

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Criteria Applicable to the Utilization of Privately-Owned  
Magnetic Flowmeters for User Charge Reporting Purposes

1. A secure nonresettable totalizer acceptable to the District must be provided.
2. A continuously operating strip chart or other record of continuous data must be provided. Also the company shall post a log of all meter readings, taken weekly, at a prominent location for District inspectors and shall submit the logs of the meter readings with the RD-925 Annual Statement.
3. The meter must be hardwired to the company's electrical system. In addition, battery backup is to be provided to insure continuous operation, with trickle charging of the battery occurring during normal operations. This will protect against underreporting caused by power failure or power shutoff.
4. The installation must be of a permanent in-line type (not clamp-on) with the same internal diameter as the upstream piping and which can be sealed by the District. This fixes the pipe size and eliminates uncertainty of pipe diameter.
5. The electrodes and flowtube must be constructed of materials that are highly resistant to corrosion and abrasion. The electrodes must be mounted flush to the interior liner material and not be accessible without breaking the District seal. Special applications may require the use of magnetic flowmeter models with non-contacting electrodes.
6. The pipe must flow under pressure to create a full-flow condition.
7. The waste stream must be suitable for accurate measurement by the proposed magnetic flowmeter (i.e., it must contain a high enough concentration of dissolved solids to conduct electricity).
8. All drawings, operating instructions, etc., must be approved by the District prior to installation.
9. The magnetic flowmeter cannot be submerged under any circumstances.

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10. The manufacturer of the magnetic flowmeter must certify to the following:
  - a. That the magnetic flowmeter is suitable for the proposed application and installation.  
  
The certification must be submitted with the User's proposal prior to our acceptance.
  - b. That the magnetic flowmeter has been properly installed and is suitable for the intended use.  
  
This certification must be submitted after our approval of the proposal but prior to our approval of use of the installation for reporting purposes.
  - c. That the magnetic flowmeter is being operated, maintained and calibrated in accordance with the manufacturer's requirements and instructions.  
  
This certification must be submitted annually with the RD-925.
11. The magnetic flowmeter must be installed in a safe and accessible location.
12. The District's Field Surveillance personnel will inspect all magnetic flowmeters monthly.