RADIOFREQUENCY ELECTROMAGNETIC FIELD STUDIES

AT

KLWG

MULTI – USER SITE

January 2011

BY:
Tom King Communications
SANTA BARBARA CA.
805-896-4900

ENGINEERING STATEMENT OF TOM KING

This engineering statement was prepared on behalf of Calvary Chapel of Lompoc, licensee of FM station KLWG, Channel 201, Lompoc, California.

LOCATION-

On January 17, 2011 Radiofrequency Electromagnetic Field measurements were made by myself, Tom King, at and around the KLWG transmitting antenna located near Tepusquet Peak, west of Santa Maria, CA.

FINDINGS-

Observations were made using a Narda Model 8718 with Isotropic Conformal Electric Field Probe Model 8742D. All observed readings were below the Maximum Permissible Exposure to Public Standard as defined in FCC OET Bulletin 65 (appendix A) in areas where the General Public would have access.

CONCLUSIONS –

This facility meets the current guidelines for Maximum Permissible Exposure to RFR in all areas where the general population has access.

ENGINEERING CERTIFICATION

TOM KING deposes and says:

1. That he is Owner of Tom King Communications, radio engineering consultant.
2. That Tom King Communications has offices at 3744 Greggory Way #5 Santa Barbara, California 93105 Telephone (805) 896-4900
3. That he has submitted many applications to the Federal Communications Commission for broadcast construction permits and licenses.
4. That his experience in broadcast engineering is a matter of record and he has spent over 20 years in the field of radio engineering.
5. That the attached engineering exhibit(s) were prepared by him. That he believes that the facts stated therein to be both true and accurate.
6. That he has performed field work on AM, FM and TV broadcast transmitting systems throughout this country and around the world. That he continues to provide technical consulting services on a daily basis to broadcasters.
7. That he declares under penalty of perjury the foregoing is true and correct.

Executed on: 10 Feb 2011 Signed: Tom King, *signature on file with the commission*

BASELINE RFR READINGS

Radial Degrees	Distance From Tower (Feet) 3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75
0	0.1	0.15	0.14	0.17	0.2	0.17	0.16	0.23	0.27	0.26	0.25	0.35	0.37	0.5	0.62	0.5	0.45	0.57	0.54	0.57	0.43	0.37	0.4	0.53	0.4
% of MPE	1.85	2.775	2.59	3.145	3.7	3.145	2.96	4.255	4.995	4.81	4.625	6.475	6.845	9.25	11.47	9.25	8.325	10.545	9.99	**10.545**	7.955	6.845	7.4	9.805	7.4
45	0.14	0.14	0.11	0.15	0.16	0.12	0.12	0.14	0.16	0.24	0.3	0.35	0.24	0.16	0.1	0.1	0.2	0.15	0.1	0.1	0.08	0.09			
% of MPE	2.59	2.59	2.035	2.775	2.96	2.22	2.22	2.59	2.96	4.44	5.55	**6.475**	4.44	2.96	1.85	1.85	3.7	2.775	1.85	1.85	1.48	1.665			
90	0.18	0.14	0.12	0.15	0.13	0.12	0.14	0.11	0.1	0.1	0.12	0.12	0.12	0.1	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.04
% of MPE	**3.33**	2.59	2.22	2.775	2.405	2.22	2.59	2.035	1.85	1.85	2.22	2.22	2.22	1.85	0.925	0.925	0.74	0.74	0.74	0.74	0.74	0.74	0.555	0.555	0.74
135	0.06	0.07	0.04	0.07	0.04	0.05	0.04	0.04	0.06	0.07	0.07	0.08	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.05					
% of MPE	1.11	1.295	0.74	1.295	0.74	0.925	0.74	0.74	1.11	1.295	1.295	**1.48**	1.295	1.11	1.11	1.11	1.11	0.925	0.925	0.925					
180	0.04	0.04	0.06	0.05	0.06	0.05	0.05	0.06	0.05	0.05	0.06	0.06	0.04	0.05	0.05	0.05	0.04	0.05	0.05	0.05					
% of MPE	0.74	0.74	1.11	0.925	**1.11**	0.925	0.925	**1.11**	0.925	0.925	1.11	1.11	0.74	0.925	0.925	0.925	0.74	0.925	0.925	0.925					
225								0.14	0.14	0.17	0.17		0.15												
% of MPE								2.59	2.59	**3.145**	**3.145**														
270							0.08	0.11		0.10															
% of MPE							1.48	**2.035**		1.85															
315																									
% of MPE																									

KLWG 2.5 kW ERP RFR READINGS

Radial Degrees	Distance From Tower (Feet) 3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75
0	0.24	0.21	0.19	0.21	0.24	0.2	0.19	0.22	0.3	0.3	0.29	0.33	0.4	0.41	0.62	0.64	0.8	0.74	1.00	0.56	0.44	0.44	0.44	0.5	0.49
% of MPE	4.44	3.885	3.515	3.885	4.44	3.7	3.515	4.07	5.55	5.55	5.365	6.105	7.4	7.585	11.47	11.84	14.8	13.69	**18.5**	10.36	8.14	8.14	8.14	9.25	9.065
45	0.19	0.19	0.16	0.2	0.22	0.19	0.17	0.18	0.21	0.31	0.38	0.67	0.9	0.56	0.29	0.28	0.25	0.33	0.28	0.28	0.14	0.15	0.16		
% of MPE	3.515	3.515	2.96	3.7	4.07	3.515	3.145	3.33	3.885	5.735	7.03	12.395	**16.65**	10.36	5.365	5.18	4.625	6.105	5.18	5.18	2.59	2.775	2.96		
90	0.24	0.18	0.18	0.19	0.19	0.2	0.19	0.14	0.15	0.16	0.23	0.19	0.15	0.2	0.1	0.11	0.14	0.05	0.1	0.08	0.06	0.1	0.06	0.07	0.08
% of MPE	4.44	3.33	3.33	3.515	3.515	3.7	3.515	2.59	2.775	2.96	**4.255**	3.515	2.775	3.7	1.85	2.035	2.59	0.925	1.85	1.48	1.11	1.85	1.11	1.295	1.48
135	0.10	0.10	0.10	0.08	0.08	0.1	0.11	0.12	0.15	0.17	0.14	0.13	0.13	0.1	0.07	0.08	0.09	0.10	0.10	0.10					
% of MPE	1.85	1.85	1.85	1.48	1.48	1.85	2.035	2.22	2.775	**3.145**	2.59	2.405	2.405	1.85	1.295	1.48	1.665	1.85	1.85	1.85					
180	0.07	0.07	0.06	0.06	0.08	0.09	0.09	0.08	0.08	0.07	0.09	0.09	0.09	0.07	0.07	0.07	0.07	0.07	0.08	0.09					
% of MPE	1.295	1.295	1.11	1.11	1.48	1.665	1.665	1.48	1.48	1.295	1.665	1.665	1.665	1.295	1.295	1.295	1.295	1.295	1.48	**1.665**					
225								0.24	0.21	0.22	0.26		0.26												
% of MPE								4.44	3.885	4.07	**4.81**		**4.81**												
270							0.20	0.21		0.15															
% of MPE							3.7	**3.885**		2.775															
315																									

% of MPE

Distance	3	6	9	12	15	18	21	24	27	30	33	36	39	42
0 Degres Before	1.85	2.775	2.59	3.145	3.7	3.145	2.96	4.255	4.995	4.81	4.625	6.475	6.845	9.25
0 Degrees After	4.44	3.885	3.515	3.885	4.44	3.7	3.515	4.07	5.55	5.55	5.365	6.105	7.4	7.585
Distance	**45**	**48**	**51**	**54**	**57**	**60**	**63**	**66**	**69**	**72**	**75**			
0 Degres Before	11.47	9.25	8.325	**10.545**	9.99	**10.545**	7.955	6.845	7.4	9.805	7.4			
0 Degrees After	11.47	11.84	14.8	13.69	**18.5**	10.36	8.14	8.14	8.14	9.25	9.065			

% of MPE

Distance	3	6	9	12	15	18	21	24	27	30	33
45 Degrees Before	2.59	2.59	2.035	2.775	2.96	2.22	2.22	2.59	2.96	4.44	5.55
45 Degrees After	3.515	3.515	2.96	3.7	4.07	3.515	3.145	3.33	3.885	5.735	7.03
Distance	36	39	42	45	48	51	54	57	60	63	66
45 Degrees Before	6.475	4.44	2.96	1.85	1.85	3.7	2.775	1.85	1.85	1.48	1.665
45 Degrees After	12.395	**16.65**	10.36	5.365	5.18	4.625	6.105	5.18	5.18	2.59	2.775