirements</p> <p><i>This includes failure to retain records for the required time period or failure to retain the required information.</i></p>	OT	§141.810(d); §141.807	At Regional discretion, should require a period of reporting records to EPA to ensure the air carrier has returned to compliance and the recordkeeping requirements are met.
<p>Failure to develop a coliform sampling plan by April 19, 2011, for existing aircraft, or within the first calendar quarter of initial operation for new aircraft</p>	OT	§141.810(f); §141.802(b)	Should develop a coliform sampling plan within 30 days of being notified by EPA.
<p>Failure to develop and follow an operations and maintenance plan by April 19, 2011 for existing aircraft, or within the first calendar quarter of initial operation for new aircraft</p> <p><i>This includes failure to train personnel.</i></p>	OT	§141.810(f); §141.804(c); §141.804(d); §141.810(a); §141.804(b)(4)	Should develop an operations and maintenance plan within 30 days of being notified by EPA.
<p>Failure to conduct a self-inspection every 5 years</p>	OT	§141.810(e); §141.808(b); §141.808(c)	Air carrier should initiate a self-inspection within 30 days of being notified by EPA and complete self-inspection within one year. A shorter time for completion can be negotiated between the air carrier and EPA, if chosen.
<p>Failure to address deficiencies discovered through self-inspections or compliance audits</p> <p><i>Deficiencies noted during self-inspections and compliance audits must be corrected within 90 days of identification of the deficiency, or where such deficiency is identified during extended or heavy maintenance, before aircraft is put back into service.</i></p>	TT	§141.810(e); §141.808(c)	Air carrier should address a deficiency within 30 days of being notified by EPA, or within another time period as negotiated between the air carrier and EPA.

ADWR Violation	Violation Type	ADWR CFR Violation/Requirement	Corrective Actions Identified by EPA Headquarters and Regions
Failure to use labs certified by EPA or a state	M	§141.810(a); §141.803(a)(6)	In 72 hours, air carrier should collect samples and analyze in accordance by a certified lab.
Failure to use analytical methods approved in accordance with §141.21(f)(6) of the NPDWRs	M	§141.810(a); §141.803(a)(3)	In 72 hours, air carrier should collect samples and analyze in accordance by a certified lab.

CORRECTIVE ACTION FAILURES -- VIOLATIONS AND CORRECTIVE ACTIONS

ADWR Violation Category	Violation Type	ADWR CFR Violation/Requirement	Corrective Actions Identified in ADWR
Failure to perform any corrective action(s) specified in the rule or required by EPA	TT	As referenced below	As referenced below
Failure to collect repeat or follow-up samples as a result of a TC+/EC-		§141.810(a); §141.803(g); §141.803(c)(3)(i) and (iii)	<p><u>NON-FECAL EVENTS</u> Air carriers must complete the following actions for these non-fecal-related failures as specified under §141.803(c)(3)(ii):</p> <ol style="list-style-type: none"> 1) Restrict public access to aircraft water system <u>within 72 hours</u>, which includes: <ul style="list-style-type: none"> • Physically disconnecting/shutting off aircraft water system, where feasible, or otherwise preventing the flow of water through the tap(s). • Providing public notification to passengers and crew per §141.805. • Providing alternatives to water from the aircraft water system (e.g., bottled water, antiseptic hand gels). 2) Conduct disinfection and flushing. 3) Collect follow-up samples. Once samples are collected, aircraft water can be provided for human consumption.
Failure to perform corrective disinfection and flushing as a result of a TC+/EC-		§141.810(a); §141.803(c)(3)(i)	
Failure to collect follow-up samples as a result of an EC+ result		§141.810(a); §141.803(g) §141.803(c)(2)(iii)	<p><u>FECAL EVENTS</u> Air carriers must complete the following actions for these fecal-related failures as specified under §141.803(c)(2)(i), (ii), and (iii):</p> <ol style="list-style-type: none"> 1) Restrict public access to aircraft water system <u>within 24 hours</u>, which includes: <ul style="list-style-type: none"> • Physically disconnecting/shutting off aircraft water system, where feasible, or otherwise preventing the flow of water through the tap(s). • Providing public notification to passengers and crew per §141.805. • Providing alternatives to water from the aircraft water system (e.g., bottled water, antiseptic hand gels). 2) Conduct disinfection and flushing prior to resumption of unrestricted public access to the aircraft water system, or no later than 72 hours if the aircraft water system cannot be physically disconnected/shut off to the crew and passengers. 3) Collect follow-up samples. Follow-up samples results must be TC- before aircraft water can be provided for human consumption.
Failure to perform corrective disinfection and flushing as a result of an EC+		§141.810(a); §141.803(c)(2)(ii)	

ADWR Violation Category	Violation Type	ADWR CFR Violation/Requirement	Corrective Actions Identified by EPA Headquarters and Regions
<p>Failure to restrict public access to the aircraft water supply by not providing public notification to crew or crew and passengers</p> <p><i>This is triggered by sample results or failure to perform required activities as a result of a <u>FECAL</u> event.</i></p>		<p>§141.810(a); §141.803(d)(2) per §141.805</p>	<p>The focus here is on the public notification program. EPA must ensure air carriers follow these requirements no matter what triggers the need for it. If failure to provide public notice, EPA should contact the air carrier (e.g., issue a letter) requiring a response within 72 hours. There could potentially be two responses from the air carrier:</p> <p>(a) Public notice was given, but not reported. Then EPA should give the air carrier the opportunity to report the public notice to ARCS.</p> <p>(b) If the air carrier failed to provide public notice, the carrier should be required to provide public notice for a period of 48 hours while in service and report the event to ARCS. Regions may specify the contents of the notice (e.g., specific to the failure).</p>
<p>Failure to restrict public access to the aircraft water supply by not providing public notification to crew or crew and passengers</p> <p><i>This is triggered by sample results or failure to perform required activities as a result of a <u>non-fecal</u> event.</i></p>		<p>§141.810(a); §141.810(c); §141.803(d)(2) per §141.805</p>	

Legend for Violation Types

- M = monitoring violation
- MCL = maximum contaminant level violation
- OT = other violation
- R = reporting violation
- TT = treatment technique violation