

## **Exhibit 21 to Request for Engineering STA**

In accordance with Paragraph 92 of Report and Order, *Third Periodic Review of the Commission's Policies Affecting the Conversion to Digital Television*, FCC 07-228 (2008) ("Third Periodic DTV Report and Order"), Sunflower Broadcasting, Inc. ("Sunflower"), licensee of KWCH-DT, Hutchinson, KS (Facility ID Number 66413), files this request for Special Temporary Authority (STA) for KWCH-DT to temporarily remain on its pre-transition digital channel 19 past the February 17, 2009 DTV transition date for a period of no longer than four months while construction of its post-transition facilities is completed. Once its post-transition facilities are complete, KWCH-DT will switch from its current digital channel 19 to digital channel 12.<sup>1/</sup>

To accomplish this post-transition channel switch Sunflower must replace its top-mounted analog antenna with a new digital antenna. Removal of the analog antenna and the corresponding installation of the new digital antenna, which is on top of a tower that stands 439.1 meters above ground level, cannot be done during the Winter months in Kansas – when the high temperature averages between 43-47 degrees and snow, high winds, and other precipitation is a regular occurrence. The high winds at the top of the tower in particular would make mid-Winter construction at that height extremely dangerous. Sunflower must, therefore, either wait until Spring 2009 to complete construction and testing of its post-transition facilities or reduce service to the public by terminating its analog service well before the transition. Sunflower believes that

---

<sup>1/</sup> KWCH elected to return to its analog channel for post-transition operations, a choice that was confirmed by the Commission. Seventh Report and Order, *Advanced Television Systems and Their Impact Upon the Existing Television Service*, 22 FCC Rcd 15581 & Appendix B (2007).

the public interest would be better served by continuing analog service until the end of the transition, particularly because service to the public will not be harmed by the short delay in moving to KWCH-DT's permanent digital channel.

As required by Paragraph 92 of the *Third Periodic DTV Report and Order*, Sunflower performed Longley-Rice analyses comparing KWCH's current analog and digital service populations. These analyses, the results of which are attached here as Appendix A, confirm that no analog TV over-the-air viewers will lose service if KWCH-DT is permitted to stay on its pre-transition digital channel 19 past the transition date. And because KWCH-DT will continue providing digital service on channel 19 at its full authorized facilities, no current digital TV over-the-air viewers will lose service either.

Attached as Appendix B is an engineering statement submitted with an Application for a Construction Permit for the post-transition operations for KSCW-DT, Wichita, KS (Facility ID Number 72348), a station that is also licensed to Sunflower. KSCW-DT will use the KWCH-DT pre-transition channel 19 facility for its post-transition operations. The attached exhibit demonstrates that KSCW-DT's planned post-transition operations on channel 19 will not cause impermissible interference to other stations in excess the 0.5% limit established in the *Third Periodic DTV Report and Order*. Therefore, KWCH-DT's temporary post-transition operations on channel 19 using the same facility will also not cause impermissible interference to other stations above the 0.5% limit.

While it is technically true that by remaining on digital channel 19 past the transition date KWCH-DT will delay KSCW-DT's move to its final digital channel, the stations, which as stated above are both licensed to Sunflower, have planned for this situation and thus the delay in KSCW-DT's transition has been planned for and will cause no hardship to KSCW. Furthermore,

both KWCH-DT and KSCW-DT are now operating on fully-licensed digital facilities and the delay in moving to their final channels will not deprive the public of digital television service.

Sunflower will, in accordance with the *Third Periodic DTV Report and Order*, make all required announcements to the public.

Therefore, Sunflower requests that the Commission grant this request to permit KWCH-DT to remain on its pre-transition digital channel 19 for a period of time, not to exceed four months, past the DTV transition date.

## **Appendix A**

## **Population Analysis**

In order to confirm that if it remains on its pre-transition digital channel 19 past the DTV transition date, KWCH-DT will be able to serve at least the same population that receives its current analog TV service, Sunflower had the engineering firm of Cavell, Mertz & Associates, Inc. perform a Longley-Rice analysis using Census 2000 population counts. The results of this analysis are below:

### **KWCH NTSC Ch. 12 Facility (BMLCT-20040826AAF)**

824,847 persons within Grade B contour

821,071 not affected by terrain

### **KWCH DTV Ch. 19 Facility (BLCDT-20050621AAR)**

829,743 not affected by terrain

829,621 Interference Free

## **Appendix B**

Exhibit 44 – Statement A - Amended  
**NATURE OF THE PROPOSAL**  
**PROPOSED ANTENNA SYSTEM**  
prepared for  
**Sunflower Broadcasting, Inc.**  
**KSCW(TV) Wichita, Kansas**  
Facility ID: 72348  
Ch. 19 1000 kW 421 m

Sunflower Broadcasting, Inc. (“SBI”) is the licensee of television stations KSCW(TV), channel 33, Wichita, KS (see BLCT-20010717AAW) and KWCH-TV/DT, analog channel 12 and pre-transition digital channel 19, Hutchinson, Kansas. In keeping with the Commission’s recent grant of an alternative channel assignment<sup>1</sup> for KSCW, SBI recently submitted an Application for Construction Permit for post-transition KSCW(DT) that specifies the existing KWCH-DT site. (BPCDT-20080408AAK). With the lifting of the filing freeze<sup>2</sup>, SBI herein proposes to modify its pending application to specify a maximized post-transition operation for KSCW(TV) from an existing tower (see Antenna Structure Registration Number 1046283). The facility will become operational following termination of the KWCH-TV analog transmission on Channel 12<sup>3</sup> after February 17, 2009.

**Exhibit 44 - Figure 1** provides a map depicting the service contour for the proposed facility along with principal community coverage contour. As demonstrated therein, the principal community of Wichita, Kansas is predicted to receive the enhanced signal level as required in §73.625(a) of the Commission’s Rules. The proposed facility is predicted to provide interference free service to 829,621 persons, which is 110.9 percent of the 748,000 persons that are predicted to receive interference free service from the Appendix B facility<sup>4</sup>.

---

<sup>1</sup> See *Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order, Advanced Television Systems and Their Impact Upon the Existing Television Broadcasting Service*, MB Docket No. 87-268, FCC 08-72, Released March 6, 2008 at paragraph 72, Appendix D4, and footnote 185.

<sup>2</sup> See *Public Notice, Commission Lifts The Freeze On The Filing Of Maximization Applications And Petitions For Digital Channel Substitutions, Effective Immediately*, DA 08-1213, Released May 30, 2008.

<sup>3</sup> Following the cessation of KWCH-TV analog channel 12 broadcasting, SBI is authorized (see BPCDT-20080313ACP) to replace the KWCH-TV channel 12 antenna and transmission line and make modifications to the transmitter in preparation of KWCH-DT digital broadcasting on channel 12. Until this work is completed, continued operation of the KWCH-DT pre-transition channel 19 facility is required, as explained in the Form 387 filed for KWCH-DT. Until the channel 19 facility is available, KSCW(DT) intends to continue broadcasting utilizing its pre-transition, channel 31 facility. Initial studies indicated that such continued operation would not exceed 0.5% new interference to pertinent, post-transition stations.

<sup>4</sup> See *Memorandum Opinion And Order On Reconsideration of the Seventh Report and Order and Eighth Report And Order, Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, FCC 08-72, Released March 6, 2008

Exhibit 44 – Statement A - Amended

(Page 2 of 3)

The proposed antenna is a Dielectric TFU-30DSC-R-04 which is non-directional in the horizontal plane and is horizontally polarized with 0.75° of electrical beam tilt.

Since the proposed facility extends the service contour past that currently authorized for the Appendix B facility, post-transition interference studies were performed in accordance with the methods set forth in the Commission's OET Bulletin No 69 ("OET-69"). The results of the studies indicate that no new interference in excess of the 0.5% limit established in the Commission's Third Periodic Review<sup>5</sup> is caused to affected stations by the post-transition KSCW(TV) operation. A summary of the post-transition interference study is provided in the attached **Exhibit 44 - Table I**.

The proposed 1000 kW ERP exceeds the maximum permitted ERP of 770 kW for the proposed antenna HAAT of 421 meters currently permitted by §73.622(f)(8)(i). However, §73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the station having the largest coverage area within the same market. In this case, a coverage area larger than the 770 kW/421 m HAAT coverage area is currently provided by the licensed digital facility for co-owned digital television station KWCH-DT (Ch. 19, Hutchinson, KS, 1000kW/421 m HAAT). KWCH-DT is licensed to operate from the transmitter site and facilities proposed herein. The area within the proposed KSCW 41 dBμ service contour will therefore be identical to the coverage area within the licensed KWCH-DT service contour. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

The proposed KSCW(TV) digital Channel 19 site is located more than 400 km from the nearest points on the international borders with Canada and Mexico and does not require international coordination. The nearest FCC monitoring station is Grand Island, NE at a distance of 323 km from the proposed site. This exceeds by a great margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. There are no AM stations located within 3.2 km of the existing tower site.

---

<sup>5</sup> See *Report and Order, Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, MB Docket No. 07-91, FCC 07-228, Released December 31, 2007.



Exhibit 44 – Statement A - Amended  
(Page 3 of 3)

Thus, this proposal is believed to be in compliance with the current Commission's Rules and policy with respect to allocation matters.

prepared June 2008 for  
**Sunflower Broadcasting, Inc.**  
 KSCW(TV) Wichita, Kansas  
 Facility ID 72348  
 Ch. 19 1000 kW 421 m  
**Cavell, Mertz & Associates, Inc.**  
 Manassas, Virginia

Proposed KSCW(TV) "Post Transition" Facility
Ch. 19 1000 kW 421 m
41 dBu F(50.90) Service Contour
48 dBu F(50.90)
Principal Community Contour

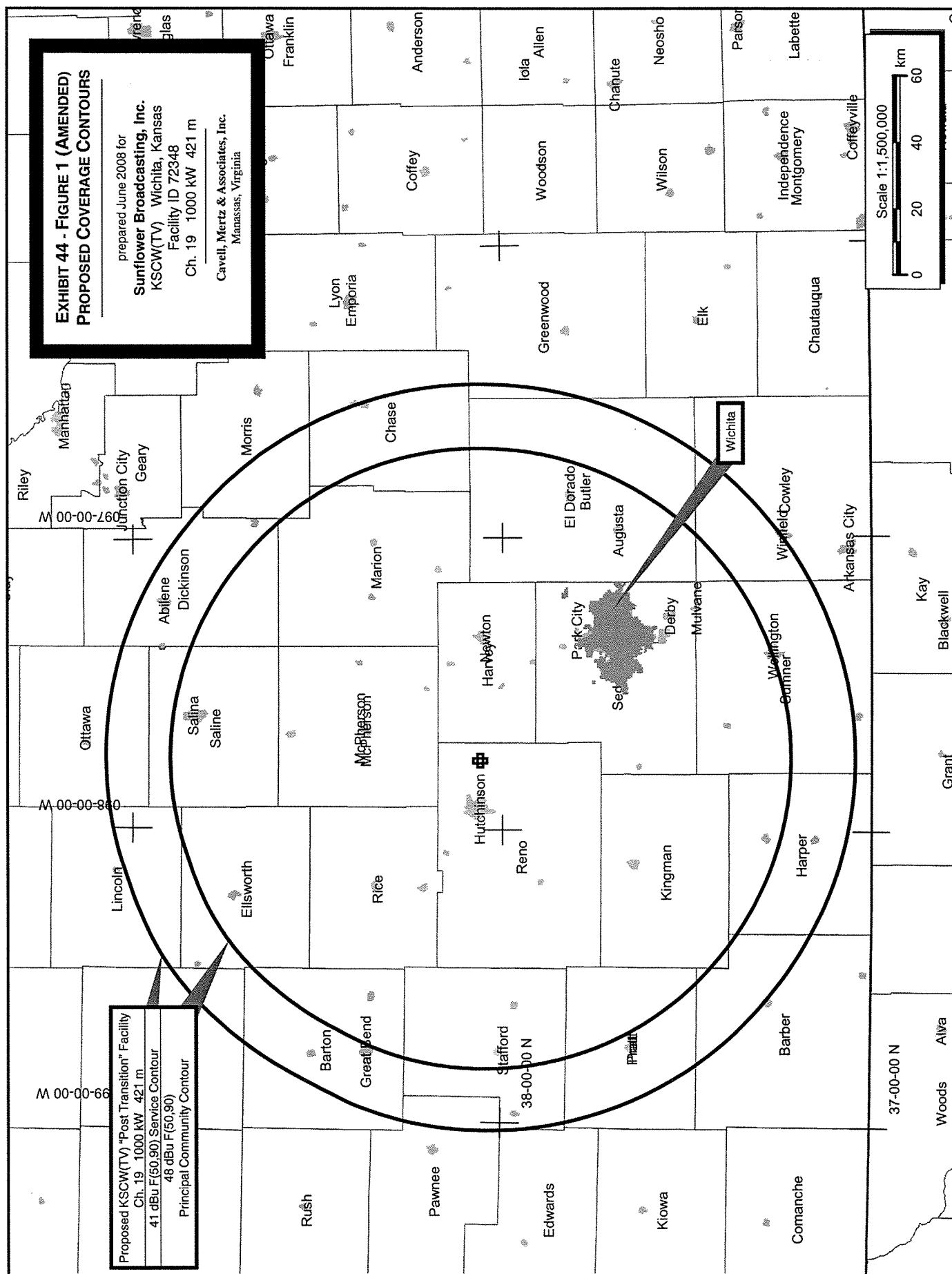


Exhibit 44 - Table I  
**INTERFERENCE STUDY RESULTS**

prepared for

**Sunflower Broadcasting, Inc.**  
 KSCW(TV) Wichita, KS  
 Facility Id: 72348  
 Ch. 19 1000 kW 421 m

Channel	Affected Station	City, State	File Number	7th R&O Table Baseline (2000 Census)	Calculated Baseline (2000 Census)	Interference Population 7th R&O facility (2000 Census)	Interference Population with Proposal (2000 Census)	New Interference Population	New Interference Percentage
19	KWKS(TV)	Colby, KS	BLEDT-20070601ATA	43,000	42,882	256	273	17	0.040 %
19	KWKS(TV)	Colby, KS	Reference	43,000	43,031	263	280	17	0.040 %
19	KTVG(TV)	Grand Island, NE	BPCDT-19991015ABA	195,000	195,515	43	102	59	0.030 %
19	KTVG(TV)	Grand Island, NE	Reference	195,000	195,515	43	102	59	0.030 %
19	KTVG(TV)	Grand Island, NE	BMPCDT-20080317ACI	195,000			---	No Interference	---
19	KUOT-CA	Oklahoma City, OK	BPTTA-20060111ACN				---	No Interference	---
19	KUOT-CA	Oklahoma City, OK	BLTTA-20040811ADD				---	No Interference	---

Cavell, Mertz & Associates, Inc.