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Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEB 23 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re Application of:)
)
KM LPTV of Milwaukee, L.L.P.)
)
to Convert LPTV Station WMKE-LP,)
Milwaukee, Wisconsin to Class A Station)

File No. BLTVA-20001206ADM

To: Chief, Low Power Television Branch
Mass Media Bureau

REPLY TO OPPOSITION TO PETITION FOR RECONSIDERATION

Milwaukee Area Technical College ("MATC"), by its counsel and pursuant to Section 1.106 of the Commission's rules, replies to the Opposition to Petition for Reconsideration, filed February 13, 2001, by KM LPTV Milwaukee, L.L.C ("KM") in the above-captioned pleading.

KM missed the entire point of MATC's Petition. Granting "protected" Class A status to Station WMKE on Channel 7 – adjacent to WMVS-DT's Channel 8 operations -- raises two vitally important concerns for WMVS DT's operations and future digital public television service in the Milwaukee area. The first concern is that WMKE would cause "real world" actual interference to WMVS DTV reception and that WMKE, as a Class A station, would not have to remedy that actual interference (even though WMKE-LP, as an LPTV station authorized only pursuant to interference rule waivers based on its secondary LPTV status, would have been required to remedy any actual interference to DTV reception).¹ The second concern is that

¹ The third attachment to this Reply is a copy of the prior FCC decision requiring WMKE (as an LPTV) to resolve any interference caused to WMVS-DT.

WMKE's authorization as a Class A station would hinder MATC's ability to maximize the DTV facilities of WMVS-DT post-DTV-transition. Simply put, by granting Class A status to WMKE-LP, the FCC has jeopardized the ability of some persons in the Milwaukee area to receive a reliable off-air DTV signal from WMVS.

First, KM argues that it may cause up to 0.5% new interference to persons predicted to receive WMVS-DT, based on Section 73.6013 of the FCC rules (which is currently the subject of a pending reconsideration proceeding). Let there be no mistake – that means that KM believes that it can cause interference to over 13,000 persons that desire to receive Station WMVS-DT, many of whom may reside in downtown Milwaukee near the WMKE transmitter site.² MATC submits that, if KM's interpretation of Section 74.6013 of the FCC rules stands, that rule does not serve the public interest and that rule adversely affects DTV conversion.

Even so, KM repeatedly argued in its LPTV proceeding and in this proceeding (rather vehemently) that no actual interference to DTV reception will occur, based on its theoretical calculations and predictions. However, as documented in the Engineering Statement of John F.X. Browne and the DTV Field Test Statement of Jan Louis Pritzl, Station WMVS-DT experiences "real world" DTV reception difficulties in the area near the transmission site of WMKE in the central city area of Milwaukee. These reception difficulties occurred despite the fact that MATC used a professional grade DTV receiver (a Zenith 3rd generation professional receiver/demodulator with full error reporting capabilities), rather than a consumer grade DTV receiver for the tests. Thus, the "real world" impact on consumer DTV use is likely to be even worse.

² The figure of 13,000 persons was derived by computing .5% of the population predicted to receive WMVS based on KM's Longley-Rice study that 2,600,025 persons are predicted to receive WMVS.

For example, at a site approximately 4 miles from the WMKE transmission site in a high-rise office building, the presence of WMKE on Channel 7, coupled with severe multi-path conditions and front-end overload possibilities in consumer grade receivers, will predictably cause DTV reception problems for WMVS in a portion of the building apartments, even though the measured signal ratio met the 48 dbm standard. MATC is continuing to make measurements monitoring its DTV reception in the area and will provide additional information on this DTV reception issue as those results become available, recognizing, of course, that DTV consumer receivers are in scarce use at this time.

In sum, KM should put its money where its mouth is. If KM truly believes no “real world” interference will be caused (which is the entire premise on which its prior LPTV interference rule waivers, Class A eligibility showing, and Class A license application rests), it should accept a condition on its Class A license that it will comply with 74.703(b) and (f) of the FCC rules with respect to WMVS-DT – if actual interference to WMVS-DT DTV reception occurs from WMKE-CA operations, KM will remedy the interference or, if necessary, cease operations. If KM is unwilling to accept such a condition, then the truth of KM’s position is revealed – it believes it can get away with causing “real world” interference to WMVS-DT DTV reception by hiding behind its Class A status (even if that status was derived from LPTV interference rule waivers that presupposed that WMKE-LP would correct any actual interference to WMVS-DT that occurred).

Second, KM tries to fault MATC for not filing to maximize its DTV facilities to 30 kilowatts to match the coverage area of the largest allotted DTV coverage area in the market. KM argues that, if MATC wanted such protection for WMVS-DT, MATC should have filed a

notice of intent to maximize by December 31, 1999 and a maximization application by May 1, 2000, in accordance with the provisions of the CBPA. Again, KM misses the point. MATC could not have filed to maximize then (and cannot file now) because of interference restrictions to existing NTSC analog stations. MATC always intended to maximize at the end of DTV transition, once the NTSC analog stations no longer required protection. But for the existence of WMKE, MATC would be able to maximize its WMVS-DT facilities to 30 kilowatts later, as it intended.

Finally, KM missed the point regarding the procedural issue. MATC was not suggesting that the FCC should wait more than the statutorily permitted 30 days to grant Class A license applications. Instead, MATC argued that, given the 30-day period within which the Commission could act, action in 4 business days on a previously contested application that raised interference concerns was "too fast." Had the Commission waited a more reasonable period (closer to the end of the 30-day period), it would have provided interested parties an opportunity to respond to the filing.

Conclusion

For the foregoing reasons, the FCC should reconsider its action and deny WMKE-LP's Class A license application. Alternatively, the FCC should require WMKE to remedy, promptly, at its own expense, all instances of "real world" interference caused to MATC DTV reception, or to cease operations, if such interference cannot be remedied promptly. In addition, if WMKE is permitted to retain Class A status, WMKE should be permitted to maximize to 30 kilowatts at the end of DTV transition.

Respectfully Submitted,

MILWAUKEE AREA TECHNICAL
COLLEGE

By: 

Todd D. Gray

Margaret L. Miller

Christine J. Newcomb

Its Counsel

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202-776-2000

February 23, 2001



Engineering Statement
of
John F.X. Browne, P.E.
Regarding
WMKE-LP
Milwaukee, WI

This engineering statement has been prepared in response to an Opposition to Petition for Reconsideration ("Opposition") filed by KM LPTV of Milwaukee, LLC, licensee of low power TV station WMKE-LP ^{1/}. The Milwaukee Area Technical College (MATC), licensee of full-service DTV broadcast WMVS-DT, filed a Petition for Reconsideration ("Petition") of the Commission's action granting Class A status to WMKE-LP. In its Opposition, KM presents opposing views to technical issues raised in the MATC Petition. This engineering statement addresses those issues.

Power Increase for WMVS-DT

WMVS-DT operates on Channel 8 adjacent to WMKE-LP facility on Channel 7. Under the current FCC rules, WMVS-DT may not make any change in its facilities which would cause new interference or increase existing interference to the Class A station, WMKE-LP. WMKE-LP already receives substantial interference within its protected (68 dBu) contour from

^{1/} The Commission recently granted KM's application for a Class A license for this facility.



WMVS-DT because of the adjacent-channel relationship; this fact is noted and acknowledged in the WMKE-LP filing with the Commission. By granting Class A status to WMKE-LP, the Commission has effectively placed a cap on the future maximization of WMVS-DT since any such increase would cause impermissible new / increased interference to WMKE-LP; prior to the grant of its Class A license, Low Power TV station WMKE-LP would have had no status relative to such a power increase ^{2/} at WMVS-DT.

KM takes issue with whether MATC can raise the power of WMVS-DT to the maximum of 30 kW as specified in Part 73 of the Rules. As stated on Page 3 of my Engineering Statement accompanying the Petition, MATC intended to take full advantage of the provisions of Section 73.622(f)(5) to increase its power to 30 kW in an attempt to match the coverage area of the station with the maximum coverage area in the market (DMA).

The station having the largest allotted DTV coverage area appears to be WTMJ-DT. Its allotment of 1,000 kW @ 305 meters on Channel 28 will produce a predicted coverage area 31,259 sq. km. The present predicted coverage area of WMVS-DT is 30,165 sq. km; increasing its power to 30 kW ^{3/} would increase the coverage area to a calculated 30,643 sq. km, not quite the same area as WTMJ-DT is allotted but certainly a permissible increase under the rules.

Thus, it is clear that, under current rules, WMVS-DT could increase its power to at least 30 kW at the end of the transition period were it not for the presence of WMKE-LP.

^{2/} In addition, WMKE-LP would have to correct any interference to the service of WMVS-DT.

^{3/} Any power increase would be subject to interference constraints which were considered in establishing the present power level but, in the case of WMVS-DT, these constraints relate to analog stations whose operation would terminate at the end of the transition period.

MATC did not apply for more than 25 kW in its now granted request for maximization because of concerns regarding interference to existing NTSC stations; since these stations (and, therefore, the associated restrictions) would disappear at the end of the transition period, MATC could have requested the further maximization at that time. MATC will be prevented from doing so if the unconditional grant of the Class A status of WMKE-LP remains in-place.

Adjacent-Channel Interference Concerns

In an earlier filing in this proceeding ^{4/}, the issue of adjacent-channel interference was raised and discussed. When adopting the rules for Class A stations in the DTV environment, the Commission for the first time did not prohibit facilities to be constructed on adjacent channels to authorized full service stations within the full service station's protected contour. [Section 74.706(d)(2)] The caveat which provided some relief for the full service station was, in fact, 74.703(b) which requires LPTV stations to correct any interference to the primary full service station. WMKE-LP, a low power TV station, needed a waiver of Section 74.706(d)(2) because it could not meet the requirements of no interference "at all points".

When adopting the Class A rules the Commission adopted the interference criteria of Section 74.706(d)(2) but not the correction responsibilities of Section 74.703(b); in fact, the Commission permitted the creation of new interference affecting up to 0.5% of the population served by the Class A – nee LPTV – station. [See Section 73.6013]

^{4/} Engineering Statement of John F.X. Browne, P.E. re displacement application of WMKE-LP to change from Channel 8 to Channel 7.

In its earlier filing, MATC posited the scenario where an LPTV (or Class A) station operating within the protected contour of a DTV station might deliver to specific receiving locations a signal that was orders of magnitude greater than the signal delivered by the primary full service station due to the vagaries of signal propagation; in such situations it would be theoretically possible that, even though the predicted signal ratios calculated using FCC prescribed methodologies met the interference standard (-48 dB D/U in this case), the actual performance could be considerably worse due to terrain anomalies, blockage of signals by man-made obstructions and / or signal attenuation (due to building penetration losses, e.g.).

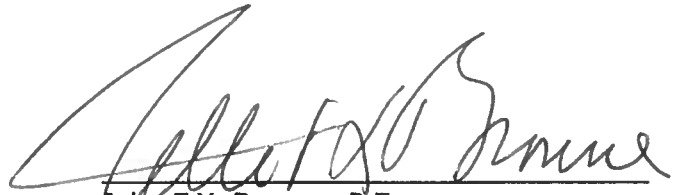
The engineering staff of WMVS-DT has undertaken to conduct actual in-field measurements to assess the validity of this thesis. While the amount of data collected is minimal, it can be seen from the statement of Jan Pritzl, which is being submitted as part of the instant filing, such conditions are actually being experienced in Milwaukee. In fact, one measurement site showed a signal difference approaching the 48 dB limit with the presence of the much stronger analog Channel 7 signal of WMKE-LP ^{5/}. Due to the limited time available further testing could not be completed prior to the deadline for the instant filing.

Based on this, there can be no doubt that this adjacent-channel facility will cause interference to the service of WMVS-DT in "real world" reception scenarios where predictive signal analyses are inadequate to identify actual interference.

^{5/} At this site, 1100 West Wells Street, an outdoor 30 ft. measurement was made. DTV reception was not possible at this site even though the WMVS-DT signal level was adequate.

**Certification**

This statement was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources known to be reliable and are believed to be true.



John F.X. Browne, P.E.
February 22, 2001

DTV Field Test Statement
of
Jan Louis Pritzl
Milwaukee Area Technical College
Coordinator of TV Technical Facilities
Regarding
WMKE-LP
Milwaukee, WI

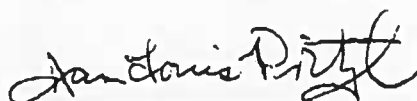
This statement has been prepared to provide initial field test observations in response to an Opposition to Petition for Reconsideration ("Opposition") filed by KM LPTV of Milwaukee, LCC, licensee of low power TV station WMKE-LP. This is the statement of reference in the "Engineering Statement" of John F. X. Browne included in this instant filing.

The television engineering staff of the Milwaukee Area Technical College began actual field testing of WMVS-DT, Channel 8, and WMVS, Channel 10 analog, on January 16, 2001, to assess replication effectiveness and identify reception anomalies. Approximately 120 outdoor sites and 3 indoor sites have been documented through February 22nd. Additional site measurements are scheduled, within the next several weeks, prior to the preparation of full test reports. The test vehicle equipment includes a Zenith 3rd generation professional receiver/demodulator with full error reporting capabilities.

During site testing in the central city area of Milwaukee that includes, high-rise office and residential buildings as well as the transmission site of WMKE-LP, Channel 7, there were reception difficulties in several high multi-path locations.

One failed reception site was adjacent to a 20 story building at 1100 West Wells Street containing offices on the lower floors and apartments on the upper floors. This site, 4 miles from the WMVS-DT (8) antenna and 0.4 miles from WMKE (7), had a measured ratio of 23.019 dBm between WMKE peak power and WMVS-DT average power. (Reference Spectrum Graph Exhibit 1). While this is below the technically allowed ratio of 48 dBm, when coupled with severe multi-path conditions and front-end overload possibilities in consumer grade receivers, the presence of this adjacent channel will predictably cause reception problems in a portion the building apartments.

Due to the limited response time for this filing, indoor measurements from the above site and others could not be provided. Additional data will be submitted as soon as available.



Jan Louis Pritzl
February 22, 2001

Date: 02-19-01 Time: 15:35

PS7N1.2:

IBASIC RUNNING

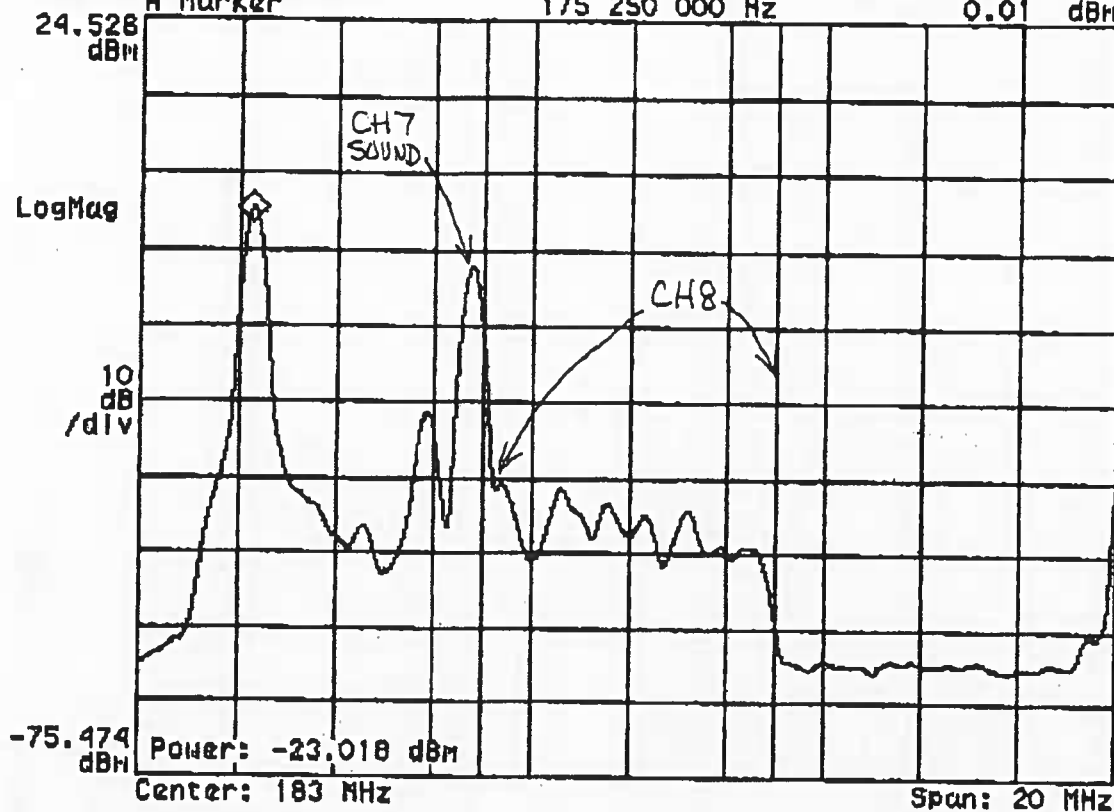
TRACE A: Ch1 Spectrum

A Marker

Range: 5 dBm RBW: 300 KHz

175 250 000 Hz

0.01 dBm



Comparison of WMKE-LP, Channel 7 and WMVS-DT, Channel 8 at 1100 West Wells Street, Milwaukee, Wisconsin, at the Southwest corner of the Catholic Knights Insurance Building.

Spectrum Graph Exhibit 1

1800E3-JLB

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Re: Application for Modification of
Low Power Television Station
WMKE-LP, Milwaukee, Wisconsin
File No. BPTVL-980918JG
Facility ID No. 35091

Dear Counsel:

This is with respect to the second petition filed by KM Communications, Inc., and its successor in interest, KM LPTV of Milwaukee, LLP (KM), licensee of low power television station WMKE-LP, Channel 8, Milwaukee, Wisconsin, seeking reconsideration of the staff's dismissal of its above-referenced displacement application, specifying Channel 7 as the displacement channel. ABC, Inc., on behalf of WLS Television, Inc. (WLS), licensee of WLS-TV, Channel 7, Chicago, Illinois, opposes the application and the petition for reconsideration, alleging that the modified facilities would cause harmful interference to the reception of the WLS-TV signal. In addition, on January 27, 2000,

Milwaukee Area Technical College (MATC), the licensee of noncommercial educational television station WMVS-DT, Channel *8, Milwaukee, Wisconsin, filed an informal objection to the application.

We have carefully reviewed the record in this proceeding, and conclude that the stated basis for dismissal of the displacement application, as set forth in the staff's letters dated July 19 and December 8, 1999, were in error. Specifically, we find that the proposed operation of WMKE-LP from the site specified in KM's application is not predicted to cause objectionable interference to the proposed operations of any digital television station, including those specified for WMVS-DT. Pursuant to Section 74.706 of the Commission's rules, a low power television station application will not be accepted if the ratio in dB of its field strength to that of a DTV station fails to meet +48 dB for adjacent channel operations at (i) the DTV noise-limited perimeter if the low power television station is located outside that perimeter; or (ii) at all points within the DTV noise-limited area if the low power television station is located inside the perimeter. In connection with its petition for reconsideration, KM demonstrated that: (1) WMVS-DT, as authorized, will place a predicted F(50,90) 111.9 dBu field strength at the WMKE-LP site; (2) in order to create interference to WMVS-DT, the WMKE-LP field strength in the vicinity of its antenna would need to be greater than 111.9 plus 48 db, or 159.9 dBu; and (3) the 159.9 dBu contour extends less than four meters from the WMKE-LP antenna. MATC apparently does not dispute that WMKE-LP has met the +48 dB protection requirement, but instead asserts that because WMKE-LP is located in a heavily populated, downtown Milwaukee location, "given the vagaries of indoor reception, it is not predictable whether the interference ratio could be maintained such that interference-free reception of WMVS-DT would be provided." As discussed below, however, if interference actually occurs to the WMVS-DT signal, KM will be required to resolve the problem.¹

We also conclude the KM's request for waiver of Section 74.705(d)(1) of the rules is supported by the Commission's *DTV Sixth Report and Order, Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd 14588 (1997).² In the *Sixth Report and Order*, the Commission stated that it:

[W]ill entertain requests to waive the LPTV protection standards where it can be demonstrated that proposed LPTV or TV translator stations would not cause any new interference to the reception of TV broadcast analog stations; that is, an LPTV or TV translator station would not be predicted to interfere at locations

¹ With respect to MATC's assertion that KM is required to protect both the original DTV allotment and MATC's authorized DTV facility, in the event that MATC is granted a modification to revert to the parameters of its DTV allotment, and interference to that signal results, then KM will be required to correct any interference. Similarly, KM will be required to remedy any interference which may occur to any local cable TV system's head-end.

² KM requested a waiver since the predicted F(50,10) interfering signal level from WMKE-LP of approximately 34 dBu would reach the predicted Channel 7, F(50,50) 56 dBu (Grade B) contour of WLS-TV.

CERTIFICATE OF SERVICE

I, Brenda Scott, a secretary at Dow, Lohnes & Albertson, hereby certify that a copy of the foregoing Reply to Opposition to Petition for Reconsideration was mailed this 23rd day of February 2001 to the following:

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