

*Chief Alan R. Shuman*

*Barrow County Fire Department, 222 Pleasant Hill Church Road, NE,*

*Winder, Georgia 30680*

The following Fire Pump Plans Submittal Checklist is required information for Fire Pump Installation permit review. Use of the form does not guarantee that plans will be accepted on the first submittal, but will aid in reducing the number of re-submittals required due to the lack of information or conflicting information being provided. T**his checklist should not be considered to be all-inclusive. Additional information may be required. Use of this checklist will not eliminate the requirement for a good knowledge and understanding of NFPA 20.**

For issuance of the Installation of Stationary Pumps for Fire Protection permit and prior to any installation and inspection request, the following information and/or forms shall be completed, submitted and approved.

# □ Completed & approved permit application.

* **Include payment for permit fees.**
* **1 Full Set of Digital Plans submitted to** **bcfdplans@barrowga.org**

## Any material installed or work performed prior to the issuance of a permit will be subject to two times the permit fee and/or required to be removed. A hard copy of the permit and an the approved set of plans are required to be maintained on the Job site at all times and must be on site prior to any work being performed unless a limited early start request has been granted. Limited early start requests are considered on a case by case basis, are required to be submitted in writing on letter head and are not automatically granted.

* **5.2.1** Stationary pumps shall be selected based on the conditions under which they are to be installed and used.
* **5.2.2** The pump manufacturer or its authorized representative shall be given complete information concerning the liquid and power supply characteristics.
* **5.2.3** A complete plan and detailed data describing pump, driver, controller, power supply, fittings, suction and discharge connections, and liquid supply conditions shall be prepared for approval.
* **5.2.4** Each pump, driver, controlling equipment, power supply and arrangement, and liquid supply shall be approved by the authority having jurisdiction for the specific field conditions encountered.
* **5.12.1\* General Requirements.** The fire pump, driver, controller, water supply, and power supply shall be protected against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism, and other adverse conditions.
* **5.12.1.1.1\*** Indoor fire pumps in high-rise buildings shall be physically separated or protected by 2 hour fire-rated construction.
* **5.12.1.1.2** Indoor fire pumps in non-high-rise buildings shall be physically separated or protected by fire-rated construction in accordance with Table 5.12.1.1.2.**.**
* **5.12.1.1.3** Location and access to the fire pump room shall be pre-planned with the fire department.
* **5.12.1.1.4** Rooms containing fire pumps shall be free from storage and penetrations not essential to the operation of the pump and related components.
* **5.12.1.2.1** Fire pump units located outdoors shall be located at least 50 ft. (15.3 m) away from any exposing building.
* **5.12.1.2.2** Outdoor installations also shall be required to be provided with protection against possible interruption in accordance with 5.12.1.

# 5.12.1.3 Fire Pump Buildings or Rooms with Diesel Engines.

Fire pump buildings or rooms enclosing diesel engine pump drivers and day tanks shall be protected with an automatic sprinkler system installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*.

* **5.12.2.1** An approved or listed source of heat shall be provided for maintaining the temperature of a pump room or pump house, where required, above 40°F (5°C).
* **5.12.2.2** The requirements of 11.6.5 shall be followed for higher temperature requirements for internal Combustion engines.
* **5.12.3 Normal Lighting.** Artificial light shall be provided in a pump room or pump house.
* **5.12.4.1** Emergency lighting shall be provided in accordance with NFPA *101*, *Life Safety Code*
* **5.12.4.2** Emergency lights shall not be connected to an engine-starting battery.).
* **5.12.5 Ventilation.** Provision shall be made for ventilation of a pump room or pump house.
* **5.12.6.1** Floors shall be pitched for adequate drainage of escaping water away from critical equipment such as the pump, driver, controller, and so forth.
* **5.12.6.2** The pump room or pump house shall be provided with a floor drain that will discharge to a frost-free location.
* **5.14.3.4** The size of that portion of the suction pipe located within 10 pipe diameters upstream of the pump suction flange shall be not less than that specified in Section 5.25.
* **5.19.1.1\*** A fire pump installation shall be arranged to allow the test of the pump at its rated conditions as well as the suction supply at the maximum flow available from the fire pump.
* **11.6.6.1** The sequence for emergency manual operation, arranged in a step-by-step manner, shall be posted on the fire pump engine.
* **14.1.3\*** The installing contractor shall furnish a certificate for flushing and hydrostatic test prior to the start of the fire pump field acceptance test.

# 14.2 Field Acceptance Tests.

* **14.2.1** The pump manufacturer, the engine manufacturer (when supplied), the controller manufacturer, and the transfer switch manufacturer (when supplied) or their factory authorized

representatives shall be present for the field acceptance test. *(See Section 5.4.)*

* **14.2.2\*** All the authorities having jurisdiction shall be notified as to the time and place of the field acceptance test.
* **14.2.3** All electric wiring to the fire pump motor(s), including control (multiple pumps) interwiring, normal power supply, alternate power supply where provided, and jockey pump,

shall be completed and checked by the electrical contractor prior to the initial startup and acceptance

* **14.2.4.1** A copy of the manufacturer’s certified pump test characteristic curve shall be available for comparison of the results of the field acceptance test.
* **14.2.4.2** The fire pump as installed shall equal the performance as indicated on the manufacturer’s certified shop test characteristic curve within the accuracy limits of the test equipment.

# □14.3 Manuals, Special Tools, and Spare Parts.

□**14.3.1** A minimum of one set of instruction manuals for all major components of the fire pump system shall be supplied by the manufacturer of each major component.

□**14.3.2** The manual shall contain the following:

1. A detailed explanation of the operation of the component
2. Instructions for routine maintenance
3. Detailed instructions concerning repairs
4. Parts list and parts identification
5. Schematic electrical drawings of controller, transfer switch, and fire pump control panel