

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
FM STATION KMGL  
FACILITY ID 55708  
OKLAHOMA CITY, OKLAHOMA  
CH 281C 100 KW 518 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for construction permit to modify the licensed facilities of FM station KMGL at Oklahoma City, Oklahoma (BLH-19820830AH). Currently, KMGL is licensed to operate on channel 281C (104.1 MHz) with a nondirectional antenna maximum effective radiated power (ERP) of 100 kilowatts and an antenna radiation center height above average terrain (HAAT) of 415 meters.

Purpose of Application

In response to a petition for rule making filed by Charles Crawford ("Crawford Petition") seeking to allot channel 281C2 to Shattuck, Oklahoma, the FCC issued an Order to Show Cause directed to KMGL to show cause why its facilities should not be reclassified to a Class C0 facility because its current HAAT (415 meters) was less than the Class C minimum (451 meters) with an ERP of 100 kW.<sup>1</sup>

In response to the Order to Show Cause, KMGL notified the FCC of its intent to file an application within 180 days of the date set forth in the Order to Show Cause to increase its HAAT to at least 451 meters in order to attain minimum Class C facilities. Therefore, this instant application proposes to relocate the KMGL transmitter site, increase the KMGL HAAT to 518 meters and maintain KMGL's Class C status. Specifically, it is proposed to operate from the new transmitting site with a nondirectional ERP of 100 kW and HAAT of 518 meters. The instant application is considered a "minor" change in facilities in accordance with Section 73.3573(a)(1).

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<sup>1</sup> See Order to Show Cause in RM-11211, adopted April 6, 2005, released April 8, 2005.

Response to Paragraph 5 - Antenna Structure Registration

It is proposed to operate from a new tower. The FAA has issued a Determination of No Hazard to Air Navigation in Aeronautical Study No. 2005-ASW-3912-OE for the tower proposed to be used by KMGL. A copy the FAA Determination is attached as Figure 3. The FCC will be immediately notified of the antenna structure registration number upon receipt.

Response to Paragraph 14 - Community Coverage

Figure 1 is a map which demonstrates that KMGL's proposed operation complies with the provisions of Section 73.315. Specifically, it has been determined that the proposed 70 dBu contour will encompass 100% of the area within the Oklahoma City limits.

Response to Paragraph 16

Figure 2 is a separation study from KMGL's proposed antenna location for the channel 281C operation. As shown, the proposed antenna location complies with the minimum distance separation requirements of Section 73.207 for Class C operation on channel 281 towards all existing, authorized and proposed stations and allotments with the exceptions of the proposal to allot channel 281C2 at Shattuck, Oklahoma as set forth in the Crawford Petition and KTDK on channel 281C3 at Sanger, Texas. Each short-spacing is addressed below.

The proposed KMGL operation is short-spaced by 7.12 kilometers to the proposal to allot channel 281C2 to Shattuck, Oklahoma set forth in the Crawford Petition. The Crawford Petition requested the downgrade of KMGL to Class C0 status. However, the instant KMGL application will maintain KMGL's Class C status.

The proposed KMGL operation is short-spaced by 2.90 kilometers to the licensed operation of KTDK on channel 281C3 at Sanger, Texas (BLH-20050309AAI). The licensed KTDK operation short-spaced KMGL's licensed operation (BLH-19820830AH) under Section 73.215 (4.00 kilometer short-spacing). As the distance to KTDK's licensed operation is increased (i.e. the short-spacing is decreased), KMGL is

permitted to operate with maximum Class C facilities (ERP 100 kW/HAAT 600 m) towards KTDK's authorized operation.

#### Environmental Considerations

The proposed KMGL facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields.

The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. Using a "conservative" vertical relative field value of 0.5, the total ERP of 200 kW (H+V) and an antenna center of radiation height above ground level of 521 meters, the calculated power density at 2 meters above ground level at the base of the tower is 0.0062 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 3.1% of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ( $0.2 \text{ mW}/\text{cm}^2$  for FM frequencies). Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the tower will be restricted and appropriately marked with warning signs. Furthermore, as this will be a multi-user site, procedures will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such procedures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the station is at reduced power or shut down.

Finally, it is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the

environmental processing analysis will be provided to the FCC  
by the tower owner as part of the tower registration process.

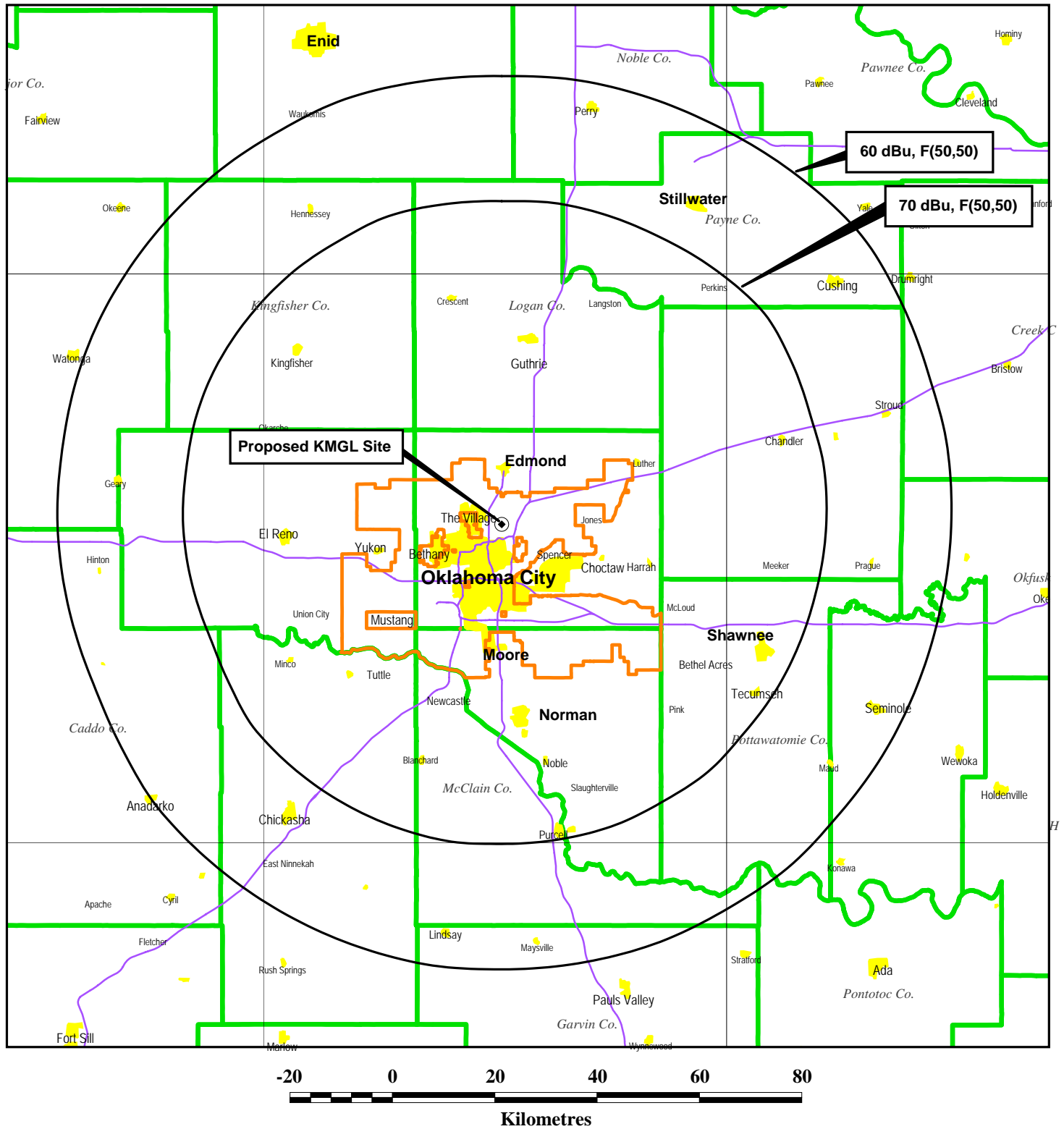


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Figure 1



## COMPLIANCE WITH SECTION 73.315

STATION KMGL  
OKLAHOMA CITY, OKLAHOMA  
CH 281C 100 KW 518 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

CDBS FM SEPARATION STUDY

Job Title: Proposed KMGL, Ch. 281C, Oklahoma City, OK Separation Buffer: 32 km  
Channel: 281 C Coordinates: 35-33-36 097-29-07

Call Id	City St	File Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km) 215	207
KKNG-FMNEWCASTLE 50168	OK	LIC C	19980223KC	227 C1 93.3	100.000 243	N	35-11-28 097-35-49	N	193.9	42.17 1.17	0.0 Close	41.0
	ANADARKO	RM	9548	278 C 103.5	0.000	N	35-23-18 098-37-41	N	259.9	105.45 0.45	99.0 Close	105.0
KVSP 2189	OK	LIC C	20040723AAG	278 C 103.5	100.000 600	N	35-15-04 098-36-53	N	251.8	108.17 3.17	99.0 Close	105.0
	OKEMAH	RM	11228	279 C1 103.7	0.000		35-14-22 096-18-48		108.2	112.25 7.25	99.0 Close	105.0
KBVL 56088	PAWHUSKA	BLH	19970716KB	280 A 103.9	6.000 100	N	36-44-56 096-17-51	N	38.5	169.79 4.79	142.0 Close	165.0
KQXC-FMWICHITA 55380	TX	LIC C	20030903ABP	280 C2 103.9	19.000 246	N	33-54-04 098-32-21	N	207.9	207.80 19.80	176.0 Clear	188.0
KMGL 55708	OKLAHOMA	CI BLH	19820830AH	281 C 104.1	100.000 415	N	35-32-58 097-29-18	N	193.3	1.20		
	OKLAHOMA	CI RM	11211	281 C 104.1	0.000		35-32-58 097-29-18		193.3	1.20		
	OKLAHOMA	CI RM	11211	281 C0 104.1	0.000		35-32-58 097-29-18		193.3	1.20		
KTDK 26146	SANGER	BLH	20050309AAI	281 C3 104.1	6.200 192	N	33-28-47 097-03-22	Y	170.2	234.10 -2.90	226.0 <b>Short</b> <sup>1</sup>	237.0
	SHATTUCK	RM	11211	281 C2 104.1	0.000		36-06-45 100-04-30		285.5	241.88 -7.12	237.0 <b>Short</b> <sup>2</sup>	249.0
KGGF-FMFREDONIA 34461	KS	LIC C	19970724KA	281 C3 104.1	7.300 163	N	37-22-31 095-43-41	Y	37.4	255.70 18.70	226.0 Clear	237.0
NEW 165381	GRANITE	BSFH	20050812ASW	282 C3 104.3	0.000		34-52-15 099-17-36		245.5	181.51 5.51	165.0 Close	176.0

<sup>1</sup> The licensed KTDK operation (BLH-20050309AAI) short-spaced KMGL's licensed operation (BLH-19820830AH) under Section 73.215. As the distance to KTDK's licensed operation is increased (i.e. the short-spacing is decreased), KMGL is permitted to operate with maximum Class C facilities (ERP 100 kW/HAAT 600 m) towards WTDK's authorized operation.

<sup>2</sup> A petition for rule making filed by Charles Crawford ("Crawford Petition") seeking to allot channel 281C2 to Shattuck, Oklahoma, requested the downgrade of KMGL to Class C0 status. However, the instant KMGL application will maintain KMGL's Class C status.

Call Id	City St	Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km) 215 207
	GRANITE			282 C3	0.000	N	34-57-38	N	249.2	183.67	165.0 176.0
	OK VAC	C		104.3			099-22-00			7.67	Close
	WYNNEWOOD	RM		283 A	0.000		34-38-42		164.0	105.58	89.0 95.0
	OK DEL	C CP-03181		104.5			097-10-00			10.58	Close
95786	WYNNEWOOD			283 A	0.000	N	34-38-42	N	164.0	105.58	89.0 95.0
	OK VAC	C		104.5			097-10-00			10.58	Close
	ELMORE CITY	RM		283 A	0.000		34-34-30		181.1	109.30	89.0 95.0
	OK ADD	C CP-03181		104.5			097-30-30			14.30	Close
KSLE	WEWOKA	BLH		284 A	1.700	N	35-05-31	Y	121.0	100.31	89.0 95.0
77278	OK LIC	C 19971211KC		104.7	154		096-32-29			5.31	Close

## OE Case Data for ASN: 2005-ASW-3912-OE

Overview	
<b>Study (ASN):</b> 2005-ASW-3912-OE	<b>Received Date:</b> 06/27/2005
<b>Prior Study:</b> 1977-ASW-482-OE	<b>Entered Date:</b> 06/27/2005
<b>Status:</b> Determined	<b>Completion Date:</b> 07/13/2005
<b>Letters:</b> <a href="#">Determination</a>	<b>Expiration Date:</b>
Sponsor Information	Sponsor's Representative Information
<b>Sponsor:</b> Richland Towers	<b>Representative:</b>
<b>Attention Of:</b> Tony Flores	<b>Attention Of:</b> Clair Billington
<b>Address:</b> 4890 W. Kennedy Blvd., Suite 920	<b>Address:</b> 308 Oak Haven Dr.
<b>City:</b> Tampa	<b>City:</b> Keller
<b>State:</b> FL	<b>State:</b> TX
<b>Postal Code:</b> 33609	<b>Postal Code:</b> 76248
<b>Country:</b> USA	<b>Country:</b> US
<b>Phone:</b> (813)490-2412	<b>Phone:</b> (817)431-1736
<b>Fax:</b> (813)286-4130	<b>Fax:</b> (817)431-8762
Construction Info	Structure Summary
<b>Notice Of:</b> Alteration	<b>Structure Type:</b> Antenna Tower
<b>Duration:</b> Permanent (Months: 0 Days: 0)	<b>Other Description:</b>
<b>Work Schedule:</b>	<b>NACO Number:</b> 37-0855
<b>Date Built:</b>	<b>FCC Number:</b>
Structure Details	Height and Elevation
<b>Latitude (NAD 83):</b> 35° 33' 36.20" N	<b>Proposed DNE DET</b>
<b>Longitude (NAD 83):</b> 97° 29' 08.10" W	<b>Site Elevation:</b> 1140
<b>Datum:</b> NAD 83	<b>Structure Height:</b> 1809 0 0
<b>Accuracy:</b>	<b>Total Altitude from Mean Sea Level:</b> 2949 0 0
<b>Marking/Lighting:</b> Red lights and paint	
<b>Other Description:</b>	
<b>Name:</b> OKC Site	<b>Frequencies</b>
<b>City:</b> Oklahoma City	<b>Low Freq. High Freq. Unit ERP Unit</b>
<b>State:</b> OK	806 824 MHz 500 W
<b>Nearest Airport:</b> 2DT	824 849 MHz 500 W
<b>Distance to Structure:</b> 42,748.87 feet	851 866 MHz 500 W
<b>On Airport:</b> No	869 894 MHz 500 W
<b>Direction to Structure:</b> 19.30	896 901 MHz 500 W
<b>Traverseway:</b> NO	901 902 MHz 7 W
<b>Description of Location:</b> 4.8 NM Northeast of the BMC Heliport	930 931 MHz 3500 W
<b>Description of Proposal:</b> Increase height of existing communications Tower (77-ASW-482-OE)	931 932 MHz 3500 W
	932 932.5 MHz 17 dBW
	935 940 MHz 1000 W
	940 941 MHz 3500 W
	1850 1910 MHz 1640 W



1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W