

NATURAL RESOURCES CONSERVATION SERVICE
WEST VIRGINIA
OPERATION AND MAINTENANCE REQUIREMENTS
PUMPING PLANT
CODE 533

Landowner/Operator _____

County _____ CD _____ Farm/Tract No. _____

Prepared By _____ Date _____

A properly operated and maintained pumping plant is an asset to the farm. The practice was designed, and installed, to transfer water for a conservation need. The estimated life span of this installation is at least 15 years. The life of the practice can be assured, and usually increased, by developing and carrying out a systematic operation and maintenance program.

This pumping plant is designed to pump _____ gallons per minute (GPM) against _____ feet of total dynamic head (TDH). The pump is designed to operate on a cycle time of _____ cycles per hour.

This practice requires periodic O&M to properly manage and keep the system in good repair. Items for consideration are:

- Rating and Capacity of all pumps will be certified in writing by the manufacturer and a pump curve will accommodate the certificate.
- Associated practices shall conform to applicable standards and specifications.
- Pumps shall be housed in accordance with the protection requirements of the installation. Permanent installations shall be protected from freezing.
- Materials used shall be in accordance with standard commercial specifications.
- Inspect or test all pumping plant components and appurtenances routinely to ensure proper function.
- Proper start-up and shut-down procedures for the operation of the pumping plant. Refer to manufacturer's recommendation.
- Routine maintenance of all mechanical components (power unit, pump, drive train, etc.) in accordance with the manufacturer's recommendations.
- Procedures to protect the system from damage due to freezing temperatures.
- When applicable, procedures to frequently check the power unit, fuel storage facilities, and fuel lines, for leaks and repair as needed.
- Periodic checks and removal of debris as necessary from trash racks and structures, to assure adequate flow capacity reaching the pumping plant intake.
- Periodic removal of sediment in suction bays, to maintain design capacity and efficiency.
- Inspection and maintenance of anti-siphon devices, if applicable.
- Routine test and inspection of all automated components of the pumping plant, to assure the

proper functioning as designed.

- Inspection and maintenance of secondary containment facilities, if applicable.
- Periodic inspection of all safety features, to ensure proper placement and function. All fences, railings, and/or warning signs shall be maintained to provide warning and/or prevent unauthorized human or livestock entry. Protect the area from being damaged by agricultural machinery, vehicles, or livestock. Locks on well covers and fencing around the pumping plant are strongly recommended.
- Prior to retrofitting any electrically powered equipment, electrical service must be disconnected and the absence of stray electrical current verified.
- The pressure tank will lose pressure with time and should be checked at least annually. Recharge if needed or the pump will operate too frequently.
- Maintain soil and vegetative covering around the plant site. Keep all surface water from entering or accumulating at the immediate vicinity of the pumping plant.
- Immediately repair any vandalism, vehicular, or livestock damage.
- Check frequently for burrowing animals. When found, remove and replace embankment materials and re-establish vegetation.
- Check metal surfaces for rust and other damage, especially sections in contact with earth and with other materials. Repair or replace any damaged sections and apply paint as a protective covering.
- Repairs must be made promptly.

