



FCC Authorizes Voluntary Digital Power Increase



On January 27, 2010 the FCC adopted an Order that permits FM radio stations to voluntarily increase digital power levels up to ten percent of analog power levels and establishes interference mitigation and remediation procedures to promptly resolve complaints of interference to analog stations. These rule changes will substantially boost digital signal coverage while safeguarding analog reception against interference from higher power digital transmissions.

The FCC Order will:

- Permit most FM stations to immediately increase digital power by 6 dB, a four-fold power increase;
- Limit power increases for stations currently licensed in excess of class maximums, i.e., “super-powered” to protect analog radio service from interference;
- Establish application procedures for power increases up to 10 dB;
- Establish interference remediation procedures that require the Media Bureau to resolve each *bona fide* dispute or impose tiered power reductions within 90 days;
- Reserve the right to revisit the issue of digital power levels if significant interference results to analog reception.

The Commission stated that since the commencement of -20 dBc FM IBOC power operations in 2004, it has not received any well documented complaints of interference to analog FM stations from digital signals. Furthermore, since May 2006, the Media Bureau issued a total of 15 experimental authorizations to permit operations at up to -10 dBc FM IBOC power, including authorizations for ten grandfathered short-spaced stations with as many as four first-adjacent channel short spacings. Some short spacings are severe. Again, the Bureau did not receive any complaints of interference to analog FM stations from licensees of analog FM stations or the listening public as a result of the experimental operations.

Based on five years of interference-free FM hybrid digital operations by approximately 1500 stations, the Commission is convinced that immediate 6 dB increase in FM Digital ERP is appropriate for all FM stations except super-power FM stations. The maximum permissible FM Digital ERP for all super-power stations will be limited initially to the higher of either the currently permitted -20 dBc level or 10 dB below the maximum analog power that would be authorized for the class of the super-power FM station adjusted for the station’s antenna height above average terrain, predicted in accordance with Section 73.211(b) of the Rules. In order for a licensee to determine if its FM station is, by definition, a super-powered FM station, the Bureau will provide an FM Super-Powered Maximum Digital ERP Calculator on the Bureau’s Audio Division Web page (<http://www.fcc.gov/mb/audio/digitalFMpower.html>).

Beginning on the effective date of this Order (the later of (a) 30 days after publication of the text or a summary thereof in the Federal Register; or (b) announcement in the Federal Register of OMB approval of those rules and requirements involving PRA burdens) eligible FM stations may commence operation with FM digital power up to -14 dBc, and must electronically notify the Media Bureau of increased power FM digital operation within 10 days of commencement using the Digital Notification form available in the Media Bureau’s Consolidated Database System Electronic Filing System. Eligible FM stations wishing to commence increased power FM digital operation before the effective date of this Order may file a request for Special Temporary Authorization (STA).

A licensee desiring FM Digital ERP in excess of -14 dBc is required to calculate interfering field strength to first-adjacent channel analog FM stations based on the procedure and charts contained in the Order.

With regard to interference protection standards, the Commission states that the record does not support the establishment of protection standards. The Bureau anticipates that widespread implementation of FM Digital ERP increases will provide valuable coverage and interference data that will be useful in developing a prediction methodology. Furthermore the Commission states that it is convinced that it is imperative for it to implement a power increase promptly and that the record establishes that the digital power limits set forth in the Order will provide the necessary protection to analog FM stations.

However, interference remediation is provided by the Order. If a full-service FM station is receiving verifiable listener complaints of interference within its protected contour from FM digital facilities operating with FM Digital ERP in excess of -20 dBc, the licensee of the affected FM station must contact the licensee of the station operating the FM digital facilities. The Commission will require the stations to work cooperatively to confirm the instances of interference and to attempt to eliminate the interference using voluntary tiered FM Digital ERP reductions. If the stations fail to reach an agreement on appropriate interference remediation measures, the licensee of the affected analog FM station may file an interference complaint with the Media Bureau.

The Commission concludes this Order by stating that if implementation of the adopted increases in FM Digital ERP results in a widespread level of interference to existing analog FM stations that it deems unacceptable, the Commission will promptly revisit the maximum permissible FM Digital ERP values in the future.

The entire text of this Order is available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-208A1.pdf.

