



UPDATE ON INCENTIVE AUCTION, TELEX AND OTHER EQUIPMENT DEVELOPMENTS, AND FCC REGULATORY STATUS

June 23, 2017

In April of this year, the FCC completed its Incentive Auction of the broadcast channels, through which broadcasters were permitted to sell certain broadcast spectrum. Of importance to the industry, through this auction, 84 MHz of broadcast spectrum was auctioned and re-allocated to wireless carriers or for new unlicensed devices.

Below is a brief update regarding matters relevant to the management of the industry's strategy to provide reliable communications services. The challenge is that in many markets there are fewer wireless channels for a plant to use to support outage and maintenance communications.

1. Practical Impact on Nuclear Industry's Access the Wireless Spectrum:

The completion of the Incentive Auction starts the 39-month "transition" schedule, during which nuclear plants can continue to use the broadcast spectrum (*e.g.*, on a non-interfering basis) to operate wireless communications equipment. Following the conclusion of the transition period (roughly July, 2020), the plants are required to cease use of auctioned spectrum, or obtain permission of the carrier to continue to use the re-licensed channels on a non-interfering basis.

In general, the broadcast channels, up to and including Channel 36 (*i.e.*, below 608 MHz), will remain available for broadcasters; nuclear plants and others will have usage rights on a secondary basis. Spectrum above Channel 37 will be used by wireless carriers who purchased this spectrum at auction and for some unlicensed uses.

The National Association of Broadcasters has a searchable database of broadcast stations that will be retuned in each market, the channels to which they will move, and the anticipated timing of the moves. The link to this database is: <http://www.nab.org/repacking/clearinghouse.asp>.

In order to determine the impact of the Incentive Auction on the broadcast spectrum with which the plants Telex equipment had previously been banded, each plant's technical representatives will need to determine the distance from the plant to relevant existing broadcast stations, in order to determine which of the previously utilized broadcast spectrum has been sold as part of the Incentive Auction. This will provide some idea as to when these broadcast channels will be cleared. It will also indicate the channels below Channel 37 that will have new broadcast operations by stations that will be re-tuning from spectrum above Channel 37. Plant staff should determine if any of the relocating broadcast stations will be re-tuned to channels that are currently used by your Telex equipment, and if so, whether it could pose an interference threat to your system.

Although there are still some moving pieces, a reasonable assumption is that over next 3 years: (1) nuclear plants may need to retune from channels above TV Channel 37 (*i.e.*, above 608 MHz); (2) there could be new broadcast operations on channels below Channel 37 that the industry is now using; and (3) plant staff might need to adjust operations if a wireless carrier commences service in the area and detects harmful interference from your operations. However, and as explained in Sections 2 and 3, below there are emerging potential alternative equipment options that merit review and testing during the transition period; and opportunities to reach agreement with wireless carriers to remain on your current channels above Channel 37 even after the 39-month transition period.

2. Possibility of New Equipment Being Introduced.

A. Telex/Bosch. Britt Bowers, a representative of Bosch/Telex, has indicated that it is performing field tests on some new equipment: a dual-diversity Digital Enhanced Cordless Telecommunications based wireless system. If the field tests are successful, according to Mr. Bowers, the product is expected to be able to provide plants as many as 60 additional belt packs over the same number of channels.

B. Radio Active Designs (“RAD”). BHI Energy/Power Services, LLC serves as a reseller for many different types of equipment, including RAD. Its representative reports that several nuclear plants have purchased RAD equipment, and initial feedback largely has been positive. The industry should evaluate all potential equipment to address the upcoming changes.

3. FCC Regulatory Status.

The Report & Order (30 FCC Rcd 8739 (2015)) (the “R&O”) contains the FCC’s policy guidance regarding how the plants and the new carriers are to cooperate where the new carriers use of the former TV Bands leaves the plants with inadequate spectrum.

Specifically, R&O footnote 103 provides: “We recognize, however, that there may be instances where the incentive auction results in the amount of spectrum allocated for broadcast TV in a particular area being insufficient to support the communications for which nuclear power plants use wireless headsets. We find that such instances should be evaluated based on their individual facts and circumstances to ensure that interference will not occur.”

Footnote 105 provides: “We encourage the nuclear plant industry work with the new 600 MHz band licensees (and vice versa) if the nuclear plant users determine that operations limited to the TV bands will not be sufficient post-transition.”

So long as the FCC does not reconsider the policy positions contained in these footnotes, there is a reasonable basis to encourage the carriers to share the spectrum (on a non-interfering basis) after the end of the transition period. This approach would be very similar to the spectrum sharing plan we were able to achieve with the National Association of Broadcasters several years ago.

That said, nothing in the footnotes guarantees that the plants will have access to the auctioned channels beyond the end of the transition period: roughly July, 2020. Accordingly, the plants should be pro-active and determine the extent to which broadcast channels have been lost to the auction process and to carefully evaluate possible alternatives.

NEI will continue to coordinate with industry members and equipment manufacturers to develop information regarding options as the industry works to meet its communications needs going forward.