To: FCC OET Laboratory, ATTN Steve Martin

From: CURRENT Technologies

Regarding: Correspondence 31194, FCC ID TY7210-0115, EA749943

The correspondence noted above raised a number of questions. These questions are listed in boldface below, with the answer directly below the questions:

Q: The two devices described in this application are not electrically identical and, therefore, require separate applications and FCC ID numbers. Since the test report covers complete testing on only the CT Bridge, it is recommended that the current application be changed to apply only to the CT Bridge and that a second application be submitted for the CT Backhaul Point. Please advise.

A: This question will be answered in a later submission.

Q: Submitted installation manual does not include any operator instructions related to complying with FCC interference mitigation and avoidance requirements. Please provide sections of operator instruction manual for this EUT or for the system controller relevant to compliance with these requirements. (E.g., achieving the notch depth requirements in 15.611(c) may require masking out several carriers beyond the edge of the band to be protected. How is this information conveyed to the operator?)

A: An operator document describing the notch conditions is attached to this correspondence reply.

Q: What was the burst rate of BPL signal injection onto the power lines during testing for each band of operation?
Q: Please specify the maximum RF injection duty factor achievable by the device and identify the duty factor of signal injection during testing for both bands of operation.

A: (To both questions above) To generate test traffic on both medium voltage and low voltage, a special mode in the device was used that forces the BPL modem to continuously generate transmission on the line. This works by forcing the modem under test to repeatedly and continuously transmit system overhead messages. The 'mfgviperon' command transmits these in a manner that exceeds the normal ability of the modem to generate traffic in actual use, by repeatedly sending these overhead messages to a remote station on the powerline. These messages generate 200 OFDM symbols over 40 times per second, ensuring that the 20 pulse per second minimum is exceeded, and

that the transmit rate approaches the maximum achievable with these signals in actual operation. As the maximum duty cycle in a CSMA network such as this is indeterminate; this technique ensures that a repeatable measurement can be conducted while ensuring that the quasi-peak detection filter is not allowed to decay, and reduce the measured level in a manner not indicative of its maximum transmission.