



TENANT DIRECTIVE

BWI: 800.1
Date: January 2, 2015
Distribution: D

TITLE: NON-EMERGENCY USE OF FIRE HYDRANTS

I. References:

- A. Code of Maryland Regulations (COMAR) 29.06.01, Fire Prevention Code.
- B. COMAR 11.03.01, Baltimore/Washington International Thurgood Marshall Airport.
- C. This Directive supersedes BWI Tenant Directive 800.1, dated October 10, 2003.

II. Purpose:

- A. The purpose of this Directive is to outline the conditions under which Maryland Aviation Administration (MAA) owned fire hydrants can be used as a temporary source of water.
- B. These procedures are necessary to ensure the safety and security of the public water supply by preventing contamination and providing emergency access to the fire hydrant by the Fire Department.

III. General Policy:

- A. Under certain circumstances, and with the prior approval of MAA, MAA fire hydrants can be used as a temporary water source.

Some examples of when a MAA fire hydrant may be used as a temporary water source are:

- 1. General landscaping, vegetation control and preservation, and dust control;
- 2. Hydro seeding;
- 3. Herbicide application;
- 4. Pesticide application; and
- 5. Any other use approved by the BWI Airport Fire & Rescue Department Fire Prevention Division and/or MAA's Division of Environmental Compliance.

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IV. Definitions:

- A. **Air Gap** - A space between the tank fill pipe and tank fill opening. This separation must be at least twice the diameter of the supply line, but never less than one inch, and permanently attached or fixed to the tank. Under no circumstances shall the fill pipe be handheld as a means of providing an air gap.
- B. **Backflow Protection Equipment** - Equipment designed to prevent the reverse flow of water in a pipe or tank back into the potable water supply.
- C. **Fire Hydrant** - A device for the delivery of water to the Fire Department during emergency operations. This device could be connected to the city water supply or building fire protection system. This definition shall include free standing, underground and wall hydrants.
- D. **Fixed** - Equipment that is fixed to the tank or tanker being filled.
- E. **Gate Valve** - Equipment used to control the flow of water after the hydrant has been opened.
- F. **Listed** - Equipment tested and approved by a recognized testing firm such as Under Writers Laboratories.
- G. **Non-MAA Related Project** - Any project, construction or otherwise, that is not being funded by the MAA or is required for day-to-day operations and is under the authority of the Division of Contract Support.
- H. **Portable** - Equipment that is not fixed to hydrant, tank or tanker being filled.
- I. **Potable Water** - Water from any source which has been investigated by the health agency having jurisdiction and which has been approved for human consumption.

V. Procedures:

- A. The following instructions shall be followed before using any MAA fire hydrant for non-emergency use.
 - 1. All persons needing to use an MAA fire hydrant shall contact the Fire Prevention Division, BWI Airport Fire & Rescue Department, at 410-859-7511 at least 72 hours in advance of anticipated fire hydrant use to initiate the review and approval process.
 - 2. The following information will be required from the user at the time of contact with the Fire Prevention Division:
 - a. Reason for use;
 - b. Duration of use;
 - c. Work site location;
 - d. Company name;
 - e. Company address;

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- f. Point(s) of contact (POC):
 - g. POC phone numbers:
 - h. Fire Hydrant number and location; and
 - i. A list of any chemical, herbicide and/or pesticides being used and the applicable Safety Data Sheets (SDS).
3. The approval for MAA fire hydrant use shall include an inspection of the required equipment (see lists below) and sufficient understanding of hydrant use procedures by the user.
- a. Portable Equipment (provided by user):
 - 1) Fire hydrant wrench;
 - 2) 2½-inch gate valve, with National Standard Thread (NST);
 - 3) ¾-inch meter (rated at 25 GPM) for use with a garden hose or 3-inch meter (rated at 350 GPM) for use with a 2½-inch fire hose (if applicable);
 - 4) 2½-inch NST to ¾-inch reducer for garden hose applications (if applicable);
 - 5) Backflow protection equipment;
 - 6) 2½-inch listed fire hose with NST or garden hose (if applicable); and
 - 7) Garden hose listed for at least 100 PSI working pressure.
 - b. Fixed Equipment (provided by user): For tanker truck, tank-mounted trailer or other similar equipment:
 - 1) Tank fill lines shall have an air gap provided at tank fill location; and
 - 2) Backflow protection, portable or affixed to tank fill lines, shall be provided.
4. The use of fire hydrants shall be determined by the operation being performed. To prevent contamination of any potable water supply and accidental damage or premature wear on the hydrant, the following procedures shall be followed:
- a. Landscaping operations: When using a fire hydrant to supply water to a garden hose for watering plants, etc., the following shall be attached to the hydrant:
 - 1) 2½-inch gate valve and a hydrant backflow meter assembly with garden hose outlet.
 - 2) The fire hydrant shall be fully opened following the instructions on Attachment A. After the hydrant has been opened, the gate valve shall be opened to provide the desired pressure/flow to the garden hose. The hydrant shall remain fully open during operations, and the gate valve shall be used to control water

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flow. After the landscaping operations are completed, the following procedures shall be used for shut down:

- The gate valve shall be closed fully and then the hydrant shall be closed slowly, and all equipment removed and caps installed.

NOTE: If filling tanks containing chemicals/pesticides, do not insert the hose into the tank. The tank shall be filled by providing a fixed air gap with a minimum separation of twice the diameter of the supply line between the water supply and the flood-level rim of the receiving vessel.

b. Tanker truck or any similar operations: When using a fire hydrant to supply water to fill tanks on mobile equipment, etc., the following shall be attached to the hydrant:

- 1) Hydrant backflow meter assembly if no air gap is provided.
- 2) The fire hydrant shall be fully opened following the instructions on Attachment A. The hydrant shall remain fully open during operations. After operations are completed, the following procedures shall be used for shut down:

- The hydrant shall be closed slowly, and all equipment removed and caps installed. Refer to Attachment C for proper methods of attachment for air gap and backflow prevention.

5. Non-MAA related projects requiring the use of MAA fire hydrants shall be subject to a water usage fee. After the permit has been approved and the user has completed its operations, MAA shall review and determine the amount of water used and any water usage fee due from the user. See Attachment E. The water usage fee shall be determined as follows:

Fee	Gallons of Water
\$10.00	0 - 1,000
\$20.00	1,001 – 2,000
\$30.00	2,001 – 3,000
\$40.00	3,001 – 4,000
\$50.00	4,001 – 5,000, etc.

Checks or money orders are to be made payable to the Maryland Aviation Administration and may be mailed to:

Maryland Aviation Administration
P.O. Box 17483
Baltimore, Maryland 21297-1483

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Payment can also be made by VISA or MASTERCARD by calling 410-859-7707.

6. The use of wall-type hydrants at the Terminal Building shall be prohibited. These hydrants are for emergency use only. If they are used by anyone other than the Fire Department, the user may be subject to penalties in accordance with the laws of the State of Maryland.
7. A limited amount of meters, gate valves and hydrant backflow meter assemblies that may be used for the purposes of this Tenant Directive are available from MAA. If you are interested in borrowing MAA equipment for the purposes of this Tenant Directive, contact Building Maintenance at 410-859-7200.
8. Responsibility Statement: The authorized user of any MAA fire hydrant shall be responsible for any breakage incurred during the use of that hydrant and shall be billed for any repairs required to return the fire hydrant into service. If an employee of the Fire Department or MAA witnesses improper or unsafe operations, that employee shall instruct the user to immediately shut down the operations and remove all equipment and contact the Division Chief of the Fire Prevention Division for corrective resolution.

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John A. Stewart
Director
Office of Airport Operations

Attachments

- A. Fire Hydrant Operation
- B. Fire Hydrant Detail
- C. Air Gap Illustrations
- D. Hydrant Backflow Meter Assembly
- E. Fire Hydrant Use Permit (MAA-023)

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ATTACHMENT A

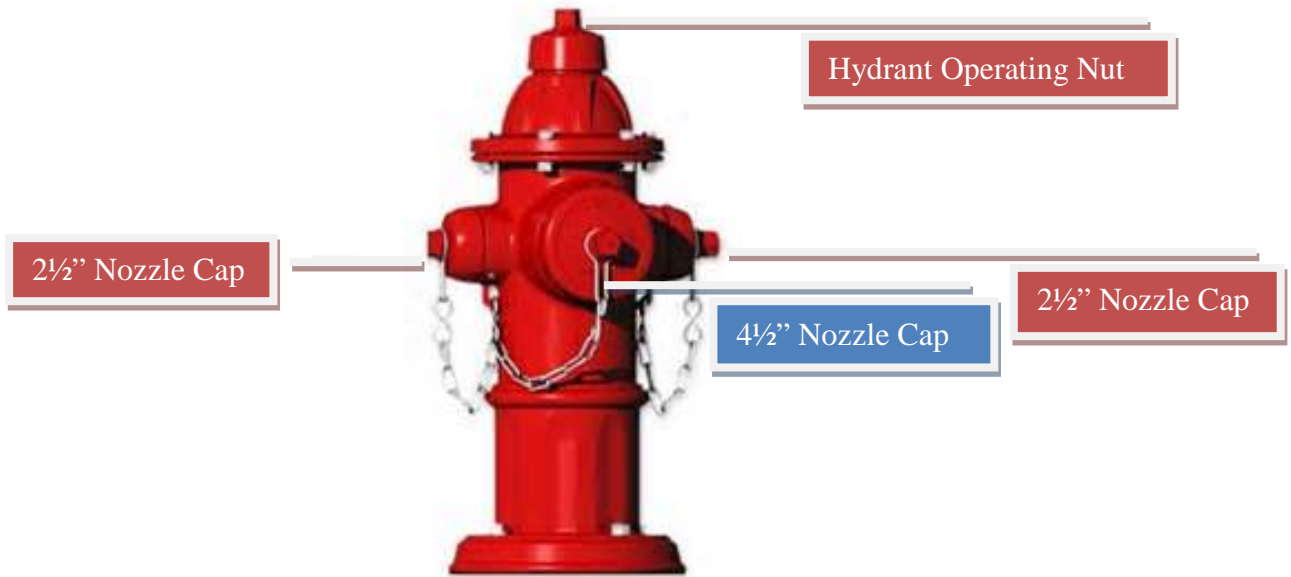
FIRE HYDRANT OPERATION

- ❖ Using a hydrant wrench (**no pipe wrenches**), remove the desired nozzle cap.

NOTE: Only use a wrench specifically designed for fire hydrants. Any other type of wrench may cause damage to the nozzle cap and operating nut. The use of a “cheater bar” or “cheater pipe” is prohibited.
- ❖ Do not remove or alter the nozzle cap chains.
- ❖ Check the remaining nozzle caps to assure they are snug on the nozzles and will not blow off under pressure.
- ❖ Attach the hydrant wrench to the operating nut on top of the hydrant bonnet and adjust; tighten the wrench to prevent any slippage.
- ❖ Following the directional arrow stamped on the bonnet or bonnet flange, turn the operating nut until the hydrant is fully open. Partial opening of a hydrant will result in the bleeder drain ports remaining open and washing out the underground area around the hydrant causing damage.
- ❖ Always open a hydrant completely, approximately 8-10 turns. Do not force a hydrant to a complete stop. If necessary to control the output flow, attach a hydrant gate valve between the nozzle and the apparatus and throttle flow using the valve.
- ❖ Continuously monitor the hydrant flow output to assure no damage or safety hazard will result from excessive flooding. Obtain water as necessary.
- ❖ Slowly close the hydrant (approximately five revolutions per minute). Never close down a hydrant fast, this could result in a water hammer and possible damage to the water distribution system.
- ❖ Replace nozzle cap and tighten with hydrant wrench to assure it is snug on the nozzle.

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ATTACHMENT B
FIRE HYDRANT DETAIL



- ❖ 2½-inch nozzle threads are national standard thread.
- ❖ The 4½-inch nozzle may have standard nozzle cap as illustrated on the above hydrant or large diameter hose (LDH) connection as shown in the illustration below. The 4½-inch connection on the hydrant **shall not be used without prior approval.**



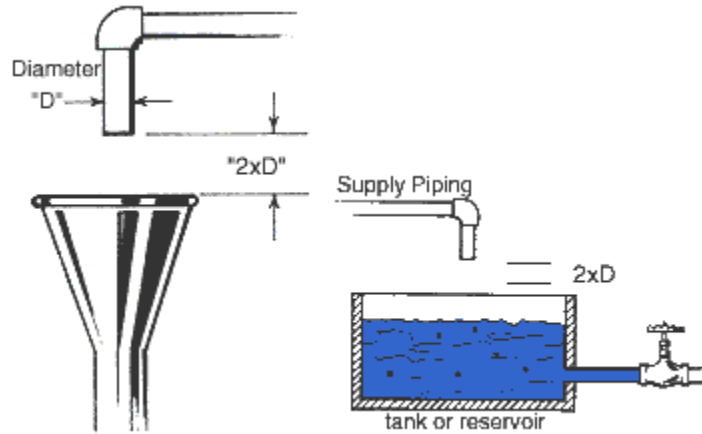
LDH Nozzle Connection & Cap

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ATTACHMENT C

FIXED AIR GAP ILLUSTRATIONS

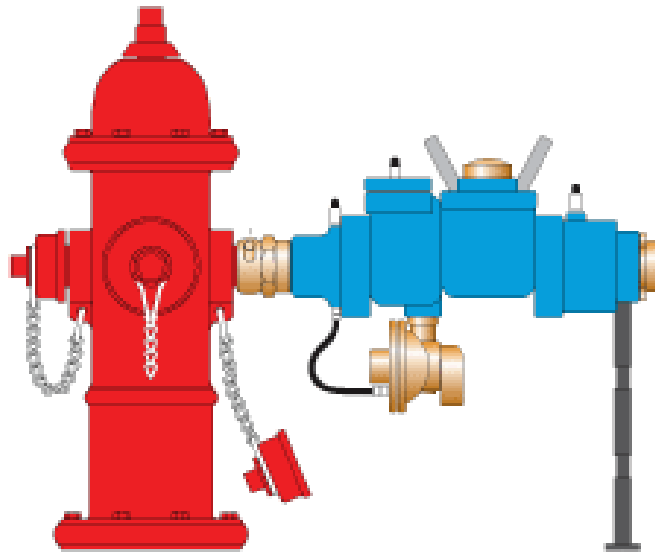
The general configuration of an approved air gap is illustrated below:



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ATTACHMENT D

HYDRANT BACKFLOW METER ASSEMBLY



Example of hydrant backflow meter assembly attached to a fire hydrant. The assembly shall be supported with a pipe or jack stand to prevent damage to the hydrant nozzle.

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ATTACHMENT E

MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND AVIATION ADMINISTRATION BWI Airport Fire & Rescue Department Fire Prevention Division	<u>PERMIT NUMBER:</u>
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FIRE HYDRANT USE PERMIT
****PERMIT MUST BE ON SITE WHEN USING HYDRANT****

USE INFORMATION:

Reason for Use:		
Duration of Use:		
Work Site Location:		
Company Name:		
Billing Address:		
Point of Contact:		
Phone Number:	(Cell)	(Office)

HYDRANT INFORMATION:

Hydrant Number:		
Hydrant Location:		
Chemicals Involved:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, specific name(s) of chemical(s):		

BACKFLOW PREVENTION INFORMATION:

Air Gap:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hydrant Backflow Meter Assembly:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Make:		Serial Number:

WATER METER INFORMATION:

Make:		Serial Number:
Meter Reading Start:		
Meter Reading Finish:		
Total Gallons:		Current Rate:
Total Bill:		

OFM Approval: _____
Print Name
Signature
Date

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