**Comment RE: MB Docket 18-119**

**From: Jon Hall - Operator of WKMZ-LP & 97.9 WREN-LP**

I have been concerned with the speed for which the FCC has proceeded with translator license grants. The licenses granted will be with us for a long time. It is very important to make sure that technical issues are met with regard to engineering, installation and the equipment which is used. Simply waiting for potential interference complaints does not seem to be the prudent way to look at licensing. An installation should be determined to be in compliance as much as is reasonably possible before it is granted. In this day and time, it would seem that a fairly easy and quick to use a specialty computer program to at least eliminate glaring problems. As a result, many basic engineering problems such as a non-directional antenna being specified in a case where a directional antenna is clearly needed or a directional pattern pointing in an inappropriate direction could be discovered before there was the need for legal issues or interference complaints start to arrive. As a result, it would likely be reasonable to eliminate many questionable complaints or to verify which ones hold strong potential validity.

It is also important to be sure that the equipment used is proper for the application. Some circularly polarized antennas made by many off-shore and some ‘cookie cutter’ antenna operations especially do not radiate as advertised. It should be reasonable to identify many of these operations. In fact, only certain known quantity antennas by reputable antenna manufacturers with known engineering capabilities should be allowed for use. This is important even for non-directional antennas and far more so for directional antennas. It should not be too much to ask antenna manufactures to be generally certified as providers. This would protect translator owners, and, especially, other licensed facilities from avoidable interference.

It is also important to verify that antennas are installed properly and, for directional antennas, that they are at least pointed in the right direction. It should also be required that directional FM antennas are installed with mounts that insure that they stay put in the licensed physical position on the tower or structure. We have the case where a full power translator has a directional antenna seems to move some in extreme wind conditions which do occur at times on the Blue Ridge Mountains where the translator is located. That translator seems to cause an undue amount of interference to WKMZ-LP. Making sure that a directional antenna stays in the right position is very important! ALL stations and translators should be required to document and certify the antenna which they are using. With regard to directional antennas, it should be required to have a licensed civil engineering company site the antenna as to the proper location and direction on the tower. That is not something a broadcaster should consider an undue burden!

In these regards, I would note the article, 'Small Signals In A big Signal World' By Cris Alexander on page 3 of the June 13, 2018 RADIO WORLD magazine. Mr. Alexander is the Director of engineering for Crawford Broadcasting. On page 4 Mr. Alexander notes this:

*"Working at shared sites, I found that there is quite a bit of "funny business" going on in the translator world - antennas that do not match what is specified on the license, antennas pointed the wrong way, and even directional patterns that are reversed.*

*How do those licensees get away with this kind of thing? It's simple; Nobody complains, and the FCC's local enforcement folks don't have the manpower or recourses to go around checking this kind of thing in the absence of an interference complaint."*

While I do realize that there are staffing issues I do have one simple suggestion which would help greatly. There should be the requirement to attach both a photo of the full antenna structure with the antenna attached. There should also be a close up photo of the installed antenna. An FCC engineer should view required certifications and the photos. Some problems would be quite obvious when viewing these photos. Improperly installed antennas with regard to mounting and polarization (where required), and at least generally, the use of the antennas as claimed in the License to Cover application would be fairly easy to spot. Whether there are complaints or not, interference issues should be avoided. This is a way to do at significant due diligence 'on the cheap'!

There is another technical issue worthy of some level of regulation. That is the potential use of some aesthetically great looking off-shore transmitters advertised and sold on Amazon and ebay especially. I am sure that some budget conscious operators would assume that these transmitters are legal for use in the US. After all, they are sold on reputable websites where one may reasonably expect only legal products to be sold. With the exception of a few used transmitters from reputable manufacturers and sellers, almost no transmitters and few antennas sold at these sites is legal. Not only are they not legal for use but many (if not most) have serious technical deficiencies which may cause significant interference to other licensed facilities. At a minimum Amazon and ebay should be required to stop offering this equipment. While more should be done to avoid this problem, this alone would reduce the use of this equipment by honest operators who may have been taken in by the allure of unnaturally low prices. In my experience, I know of nothing coming from China, in particular, which is legal for use in the United States. One of the worst of these Chinese offenders is a manufacturer of lower powered transmitters using the ‘Sainsonic’ brand name. They claim to be for 'LPFM' service and to be FCC type approved with the FCC ID number 2ABT5AX05B7C. That number appears on all of their products. And, no, it is not a number which the FCC has ever issued!

My view is it is important to use reasonable caution in licensing translators long before we count the number of complaints from potentially infringed upon listeners of other legally licensed facilities and their owners.

Thank you for your time and consideration!

Sincerely,

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