



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK  
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**Bureau of Resource Protection**  
**Division of Watershed Management**  
**Drinking Water Supply Program**

**Policy on Antennas and/or Other Appurtenances**  
**Proposed To Be Attached To Public Drinking**  
**Water Storage Tanks or On Water Supply Land**

(Year 2000 Printing)

Effective Date: 6-18-98

**Policy, SOP or Guideline # DWP98-01**

Program Applicability

Supersedes Policy, SOP or Guidance #:

Approved by: Glenn Haas

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**Purpose:**

This policy is adopted to define the position of the Drinking Water Program regarding the installation of antennas and/or other appurtenances on, or adjacent to, water storage tanks. It is made necessary due to incidents which have resulted in damage to water storage tanks. Public drinking water storage tanks contain finished drinking water that will go directly to consumers. Therefore the Department must safeguard the integrity of these tanks.

The Drinking Water Program has encountered a number of instances where the installation of antennas on tanks has compromised the public water supply's ability to delivery fit and safe water in accordance with M.G.L. Chapter III, Section 160. In one instance an antenna was welded to a tank, causing damage to the interior paint lining which resulted in the tank being off-line for repairs for a significant period. In another instance, an antenna installer drilled holes in the tank compromising the tank and its water supply. And in still another case, an installer opened the hatch on top of the tank and left it open.

**Applicability**

Applies to drinking water system personnel, any party installing or proposing to install antennas and/or other appurtenances to public drinking water storage tanks or on water supply land, and MassDEP Drinking Water Program staff.

### Text

M.G.L. Chapter 111, Section 160 titled “Examinations of water supply; rules to prevent pollution; permits,” states that the department may “make rules and regulations and issue such orders as its opinion may be necessary to prevent the pollution...and to ensure the delivery of a fit and pure water supply to all consumers.” In addition, M.G.L. Chapter 40, Section 15B states “A town, city, or district authorized to furnish water for domestic purposes, may, with the advice and approval of the state Department of Environmental Quality Engineering...in its discretion, by lease, license, or other agreement, permit the construction and maintenance on any land under its control of towers, poles, wires, and other structures for the purpose of transmitting electronic power over lands and water held for water supply purposes; provided that such lease, license or agreement will not, in the opinion of the said department, affect or interface with the water supply; and provided, further, that said city, town, or district may, with the approval of said department, revoke said lease, license or agreement for cause to be determined by it.”

Pursuant to this statutory and regulatory authority, as of the effective date of this policy public water systems are required to review for approval or disapproval in accordance with MassDEP guidelines all proposals/applications for new construction of antennas and/or appurtenances to be attached to drinking water storage tanks, or to be constructed on any land under the control of the public water system prior to approval. The public water system shall provide written certification to MassDEP indicating that it has determined that the proposal will not affect or interfere with the water supply. MassDEP reserves the right to revoke this approval if it subsequently determines that the proposal does not conform to MassDEP guidelines and does affect and/or interfere with the water supply.



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**Bureau of Resource Protection  
Division of Watershed Management  
Drinking Water Supply Program  
(Year 2000 Printing)**

**Guidance for Public Water Systems for Use with Policy DWSP98-01:  
Antennas and/or Other Appurtenances Attached to Public Drinking  
Water Storage Tanks or Constructed on Water Supply Land**

Effective Date: 6-18-98

Policy, SOP or Guideline # **DWSP98-01**

Program Applicability

Supersedes Policy, SOP or Guidance #:

Approved by: Glenn Haas

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**Purpose**

To establish guidelines for public water systems, pursuant to MassDEP Policy DWSP98-01, to govern their review of proposals/applications for new construction or antennas and/or appurtenances to be attached to drinking water storage tanks or to be constructed on any land under the control of the public water system.

**Applicability**

Applies to public water system personnel, MassDEP Drinking Water Program staff, and parties installing or proposing to install such antennas and/or appurtenances.

**Text**

1. Public water systems (PWS) must review each such application for impact on the water supply and approve/permit or disapprove in writing whether the proposed antenna or appurtenance may or may not be attached to a drinking water storage tank or constructed on land under the control of the public water system.
2. Each application must be in writing and include at a minimum the following:
  - a) A map or drawing showing the location of the storage tank
  - b) A description of where the antenna or appurtenance is to be attached
  - c) A description of the method of attachment (e.g., bolting, welding, adhesion, etc.)
  - d) Documentation from the tank manufacturer or tank construction contractor etc. indicating that the method of attachment will not affect or interfere with the provision of a safe water and will not result in or cause structural damage, interior or exterior corrosion, opening in the tank, etc.

- e) A maintenance and access schedule and procedure
3. The PWS must review the submitted application and determine whether:
    - a) The project will have an impact on the safety of the water supply;
    - b) The project and its proponent will comply with the criteria established by the tank manufacturer or construction contractor;
    - c) The size and location of any cable support or mounting devices will interfere with future cleaning and painting operations, or present sanitary, safety, or personnel hazards;
    - d) Any surface preparation and/or touch up painting of impacted areas in or outside of the tank will comply with tank manufacture or tank construction contractor, AWWA, and other pertinent industry standards.
  4. The PWS must approve or disapprove the application in writing with a copy to the appropriate MassDEP regional office. Approval letters must include an access provision that requires the PWS approval and supervision for all on-site visits. The MassDEP copy must be accompanied by a completed certification form (included with this package).
  5. The PWS must perform a final inspection upon completion of construction to check the completed construction against the plans and specifications.
  6. The PWS must conduct periodic inspections of the water storage tank to ensure that the installation continues to present no impact to the drinking water system.

**CERTIFICATION**  
**Antennas or Other Appurtenances**

The \_\_\_\_\_ public water system, PWSID # \_\_\_\_\_,  
(Name of PWS)

located in the \_\_\_\_\_, has reviewed the application from \_\_\_\_\_,  
(City/Town) (Name of Applicant)

at \_\_\_\_\_ to install an antenna or other appurtenance onto a  
(Address of Applicant)

drinking water storage tank or on land under the control of the \_\_\_\_\_  
(Name of PWS)

and has determined that in accordance with the Department of Environmental Protection Policy DWSP98-01 and Guidance, this application, as approved, does not affect or interfere with the water supply.

I certify under penalty of law that I am the owner or person authorized to fill out this form and that the information contained herein is true, accurate, and complete to the best of my knowledge and belief.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Phone: \_\_\_\_\_

Fax # \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Attached: Approval Letter, dated: \_\_\_\_\_

Return this form with a copy of the antenna or appurtenance Approval Letter to your regional office of the Department of Environmental Protection, Drinking Water Program:

- Western Region: 436 Dwight Street, 5th Floor Springfield, MA 01103
- Central Region: 627 Main Street, Worcester, MA 01608
- Northwest Region: 205B Lowell Street, Wilmington, MA 01887
- Southeast Region: 20 Riverside Drive, Lakeville, MA 02347

## FOR YOUR INFORMATION

### **Sanitary, Safety, and Structural**

- a) Openings cut into tanks compromise the safety of the water in the tank, as well as damage the structural integrity of the tank
- b) Cables and antenna brackets or devices that are improperly mounted to ladders, across access openings, or on platforms create safety and OSHA deficiencies. These can also obstruct or hamper access to vents and manholes.
- c) Brackets or mounting devices screwed directly into tubular columns can cause interior as well as exterior column corrosion and possible structural failure.
- d) Improperly designed brackets can crumple during high winds.

### **Future Maintenance**

Improper (or unperformed) “touch up” painting after the antenna or brackets are installed can lead to premature coating failure on the interior and exterior of the tank.

Cables, antennae, and mounting devices placed too close to tanks can make it difficult if not impossible to clean or paint behind them

### **Other**

Improperly mounted devices or antennae can create a potential liability should high winds, ice loading, seismic activity, electrical storms, or other similar events cause the installation to fail, damage the tank or surrounding support structures, or endanger nearby people.

Letterhead and grammatical updates done on August 31, 2011.