NATURAL RESOURCES CONSERVATION SERVICE
Wyoming
CONSTRUCTION SPECIFICATIONS
FOR
IRRIGATION SYSTEM, MICROIRRIGATION

_____ _____
(Owner/Operator) (Project/Title)

GENERAL

Microirrigation systems shall be installed in accordance with a design and plan approved by the responsible technician. Details of construction shown in the design and plan but not included here shall be considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

MAIN AND SUBMAINS

Main and submain lines shall of the material type, size and pressure rating as shown of the drawings. The installation of buried plastic pipe shall meet the requirements of Wyoming Construction Specification 430-Plastic or as specified on the drawings.

Aboveground installation of main and/or submain lines may be used when specifically specified on the drawings. Pipe shall be ultraviolet resistant polyethylene or fiber reinforced material rated for above ground use. All joints and connections shall be capable of withstanding the designated design working pressure for the respective pipe. Pipe crossing over rock shall be supported on saddles or pedestals or the rock shall be covered with a minimum of six inches of earth before installing the pipe. Pipe supports and/or anchorage shall be in accordance with specific manufacturer recommendations and details specified on the drawings.

LATERAL LINES

Lateral lines and emitters/bubblers/tape or spray spinners shall be of the materials, size, type, pressure rating and spacing as shown on the design. Lines shall be placed as noted on the drawings. When an emission uniformity (EU) coefficient is specified in the design, the combination of spacing, emitter type and operating pressure shall be evaluated to see that the selected equipment meets or exceeds the specified EU. Connections and fittings for and between system components shall be compatible for the materials used and shall meet the applicable requirements of the respective manufacturer.

APPURTENANCES

Valves, fittings, filters, pressure regulators, etc. shall be of suitable size, type and capacity to provide efficient operation and keep pressures in the system within allowable working limits. Under clean conditions, filters shall be sized for a maximum head loss of 5 psi. Filtration systems shall remove solids equal to or larger than one-fourth the emitter opening diameter or the emitter manufacturer recommendations, whichever is more stringent. Filters shall be set on a firm base. An in-line check valve or other anti-pollution device shall be installed on microirrigation systems in which any fertilizer or pesticide is injected into the system.

PUMP AND POWER UNIT

The pump(s) shall be capable of delivering water at the flow and total dynamic head as specified on the drawings. The power unit shall be capable of operating the pump at maximum capacity and head without being in an overload condition. The pump and power unit shall be in accordance with manufacturer's recommendations.

All electrical wiring and equipment shall be in accordance with the current standards of the National Electrical Manufacturers Association (NEMA), the Underwriters Laboratory, Inc. (UL), and the State of Wyoming regulations.

TESTING

The system shall be given an operational test. This test shall consist of normal start-stop and running operations. All of the system components shall operate without difficulty. Leakage or defects caused by poor materials or workmanship shall be corrected by the, Contractor.

ADDITIONAL SPECIFICATIONS