



Federal Communications Commission
Washington, D.C. 20554

August 12, 2004

DA 04-2523
Released: August 13, 2004
1800E3-JLB

KNTV License Inc.
c/o Meridith S. Senter, Esq.
Leventhal Senter & Lerman, PLLC
2000 K Street, N.W.
Suite 600
Washington, D.C. 20006

Young Broadcasting of San
Francisco, Inc.
c/o Wade H. Hargrove, Esq.
Brooks, Pierce, McLendon,
Humphrey & Leonard, LLP
Post Office Box 1800
Raleigh, North Carolina 27602

KTVU Partnership
c/o Kevin F. Reed, Esq.
Dow, Lohnes & Albertson, PLLC
1200 New Hampshire Avenue, N.W.
Washington, D.C. 20036

Re: Applications of KNTV Licensee Inc.
For Minor Modifications in Licensed
Facilities for KNTV(TV) and KNTV-DT,
San Jose, California; Fac. ID 35280
File Nos. BPCT-20031001AKF and
BPCDT-20031001AKO

Dear Licensees:

This is with respect to the above-referenced applications for minor modification to the licensed analog and digital facilities of KNTV(TV), channel 11, and KNTV-DT, channel 12, San Jose, California, licensed to KNTV License Inc. (NBC). NBC proposes to move its analog and digital facilities from Loma Prieta Mountain, a location southwest of San Jose, to the antenna farm located between San Jose and San Francisco on San Bruno Mountain. Young Broadcasting of San Francisco, Inc. (Young), the licensee of station KRON-TV, San Francisco, filed an informal objection against both applications. KTVU Partnership (KTVU), the licensee of KTVU(TV), Oakland, California, KICU-TV, San Jose, California, and KRXI-TV, Reno, Nevada, filed an informal objection to the KNTV(TV) application.

The DTV modification application satisfies all of the Commission's rules, including the principal community coverage requirement of 43dBu for channels 7 through 13. Grant of the analog modification

application, however, would require waiver of the minimum co-channel spacing requirements, 47 C.F.R. § 73.610(b), since the proposed analog facility is 1.1 kilometers short-spaced to KRXI-TV, channel 11, Reno, or 0.36% of the required minimum distance separation of 304.9 kilometers.¹ NBC states that waiver of the city-grade coverage requirement, 47 C.F.R. § 73.685, is also necessary because, based on conventional F (50/50) curves, the proposed analog facility at San Bruno Mountain would provide city-grade coverage to only 32.2% of the area within the San Jose city limits and 27.8% of the San Jose city population. Using Longley-Rice, an alternative propagation method, results in an increase of the 77 dBu city-grade coverage to 79.8% on an area basis, and 94.1% on a population basis. According to NBC, the extent of its city-grade coverage is consistent with other cases in which the Commission has granted a waiver, and also complies with the 80% minimum level necessary to satisfy the Commission's application criteria for demonstrating substantial compliance with the city-grade coverage rules.

In support of its waiver requests, NBC states that with the exception of KNTV-DT, all of the digital facilities in the San Francisco DMA are located north of Palo Alto – at San Bruno Mountain or on Sutro Tower in San Francisco – or at a roughly parallel location across the San Francisco Bay on Mount Allison/Monument Peak. NBC states that it has operated KNTV-DT at full-power since 1999 at Loma Prieta, and that it has become clear that viewers throughout the North Bay, in cities such as San Francisco, Oakland and Berkeley, are not able to receive the digital signal due to the orientation of their antennas towards Sutro Tower, San Bruno Mountain or Mt. Allison. Because of this, KNTV-DT's digital signal reaches most receive antennas in the North Bay portion of the DMA at a 90 degree angle, which can result in “a 12 dB signal loss based on an FCC-assumed VHF high-band receiving antenna. In other words, a signal that is projected to be nearly a Grade A strength (for NTSC purposes) might in fact barely qualify for Grade B status.” NBC further states that it conducted field measurement studies in January 2002 to determine why viewers were complaining about the station's digital signal in areas where normal methodologies predicted adequate signal strength. NBC found that the antenna-pointing “handicap” was further exacerbated by brute force overload interference from adjacent high-band VHF signals and multiple grandfathered super-power FM signals broadcasting from San Bruno Mountain and Sutro Tower.

Based upon these studies, NBC concludes that the only practical solution to its poor DTV reception is to relocate KNTV-DT to San Bruno Mountain, where it would be co-located or virtually co-located with the majority of the stations in the DMA.² According to NBC, not only would KNTV-DT be viewable in households now experiencing antenna-pointing problems, it would also provide digital service to an additional 1,270,269 people in the DMA that currently are not predicted to receive the station's digital signal over the air. However, because KNTV-DT and KNTV(TV) operate on adjacent channels, mutual interference between both stations would be caused if KNTV-DT were to be moved to San Bruno Mountain while KNTV(TV) stayed at Loma Prieta Mountain. NBC's engineering consultant states that if only KNTV-DT is relocated, the KNTV(TV)-into-KNTV-DT interference would increase from 0 persons to 11,218 persons (0.2%), which would be *de minimis*, but that the KNTV-DT-into-KNTV(TV) interference would go from 0 persons to 175,370 persons (2.6%), which is over the 2% *de minimis* processing limit adopted by the Commission.³

¹ While NBC states this short-spacing is well below the 0.5% *de minimis* threshold set by the Commission, that processing standard applies only to DTV applications, not NTSC facilities as proposed here. See *Public Notice, Additional Application Processing Guidelines for Digital Television (DTV)* (rel. Aug. 10, 1998).

² According to NBC, it was precluded from relocating to the Mt. Allison/Monument Peak site because of severe spacing requirements to other stations, particularly KXTV(TV), channel 10, Sacramento and KOVR(TV), channel 13, Stockton.

³ Under processing rules for DTV, any increase in interference less than 2% of the population served by the station subject to interference is deemed legally *de minimis*. See 47 C.F.R. § 73.623(c)(2). The Commission, however, permits licensees to agree to accept interference between their analog and digital facilities when the total

With respect to potential interference to KRXI-TV, NBC states that WNTV(TV)'s predicted contour currently overlaps KRXI-TV's predicted interference-free contour. While the contour would continue to overlap, however, the area of overlap and the number of people potentially affected would be smaller than at present. Thus, NBC contends that it provides equivalent protection to KRXI-TV, in that its short-spaced facility would not increase the interference that would be expected by KRXI-TV by the operation of KNTV(TV) with maximum facilities from its existing fully-spaced site. NBC also states that based on a Longley-Rice analysis, the proposed re-location of KNTV(TV) would result in a new Grade B signal being provided to 1,250,909 persons within the San Francisco DMA. While approximately 1,138,729 viewers within the existing predicted Grade B contour would lose their KNTV(TV) service, NBC asserts that "a television station's principal focus must be to serve its entire DMA," and that of these persons who will lose service, only 108,057 are located within the San Francisco DMA. In addition, NBC states that all but 21,170 persons will continue to receive NBC network service from another NBC affiliate, while more than 400,000 people would regain their over-the-air access to NBC network service that they received before 2002, when the NBC affiliation in the market changed. NBC also claims that over 99% of the total loss area within KNTV(TV)'s current Grade B contour would continue to receive Grade B or better service from at least five other analog stations.

In its informal objection, Young asserts that NBC's engineering analysis is flawed because it fails to include a description of the methodology used, as required by Section 73.684(f) of the rules, 47 C.F.R. § 73.684(f), or to justify the use of an alternative methodology. Thus, Young contends that it is impossible to verify NBC's loss and gain figures. Young further states that, rather than result in a net gain of 77,000 people, as NBC claims, the proposed analog modification will result in a net loss of service to 410,834 people based on the standard F(50/50) curves, or to 156,300 people based on Longley-Rice.⁴ According to Young, it "is not aware of any instance, published or unpublished, in which the Commission has allowed the relocation of a transmitter to result in a net loss of service, no matter the method of calculation,"⁵ or where the Commission has permitted the use of Longley-Rice alone to calculate service gains and losses. Young also argues that the provision of NBC service to 400,000 new viewers cannot offset a net service loss, and that even if it could, it would "provide no support to NBC who is attempting nothing more than to shore up the loss of NBC service to hundreds of thousands of viewers that NBC itself created by moving the affiliation from KRON" to KNTV(TV).

With respect to the city-grade waiver request, Young points out that the Commission does not recognize 80% coverage as substantial compliance with the television city-grade coverage requirement. Young also distinguishes the waiver cases cited by NBC, and argues that in none of these cases did the Commission waive city-grade service to the magnitude NBC requests here – 646,071 people in approximately 312 square kilometers. Young also disagrees that a station's primary concern is to provide service to its DMA, and contends that grant of a waiver here would be inconsistent with Section 307(b) of the Communications Act, as amended, which requires the Commission to make a distribution of licenses

interference received by each station is less than 10%. NBC's stations presently receive no interference from any other stations. Thus, we could grant the digital modification application and deny the analog application, if NBC agreed to accept the interference to its analog signal.

⁴ In order to arrive at the figure of 156,300, Young included persons who are predicted to receive a signal of Grade B intensity from KNTV(TV), but are outside the station's protected Grade B contour.

⁵ Young cites to *West Michigan Telecasters v. FCC*, 460 F.2d 883, 889 (D.C. Cir. 1972) ("Losses in service are *prima facie* inconsistent with the public interest.") and *Triangle Publications, Inc.* 3 R.R.2d 37 (1964) ("Once in operation, a station assumes an obligation to maintain service to its viewing audience and the withdrawal or downgrading of existing service is justifiable only if offsetting facts are shown which establish that the public generally will be benefited.").

“among the several States and communities as to provide a fair, efficient, and equitable distribution of radio services to each of the same.”

Young also asserts that NBC’s antenna-pointing argument in support of its application to relocate its DTV facility is not persuasive, because it ignores the fact that some antennas are pointed towards the Mt. Allison/Monument Peak, and away from San Bruno Mountain and Sutro Tower. Young also states that the problem is easily resolved by viewers installing “probing” antennas or incorporating a rotor. Finally, Young questions whether extensive co-location disserves the nation’s need for emergency preparedness, in light of the extensive loss of broadcast service to the New York DMA on September 11, 2001 due to co-locations at the World Trade Center.⁶

In response to Young’s antenna pointing argument, NBC stated that in studying this issue, it did take into account that some viewers may point their receive antennas at Mt. Allison/Monument Peak rather than at San Bruno Mountain/Sutro Tower, and it submitted additional engineering analysis to show that relocation of its digital facilities to San Bruno Mountain would result in a net gain in interference-free service. With respect to Young’s assertion that any reception problems could be eliminated by viewers installing or upgrading their receive antenna, NBC replies that this solution is impractical for over-the-air viewers who live in high rises, apartment buildings and historic districts. NBC also notes that “even technologically-savvy, early adopters of digital television are having problems receiving KNTV’s digital signal [and] ordinary consumers are even less likely to incur the expense of installing an outdoor antenna with a rotor to receive just one station when all other stations have excellent signals.”

With respect to its analog modification application, NBC asserts that use of Longley-Rice is appropriate in this case because the terrain “departs widely” from the average terrain assumed for the F(50,50) curves, and the distance to KNTV(TV)’s city-grade contour using Longley-Rice differs from the standard method by more than 10%. NBC disputes Young’s claim that grant would result in a net loss of service, but states that in any event, even if the net loss claimed by Young occurred it would still be less than the objectionable interference that would occur to analog viewers if only the digital facility was relocated. NBC also submitted further engineering analysis explaining how its Longley-Rice analysis was conducted using a “more accurate terrain extraction resolution” than that applied by Young, and argues that grant of its city-grade waiver request is consistent with applicable precedent.

In its reply, Young stated that it modified its Longley-Rice analysis, consistent with NBC’s, and that it still showed that there would be a net service loss of 73,090 people. Young argues that “NBC’s lack of full disclosure of methodology . . . suggests that NBC is engaged in ‘parameter shopping,’ using those parameters that give NBC the most favorable result for whatever immediate task is at hand.” Young also reasserts that “the Commission has never, to Young’s knowledge, granted a television modification application where the service loss or gain was calculated by Longley-Rice instead of by the Commission’s standard Grade B contours.” With respect to NBC’s antenna-pointing argument, Young states that NBC’s new engineering shows that 95.7% of KNTV-DT’s potential viewers could watch the station at its current site without degradation due to antenna pointed to the stations located at Mt. Allison or Monument Peak, and that viewers experiencing degradation because their antenna are pointed at San Bruno Mountain or Sutro tower can upgrade their receive antenna or subscribe to cable or DBS. Finally, Young argues that NBC does not dispute that its city-grade waiver request “is 50 times larger in terms of

⁶ Young initially argued that the proposed facilities did not comply with the RF limits for public/uncontrolled exposure or occupational/controlled exposure, but failed to respond to the arguments made by NBC in its sur-reply. It is unclear whether Young has withdrawn this argument. In any event, we have considered NBC’s applications, and Young’s arguments, and conclude that NBC has complied with Section 1.1307 with respect to RF exposure.

population than the largest waiver ever granted pursuant to the Commission's standard propagation curves," the method which, Young claims, the Commission has always used as the basis for determining the extent of such waivers.

NBC filed a sur-reply in which it explains that Young's Longley-Rice analysis differs from NBC's because of Young's incorrect assumptions regarding signal strength for points returning as Longley-Rice Error Code 3 (EC#). Moreover, Young used an "interference-limited" study while NBC used a "noise-limited" study. NBC also asserts, for the first time, that relocating the stations will eliminate interference to KSBW-DT, channel 10, Salinas, California, to over 460,000 people. In response, Young asserts that NBC's apparent use of an amalgam of OET Bulletin No. 72 and OET Bulletin No. 69 does not comply with the Commission's rules and clearly demonstrates "parameter shopping" by NBC. Young also downplays the alleged benefit to KSBW-DT, since there is "very low DTV receiver penetration in television households," while over a million people will lose their analog service from KNTV(TV).

After these pleadings were filed, KTVU filed its informal objection, asserting that it was now clear that NBC "fails to use the Commission's alternative prediction methodology for evaluating television coverage consistently and in compliance with the Commission's requirements." For example, KTVU observes that when using OET Bulletin No. 69 for evaluating television coverage and interference, computation of service area or coverage using the Longley-Rice methodology is limited to areas within certain specific geographic contours, which is the conventional Grade B contour for analog television stations. When computing the Grade B signals of stations providing service in KNTV(TV)'s loss area, KTVU states that NBC failed to limit the Longley-Rice coverage areas to within those stations' predicted Grade B contours. KTVU also submits an engineering study which purportedly demonstrates, that using the correct methodology, the entire population of Los Banos, California, would lose its sole Grade B television service or be left with only one remaining television service were KNTV(TV) relocated to San Bruno Mountain. According to KTVU, the creation of a combined white and gray area with over 25,000 people is not justified by compelling, off-setting public interest benefits. Finally, KTVU disputes NBC's claim that the waivers will be "temporary" because they would only be necessary until the transition to DTV is complete, opining that completion of the transition is "unlikely to occur for a long time."

In response, NBC reiterates its arguments against Young's assertions. NBC also defended its Longley-Rice methodology, and, with respect to the assertion that grant of its analog modification application would result in the creation of a white and gray area, submits an engineering analysis which shows that, due to unique signal propagation in the San Joaquin Valley, at least 11 analog stations licensed in the Fresno-Visalia DMA, in which Los Banos is located, provide a better than Grade B signal to Los Banos. NBC also states that KNTV(TV) is not viewed in the county in which Los Banos is located, but that KSEE(TV), the NBC affiliate in the Fresno-Visalia DMA, has over-the-air viewership in Merced County. Both Young and KTVU filed a response. The only new matter raised was Young's assertion that the some 20 alleged viewer comments about the poor quality of KNTV-DT's signal merit no attention, because verification of their comments is impossible.

Discussion: Although not summarized in detail herein, both Young and KTVU argue, at some length, that NBC unfairly refused to renew its affiliation agreement with Young in 2000, and that this somehow warrants denial of the modification applications. We agree with NBC that Young's past affiliation with NBC, and the facts surrounding NBC's subsequent affiliation with KNTV(TV), are not relevant to our consideration here. We also agree with NBC that use of the Longley-Rice alternative methodology to determine city-grade coverage, and gain and loss areas, is appropriate in this case. The terrain in the region is atypical and contour measurements using Longley-Rice deviate greatly from the

predicted contours. We conclude, however, that the parties' Longley-Rice analyses, which deviate greatly, are flawed.⁷ Accordingly, our conclusions here are primarily based on the staff's independent engineering analysis.

With respect to NBC's request for a waiver of the city-grade signal requirement, the staff's Longley-Rice analysis predicts that the modified analog facility will place the required minimum field strength of 77 dBu over the entire principal community of San Jose. Because we have determined that use of the Longley-Rice methodology is appropriate, given the area terrain, no waiver is necessary.⁸

Turning to the short-spacing waiver, the minimum co-channel distance separation for analog facilities on channels 2-13 in the western portion of the United States is 304.9 km and the analog facility proposed in the KNTV(TV) modification application is 1.1 kilometers short-spaced to KRXI-TV, channel 11, Reno. In determining whether a waiver of the television short-spacing rules is in the public interest, the Commission considers: (1) the unsuitability of the existing site; (2) the magnitude of the short-spacing; (3) any predicted loss of service; (4) the aeronautical and environmental impact of the proposed modification; (5) any technical proposals submitted by the applicant that would alleviate the interference resulting from the short-spacing; (6) the concerns of the licensee affected by the short-spacing; and (7) the extent to which the licensee applied for the license knowing there were spacing restraints.⁹

⁷ For example, in its analysis, NBC use the Individual Location Longley-Rice (ILLR) methodology in OET Bulletin No. 72, which, unlike OET Bulletin No. 69, requires analysis beyond a station's predicted Grade B contour. OET Bulletin No. 72, however, is used to predict television field strengths in connection with implementation of the Satellite Home Viewer Act. *See Establishment of an Improved Model for Predicting the Broadcast Television Field Strength at Individual Locations*, 20 Comm. Reg. 2089 (2000). The Commission has emphasized that the ILLR methodology "will not replace the current Commission rules for field strength contours (47 C.F.R. § 73.683) or prediction of coverage for non-SHVA purposes (47 C.F.R. § 73.684)." *Id.* ¶ 7. In addition, Young's use of interference-limited studies is misplaced. Interference-limited contours are used in the *tv_process* program to determine the number of persons that would receive DTV service, consistent with OET No. 69, the methodology used by the Commission in creating the DTV Table of Allotments. Although OET No. 69 uses the Long-Rice methodology, the two are not interchangeable. The Longley-Rice methodology, as set forth in Tech. Note 101, specifies the use of noise-limited contours.

⁸ Contrary to NBC's claim, the Commission does not consider city-grade coverage to 80% of a community to be "the minimum level necessary to satisfy the Commission's application criteria for demonstrating substantial compliance with the city-grade coverage rules" for television. *See Amendments of Parts 73 and 74 of the Commission's Rules to Permit Certain Minor Changes in Broadcast Facilities Without a Construction Permit*, 12 FCC Rcd 12371 (1997) (80% substantial compliance requirement applies to the FM city-coverage rule, and not to television). A television station's primary duty is to serve its community of license; not to provide Grade B coverage to the largest portion of the DMA to which it is assigned. *See, e.g., Public Notice, FCC Localism Task Force Announces Procedures to Facilitate Public Participation at its Rapid City, South Dakota Hearing on Broadcast Localism*, RM-10803 (rel. May 21, 2004).

⁹ *See Caloosa Television Corp.*, 3 FCC Rcd 3656, 3657-58 (1988), *recon. denied*, 4 FCC Rcd 4762 (1989); *Sarkes Tarzian, Inc.*, 6 FCC Rcd 2465, 2467 (1991).

NBC has demonstrated, through measurements and viewer complaints, that its DTV signal is not being received within its predicted contour because of antenna-pointing issues and interference. Thus, NBC seeks to co-locate its DTV facility with the majority of the other stations in the market, which our DTV rules permit it to do. Because NBC's analog and digital facilities are adjacent channel, significant interference would occur to the analog facility unless the two stations are co-located, thus making the Loma Prieta site unsuitable for KNTV(TV)'s continued operations. Further, collocation of a station's DTV and NTSC facilities with most of the other television stations in the market was an objective the Commission specifically recognized during its DTV proceedings as a means to speed DTV conversion.¹⁰

Here, the short-spacing is insubstantial (1.1 km short of the required 304.9 km spacing requirement); no interference will likely occur to KRXI-TV. In fact, grant of the modification will actually decrease the existing overlap of the KRXI-TV and KNTV(TV) contours. Moreover, although KTVU, the licensee of KRXI-TV, filed an informal objection to the KNTV(TV) application, it states that it "has chosen not to exercise its right as a co-channel licensee to object to NBC's short-spacing waiver request." We have also concluded that the application does not raise any environmental concerns.

According to NBC, over a million people will lose service from KNTV(TV) if the station is relocated. The majority of those people, however, reside within the Monterey-Salinas or Fresno-Visalia DMAs and receive a full complement of signals from full-service and Class A television stations licensed to communities in those markets, including the NBC affiliates in those markets.¹¹ Although 21,170 viewers will lose their only predicted over-the-air NBC network service from the San Bruno Mountain site, KNTV(TV) will provide an over-the-air NBC network service to almost 400,000 persons who have been without that service since 2002. We believe that the public benefits in restoring network service to 400,000 persons outweighs the detriment caused by withdrawing network service from 21,170 persons. This loss of service is also off-set by the fact that if KNTV(TV) remained at its present site, 175,370 persons would, for the first time, experience interference from KNTV-DT. Moreover, notwithstanding Young's speculation as to DTV set penetration, it is undisputed that interference to over 460,000 viewers of KSBW-DT will be eliminated by KNTV-DT's relocation.

Our engineering study, which differs somewhat from KTVU's analysis, shows that if KNTV(TV) is relocated, the communities of Los Banos and Atwater, in Merced County, are no longer predicted to receive a Grade B or better signal from any analog stations. The Commission has, however, long-recognized the unusually favorable propagation tendencies in the San Joaquin Valley due to the unique terrain characteristics, *i.e.*, a wide flat valley with low vegetation flanked by high mountain ranges.¹² Using Longley-Rice, the staff determined that these communities receive better than a Grade B quality signal from KSEE(TV), the NBC affiliate at Fresno, and also receive a better than Grade B signal from more than five other television stations. Under these unique circumstances, we cannot conclude that relocation of KNTV(TV) would result in the creation of a white area in Merced County.

¹⁰ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Red 7418, 7471 (1998).

¹¹ We disagree with NBC's suggestion that the withdrawal of service to persons located outside of a station's DMA is of less significance than withdrawal of service to persons located inside the DMA. As Young observes, loss of service is *prima facie* inconsistent with the public interest, and once a station begins operations, it is obligated to maintain service to its viewing audience absent off-setting public benefits to discontinuing service. We are less concerned about the withdrawal of service here, because the vast majority of people located within the loss area will continue to receive NBC network service from other NBC affiliates, and are also well-served by other stations.

¹² See, *e.g.*, Television Allocations Study Organization, "Engineering Aspects of Television Allocations" at 19-20 (1959), cited in *Fresno, California Deintermixture Proceeding*, 19 R.R. 1581, 1586 (1960).

In view of the foregoing, the Informal Objections filed by Young Broadcasting of San Francisco, Inc. and KTVU Partnership ARE DENIED, and the above-referenced applications for minor modification of KNTV(TV) and KNTV-DT ARE GRANTED.

Sincerely,

W. Kenneth Ferree
Chief, Media Bureau

cc: William LeBeau, Esq.