

NOTICE OF CHANGE

INCH-POUND

MIL-HDBK-1005/7A
NOTICE 1
24 January 2001

DEPARTMENT OF DEFENSE HANDBOOK
WATER SUPPLY SYSTEMS

TO ALL HOLDERS OF MIL-HDBK-1005/7A, dated 1 September 1999:

1. THE FOLLOWING PAGES OF MIL-HDBK-1005/7A HAVE BEEN REVISED AND SUPERSEDED BY THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
5	No Change	5	1 September 1999
6	24 January 2001	6	1 September 1999

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS

3. HOLDERS OF MIL-HDBK-1005/7A WILL VERIFY THAT PAGE CHANGES AND ADDITIONS INDICATED ABOVE HAVE BEEN ENTERED. THIS NOTICE PAGE WILL BE RETAINED AS A CHECK SHEET. THIS ISSUANCE, TOGETHER WITH APPENDED PAGES, IS A SEPARATE PUBLICATION. EACH NOTICE IS TO BE RETAINED BY STOCKING POINTS UNTIL THE MILITARY HANDBOOK IS COMPLETELY REVISED OR CANCELLED.

Custodian:
Navy - YD
AIR FORCE - 50

Preparing Activity
Navy - YD

Project No.
FACR-5027

AMSC N/A
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AREA FACR

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 Section 2: QUANTITY REQUIREMENTS

2.1. Factors Affecting Use. Consider the following factors affecting use ashore:

- a) Water uses (domestic, industrial, fire protection)
- b) Peak demands (all uses)
- c) Other essential demands
- d) Missions of the activity
- e) Climatic effects
- f) Permanency of installation (permanent and temporary field bases).
- g) Overseas Final Governing Standards (FGS)

2.2 Specific Requirements. Total requirements are related to domestic, industrial, and fire protection requirements. Specific requirements for use ashore are discussed below.

2.2.1 Domestic Uses. Domestic uses include drinking water, household uses, and household lawn irrigation.

2.2.1.1 Per Capita Requirements. Use data in Table 2 for permanent and temporary installation.

Table 2
 Average Potable Domestic Water Requirements
 Gallons Per Capita Per Day (gpcd)

USE CATEGORY	TROPIC	TEMPERATE
Unaccompanied Personnel Housing	155	135
Family Housing	180	135
Workers (per shift)	45	45

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2.2.1.2 Controlling Demands. All demands will be multiples of the average demand, expressed as gallons per minute (gpm) or gallons per day (gpd). The average demand, in gpd, should be calculated by Equation (1):

EQUATION (1): Avg demand in gpd = gpcd x design population x growth factor

Use the following growth factors in equation (1):

- a) Large systems (5,000 population or greater), 1.25.
- b) Small systems (populations less than 5,000), 1.50.

This equation must be performed for each use category shown in Table 2, and the results must then be added together to determine total average demand.

Other controlling demands should be evaluated by Equation (2): Demand = avg demand in gpd x K

using the following data for the coefficient, K:

DEMAND	UNITS OF DEMAND	COEFFICIENT K	
		POPULATION <5000	POPULATION >5000
Maximum Day Flow	Gpd	2.25	2
Maximum Hour Flow	Gpm	4.0/1,440	3.5/1,440
Instantaneous Peak Flow	Gpm	5.0/1,440	4.5/1,440

The designer may make allowances, as deemed necessary, for small activities where all or nearly all demand occurs during working hours.

If a planned buildup or population decrease can be foreseen, this change should be taken into account.