



**LOS ANGELES UNIFIED SCHOOL DISTRICT  
REFERENCE GUIDE**

**TITLE:** Emergency Water Storage

**NUMBER:** REF-801.1

**ISSUER:** Office of Environmental Health and Safety

**DATE:** June 10, 2008

**PURPOSE:** The purpose of this Reference Guide is to provide specific directions for the safe preparation, storage and use of emergency drinking water.

**MAJOR CHANGES:** This Reference Guide updates the information in *REF-801, Storage of Emergency Water*, dated February 5, 2004.

**INSTRUCTIONS:** I. BACKGROUND

**ROUTING**

District Administrators  
School Administrators

The District supplies 55-gallon drums to schools for storage of water to be used in case of an emergency. Storage of water in containers should be done carefully and efficiently to maximize storage time and to ensure that water will remain usable when needed.

Each school must have in storage a 3-day supply of emergency water, based on ½ gallon of potable water per day per person (total number of students and staff). A school of 500 would need 500 x ½ gallon x 3 days = 750 gallons of water ÷ 55 equals 14 drums.

II. PROCEDURE

A. The 55-gallon supply drums must be clean and meet Food and Drug Administration (FDA) and Department of Transportation (DOT) requirements for contact with food and water. When filling brand new drums, open the cap and turn the barrel over to remove plastic pieces, which may have chipped off during delivery. When refilling drums, use an electric pump that is available through your Maintenance and Operations Area Office to empty the drums for water replacement.

Clean the barrels and flush them out with water or a 1:10 bleach/water solution before use. Because filled water barrels weigh over 400 pounds, they should be positioned in the emergency bin empty and then filled in place. Care should be taken to position the water barrel so the opening that the pump will use will not be blocked by a fixed object such as a shelf.



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- B. Fill each drum to the top with clean tap water. To avoid contamination, the hose should not come in contact with the water in the drum. If possible, use a new hose and store it with the water drums for future use.
- C. Chemically purify water with fresh, unscented liquid chlorine household bleach (5.25% sodium hypochlorite).
1. Use **2 Tablespoons of bleach** per 55-gallon drum **DO NOT OVER TREAT.**
  2. For treatment of water in other sized containers, refer to the American Red Cross web site: [www.redcross.org](http://www.redcross.org)
- NOTE:** DO NOT USE GRANULATED (DRY) BLEACH OR SCENTED LIQUID CHLORINE BLEACH OR COLOR SAFE BLEACH OR BLEACH WITH ADDED CLEANERS. THEY ARE POISONOUS.
- D. Secure the cap tightly to ensure an airtight seal. When replacing the plugs (also called bungs) in the barrel please note that each barrel has two different sized threads in the openings. Care should be taken to use the correct sized plug to the corresponding hole. Do not force or cross-thread the plugs, as then there will not be a complete seal.
- E. Label the drums using the attached label and a permanent black marker (see Attachment A). Use Attachment A as a master, fill in the information and make enough copies for all the drums that are being treated. Tape the labels to the drums. **Unlabeled drums are to be considered expired.**
- F. Conduct an inspection of the drums during regularly scheduled earthquake drills. Check for leakage and ensure that caps are tightly sealed. If leaking is detected, drums should not be used to store drinking water. Discard and replace them with new FDA-approved drums.
- G. Liquid chlorine bleach loses strength over time and the bleach supply in the emergency bin should be replaced regularly at each scheduled earthquake drill. Mark the date on the new bleach bottle, as you replace your supply.



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- H. If the water is treated with a product other than bleach, write that information on the label and attach a copy of the product's information sheet to the barrel. It is important for future users to know how the water was treated. Ensure that use of the alternative product is approved for use by the Office of Environmental Health and Safety. If you have any questions, call OEHS at (213) 241-3199.

### III. WATER STORAGE AND EMERGENCY USE

- A. Drums should be stored in an accessible location and out of direct sunlight. Store wrenches, pumps and bleach container and a measuring device together. Also include a copy of this reference guide.
- B. Well-sealed and properly treated water may be stored for up to three years.
- C. Three years from the date of filling and treatment, replace and treat the water again, following procedures in Section II of this Reference Guide.
  - 1. **NOTE: Prior to use during an emergency, water must be re-purified with another two tablespoons of bleach. Mix thoroughly and allow to stand for 30 minutes before using. The water should have a slight chlorine taste and odor.**
  - 2. **SUGGESTION:** To improve the taste of the water, purchase and store powdered drink mix along with the earthquake supplies. Assume that you will use 3 drinking cups per day per person. Powdered drink mix and 8 oz cups, should be part of the school's emergency supply cache.
  - 3. The following items should also be included in the school's emergency supply cache:

Item	Commodity Code
Water Barrel	100-45-70546
Pump	720-06-20055
Wrench for Water Barrel	445-91-99999
Bleach – Liquid	505-25-38151
8 oz Drinking Cups - Cold	640-50-18286
Measuring Spoons	240-91-86065



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**RELATED RESOURCES:** Federal Emergency Management Agency Guide L-210 “Emergency Food and Water Supplies”.

**ASSISTANCE:** For assistance or further information please contact the Office of Environmental Health and Safety at (213) 241-3199 or Bob Spears, Assistant Director of Emergency Services at (213) 241-3889.

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Office of Environmental Health and Safety

REF-801.1  
June 10, 2008

ATTACHMENT A

**LABELS TO BE ATTACHED TO WATER DRUMS**

**DRINKING WATER**

**DATE FILLED**

**AND TREATED:** \_\_\_\_\_

(2 TABLESPOONS BLEACH PER 55-GALLON DRUM)

**FILLED AND**

**TREATED BY:** \_\_\_\_\_

(NAME)

**EXPIRATION**

**DATE:** \_\_\_\_\_

(3 YEARS FROM ABOVE DATE)

**BEFORE USE:**

**Add 2 Tablespoons of bleach, mix thoroughly,  
and allow to stand 30 minutes before using.**

**IMPORTANT:**

When replacing water refer to *REF-801.1*,  
*Emergency Water Storage*, dated  
*June 10, 2008*.

**PLEASE MAKE SURE THAT DRUMS ARE PROPERLY LABELED  
WITH CURRENT INFORMATION.**