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ALERT

FCC Adopts Technical Changes to its DTS Rules to Facilitate ATSC 3.0 Development

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On January 19, 2021, the Federal Communications Commission (FCC or Commission) released a Report and Order adopting technical changes to the agency's rules pertaining to the use of a distributed transmission system (DTS), or single frequency network (SFN), by broadcast television stations. Specifically, the Commission's Report and Order replaces the current, subjective "minimal amount" standard governing DTS signal "spillover" beyond a station's authorized service area with an objective "bright-line" approach that the agency believes will provide the regulatory certainty needed to promote DTS deployment. The Report and Order also removes the requirement that Class A, low power television (LPTV) and television translator stations must apply for DTS facilities on an experimental basis, and adopts specific technical requirements governing such stations' use of DTS transmitters. The Commission states that its new bright-line spillover rule "improves upon the proposed rule" set forth in the April 2020 Notice of Proposed Rulemaking (NPRM) (which we summarized here), and will "help unlock the potential of DTS at this crucial time when many stations are considering migrating to the next generation broadcast television standard (ATSC 3.0)."

A DTS uses two or more transmission sites located around a television station's service area, each using the same radiofrequency (RF) channel. Under the FCC's existing rules, a DTS signal is only allowed to spill over a station's single transmitter facility (or reference facility) service area by a "minimal amount."[1] The April 2020 NPRM, which was prompted by a Joint Petition for Rulemaking filed by America's Public Television Stations and the National Association of Broadcasters, sought comment on whether to allow a DTS signal to spill over the service area of a DTS's reference facility by more than a

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"minimal amount." Specifically, the NPRM sought comment on whether to allow stations to expand their signals into a spillover area to the extent necessary to "achieve a practical design."

In the Report and Order, the Commission agreed with the petitioners that the ambiguous "minimum amount" standard "could inhibit DTS deployment" near the edge of a reference facility's coverage area due to the lack of clarity in the current standard. The FCC determined, however, that the NPRM's initial proposal failed to account for the additive effect of multiple transmitters and thus underestimated the potential interference impact of the proposal. Therefore, the Report and Order took a different approach, adopting a specific bright-line technical standard for determining the placement of DTS transmitters without causing more spillover than necessary to improve a station's coverage.

Below is a brief summary of the Report and Order's key changes to the Commission's DTS rules.

DTS Spillover Contour

The Report and Order updates the Commission's DTS rules to permit spillover of a DTS transmitter up to the following bright-line limitations:

- UHF stations must ensure that the 41 dBu F(50,50) contour for each DTS transmitter does not exceed the reference facility's 41 dBu F(50,50) contour;
- Low VHF stations must ensure that the 28 dBu F(50,50) contour for each DTS transmitter does not exceed the reference facility's 28 dBU F(50,50) contour; and
- High VHF stations must ensure that the 36 dBu F(50,50) contour for each DTS transmitter does not exceed the reference facility's 36 dBu F(50,50) contour.

The Report and Order emphasizes that although the Commission is increasing a station's permitted DTS spillover area, this increase does not expand a station's area of interference protection. The Report and Order concludes that the bright-line approach "provides broadcasters ample leeway to improve coverage and locate transmitters, with less interference risk to other spectrum users." The Commission anticipates that the new standard will facilitate many of the ATSC 3.0-related consumer benefits, including improved audio and video quality, geotargeting of emergency alerts, and advanced data services, but notes that the new rules are applicable to both ATSC 1.0 and ATSC 3.0 broadcasters.

The Report and Order concludes that its bright-line approach has three practical benefits. First, the bright-line approach accounts for the additive interference effects of multiple DTS transmitters, and thus provides more accurate, realistic results than the NPRM's initial proposal. Second, the approach will provide clarity and certainty in the engineering review process that may have been lacking under the "minimal amount" standard adopted in the 2008 *DTS Report and Order*. Third, the bright-line approach creates greater regulatory certainty than the ambiguous standard initially contemplated in the NPRM that would have allowed service area spillover "where such extension of coverage beyond the station's authorized service area is necessary to achieve a practical design."

The Report and Order also concludes that its new approach protects broadcast localism because "it strikes an appropriate balance that enables a station to improve service at the edges of its service area," without allowing the broadcaster to expand coverage to the point where its attention may shift away from its community of license.

DTS for Class A, LPTV, and Television Translator Stations

The Report and Order eliminates a previous Commission requirement that obligated Class A, LPTV, and television translator stations to apply for DTS facilities on an experimental basis before operating. These stations may now pursue DTS operations, provided that they meet the following contour-based limits defining acceptable DTS spillover:

- DTS transmitters must be located within the authorized F(50,90) contour for the station; and
- The F(50,50) contour of each DTS transmitter must be contained within the station's F(50,50) contour "based on currently authorized technical parameters. . . ."

The Report and Order will become effective 30 days after publication in the Federal Register.

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If you have questions about the Report and Order, please contact the Wiley attorney who regularly assists you with your FCC matters or one of the attorneys listed on this alert.

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1 *Digital Television Distributed Transmission System Technologies*, MB Docket No. 05-312, Report and Order, 23 FCC Rcd 16731, 16734, para. 4 (2008).