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FEDERAL COMMUNICATIONS COMMISSION
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*Before the
Federal Communications Commission
Washington, D.C. 20554*

In the Matter of)
)
Advanced Television Systems)
and Their Impact upon the) MM Docket No. 87-268
Existing Television Broadcast)
Service)

**SUPPLEMENT TO PETITION FOR RECONSIDERATION
OF SPEER COMMUNICATIONS HOLDINGS I LIMITED PARTNERSHIP**

Speer Communications Holdings I Limited Partnership ("Speer"), licensee of WNAB (TV), NTSC channel 58 serving Nashville, Tennessee, by its attorneys, respectfully requests reconsideration of the Commission's Sixth Report and Order in the above-cited Docket.¹ Speer has demonstrated in its *Petition for Reconsideration*, filed June 13, 1997, that the assignments proposed for digital television ("DTV") service in the Nashville television market, including the channel provided to Speer, would seriously disrupt over-the-air broadcast television reception — both analog and digital — for a large number of viewers in

¹ Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, (Sixth Report and Order, FCC 97-115, released April 21, 1997) (hereinafter, "Sixth R & O").

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the Nashville market. The information recently released in OET Bulletin No. 69² underscores the disastrous effects the allocations would have in the area.

In the Sixth R & O, the Commission assigned DTV channel 23 to Speer and required that Speer broadcast with a directional antenna³ and a power level of 50.3 kW.⁴ Speer would be competing in the Nashville market against four other UHF DTV stations, all with power levels greater than 100 kW and including two that would be capable of broadcasting at 1,000 kW.

Speer's consultant, John F.X. Browne, P.E., has conducted additional studies with guidance provided by the Commission in OET Bulletin No. 69. These studies have shown that (1) any attempt to increase the power of WNAB-DTV above 50.3 kW would result in new or increased interference to at least five existing NTSC or proposed DTV stations, and (2) because of the nature of the directional antenna pattern required by the Commission, it may even be necessary for Speer to broadcast at power even less than 50.3 kW. These findings are outlined in the attached supplementary engineering statement. The constraints placed upon Speer by this allocation would make it impossible for WNAB-DTV to provide the level of service to Nashville area viewers that Speer currently

² Longley-Rice Methodology for Evaluating TV Coverage and Interference, OET Bulletin No. 69 (July 2, 1997).

³ Sixth R & O at ¶ 32.

⁴ Sixth R & O, Exhibit B, page B-38.

provides on its NTSC facility and to compete on an equal technical footing with other stations in the Nashville market.

In light of OET Bulletin No. 69, Mr. Browne has conducted a search for a different channel for WNAB-DTV to alleviate these problems. He could find no workable alternative within the core digital TV spectrum.

Additionally, the Commission has assigned DTV channel 56 to Landmark Television of Tennessee, Inc., licensee of WTVF (TV) in Nashville. As reiterated in the supplemental engineering statement, this assignment at a location 39 km from WNAB's NTSC transmitter location does not comply with the Commission's separation requirements.⁵ Thus, the signal of WTVF-DTV would be expected to cause massive interference to the signal of Speer's NTSC facility throughout most of Nashville, WNAB's city of license.

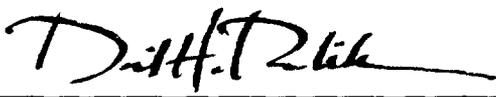
The Commission's allocations issued in the Sixth R & O, therefore, would not only prevent Speer from becoming a strong competitor in digital television, it also threatens Speer's existing broadcasting operation. Unfortunately, it appears that the only solution is a complete reworking of the entire digital television allocation scheme in the Nashville area.

The introduction of digital television provides the Commission with a "once in a lifetime opportunity" to replace the existing inequalities of television

⁵ 47 C.F.R. § 73.623(d).

allocations that resulted from the piecemeal, happenstance channel assignments made over the past fifty years. The allocation plan provided in the Sixth R & O, however, continues the old problems and actually exacerbates them with respect to the Nashville market. Only through a complete reworking of the digital allocation scheme in the Nashville area can the Commission bring about the successful introduction of new and improved digital television services. Accordingly, Speer respectfully requests that the Commission reconsider its decision in the Sixth R & O.

SPEER COMMUNICATIONS HOLDINGS I LIMITED PARTNERSHIP

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August 22, 1997

B**ENGINEERING STATEMENT**

In support of

Petition for Reconsideration

Speer Communications Holdings I Limited Partnership**WNAB-TV
Nashville, TN**

Speer Communications Holdings I Limited Partnership (Speer) is the licensee of WNAB-TV, Channel 58, Nashville, TN. Speer previously filed a petition for reconsideration regarding its DTV channel allotment. This statement is intended to supplement the earlier filing based on an additional review in light of the guidance provided by Bulletin OET-69.

WNAB Allotment

Speer has been allotted Channel 23 for its WNAB-DT facility^{1/}. WNAB-DT will be competing in a market where all four other UHF DTV allotments have power levels greater than 100 kW including two with 1000 kW. A study has been conducted using NIIA-IIS-TAS to determine whether the DTV allotment can be maximized.

^{1/} South Central Communications Corporation filed a petition for reconsideration proposing that the allotment for WNAB-DT be changed to Channel 34. Speer has previously submitted its objection to this petition and this issue is not further addressed herein.

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The study revealed that at least five cases of new (or increased) interference would be created to either existing NTSC or proposed DTV stations. This would seem to preclude any maximization on this channel.

In the course of this study, it was noted that the DTV directional antenna pattern maximum-to-minimum created by the Commission exceeds the pattern of the present NTSC directional antenna by 3-4 dB. This could require a reduction in the maximum ERP if an antenna that exactly replicated the Commission's pattern cannot be obtained. Antenna manufacturers have cautioned that these patterns are typically not achievable because of their irregularity.

Given the apparent problems with this allotment, a study was conducted to determine whether an alternative channel could be substituted for Channel 23 which would create/receive less interference and permit some maximization; no such channel could be identified in the core spectrum.

WNAB-TV NTSC Service

WNAB-TV operates on Channel 58 from a site south of Nashville. The Commission has allotted Channel 58 for DTV use at Nashville with a power level of 1000 kW. The distance between the WNAB-TV site and the DTV allotment is 39 km. Section 73.623(d) of the rules precludes the siting of new DTV allotments where the separation would be between 24.1 and 96.6 km. The Rules also provide for a D/U ratio of -28 dB for this "taboo" relationship.

It is clear that the 1000 kW DTV facility on Channel 56 will significantly degrade the NTSC service of WNAB-TV over most of its principal city of Nashville.

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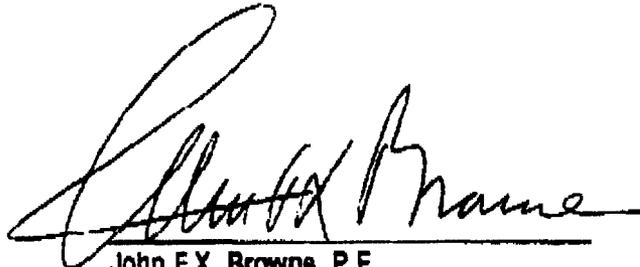
Conclusion

The WNAB-DT allotment may not be maximized and may actually have to operate at less than 50 kW maximum ERP due to directional antenna constraints. The Commission should, at a minimum, modify the WNAB-DT allotment to permit operation with 50 kW omnidirectional power. Allotment of a different channel which would permit some degree maximization would be more appropriate.

The allotment of Channel 56 at a non-colocated site with an ERP of 1000 kW will result in massive interference being caused to the reception of the WNAB NTSC signal in its principal community. The Commission should allot a different channel to WTVF for its DTV service.

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 believed to be true.



John F.X. Browne, P.E.
August 21, 1997