



LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

TITLE: STORAGE OF EMERGENCY WATER

NUMBER: REF-801

ISSUER: Office of Environmental Health and Safety

DATE: February 5, 2004

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 found in Bulletin C-27 on the same subject.

INSTRUCTIONS: I. BACKGROUND

The District supplies schools with 55-gallon drums 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 $\frac{1}{2}$ gallon of potable water per day per person (total number of students and staff). A school of 500 would need $500 \times \frac{1}{2} \times 3 = 750$ gallons of water $\div 55$ equals 14 55-gallon 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 to empty the drums for water replacement.
- 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 with the water drums for future use.

ROUTING

District Administrators
School Administrators



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- C. Chemically purify water with fresh, unscented liquid chlorine household bleach (5.25% sodium hypochlorite) as follows:

**TWO TABLESPOONS OF BLEACH PER 55-GALLON DRUM
DO NOT OVER TREAT**

For treatment of water in other sized containers, refer to Reference Guide ____, "School Site Emergency/Disaster Supplies," Office of Environmental Health and Safety.

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. Tightly secure the cap to ensure an airtight seal.
- E. Label the drums using 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. To keep fresh, rotate the bleach supply regularly at each scheduled earthquake drill. Mark the date on the new bleach bottle, as you replace your supply.
- 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 the Office of Environmental Health and Safety.

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.



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- 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.
- D. Prior to use during an emergency, water must be re-purified with another two tablespoonse of bleach. Mix thoroughly and allow to stand for 30 minutes before using. The water should have a slight chlorine taste and odor.

SUGGESTION: To improve the taste of the water, purchase and store powdered drink mix along with your earthquake supplies. Assume that you will use 3 drinking cups per day per person. Powdered drink mix and 4 oz cups (District Stock # 640-38-28000), should be part of the school’s emergency supply cache.

The following items should also be included in the school’s emergency supply cache:

	District Supply Commodity Code
Water Barrel (with pump)	100-45-70545
Bleach – liquid	505-25-38151
4 oz cups	640-38-28000
Measuring spoon	240-91-86065

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

ASSITANCE: For assistance or further information please contact Bob Spears at 213-241-3889.

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Office of Environmental Health and Safety

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ATTACHMENT A

LABELS TO BE ATTACHED TO WATER DRUMS

DRINKING WATER

DATE FILLED AND TREATED: _____
(**2 TABLESPOONS** BLEACH PER 55 GAL DRUM)

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 Reference Guide No. ____, Storage of Emergency Water Supply.

Please make sure that drums are properly labeled with current information.