Narrowbanding information provided by the Law firm of Shulman Rogers Gandal Pordy & Ecker

Narrowbanding Questions & Myths

Q – If I don't narrowband my system, can I operate on a secondary basis after 1/1/2013.
A – No. The FCC has stated that failure to narrowband "… may subject licensees to enforcement action, including admonishments, monetary forfeitures, and/or license revocation, as appropriate."

Q – I'm about to narrowband my system, and now I need to fix my FCC license. What should I do?
A – If you're currently operating wider than 12.5 kHz, file an FCC application for the proper narrowband emission designator (see your manufacturer for the correct one, or APCO has a description here: http://www.apcointl.org/frequency/emission.html). You must provide a certification to the FCC of narrowband operation prior to 1/1/2013. The FCC will be revising its Universal Licensing System (ULS) to accommodate that certification. You will not have to complete Schedule K (construction notification) if you have previously done so.

If you're already operating with 12.5 kHz or less bandwidth, you need to update your license for the correct emission designator (if you haven't done so already). If you've already completed your license modification, no further action is necessary.

If you have dual emission designators on your license, there's no need to amend your license to remove the wideband designator. The FCC will presume that you've narrowbanded before 1/1/2013, although the FCC may perform an audit.

Q – Do applications which only add, amend or delete an emission designator have to go to the Frequency Advisory Committee (FAC)?
A – The FCC amended its Rules in an Order released on March 11, 2010. In that Order, the FCC said that modification which merely seek to narrowband a wideband analog emission designator does not have to go through frequency coordination. However, if you are changing your emission type (i.e. going from analog to digital) you will be required to obtain frequency coordination. Further, since the FCC's ULS System has not yet been updated, the FCC temporarily will be "off-lining" these applications to technical folks for manual review. Finally, be aware that if you are in a "Quiet Zone", as defined in Section 1.924 of the Commission's Rules, you will still need to go through a frequency coordinator.

Q – I'm in the Canadian Border Region, if I file to add an emission designator, will Canadian clearance be required again?
A – If no site or ERP modifications are being made, no re-coordination with Canada is needed. HOWEVER, if you are adding an emission designator for a new narrowband digital technology (FDMA or TDMA), you will need to obtain Canadian clearance again.

Q – My ERP at my mountaintop site is above what is permitted by the new Safe Harbor Table (Section 90.205), but since I was licensed before that Table took effect, I'm grandfathered. When I file my narrowband application, will I lose my grandfathered status?
A – If no site or ERP modifications are made, you will not lose your grandfather status.

Q – Must I buy new equipment?
A – Not necessarily. In fact, if your equipment was purchased after about 1998, it is likely that the equipment is dual mode, able to operate at both 25 kHz and 12.5 kHz bandwidth. In this event, all you need to do is to enable the 12.5 kHz mode (see your manufacturer or radio dealer). However, for public safety licensees, make sure that your narrowband equipment can operate on the two new VHF National Interoperability Channels – 151.1375 MHz (VTAC 11) and 154.4525 MHz (VTAC 12).

Q – Must I obtain digital equipment to meet the narrowbanding mandate?
A – No. Analog equipment is acceptable. In fact, if you purchased your equipment within the past ten years, it is most likely is already dual-mode (wideband & narrowband), and most likely can merely be reprogrammed for narrowband operation.

Q – I am a public safety licensee. Must I put in P25 equipment as part of my narrowband project?
A – There is no FCC requirement to utilize P25 equipment for your narrowband project. P25 is an interoperability decision, not an FCC mandate.

Q – I am a public safety licensee, and I am applying for grant money to perform my system narrowband. Must I put in P25 equipment in order to qualify for the grant?
A – Some grants do require P25 equipment for eligibility. Please check the specific grant that interests you.

Q – When I reduce my bandwidth from 25 kHz to 12.5 kHz, will I automatically double my channels?
A – No. While narrowbanding from 25 kHz to 12.5 kHz enables full power, non-interfering use of adjacent 12.5 kHz channels, you are not automatically licensed for those adjacent channels.

Q – Do I need to change my channel centers when I narrowband?
A – No. You maintain your existing channel centers.

Q – Will I lose coverage area when I narrowband?
A – All other things being equal, it depends. There might be a 3 dB loss if you are simply going from a 25 kHz analog to 12.5 kHz analog system, IF there is no consideration of the bandwidth of the Receiver's IF, and no consideration of static or faded sensitivity. You should consult with your manufacturer and/or your consulting engineer. In addition, you should consult the presentation by Bernie Olson at IWCE 2010, which included a full

discussion of this issue. Also, we will be adding a paper on this issue by Jay Jacobsmeyer of Pericle Communications shortly.

Q – When will I have to migrate to 6.25 kHz (or equivalent efficiency) equipment?
A – While the FCC encourages you to skip the 12.5 kHz step and go right to 6.25 kHz, the FCC does NOT have a timeline for a 6.25 kHz mandatory migration. Any 6.25 kHz deadlines that you might have heard about relate to 700 MHz, not VHF and UHF.

Q – I am interested in moving directly to 6.25 kHz equipment, but I'd like to also go P25. Is such equipment available?
A – There is a P25 standard for 6.25 kHz FDMA equipment that requires a linear transmitter, but no manufacturers are building radios to that standard because it is not economically viable. There is also a P25 standard for 12.5 kHz TDMA equipment which is scheduled for completion by end of this year. Manufacturers are now designing radios to meet that standard. Both 6.25 kHz FDMA (one voice path per 6.25 kHz channel) and 12.5 kHz TDMA (two voice paths for 12.5 kHz channel) equipment is readily available today and meet the FCC's 6.25 kHz efficiency requirement. However, none are P25 compliant.

Q – I operate a paging system on a channel that is also available for voice operation. Do I need to narrowband my paging system?
A – Yes, you must narrowband that paging system. Only paging on paging-only channels is excluded. In public safety, there are only two paging-only channels that do not need to narrowband, 152.0075 and 157.4500 MHz. Please note that Med Channel 163.250, 150.775 and 150.790 MHz must be narrowbanded, as these are shared channels with Federal Government operations, and is part of the Fed's narrowbanding effort.

Q – Is it true that Nextel is paying for our narrowband?
A – No. This effort at VHF and UHF is different than the Nextel rebanding effort going on at 800 MHz.

Q – My repeaters are not dual mode. There are third party "kits" that I've heard about which could alter the repeaters to operate at 12.5 kHz. Is such an alteration permissible?
A – The FCC has stated in interviews that "… using these kits to modify the radio entails a hardware modification in the operator's repair shop, which requires a new equipment certification and a new FCC ID (See 2.1043(a)." In addition, Harris has provided us similar advice with regard to altering MASTR II repeaters with third party kits. Further, merely reducing the radio's deviation and frequency stability on a radio is insufficient. The radio must be narrowband type certified. See the FCC's Knowledge Database – PDF Link

Q – Reducing all systems to 12.5 kHz will eliminate the adjacent channel overlap at UHF, but what about VHF?
A – The reduction to 12.5 kHz equipment reduces much of the adjacent channel overlap at VHF, but since the band is channelized at 7.5 kHz, there will still remain some level of

adjacent channel overlap with 12.5 kHz equipment. Thus, adjacent channel coordination for 12.5 kHz systems will still be necessary.

Q – I am going from wideband (25 kHz) to narrowband data (12.5 kHz). Will I still need to meet the FCC's data equivalency rule?

A – Yes. Even though you are operating with a bandwidth of 12.5 kHz, you will still need a data speed of at least 9600 bps per each 12.5 kHz of occupied spectrum.

For More Information
on how we can help, email
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