

TECHNICAL STATEMENT  
IN SUPPORT OF PETITION FOR RULEMAKING

TELEVISION STATION KIFI-TV  
IDAHO FALLS, IDAHO  
CHANNEL 18 500 KW(H), 100 KW(V) 444 M HAAT

1. The instant statement was prepared on behalf of NPG of Idaho, Inc. ('NPG') in support of a *Petition for Rulemaking* for full-power digital television station KIFI-TV, Idaho Falls, Idaho, which is licensed for operation on Channel 8.\* It is proposed to amend the Post-Transition Table of DTV Allotments of Section 73.622(j) of the FCC Rules to substitute Channel 18 for Channel 8 at Idaho Falls, ID.

2. KIFI-TV is licensed for digital television operation on Channel 8 with a nominal non-directional effective radiated power (ERP) of 63 kW and an antenna height above average terrain (HAAT) of 464 m.†

3. As had been well documented in numerous instances following the original transition to digital television in 2009, the FCC received many reports of poor DTV performance on the VHF television channels. In recognition of the problems with reception for digital VHF television stations, the FCC issued a Notice of Proposed Rulemaking on November 30, 2010 to address the VHF reception issues of DTV stations.‡ The FCC stated therein that:

...the propagation characteristics of [VHF] channels allow undesired signals and noise to be receivable at relatively farther distances, nearby electrical devices tend to emit noise in this band that can cause interference, and reception of VHF signals requires physically larger antennas that are generally not well suited to the mobile applications expected under flexible use, relative to UHF channels. We recognize that television broadcasters have had some difficulty in ensuring consistent reception of VHF signals, and we seek comment through this Notice on technical changes to Commission rules, broadcast transmission equipment, or television receiver technology, that would improve VHF for television broadcasts...

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\* See FCC File No. BLCDDT-20090612AGO, Facility ID No. 66258.

† See FCC File No. BLCDDT-20090612AGO.

‡ See *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, Notice of Proposed Rulemaking, ET Docket No. 10-235, 25 FCC Red 16498 (2010) (Notice).

4. NPG itself has received numerous complaints about the reception of its VHF Channel 8 facility, KIFI-TV, in the Idaho Falls market. After thoroughly inspecting and testing its transmission system, no issues for the Channel 8 transmission system have ever been discovered. NPG has concluded that the reception issues in the Idaho Falls market are due to VHF reception issues, which would be consistent with the findings of numerous other VHF television stations in the country.<sup>§</sup> Its circumstances are compounded by the fact that KIFI-TV is the only full-service VHF television station in the market, and it is the primary network affiliate for both ABC and CBS in the Idaho Falls market. The use of UHF Channel 18 in the market will substantially improve overall reception of KIFI-TV, and, therefore, the reception of ABC and CBS networks in the market.

5. There is no change in transmitter site proposed. The proposed Channel-18 antenna will be side-mounted on the existing KIFI-TV self-supporting tower structure. The FCC antenna structure registration number for the KIFI-TV tower structure is 1060080. There will be no change in the overall height of the existing antenna structure as a result of the proposal.

6. The KIFI-TV licensed Channel 8 facility operates with a non-directional effective radiated power (ERP) of 63 kW, with an antenna height above average terrain

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<sup>§</sup> There have been at least 22 VHF-to-UHF television cases concluded by the FCC since 2021. These include: KTRE, Lufkin, TX, RM-11941, March 3, 2023 (Ch. 9 to Ch. 24); KOSA-TV, Odessa, TX, RM-11940, March 1, 2023 (Ch. 7 to Ch. 31); WWDP, Norwell, MA, RM-11934, January 9, 2023 (Ch. 10 to Ch. 36); WMC-TV, Memphis, TN, RM-11925, January 9, 2023 (Ch. 5 to Ch. 30); KPAX-TV, Missoula, MT, RM-11922 November 29, 2022 (Ch. 7 to Ch. 25); KXLF-TV, Butte, MT, RM-11921, November 29, 2022 (Ch. 5 to Ch. 15); WVPT, Staunton, VA, RM-11910, September 1, 2022 (Ch. 11 to Ch. 15); WMEB-TV, Orono, ME, FM-11919, August 29, 2022 (Ch. 9 to Ch. 22); WYMT-TV, Hazard, KY, RM-11892, January 27, 2022 (Ch. 12 to Ch. 20); KPTV, Portland, OR, RM-11897, January 12, 2022 (Ch. 12, to Ch. 21); KVVU-TV, Henderson, NV, RM-11891, January 12, 2022 (Ch. 9 to Ch. 24); KNOE-TV, Monroe, LA, RM-11893, January 11, 2022 (Ch. 8 to Ch. 24); KRCCR-TV, Redding, CA, RM-11904, July 16, 2021 (Ch. 7 to Ch. 15); KTVM-TV, Butte, MT, RM-11906, July 16, 2021 (Ch. 6 to Ch. 20); WGEM-TV, Quincy, IL, RM-11907, July 16, 2021 (Ch. 10 to Ch. 19); KBOI-TV, Boise, ID, RM-11901, July 2, 2021 (Ch. 9 to Ch. 20); KVAL-TV, Eugene, OR, RM-11898, July 2, 2021 (Ch. 12, to Ch. 28); WRGB, Schenectady, NY, RM-11894, June 16, 2021 (Ch. 6 to Ch. 35); WCYB-TV, Bristol, VA, RM-11895, June 15, 2021 (Ch. 5 to Ch. 35); WRDW-TV, Augusta, GA, RM-11874, May 5, 2021 (Ch. 12 to Ch. 27); WTOC-TV, Savannah, GA, RM-11882, April 26, 2021 (Ch. 11 to Ch. 23); and, KRCG, Jefferson City, MO, RM-11873, April 14, 2021 (Ch. 12 to Ch. 29).

(HAAT) of 464 m. \*\* NPG proposes the installation of a new UHF directional antenna, which will operate on Channel 18 with a maximum ERP of 500 kW, with an antenna HAAT of 444 m. ††

7. An analysis of the KIFI-TV proposal for Channel 18 indicates that it will fall short of providing full replication of the predicted noise-limited service contour (NLSC) of the licensed KIFI-TV Channel 8 facility. In fact, a maximum 1000-kW non-directional facility would fall short by approximately 5 km of replicating the coverage of the KIFI-TV Channel-8 NLSC based on the standard FCC coverage contour comparison. The KIFI-TV proposal to employ a directional antenna facility with a maximum ERP of 500 kW, however, will provide nearly full replication of the KIFI-TV licensed facility when taking into consideration a terrain-limited service analysis.

8. As demonstrated in the map exhibit shown herein as Figure 1 entitled ‘*Loss Area Analysis Using Standard FCC Contour Method and Terrain-Limited Method*,’ the licensed KIFI-TV facility provides service within the NLSC to a population of 325,086. The proposed Channel-18 facility will provide service to a population of 314,687 within its predicted NLSC, which is entirely contained within the Channel-8 NLSC. Thus, on an FCC standard contour analysis basis, the Channel-18 proposal will result in a service population loss of 10,399, or 3.2% of the Channel-8 NLSC population.

9. However, an analysis of predicted service loss for the KIFI-TV Channel-18 proposal conducted using the FCC’s *TVStudy* terrain-limited technique indicates that the predicted service loss will be *de minimis*. Specifically, individual service cells for the KIFI-TV Channel-8 facility were determined based on the terrain-limited method and projected on a map. The ‘fixed geography’ option in the *TVStudy* software tool was employed to predict the service cells for the Channel-18 proposal over the same Channel-8 service area. These results were projected on the map with the Channel-8 service cell results to determine which of the Channel-8 service cells within the Channel-8 contour loss area would be predicted to lose service from the Channel-18 proposal.

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\*\* This is equivalent to a maximum high-band VHF television facility for stations in Zone II.

†† See Antenna Information exhibit for details on the proposed antenna.

10. The results indicate that considering the terrain-limited approach, the proposal will result in only a minimal loss population of 327 within the KIFI-TV predicted NLSC loss area. Specifically, the proposed Channel-8 service population based on the terrain-limited method is 320,718. Of those service cells within the NLSC loss area, there would be predicted service to all from the Channel-18 proposal, with the exception of several populated cells containing a total population of 327. The FCC has previously found that a population service loss of 550 or less can be considered *de minimis*.<sup>‡‡</sup>

11. The instant proposal for Channel 18 is fully compliant with the interference protection requirements of Section 73.616 of the FCC Rules. The results of the FCC's *TVStudy* interference analysis are included as an exhibit. The default cell size of 2 km with a terrain profile point increment of 1 km were employed for the *TVStudy* analysis; and for all terrain-limited coverage studies described herein.

12. The proposed facility is compliant with the predicted coverage requirements of Section 73.625(a) of the FCC Rules with respect to the city of license of Idaho Falls, ID. This is demonstrated in the Predicted Coverage Contours exhibit included with the instant proposal.



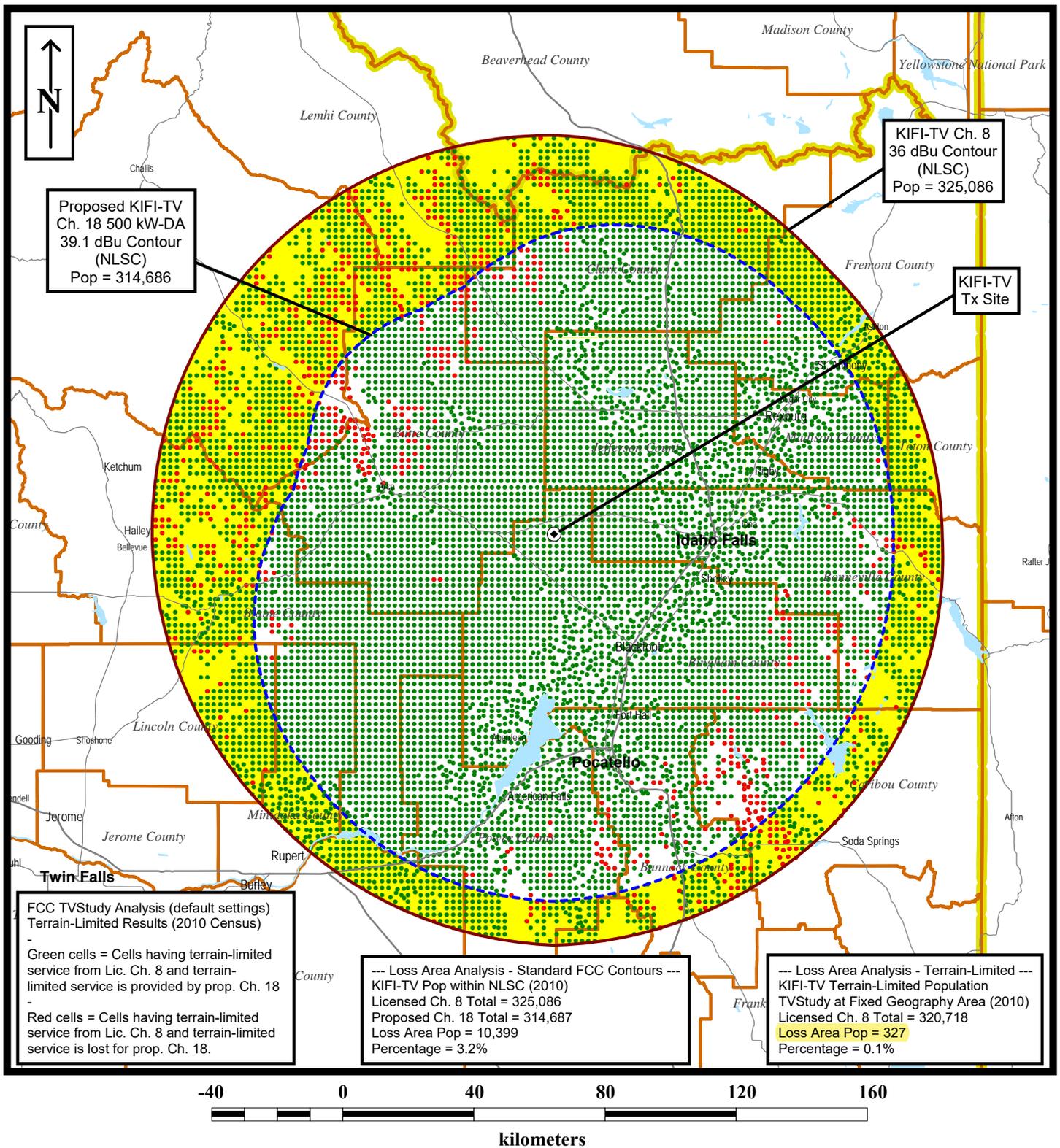
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March 24, 2023

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<sup>‡‡</sup> See *WSET, Inc. Memorandum Opinion and Order*, 80 FCC 2d 233, 246 (1980).



# LOSS AREA ANALYSIS USING STANDARD FCC CONTOUR METHOD AND TERRAIN-LIMITED METHOD

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