

April 5, 2000

To: jdichoso@fcc.gov
FCC Application Processing Branch
Re: FCC ID EO9PET
Applicant: Itron Inc
Correspondence Reference Number: 13030
731 Confirmation Number: EA95767
Date of Original E-Mail: 03/27/2000

Mr. Dichoso,

We have implemented the suggested test plan submitted to you for approval on March 28. The equipment was set up as shown in the block diagram provided on the following page. The PET transmitter was fed a continuous data input and we were able to accurately monitor the actions of the transmitter and receiver with test equipment and to document the specific channel activity with the PC's. We have a lot of supporting data should you be interested in any additional detailed data.

Two PET transmitters were randomly selected and each was tested individually and confirmed compliant operation under Part 15.247(g).

The transmitter was continuously fed a 2 Hz input from an HP 33120A function generator equivalent to 120 gallons per minute (1 pulse = 1 gal., 2 pulses/sec. X 60 sec. = 120 gal.) Actual submetering meter maximum capacity throughput is only 25 gallons per minute. The transmitter was "adjusted" to transmit every 10 seconds for the purpose of this test and showed a consumption of 20 gal each packet.

We confirmed that both transmitters used each frequency equally on the average. The transmitter stepped through all of the 25 pseudo randomly ordered channels before reusing a frequency. A maximum length data packet (138 ms) was transmitted on each channel. We confirmed this with the spectrum analyzer by looking at each anticipated frequency as the transmitter hopped channels. We also compared the new hop table list of the hop frequencies and channels assigned to each of the 2 serial numbers for conformity with the frequencies actually observed with the two transmitters tested. We monitored and documented the transmitter channel, consumption, PET ID and battery condition.

We also confirmed that the receiver tracked the transmitter accurately stepping to the next anticipated channel based on the transmitters hop table, just ahead of the transmitter. We monitored the receive channel, arrival channel and next channel with the PC.

The transmitters maximum on period was never longer than 138 ms. The 400 ms max. permissible transmit time was certainly never exceeded. It is not possible for the transmitter to transmit for that length of time. A detailed block diagram of the PET module is also included on the next page to show how the main processor controls the communication processor and how each has a time out timer. The main processor expects a battery flag from the communications processor immediately after transmitting a packet telling it the charge state of the capacitor. The main processor removes power to the communications processor after receipt of this flag and will shut down the communications processor and reset it if not acknowledged.

We trust that this will be satisfactory proof of compliance with Part 15.247(g).

Sincerely,

Rod Munro

