

# Environmental Standard Operating Procedure

Document Owner: Environmental Division

File Name: DWM-ESOP

Effective Date: 1 October 2007

Revised: 24 March 2011

## **Title: WATER TREATMENT (Drinking/Potable Water)**

### **1.0 PURPOSE**

The purpose of this Standard Operating Procedure is to provide environmental guidelines for the management of drinking (potable) water.

### **2.0 APPLICATION**

This guidance applies to those individuals managing, collecting, storing, and distributing drinking (potable) water aboard Marine Corps Logistics Base (MCLB) Barstow.

### **3.0 PROCEDURE**

#### **3.1 Discussion:**

State and Federal Drinking Water regulations set standards for the treatment of potable water including process control, sampling, and permitting.

The Golden State Water Company supplies potable water to Nebo. The sole source of potable water at the Yermo Annex is groundwater.

#### **3.2 Operational Controls:**

##### **BACKFLOW PREVENTION CROSS CONTAMINATION**

A cross-connection is any unprotected actual or potential connection between a public (or user's water system) and any other source system through which it is possible to introduce into any part of the potable system a substance other than the potable water with which the system is supplied.

Cross-connection can lead to backflow, which is the flow of liquid or gas opposite the intended direction. Backflow prevention devices (BFPD) protect the entire drinking water supply from contamination.

The following procedures apply:

- a. BFPDs must be readily accessible for inspection, testing and maintenance.
- b. Installation & Logistics Department (I&L) is responsible for ensuring that BFPDs are inspected and tested annually by December 30 with results submitted to the Environmental

Division. When devices are found to be defective, they shall be repaired or replaced. All BFPDs shall be tested, maintained and inspected by a San Bernardino County certified tester.

c. BFPDs shall be tested immediately after they are installed, relocated, or repaired and not placed in service unless they are functioning as required.

d. I&L shall notify the water user when testing of BFPDs is needed. The notice shall contain the date when the test must be completed.

e. Cross-connection /shut down testing of potable and recycled water system must be completed by appropriately trained personnel.

f. Trained cross-connection specialist will identify all new construction and or change of use for buildings.

g. Inventory and surveys for backflows will be updated and maintained as by I&L Department.

h. Testing and maintenance reports shall be maintained by I&L Department for a minimum of three years.

i. If there are any specific situations or other concerns not addressed by this procedure, contact the MCLB Barstow Environmental Division.

#### WATER TREATMENT (Drinking/Potable Water)

Proper management of well fields, pumping equipment, transmission/mainlines, valves, storage reservoirs, and disinfection systems is critical to ensure safe drinking water.

The following procedures apply:

- a. Ensure all wells and pumps are operational.
- b. Ensure all repair and maintenance needs are identified.
- c. Ensure valves are exercised.
- d. Ensure leaks and breakages are identified and repaired.
- I e. Inspect and maintain cathodic protection systems.
- f. Ensure the disinfection system is operating properly.
- g. Ensure chlorine residual is being maintained within the distribution system.
- h. Conduct regular flushing of dead ends.

- i. Maintain records of water flows and water usage.
- j. Ensure all personnel are familiar with emergency procedures and points of contact.
- k. Inspect potable water system on a weekly basis.

l. If there are any specific situations or other concerns not addressed by this procedure, contact the MCLB Barstow Environmental Division.

### **3.3 Documentation and Record Keeping:**

The following records must be maintained for BFPD management:

- a. Inventory of BFPDs (not including temporary BFPDs).
- b. BFPD Maintenance/Inspection records.
- c. Testing and maintenance reports shall be maintained for a minimum of three years.
- d. Submit annual inspection/repair records to Environmental Division by 30 December.
- e. Inspection and training records.

The following records must be maintained for potable water system management:

- a. Inspection and training records.
- b. A logbook documenting inspections.
- c. Service and repair records for potable water system.
- d. Flow and usage data logs.

### **3.4 Training:**

All affected personnel must be trained in this Standard Operating Procedure.

- a. Inspectors must complete state and county plumbing certification course.
- b. Hazard Communication training.
- c. General Environmental Awareness training.
- d. As applicable, utility operators will maintain state distribution certification.

### **3.5 Emergency Preparedness and Response Procedures:**

Refer to the Integrated Contingency Plan (ICP) for Marine Corps Logistics Base Barstow.

### **3.6 Inspection and Corrective Action:**

MCLB I&L Department is responsible for ensuring that BFPDs are inspected and tested annually by 30 December. I&L Department shall ensure deficiencies noted during the inspections are corrected immediately. Actions taken to correct each deficiency shall be recorded on the inspection sheet.

The site supervisor will appoint personnel to perform weekly inspections. The site supervisor shall ensure deficiencies noted during the weekly inspections are corrected immediately. Actions taken to correct each deficiency shall be recorded on the weekly inspection sheet. Designated personnel shall conduct weekly inspections.

#### **4.0 REFERENCES**

- 40 CFR 141
- Safe Drinking Water Act
- Clean Water Act
- CCR Titles 17 and 22
- Health and Safety Code Section 116525-116595
- MCO P5090.2A
- Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR)