

Circumstances requiring an STA for KNCT

Central Texas College, license holder of KNCT, DTV Channel 46, Belton Texas, requests an STA to operate in compliance with rule: § 73.1560 in regards to Operating power and mode tolerances.

On December 29th, 2015, at 07:35, we were alerted to our DTV transmitter being off. Shortly after arrival at the site it was determined that the IOT had open filaments and has failed. We do not have a new tube so our only option was to install an old tube that was previously operated on Channel 38 during the DTV transition period. At 22:40 on the 29th we turned the transmitter back on and slowly raised power until we operated at 85%.

On December 30th at 03:00, the transmitter shut itself off and could not be raised by remote control. At 10:00 on the 30th, I found the transmitter grid current would climb to the point of overload and shutting down the transmitter. I lowered the drive to zero output and raised it in small increments until I found I was able to find a power level where the transmitter grid current would stay stable. On December 30, 2015, at 11:30 we began broadcasting at 36% forward power with a good quality signal. The latest readings show the signal to noise ratio is db, and the EVM %.

Though the coverage area has been reduced, KNCT feels that it is in the public's best interest to continue operation at 36%. We have since verified our coverage area to be in the 30 to 40 mile range and also includes our city of license, Belton, Texas. We have also verified a consistent signal is being received by the DIRECTV local receive facility, and a marginal signal is being received by Dish Network.

We estimate six to eight weeks to IOT replacement. One week to secure funding, one week to push the order through the Central Texas College purchasing system. The tube manufacturer has a minimum two week lead time from order placement until shipment. One week for shipping, and one week to schedule contract engineering firm to arrive with test equipment to complete installation. After installation of new IOT is complete, KNCT will resume licensed operation.