

# **CFAO 34-38 -- SANITARY CONTROL OF INDOOR AND OUTDOOR POOLS AND SWIMMING AREAS**

## **GENERAL**

1. Bathing in water polluted by sewage or by secretions and discharges of

bathers is a possible means of acquiring disease. Swimming pools and swimming areas must be sanitary and must satisfy the public health regulations of the province in which they are situated.

## **RESPONSIBILITY**

2. The base commander or commanding officer shall ensure that the following responsibilities are executed:

a. Medical Responsibilities. The Canadian Forces Medical Service (CFMS) is responsible for -

from, (1) Periodic inspections of, and obtaining water samples the swimming pool or swimming area, and

measures (2) advising on sanitary conditions and any remedial necessary.

b. Responsibilities of the Base Construction Engineering Officer (BCEO). The BCEO is responsible for the operation and maintenance of swimming pools in compliance with federal and provincial standards and as recommended by CFMS. The BCEO

shall provide the personnel required for

and (1) carrying out pH and chlorine residual tests, taking air the water temperatures in the pool enclosure, maintaining the condition of the water as set out in instructions provided by CFMS, and maintaining a log of such readings,

(2) maintaining in good operating condition all equipment

- pumps, associated with the operation of the pool, including  
filters, hair catchers, and chemical feed equipment,
- the (3) obtaining samples of pool water and forwarding them to  
appropriate provincial public health laboratory for  
bacteriological examination, using the sterile specimen  
bottles and technique prescribed by the laboratory  
processing the samples.
- the (4) maintaining, and forwarding in accordance with Note 1, a  
daily record of the swimming pool activities, including  
the following information -
- water (a) the amount of water circulated and amount of new  
added to the pool,
- (b) the amount of chlorine added (if added manually),
- (c) the amount of alkali added (or soda ash, if added  
manually),
- twice a (d) the amount of chlorine residual taken at least  
day,
- (e) the results of pH test taken at least twice a day,
- (f) the air and water temperatures taken twice a day,
- (g) the time of backwashing the filters, and
- (h) the record of cleaning out the pool (see Note 2).

Notes: 1. The details of subparas (4) (a) to (h) shall be forwarded  
daily  
to the base physical education and recreation instructor at the base,  
unit  
or other element.

2. Base headquarters is responsible for providing cleaners and helpers to ensure that the pool and related facilities are cleaned and vacuumed daily.

c. Responsibilities of the Physical Education and Recreation Staff.

The base physical education and recreation staff is responsible

for

(1) managing and supervising personnel responsible for the safety, control, and cleanliness of swimming facilities,

(2) allocating and publishing the swimming facility schedule,

(3) maintaining daily records, indicating total user statistics,

and

(4) advising appropriate authorities of all unsanitary or unsafe conditions that may arise through continual operation of the facility.

### QUALITY OF SWIMMING POOL WATER

3. The acceptable quality of swimming pool water shall be maintained by

the following action:

a. Bacteriological Examination

(1) A sample of pool water shall be submitted for examination once a week. The sample must be taken while the pool is in use and preferably when the number of swimmers is close to the allowable maximum (see para 4). The method of taking and handling the sample shall be that required by the public health laboratory which does the examination.

(2) The bacterial condition of the water should be that of drinking water. Tests for coliforms must be negative.

b. Chlorine Application

(1) Where chlorine or chlorine compounds only are used to disinfect the water, free available chlorine of not less than 0.4 parts per million (ppm) or not more than 1.0 ppm shall be maintained.

(2) Where ammonia is used with chlorine or chlorine compounds, the chloramine residual shall be between 0.7 and 2.0 ppm.

(3) Where a free available chlorine is desired (with the alkalinity between pH 8.0 and 8.9), then over 1.0 ppm shall

be maintained.

c. pH of Pool Water

and  
0.4  
is

(1) The pH of the pool water shall be maintained between 7.2 and 7.6 when the free available residual chlorine is between 0.4 and 1.0 ppm as indicated in subpara b(1).

(2) Higher alkalinity readings between pH 8.0 and 8.9 may be permitted only when the free available residual chlorine is over 1.0 ppm as indicated in subpara b(3).

d. Turbidity. At all times when the pool is in use, the water shall be reasonably free from algae growths and sufficiently clear to permit a black disc six inches in diameter on a white field, when placed at the bottom of the deepest point, to be clearly visible from the sidewalks of the pool at all distances up to 10 yards measured from a line across the pool through the disc.

e. Temperature of Water and Room

pool

(1) The temperature of the water in an artificially heated pool shall be in the range of 22.5°C to 25.5°C for an outdoor pool, and 24.5°C to 27°C for an indoor pool.

warmer  
any  
suitably

(2) The temperature of the air in the room housing an artificially heated pool shall not be more than 4°C or more than 1°C cooler than the water in the pool at any time when the pool is in use. The room shall be suitably ventilated, and without draughts.

**CAPACITY OF SWIMMING POOLS**

4. The number of bathers in the pool enclosure at any one time shall

not exceed one person per 25 square feet at water surface area.

#### **CHANGE OF POOL WATER**

5. A high standard of sanitation and general appearance of swimming pools

shall be maintained at all times. Intervals at which the pool is emptied

for scrubbing and flushing depend on the type of pool, bathing load, efficiency of filtration, bacteriological reports, and chlorination procedures. Visible dirt on the bottom of a swimming pool shall not be permitted to remain more than 24 hours. Any visible scum or floating matter on the surface of the pool shall be removed by flushing or other effective means.

#### **SANITARY FACILITIES**

6. Sanitary facilities shall be provided as follows:

a. Bath-houses. Those used simultaneously by men and women, shall have two parts, one for each sex, entirely separated by tight partitions.

Barriers shall be placed at the entrances and exits of dressing rooms to break the line of sight. Floors shall be of impervious material, have a pitch of « inch per foot, slope to a proper drain. Walls and partitions shall be of smooth material without open cracks or joints.

b. Showers. Separate shower facilities shall be provided for each sex. A minimum of one shower per 40 bathers shall be provided. The use of shower boards is not recommended; instead, shower floors should be thoroughly cleaned and disinfected daily.

c. Toilets. The men's bath-house shall have a minimum of one toilet and one urinal per 60 males. The women's bath-house shall have a

minimum of one toilet per 40 females.

**PERSONAL HYGIENE**

7. Suitable instructions, as set out hereunder, covering personal hygiene

shall be displayed prominently in the locker rooms:

- a. All persons using the swimming pool must take a cleansing shower, using warm water and soap, before entering the pool.
- b. All bathers who have used the toilet must shower before entering the pool.
- c. Persons having any skin disease, sore or inflamed eyes, cold, nasal or ear discharges, or any communicable disease will not be allowed in the pool.
- d. Spitting, spouting of water, blowing the nose, etc, in the pool is prohibited. If spitting is necessary, scum gutters must be used.
- e. Blowing the nose to remove water may force infectious matter into the sinuses and inner ear and cause serious consequences.
- f. No articles of food are permitted in the bath-house or pool enclosure.
- g. No smoking is permitted in the pool area.
- h. No boisterous or rough play, except supervised water sports, is permitted in the pool, on runways, on diving boards, floats, platforms, or in dressing rooms and shower rooms.

**BEACHES AND OTHER NATURAL SWIMMING PLACES**

8. SITE SELECTION. The principal factor in the selection of a site for a

swimming beach is freedom from sewage pollution. In considering the dangers from sewage pollution, it is emphasized that dilution and the time of flow are factors of great importance. The hazards from a relatively small amount of sewage near a swimming area are far greater than a large amount at a considerable distance.

9. INSPECTION. CFMS personnel shall inspect outdoor bathing places designated for use by military personnel, and shall take into consideration information obtained through sanitary surveys, epidemiological evidence, and bacteriological examinations, to ensure that the amenities are adequate and sanitary and that the water is fit for swimming. If the recommendation of the CFMS so warrants, outdoor bathing places shall be designated "out of bounds".

(C)

1605-34-38 (DPM)

Issued 2 Apr 76

Supersedes pages 1 and 2 of order in AL 19/69 and 3 to 5 of order in AL 31/67.

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