

Date Signed: October 1, 1986

Plan for EPA Implementation of the
Safe Drinking Water Act on Interstate Carrier Conveyance

I. BACKGROUND AND PURPOSE

This guidance outlines EPA's role in implementing the National Primary Drinking Water Regulations (NPDWR) with respect to interstate carrier water supplies, watering points, and interstate carrier conveyances and establishes mechanisms to coordinate this role with the Food and Drug Administration's Interstate Travel Sanitation Program.

Prior to passage of the 1974 Safe Drinking Water Act (SDWA), EPA was responsible only for certifying water supplies serving interstate carrier conveyances and to do so, enforced the 1962 Public Health Service Standards with respect to these supplies. The Food and Drug Administration had regulatory authority over the watering points (WPs) and the conveyances and enforced these regulations through the Interstate Travel Sanitation Program. However, after the Safe Drinking Water Act was signed into law, EPA's role in assuring the protection of persons traveling on board interstate carrier conveyances (ICC) broadened to include not only regulation of public water systems serving ICCs, but also regulation of the potable water quality on board the conveyances, [SDWA Part B Sec. 1411(4)].

NPDWR apply to carrier conveyances which convey passengers in interstate commerce (Section 141.3). These conveyances must meet the requirements of the NPDWR as non-community public water supplies. In addition, the Implementation Regulations state that while authority may be granted to States to enforce the NPDWR with regard to all public water supplies, enforcement authority over public water systems on interstate carriers is specifically delegated to EPA (40 CFR Section 142.3(b) and the implementation regulations preamble).

There are three elements that comprise the EPA Public Water Supply Supervision (PWSS) program for the Interstate Carrier Conveyances. The elements are: (1) Interstate Carrier Water Supplies (ICWS) - public water supply which serves the watering point, (2) Watering Point (WP) - facility where water is transferred from an ICWS to the interstate carrier conveyance. These facilities may include water trucks, carts, and water boats, and (3) Interstate Carrier Conveyances (ICC) - vehicle that transports individuals in interstate

***Guidance may be updated. Contact Steve Clark at Headquarters for further information regarding ICC Guidances.**

travel including crew members on board vessels transporting property. Vehicles which do not provide water to 25 or more individuals for 60 or more days annually are not included in this program.

II. RESPONSIBILITIES

Program participants essential to the successful implementation of the program include: (1) ICWS owners and operators, (2) watering point owners and operators, (3) Interstate carrier owners/operators, (4) Primacy States, (5) EPA Regions, (6) EPA Headquarters, (7) FDA Regions and Headquarters. The responsibilities of each of the program participants are enumerated below:

1. ICWS OWNERS/OPERATORS

The NPDWRS require all public water systems to comply with the national primary drinking water regulations. These regulations require public water systems to monitor the quality of their water and to report results to the primacy agency (the State or EPA Regional office).

Because of the transitory nature of the consumer's exposure to health risks from drinking water served by ICCs, only the regulation requirements associated with maximum contaminant levels (MCLs) for those contaminants which pose an acute health threat (based on short-term consumption) to passengers and/or crew members on board ICCs are applicable to the drinking water served by ICCs. These include coliform bacteria, turbidity, and nitrate. Since the monitoring and reporting requirements associated with these contaminants are required of all public water systems there are no additional monitoring or reporting requirements imposed on ICWSs in comparison to any other public water system.

2. WATERING POINT OWNERS/OPERATORS

- (a) Watering point owners/operators are required to ensure that the source water used meets the NPDWRS and that the handling procedures used to transfer this water to the carrier do not degrade the quality of the water.
- (b) There are no routine EPA required monitoring or reporting requirements associated with watering points.
- (c) WP owners/operators are required to notify FDA whenever they change ICWS.

3. INTERSTATE CARRIER OWNERS/OPERATORS

- (a) Non-community public water systems ICCs are required to analyze for coliform bacteria each calendar quarter, take daily turbidity samples, (if using a surface water source), and analyze nitrate samples as required by the primacy

agency.

ICC owners/operators may upon approval from EPA, substitute a regular water system operation and maintenance (O&M) program for each vehicle or vessel in lieu of the required monitoring. However, this option is not applicable to conveyances that:

- (1) Take raw water on board and treat it for potable use;
 - (2) Provide additional treatment of water from an approved watering point. For the purpose of this guidance, additional chlorination or the use of activated carbon filtration applied to water does not constitute additional treatment.
- (b) If a carrier is notified by FDA that a watering point that serves its vehicles or vessels is use-prohibited, the holding tanks of each conveyance last served by that WP must be immediately removed from service and disinfected prior to being placed back in service.
 - (c) If a carrier's owners/operators choose to institute a regular operation and maintenance program (O&M) in lieu of routine monitoring they are required to submit for approval a detailed explanation of their proposed O&M program to the appropriate EPA Regional office which serves the State in which the carrier is headquartered.
 - (d) ICCs using an O&M program in lieu of monitoring must maintain a log for each conveyance. The log must accurately record the maintenance procedure used, when it was accomplished and the name of the employee performing the maintenance. At the end of each calendar year, a summary report must be submitted to EPA for each conveyance indicating the maintenance procedures used, and their frequency. Attachment 1 shows the form and information required.
 - (e) Conveyances which clearly do not provide piped water for human consumption may receive a waiver from coverage under

the NPDWR. ICCs which desire a waiver must provide a written request to EPA. As part of this request, they must certify that each water tap has been removed or is placarded to indicate that the water is not to be used for drinking. (Minimum placarding requirements are provided in Attachment 2).

- (f) In the event an MCL is exceeded, the conveyance owner/operator must notify the EPA Regional office in which the conveyance's headquarters is located and immediately notify passengers and crew of the potential violation by placarding the water taps on the conveyance. Failure to monitor water quality aboard the ICC or properly perform O&M procedures approved by the EPA Regional office also constitutes a NPDWR violation.

4. STATES

- (a) Under the SDWA, States with primary enforcement authority implement the NPDWR for all public water supplies, including interstate carrier water supplies.
- (b) Primacy states are requested to notify EPA Regional offices within 48 hours of all "acute" violations (coliform bacteria, turbidity and nitrate) of the SDWA or any sample results which indicate a potential violation could exist.
- (c) Primacy states are requested to assist EPA to maintain an inventory of ICWS by helping to identify ICWS in the FRDS inventory.
- (d) Primacy states are requested to provide EPA Regional offices with information about each new water system that will serve an ICC watering point. Desired information includes bacteriological, turbidity and nitrate analysis results, compliance information and system capability to meet the demand likely to result from the WP.

5. EPA REGIONS

- (a) Maintain an accurate inventory of all active ICWs and ICC watering points located in the states they serve and an inventory of all ICCs headquartered in the states served by the Region.

- (b) Ensure that all ICCs headquartered in the region are aware of their obligation to provide safe drinking water under the SDWA and the required monitoring or O&M procedures.
- (c) Ensure that each ICC headquartered in the region complies with the monitoring and reporting requirements for each conveyance that are applicable to non-community public water systems or complies with an EPA approved O&M plan including reporting of O&M accomplishments.
- (d) Evaluate and where appropriate, approve O&M plans for each carrier headquartered in the region that elects to institute O&M procedures in lieu of monitoring. (Minimum criteria for ICC O&M plans are provided in Attachment 3).
- (e) Perform random checks of water quality supplied to passengers and crew members on board ICCs operating within the region.
- (f) Establish mechanisms to ensure that ICWSs not in compliance with NPDWRs are prevented from serving ICC watering points and coordinate with regional FDA offices to ensure ICCs are properly informed and do not service carriers from use-prohibited WPs.
- (g) Establish procedures to ensure that carriers remove from service ICC water systems found to be contaminated.
- (h) Initiate enforcement actions for ICCs (1) found to distribute water the quality of which does not meet applicable NPDWR maximum contaminant levels, (2) which do not perform O&M in accordance with plans or (3) which do not monitor or report in accordance with NPDWRs applicable to non-community public water systems or alternative O&M procedures approved by the Region.
- (i) Submit an annual report of Regional ICC activities to EPA HQ.
- (j) Provide, upon request, technical assistance to ICC owners/operators.
- (k) Coordinate ICC activities with FDA Regional offices and notify FDA regional offices of any ICWS that violates NPDWRs.
- (l) Make available to the public, the results of ICC water quality sampling and O&M accomplishments verifications.
- (m) Provide information to FDA on ICWSs for new watering points.

ICC PROGRAM ANNUAL REPORT REQUIREMENTS

The annual ICC report is to summarize the status of all ICWS and ICCs in each EPA region. The report covers all regional ICC activities and compliance statistics and is to be submitted to HQ EPA by the end of the first month following the end of each FY. Each Regional report is to contain:

- (a) Name, mailing address and phone number of the regional ICC program officer;
- (b) Updated inventory of all ICWs;
- (c) Summary of ICWSs with NPDWR violations;
- (d) Inventory of ICCs headquartered in the region showing compliance status of each, type of program in use by the ICC (monitoring, O&M or waived), and a summary of enforcement actions taken for ICCs not in compliance with requirements; and
- (e) Summary of the results of any random ICC water quality sampling and analysis conducted by our under auspices of the Regional office.

6. EPA HEADQUARTERS

- (a) HQ EPA will furnish HQ FDA with an annual report of the compliance status of all ICWSs.
- (b) Annually, HQ EPA will compile and provide to HQ FDA a national report of ICC MCL and O&M plan violations and enforcement actions taken by EPA Regional offices.
- (c) HQ EPA will receive from HQ FDA and distribute to EPA regions, lists of all FDA approved, provisionally approved and use-prohibited watering points.

7. FDA

- (a) FDA Regional offices will notify the headquarters of interstate carriers whose conveyances utilize watering points served by ICWS that are in violation of NPDWRs.
- (b) FDA Regional offices will notify specific conveyances of ICWS NPDWR violations and may prohibit ICC use of a watering point served by ICWSs in violation.

- (c) FDA Regional offices are responsible for inspecting all WPs. If any conditions are found to be unsatisfactory under RDA regulations, FDA may prohibit ICCs from using the WP found to be unsatisfactory. FDA will have the responsibility for watering point inspections and any monitoring in association with these inspections.
- (d) FDA will initiate enforcement action against WP owner/operators for violations of FDA's regulations and provide EPA with an annual inventory of all acceptable WPs.
- (e) HQ FDA will provide technical assistance and enforce their regulations regarding design, construction, operation, and maintenance as it relates to the facilities on board ICCs.
- (f) HQ FDA will have responsibility for plan review and construction inspection of conveyance water systems.

III. NEW INTERSTATE CARRIER WATER SUPPLIES

Each watering point is required by FDA regulation to be registered with and inspected by FDA. Each watering point manager is required to notify FDA whenever it is proposed that a new source of water be provided at a watering point. In this situation, the EPA Regional office is responsible for providing information to the FDA Regional office for any new source supplies, designated by FDA Regional office for any new source supplies, designated by FDA, serving existing or new interstate carrier watering points. To meet this requirement, the EPA Regional office may request the State with primacy to provide appropriate information about the system including, but not limited to, bacteriological and turbidity monitoring results of the past 12 months, results of the last nitrate analysis compliance status and the system's capability to meet the additional demand. The EPA Regional office will obtain this information in non-primacy States. Based on this information, the EPA Regional office will make a recommendation to the FDA Regional office as to whether or not the system is acceptable for use as an ICWS.

EPA INTERSTATE CARRIER CONVEYANCE SUMMARY REPORT

- (1) EPA Log Number _____.
- (2) Type of Conveyance (airplane, train, bus, ship).
- (3) Company Name.

- (4) Conveyance Serial Number.
- (5) Date of all Water System Maintenance.
- (6) Address of Conveyance Maintenance Area Where Maintenance is Performed (airport, train station, bus terminal, port -- include city and state).
- (7) Maintenance Procedure Used (describe in detail).
- (8) Name of Maintenance Employee (signature).

PLACARD REQUIREMENTS

- (a) 14" x 7" wood or plastic board
- (b) 1/2" letters stating "wash water only-unfit for human consumption" or use of an international type picture. No drinking for use where passengers do not speak English. Show a picture of someone drinking with a line through the picture.

APPROVAL CRITERIA FOR ICC O&M PLANS

This plan should be considered as guidance for evaluating the Operation and Maintenance (O&M) plans as a replacement for the quarterly bacteriological analysis. The following has been developed from our discussions with the Interstate Carrier Conveyance (ICC) industry and is presented for your reference.

An acceptable practice for flushing and disinfecting the drinking water systems on board the conveyance has been described as follows:

- (1) Open all taps and completely drain water from the conveyance water tanks.
- (2) A chlorine solution is fed into the conveyance water system until 100 ppm of total residual is read at all taps.
- (3) The above system is allowed to stand at least an hour and then is drained through all taps until completely empty.
- (4) The system is then refilled with drinking water from an approved source and allowed to overflow for two minutes.

Since the O&M program is an option to be exercised in lieu of the requirement for quarterly microbiological monitoring, the flush and disinfection procedures for on-board systems shall be applied at least quarterly. The water service vehicles which are used to load drinking water on the conveyance shall be included in the O&M program. Such vehicles shall be flushed and disinfected at least once a month. In the event that this O&M procedure causes a significant adverse effect on the conveyance operator resources, the EPA Regional offices may modify this requirement. It is the responsibility of the conveyance operator to demonstrate that modification of O&M procedures will not adversely affect the quality of drinking water on-board. If high bacterial Standard Plate Counts (SPC) are found to exist during any routine sampling, (more than 500 organisms/ml), the Region should review the carrier's O&M program and consider revising the flushing and disinfecting procedures to an interval that consistently reduces SPC below 500 colonies per ml.

Where field tests reveal the absence of chlorine residuals in the drinking water aboard ICCs, the Region should review the carrier's O&M program and consider revising the flushing and disinfecting procedures to ensure the presence of a chlorine residual as a minimum requirement.

The records associated with the O&M procedures shall be maintained by the conveyance operator for five years. This determination is predicated on the National Interim Primary Drinking Water Regulations Section 141.33 - Record Maintenance.

APPROVAL CRITERIA FOR ICC O&M PLANS, (cont'd.)

The aforementioned example of an acceptable flushing and disinfection procedure is not the only procedure that should be considered acceptable. All procedures submitted by conveyance operators, including alternate disinfectants, should be considered on an individual basis. Conveyance operators are responsible for providing proof of the adequacy of their plans, including information on the toxicity of alternate disinfectants to humans. Recommendations on the acceptability of such disinfectants shall be provided by EPA, ODW Headquarters, upon request from the Region. If the conveyance's onboard drinking water system or water service vehicle water system is in any way serviced or repaired, the system shall be flushed and disinfected prior being returned to service.

The documentation describing the O&M plan which is submitted by the conveyance operator should contain the following:

- (1) A cover letter which includes a summary of the water handling procedures and O&M program documentation. Included in the summary should be estimated time interval for service of conveyance drinking water system; a brief description of the disinfection procedures; and a description of intended annual report data.
- (2) Actual detailed documentation of the disinfection procedures (i.e. excerpts from maintenance manuals and examples of maintenance inspection forms).
- (3) Procedure for on-board water treatment. If carbon filters are employed on a conveyance, a description of operating procedures is required. The description should indicate filter capacity, estimated flow rate, service interval, chlorine residual of water used to charge on-board system and whether water is chlorinated by operator.

The approval of the O&M plans shall have a term of one year, initially. At such time when program experience demonstrates, the approval period may be altered.

Approval of the O&M plans is the responsibility of the Regions. Assistance from Headquarters is available on request. Any significant deviation from the O&M requirements of this guidance should be discussed with Headquarters prior to approval by Regions.

**ICCs Using Approved ICWs and Watering Points
Monitoring and Reporting Requirements**

