

**BY ORDER OF THE COMMANDER
CANNON AIR FORCE BASE (AFSOC)**



AIR FORCE INSTRUCTION 48-144

**CANNON AIR FORCE BASE
Supplement**

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Aerospace Medicine

**DRINKING WATER SURVEILLANCE
PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col Jeffrey C. Gillen)

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Air Force Instruction (AFI) 48-144, *Drinking Water Surveillance Program*, 21 October 2014, is supplemented as follows. This supplement applies to all personnel, military and civilian, responsible for implementation of the Drinking Water Surveillance Program for Cannon AFB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>.

SUMMARY OF CHANGES

This supplement has been revised and must be completely reviewed due to changes in AFI 48-144, 21 October 2014. All paragraph numbers have been changed.

2.9.3.2.1. **(Added)** Civil Engineer (CE) Water and Fuels System Maintenance (WFSM) will call Bioenvironmental Engineering (BE), CE Water Treatment Plant (WTP), and affected Facility Managers as soon as possible of any unscheduled water outages. If there is an emergency interruption of service due to distribution system repair, replacement, or modification, applicable organizations will be notified immediately.

2.9.3.2.2. **(Added)** CE Customer Service Desk will call BE and CE WTP to notify them of scheduled water outages. The service desk should report as much information as possible to include; Affected Building(s), Purpose of Outage, Start Date, End Date, Estimated Start Time, and Estimated Duration. The service desk, at a minimum, must provide a job order number to allow BE a reference to request additional information as it becomes available.

2.9.3.2.3. **(Added) ROUTINE WATER LINE BREAKS:** Routine water line breaks are characterized by water line breaks where water pressure was maintained during the repair and no contamination is able to enter the water mains. Under normal circumstances, no disinfection is required during this type of incident and no notifications are required.

2.9.3.2.4. **(Added) LOCALIZED WATER LINE BREAKS:** Localized water line breaks are those that affect five or fewer facilities where positive pressure was not maintained. WFSM will determine the number of facilities affected and call BE and CE WTP to report pertinent information. After identifying the location and human exposure of the break, the area should be carefully inspected to locate and isolate sewers and other contaminant sources. Where conditions permit, the affected section should be isolated, service connections should be shut off and the section should be subjected to disinfection procedures established by the American Water Works Association (AWWA).

2.9.3.2.4.1. **(Added)** BE, with assistance from Public Health (PH), will determine if event requires “Boil Water Notice,” or “Boil Water Advisory” to discourage consumption prior to confirmation that the water is safe. A condition which may prompt this action can occur when a portion of the distribution system requiring repair or maintenance cannot be effectively isolated from the rest of system. If event requires notice or advisory, BE will draft appropriate notice or advisory and route through 27 SOMDG/CC to 27 SOW/CC. See Attachment 2 for a “Boil Water Advisory” example.

2.9.3.2.4.2. **(Added)** BE will collect bacteriological samples following disinfection to determine the effectiveness of the process prior to resumption of potable water service. Analysis for localized water line breaks may be conducted by a non-certified laboratory, such as that operated by BE.

2.9.3.2.4.3. **(Added)** BE will report the analysis results to the WFSM NCOIC and advise on further disinfection procedures, if any, and approve resumption of water service when results indicate the final sample is free of bacteriological contamination.

2.9.3.2.5. **(Added) BASE-WIDE WATER POTABILITY ISSUES:** Widespread water line issues are defined as water line breaks where samples after repair/disinfection test positive for fecal coliform or E. Coli and the contamination cannot be isolated or when routine samples test positive for fecal coliform or E. Coli after a resample was taken. Disinfection and flushing for these incidents will be performed in accordance with 20.7.1.II.208A through C New Mexico Administrative Code, *Drinking Water*, and disinfection procedures established by the AWWA.

2.9.3.2.5.1. **(Added)** BE will contact a New Mexico Environment Department (NMED) drinking water representative to ascertain notification and sampling requirements.

2.9.3.2.5.2. **(Added)** WFSM will ensure BE is aware of the extent and ramifications of the service interruption in order for BE to make the necessary arrangements with the New Mexico certified laboratory to expeditiously conduct the definitive analysis. WFSM should be aware that BE must have confirmation of negative results from the certified laboratory approving

resumption of normal water service. Reporting of results may be delayed based on operating hours of the laboratory.

2.9.3.2.5.3. **(Added)** In the event of an emergency or critical lapse in the distribution system, in consultation with BE, CE will notify the wing commander and initiate base-wide notification as appropriate (e.g., signs at base gates, Cannon_All email), with 27 SOMSG/CC approval and coordination with Public Affairs (PA).

2.9.3.2.5.4. **(Added)** CE will request PA announce the incident to the general population. PA will post all pertinent information on the base website which feeds to Cannon AFB social media sites (e.g. Twitter and Facebook). A press release with non-sensitive information will be sent to civilian news agencies.

2.9.3.2.5.5. **(Added)** BE will collect water samples for analysis using a New Mexico certified laboratory. If the samples test positive for fecal coliform and E. Coli, WFSM will flush and re-chlorinate the system. BE will collect and analyze the samples and the process is repeated if the confirmation samples are positive. CE may boost base chlorine concentrations to facilitate precautionary disinfection. If confirmation samples test negative for total coliforms (indicating fecal coliforms are not present), BE will recommend to wing leadership water advisories be lifted.

2.9.3.2.6. **(Added)** For scheduled or unscheduled service interruptions in Cannon AFB military housing, CE will forward advisories to the privatized housing contractor for prompt distribution to affected residents.

2.9.3.2.7. **(Added)** To maintain continual communication during emergency break or repair, WFSM will assign an onsite point of contact (POC). The onsite POC is responsible for providing repair update and will be available by phone (on-call phone or personal cell phone) to answer time critical questions regarding repair.

3.1.3.1. **(Added)** WFSM will contact BE to confirm disinfection and flushing are completed and affected areas are ready to sample. WFSM will advise BE of the location of isolation areas to maximize the efficient use of sample collection resources.

3.1.3.2. **(Added)** BE will notify WFSM and WTP of the sample results after the 24-hour incubation period, whether analysis is conducted in-house or by a certified laboratory. BE will utilize email for reporting of water sampling results to the WTP to facilitate record retention of the events and sampling results.

3.1.3.3. **(Added)** BE will initiate the issuance and removal of notices and advisories. Advisories or notices will not be removed until testing confirms that all harmful microbiological contamination has been eliminated.

3.1.3.4. **(Added)** BE will contact PA with all updates and, when appropriate, request the removal of notices and advisories. PA is responsible for updating all base websites with the most current information.

BENJAMIN R. MAITRE, Colonel, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 48-144, *Drinking Water Surveillance Program*, 21 October 2014

AFMAN 33-363, *Management of Records*, 1 March 2008

Prescribed Forms

None

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFB—Air Force Base

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFRIMS—Air Force Records Information Management Systems

AWWA—American Water Works Association

BE—Bioenvironmental Engineering

CE—Civil Engineering

OPR—Office of Primary Responsibility

PA—Public Affairs

PH—Public Health

POC—Point of Contact

RDS—Records Disposition Schedule

WFSM—Water Fuels and System Maintenance

WTP—Water Treatment Plant

Attachment 2 (Added)

EXAMPLE BOIL WATER ADVISORY

WATER SYSTEM REPAIR ADVISORY

INCREASED RISK OF WATER CONTAMINATION

On DAY MONTH YEAR rain and mud caused built up pressure on a water main to **buildings XXX and XXX** to burst a cap, which necessitated replacement. To repair the water main, 27 SOCES will be required to shutoff water service to multiple buildings. During the course of this repair, the water line was exposed to the outside environment leaving it susceptible to potential contamination. 27 SOCES personnel follow all standard industry guidelines to minimize the risk of contamination; however, the drinking water provided to **buildings XXX, XXX, XXX, and XXX** cannot be certified free of contamination without further testing. After the repair, the Bioenvironmental Engineering (BE) Flight collected water samples from the affected areas and sent them to a certified laboratory for analysis. After the 24-hour analysis, BE will determine if additional actions are required. BE expects to have the sampling results by DAY OF WEEK, DAY, MONTH, YEAR and TIME.

CONSUMERS OF THE DRINKING WATER PROVIDED TO **BUILDINGS XXX AND XXX** ARE ADVISED TO **BOIL** DRINKING WATER AND ALL WATER USED FOR COOKING, DISHWASHING, HAND WASHING, AND BRUSHING TEETH FOR FIVE (5) MINUTES BEFORE USE. THIS INCLUDES WATER USED FOR MAKING ICE AND WATER THAT HAS BEEN TREATED BY REVERSE OSMOSIS UNITS.

At this time, there is nothing to suggest your drinking water is unsafe; however, the recent repair does leave your water at an increased risk of contamination. Should additional information arise indicating your water may not be safe, instructions will be provided to all affected individuals.

Water from the low-fluoride taps on base have not been affected and are available for pick-up anytime into a clean container. The low-fluoride taps are located in Building 336 (107 Engineers Way) or Building 76 (202 Eagle Claw Blvd) and users must bring their own containers.

Please share this information with all other people who drink this water, especially those who may not have received this notice directly.

For additional information, contact Bioenvironmental Engineering at 784-4063.

NAME, Rank, USAF, BSC
Bioenvironmental Engineering Flight Commander