

**CITY OF NEW YORK
DEPARTMENT OF BUILDINGS**

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of the Materials and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, A.I.A., Commissioner

**MEA 121-02-E
Report of Material and Equipment Acceptance Division**

Manufacturer – TornaTech Inc., 6969 Transcanadasienne #132, Montreal, Quebec, Canada H4T 1V8.

Trade Name – TornaTech Inc.

Product – Fire FPD Series Controllers for engine-driven centrifugal pumps.

Pertinent Code Section(s) – Reference Standard RS 17.

Tests – UL 508, UL 218.

Laboratory – Underwriters Laboratories, Inc. and Factory Mutual.

Test Reports – Files Ex39171, Vol. 1, Sec. 1, Iss. June 23, 1989, revised December 15, 1994; Full Service Fire Pump Controller Short Circuit & Withstand Rating Test, Various dates 1998 & 1999, Allen-Bradley Laboratories; UL Certificate of Compliance, #180100-EX3971B, January 18, 2000, Follow-up Service Procedure E158750, Vol. 1, Iss. February 23, 1994, revised June 9, 1998; Factory Mutual Research Corp Certificate of Compliance, Controllers for Electric Motor driven Fire Pumps Job 0D7A3.AY, approval granted November 1, 1999.

Description	Model Number
Limited service pump controller	FPL
Transfer switch for limited service pump controller (generator set)	LTG
Transfer switch for limited service pump controller (second utility)	LTU
Electric fire pump controller full service voltage across-the-line starter	FPA
Transfer switch for electric fire pump controller, (generator set)	ATG
Transfer switch for electric fire pump controller, (second utility)	ATU
Electric fire pump controller full service, reduced voltage, part winding starter	FPP
Jockey pump controller	JP
Alarm panel for electric fire pump controller, Model	APE
Alarm panel for diesel fire pump controller, Model	APD

Electric fire pump controller, full service, reduced voltage	FPR
Electric fire pump controller, full service, soft start, soft stop electronic starter	FPS
Electric fire pump controller, full service, reduced voltage, acceleration resistor starter	FPV
Electric fire pump controller, full service, reduced voltage, Wye delta closed starter	FPW
Electric fire pump controller, full service, reduced voltage, Wye delta open starter	FPY
Diesel engine fire pump controller, Model	FPD

Bureau of Electrical Control recommends approval letter dated October 11, 2000, submission calendar number 00A0617 42392, for models ATG, ATV, LTG, and LTU; submission calendar number 00A0616 42391, for models FPA, FPP, FPR, FPS, FPV, FPW, FPY, and FPL; and submission calendar number 00A0618 42393, for model FPD.

Pursuant to "Promulgation of the Rules relating to Material and Equipment Application Procedures" dated November 5, 1992, the Bureau of Fire Prevention has no objections letter dated April 29, 2002, F.P. Index No. 0204032.

Recommendation - That the above units be accepted on condition that all uses, configurations, arrangements and functions, application and installations shall comply with the provisions of New York City Building Code, Electrical Code containing the above recommendations and the latest NFPA 20 publications.

The controllers and transfer switches shall be installed to operate only the fire pumps and the jockey pumps that are UL listed and provided with a MEA resolution approval.

Approval of all electrical equipment, apparatus, materials and devices shall be obtained from the Bureau of Electrical Control before installation, and on further condition that:

1. Each fire pump shall be provided with its own controller. No other electrical equipment, including any jockey pump (pressure maintain pump) shall be powered from such controller.
2. No over current protective devices shall be installed on the circuits that are necessary for the proper operation of the controllers.

3. For controllers rated for less than 600 volts, a voltage surge arrester shall be installed from each phase to ground. A voltage surge arrester may not be required if the controller can safely withstand impulse of at least 10KV. The controller shall be provided with a label identifying same.
4. The design installation shall provide for the isolating switch to have the ampere rating of at least 115% of the full load of current rating for the pump motor.
5. No installation of over-current protective devices shall be allowed between the pump controller and the motor of the fire pump.
6. The power to the controllers rated at less than 600 volts shall be directly from the main power source without the use of a transformer.
7. The design shall provide to prevent the isolating switch from being opened when the fire pump is operating.

With regards to the installation of fire pump transfer switches, the following shall be complied with:

- A. No remote devices shall be installed that would possibly prevent automatic operation of the transfer switch.
- B. Where a transfer switch is required, each fire pump shall be installed with its own dedicated transfer switch.
- C. The power transfer switch shall not be installed with an integral short-circuit or over current protection devices.

All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to those tested and accepted for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance

May 2, 2002

Examined By

Mark Jacoby