

maintenance procedures. The equipment supplier shall have joint responsibility with the Contractor for the proper installation of the equipment and, jointly with the Contractor, shall furnish a written statement to the Water Department certifying that the equipment as installed complies with the plans and specifications, will perform as specified, and is properly installed.

Characteristic Curves

Curves shall be submitted for approval for each pumping unit which shall show the following relations:

1. The relation between GPM and total heads.
2. The relation between GPM and BHP.
3. The relation between GPM and overall efficiency.
4. Submergence in feet vs. GPM.

The curves shall be drawn to such a scale so that values may be read accurately within 1%. The efficiency curve submitted shall constitute a guarantee of 1% of all deliveries, between 85% and 115% of rated capacity.

Definition of Efficiency and Testing

Material and equipment shall be subject to inspection and tests at the place of manufacture and after installation. Testing Code of the latest Standards of the Hydraulic Institute shall be followed in making the tests, except as herein specified. (No velocity head shall be included in the total head).

Factory tests shall be made at the expense of the Contractor. No painting or filling material shall be applied to castings until the latter have been inspected and passed.

The Contractor shall make preliminary field tests to determine compliance with the specifications. When such tests demonstrate compliance, the official test will be run.

Upon completion of the installation and after satisfactory preliminary tests, the pumps shall be tested under the supervision of the engineers and may be witnessed by the pump manufacturer to demonstrate compliance with all the contract requirements and guarantees. All equipment necessary for preliminary testing and the costs involved shall be borne by the Contractor, including the services of the pump manufacturer's engineer and expenses incident to re-tests, if any, occasioned