

19 May 2016

To whom it may concern:

TUV SUD America Inc. has an A2LA accredited open area test site at a remote location about 5 miles from the town of Taylors Falls, MN. We have several shield rooms at our facility in New Brighton, MN for testing products per the international requirements for electromagnetic compatibility radiated immunity testing. We have some customers, who have systems too physically large to fit in our shield rooms, or have liquid cooling requirements that can't be accommodated at the shield rooms. Our open area test site can accommodate these machines. A new immunity standard has come out with requirements for testing at the 6 specific frequencies requested in the application. TUV SUD America is researching the building of a shield room capable of handling these larger products. In the meantime, we are looking into the possibility of performing these tests at our open area test site. Wild Mountain Ski Resort/Water Park is one mile from our OATS, and a couple of residences are within a mile of our OATS in the opposite direction. Based on past business from these customers, we would estimate this testing would occur for 1 day at a time, about 6 times per a year.

Our proposed test would be using a directional horn antenna, placed 1 meter away from the equipment under test, the antenna will be less than 2 meters above the ground. We are in a river valley, so there is much natural attenuation in addition to our remote location. We would transmit at each frequency for a period of 10 seconds at a time, to all 4 sides of the equipment under test with both antenna polarizations, so the actual on time would be very minimal on the above mentioned days. It is our estimation that this will have no impact on licensed services (there is no cell phone coverage at our location, as an example). The fall-off of our signal will be negligible by the time it would get to the distance of our neighbors.

Our test equipment system will consist of:

HP 83640B signal generator

Amplifier Research 25S1G4A amplifier below 4 GHz

Pendel PT-3104 amplifier above 4 GHz

MAC Technologies CA3333 rf coupler below 4 GHz

MAC Technologies C230530 rf coupler above 4 GHz

Agilent E4440A spectrum analyzer for power meter

Amplifier Research AT4510 horn antenna – beamwidth about 16 inches at 3 GHz

Amplifier Research AT4003 horn antenna – beamwidth about 14 inches at 5 GHz

Sincerely

Joel Schneider

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TUV SUD America Inc