

Cohen, Dippell and Everist, P.C.

**SUMMARY OF JANUARY 11, 2002
RADIO FREQUENCY FIELD LEVEL
MEASUREMENTS AT LOCATIONS NEAR
THE KOSI/KKHK TRANSMITTER SITE
FEBRUARY 2002**

Representatives from Tribune Denver Radio, Inc. (“Tribune Denver”), Jefferson County, the Canyon Area Residents for the Environment (“CARE”) and the FCC took a series of radio frequency field (“RFF”) measurements on January 11, 2002 at 10 previously selected sites on Lookout Mountain near the KOSI/KKHK transmitter building. This summary of those January 11, 2002 RFF measurements is being submitted with the pending license applications of KOSI and KKHK in response to a request from the FCC staff.

MEASUREMENT SITE NUMBER 1
KOSI/KKHK, DENVER, COLORADO

The first measurement site was located along Cedar Lake Road at a point triangulated by the dimensions of 65' from the northernmost post of the KOSI/KKHK transmitter building and 11' toward the centerline of the road from a pin that was driven into the shoulder of Cedar Lake Road and marked with red paint. The measured RFF at this point averaged 7.4% of the FCC's MPE for an uncontrolled environment. Although the collected data seemed reliable and valid without any abnormalities, the measurement point was located below a power line and directly in front of microwave dish mounted on a tower up the hill from the road. These factors could contribute to higher RFF levels in certain circumstances.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	7.62
2	10.31
3	6.60
4	5.15
Average of All Points in All Directions	7.4

MEASUREMENT SITE NUMBER 2
KOSI/KKHK, DENVER, COLORADO

The second site is also located underneath the same power line as the first measurement point and in the path of the microwave dish in place on the tower above the measurement point. The pin is located 63'4" from the northernmost pole of the fence surrounding the KOSI/KKHK transmitter building and along the east side of the road. As noted above, these factors could contribute to a higher RFF level in certain circumstances. Only three measurements were taken at this location due to prohibitive terrain. The measured RFF at this point averaged 7.4% of the FCC's MPE for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	7.60
2	--
3	6.79
4	6.71
Average of All Points in All Directions	7.0

MEASUREMENT SITE NUMBER 3
KOSI/KKHK, DENVER, COLORADO

The third measurement site was directly across the road from the KOSI/KKHK transmitter building. A steel pin was driven into the side of the road at a position triangulated from the northernmost and southernmost posts of the fence around the transmitter building. The distance from the northernmost pole is 27' 10" and the distance from the southernmost pole is 26' 10". The measured RFF at this point averaged 4.5% of the FCC's MPE for an uncontrolled environment. As was with measurement site number 2, only three measurements were taken due to prohibitive terrain.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	4.95
2	5.06
3	3.59
4	--
Average of All Points in All Directions	4.5

MEASUREMENT SITE NUMBER 4
KOSI/KKHK, DENVER, COLORADO

The fourth measurement site was located at the nearest residence to the southwest along Cedar Lake Road. The address of the residence is 21009 Cedar Lake Road. This is the second closest residence to the KOSI/KKHK tower. The distance to the residence from the lowest element of the former KOSI/KKHK antenna had a total magnitude of 516 feet. This distance is the resultant of the lower element of the antenna being 86 feet above ground level at the residence and 509 horizontal feet to the center of the tower. The intersection of the two lines measuring 26' 10" from the northeast corner of the house and 28' 10" from the northwest corner of the house will mark the position of this point. The measured RFF at this point averaged 3.7% of the FCC's MPE for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	3.68
2	3.98
3	3.90
4	3.06
Average of All Points in All Directions	3.7

MEASUREMENT SITE NUMBER 5
KOSI/KKHK, DENVER, COLORADO

The fifth measurement site was located at the nearest residence to the northeast along Cedar Lake Road. The address of the residence is 21109 Cedar Lake Road and it is the closest residence to the KOSI/KKHK tower. The total distance to the residence from the lowest element of the former KOSI/KKHK antenna was 366 feet, which is the combination of 86 vertical feet and 356 horizontal feet to the base of the tower. The selected measurement point was in the middle of the road roughly in front of the residence. The measurement point can be identified by connecting the telephone pole located on the corner of the nearest residence by a straight line to the metal stake with a reflector on the opposite side of the road. The measurement point lies near the center of the road 11' from the telephone pole along the straight imaginary line. The measured RFF at this point averaged 7.4% of the FCC's MPE limit for an uncontrolled environment. Structural items in the vicinity of the measurement point, including a metal wire fence on both sides of the road and an overhead power line, could contribute to higher RFF levels in certain circumstances.

<u>Average of Observed Values Based On Percent of Uncontrolled Maximum Permissible Exposure Limit</u>	
Direction	Observer Average
1	7.37
2	8.32
3	6.84
4	7.23
Average of All Points in All Directions	7.4

MEASUREMENT SITE NUMBER 6
KOSI/KKHK, DENVER, COLORADO

The sixth site was located outside the gated area in front of the US West green building above the KOSI/KKHK tower. The exact location is identified by a rock that was painted red at the time the measurements were taken and is located across the road 32' 3" from the left gatepost. The measured RFF at this point averaged 2.9% of the FCC's MPE for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	3.18
2	2.93
3	2.51
4	2.92
Average of All Points in All Directions	2.9

MEASUREMENT SITE NUMBER 7
KOSI/KKHK, DENVER, COLORADO

The seventh measurement point was located inside the locked, gated area near the US West green building above the KOSI/KKHK tower. The site was located in the middle of what appeared to be an old road in the fenced area. The actual measurement spot can be found by measuring 21' 3" from the gatepost nearest the green US West green building and 13' 2" from the center support pole of the US West building. A steel pin was driven into the ground and marked with red spray paint to help identify the spot. The measured RFF at this point averaged 11.8% of the FCC's MPE limit for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	12.30
2	13.25
3	11.26
4	10.22
Average of All Points in All Directions	11.8

MEASUREMENT SITE NUMBER 8
KOSI/KKHK, DENVER, COLORADO

The eighth site is located further up the hill from the seventh site in the fenced area between the US West green building and an old stone building. The actual measurement point is marked by a red 'X' that was spray-painted onto a rock that was a permanent fixture on the mountain side. No distance measurements were taken. The measured RFF at this point averaged 7.9% of the FCC's MPE for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	8.28
2	7.78
3	7.79
4	7.79
Average of All Points in All Directions	7.9

MEASUREMENT SITE NUMBER 9
KOSI/KKHK, DENVER, COLORADO

The ninth measurement site was also further up the hill above the KOSI/KKHK tower. No physical measurements were taken to mark the spot, but it was in the middle of road leading up to the US West green building and other transmitter buildings on Lookout Mountain above the KOSI/KKHK tower. The site was directly across from a building marked 21190. The measured RFF at this spot averaged 6.1% of the FCC's MPE for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum</u> <u>Permissible Exposure Limit</u>	
Direction	Observer Average
1	5.62
2	6.91
3	5.86
4	6.01
Average of All Points in All Directions	6.1

MEASUREMENT SITE NUMBER 10
KOSI/KKHK, DENVER, COLORADO

The final measurement site was located in a cul-de-sac on Aspen Road down the hill from Cedar Lake Road. All measurements taken at this location were very low and may very well be in the noise level of the instruments being used. The measured RFF at this point averaged 0.3% of the FCC's MPE limit for an uncontrolled environment.

<u>Average of Observed Values</u> <u>Based On</u> <u>Percent of Uncontrolled Maximum Permissible</u> <u>Exposure Limit</u>	
<u>Direction</u>	<u>Observer</u> <u>Average</u>
1	0.20
2	0.11
3	0.46
4	0.29
Average of All Points in All Directions	0.3