

**NATURE OF THE PROPOSAL
SPECIAL TEMPORARY AUTHORIZATION**

prepared for

Sunflower Broadcasting, Inc.
KWCH-TV Hutchinson, Kansas
Facility ID 66413
Ch. 12 33.2 kW 449.2 m

Sunflower Broadcasting, Inc., (“*Sunflower*”) is the permittee of digital television station KWCH-DT, Hutchinson, Kansas. *Sunflower* has completed construction of the DTV facility authorized in Construction Permit (“CP”) BPCDT-20080313ACP, terminated analog and pre-transition digital operations, and commenced post-transition operation on digital Channel 12. For reasons expressed elsewhere in the instant application, *Sunflower* seeks authorization to temporarily increase the effective radiated power (“ERP”) of KWCH-DT.

Figure 1 provides a map showing the service contours of the authorized (shown in red) and proposed (shown in blue) facilities. The map also provides the proposed facility’s principal community coverage contour which completely encompasses the principal community of Hutchinson, Kansas as required in §73.625(a) of the Commission’s Rules.

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 Review¹ is caused to existing stations² by the proposed, *temporary* operation. A summary of the post-transition interference study is provided in the attached **Table I**.

The proposed KWCH-TV site is located more than 400 km from the nearest points on the Canadian and Mexican borders and does not require international coordination. The nearest FCC monitoring station is at 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. The proposed site is also located outside

¹ 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.

² Interference is predicted to the Channel 12 DTV plan record of station KSQA, Topeka, Kansas. As a new television station, KSQA’s initial NTSC, Channel 12 Construction Permit (BNPCT-20060424ADV), expires August 11, 2009. According to information retrieved from the FCC’s engineering database, the permittee of KSQA has not yet applied for a post-transition, DTV Construction Permit. Thus, it is believed that *temporary* operation on this channel will be permissible.

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the area specified in §73.1030(b)(1)(iii). Thus, coordination of the instant proposal with the Table Mountain Radio Receiving Zone at Boulder County, Colorado, is not required. According to the Commission's engineering database, there are no AM broadcast stations located within 3.2 km of the proposed facility.

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

Human Exposure to Radiofrequency Radiation

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The KWCH-TV antenna that will be employed for the proposed post-transition operation will have a center of radiation 431.1 meters above ground level. An ERP of 33.2 kilowatts, horizontally polarized, will be employed. For this calculation, a conservative antenna relative field value of 50 percent or less from 20 to 90 degrees below the horizontal plane (i.e.: below the antenna) is assumed. Thus, a value of 50 percent relative field is used for this calculation. The "uncontrolled/general population" limit specified in §1.1310 for Channel 12 (center frequency 207 MHz) is 200 $\mu\text{W}/\text{cm}^2$.

OET 65's formula for television transmitting antennas is based on the NTSC transmission standards, where the average power is normally much less than the peak power. For the DTV facility in the instant proposal, the peak-to-average ratio is different than the NTSC ratio. The DTV ERP figure herein refers to the *average* power level. The formula used for calculating DTV signal density in this analysis is essentially the same as equation (9) in OET 65.

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$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

<i>S</i>	=	power density in microwatts/cm ²
<i>ERP</i>	=	total (average) ERP in Watts
<i>F</i>	=	relative field factor
<i>D</i>	=	distance in meters

Using this formula, the proposed facility would contribute a power density of 1.5 µW/cm² at two meters above ground level near antenna support structure, or 0.8 percent of the general population/uncontrolled limit. At ground level locations away from the base of the tower, the calculated RF power density is even lower, due to the increasing distance from the transmitting antenna.

§1.1307(b)(3) states that facilities at locations with multiple transmitters (such as the case at hand) are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of the any other facilities using this site may be considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at or near ground level as defined under §1.1307(b).

Safety of Tower Workers and the General Public

As demonstrated herein, excessive levels of RF energy attributable to the proposal will not be caused at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will continue to be restricted and controlled through the use of a locked fence. Additionally, appropriate RF exposure warning signs will continue to be posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy will continue to be employed protecting maintenance workers from excessive exposure when work

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must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.

Conclusion

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

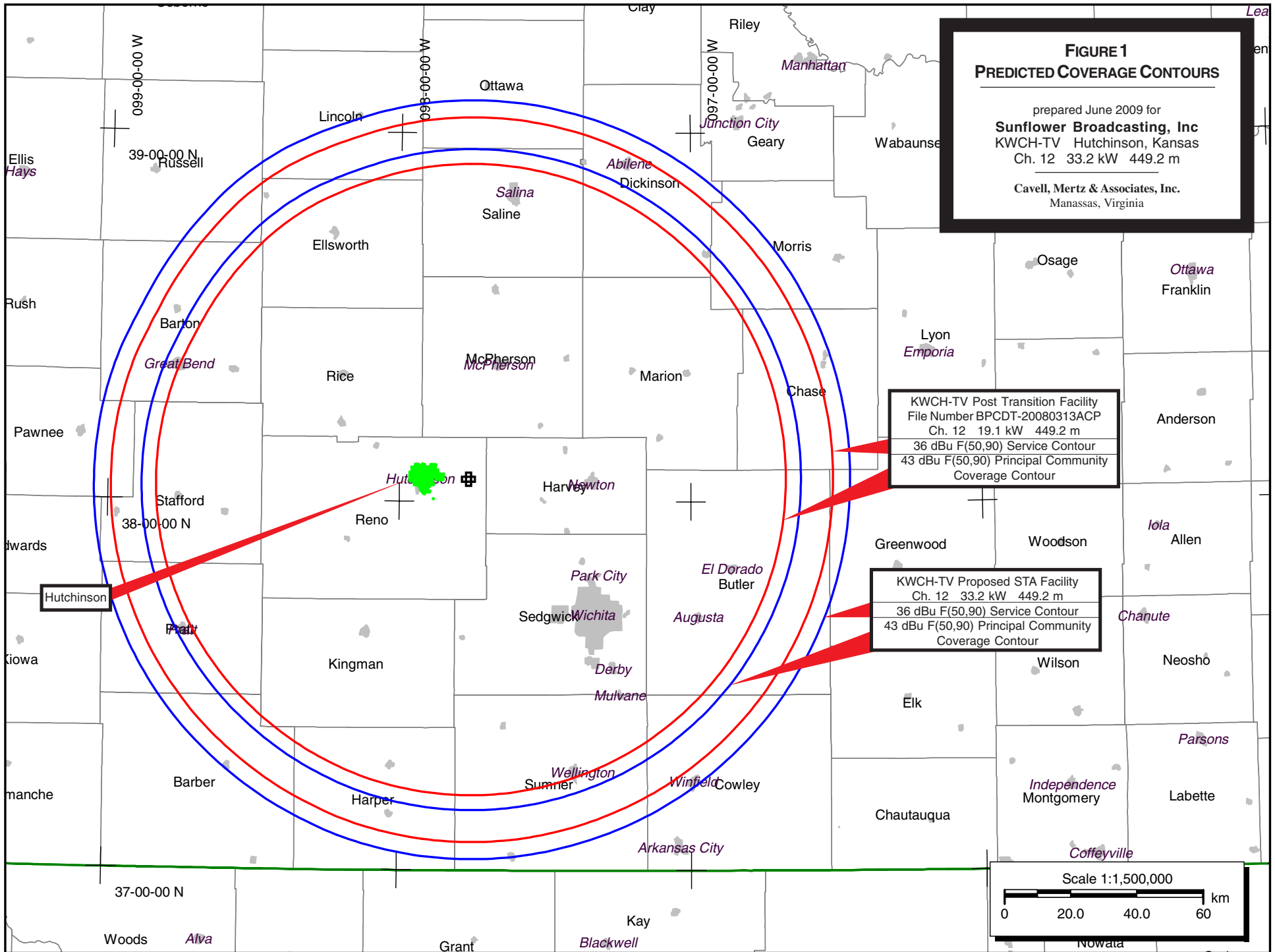


Table I
INTERFERENCE STUDY RESULTS

prepared for
Sunflower Broadcasting, Inc.
 KWCH-TV Hutchinson, KS
 Facility Id: 66413
 Ch. 12 33.2 kW 421 m

<u>Channel</u>	<u>Affected Station</u>	<u>City, State</u>	<u>File Number</u>	<u>7th R&O Table Baseline (2000 Census)</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population without Proposal (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>New Interference</u>	
								<u>Population</u>	<u>Percentage</u>
11	KTWU(TV)	Topeka, KS	BMPEDT-20080620AIK	1,122,000			---	No Interference	---
11	KTWU(TV)	Topeka, KS	Reference	1,122,000			---	No Interference	---
12	KSQA(TV)	Topeka, KS	Reference	420,000	418,872	41,144	49,215	8,071	1.927 %
12	KUON-TV	Lincoln, NE	BMPEDT-20080620AKC	1,145,000	1,227,346	6,483	6,625	142	0.012 %
12	KUON-TV	Lincoln, NE	Reference	1,145,000	1,144,850	1,255	1,559	304	0.027 %
12	KSNK(TV)	Mccook, NE	BLCDT-20031017ABP	48,000	48,563	218	290	72	0.148 %
12	KSNK(TV)	Mccook, NE	Reference	48,000	48,604	218	296	78	0.161 %
13	WIBW-TV	Topeka, KS	BMPCDT-20080613AAC	674,000			---	No Interference	---
13	WIBW-TV	Topeka, KS	Reference	674,000			---	No Interference	---