WMKY EXHIBIT 22 -

ANALYSIS OF RADIOFREQUENCY RADIATION (RFR)

EXPOSURE LEVELS AT THE KET MOREHEAD TOWER SITE

FOR PROPOSED STATION WMKY

August 2003

As shown in the following analysis, with the addition of the proposed WMKY facility at the Kentucky Educational Television (KET) Morehead Tower Site, the site remains in compliance with 47 C.F.R. 1.1310. The site is operated as a controlled site and is treated as such by the site occupants. KET, the site manager, asserts that it has advised its employees and tenants of the risk of exposure and approved signs are posted. The levels are below one hundred percent of the levels allowed for a controlled site, so no environmental impact statement is required. Exposure to climbers is controlled by scheduling work in close proximity to radiating elements when the relevant transmitters are operating at reduced power or are shut down.

In order for a site to be considered an occupational/ controlled environment, employees must be advised of the risk of exposure and approved signs must be posted so that both employees and transient members of the general public are alerted. The site manager, KET, asserts that it has advised its employees and tenants of the risk of exposure and approved signs are posted. WMKY also asserts that it has advised its employees of the risk of exposure at the site.

The tallest building at the site has a height of 5.5 m near the base of the tower. A standing 2 m tall person on top of the tallest building is used as a worst-case condition. The site elevation is 423.4 m AMSL. The tower base is at or above the level of the surrounding terrain. The table at the end of this exhibit shows the percent of the MPE at head height for the person for each station considered and for all the stations together. Some of the parameters in the table are estimates.

Compliance with FCC-specified guidelines for human exposure to radiofrequency radiation is evaluated in accordance with 47 C.F.R. 1.1310 and OET Bulletin No. 65 (August 1997). Since the site is a multiple-use site, the fraction of the recommended limit incurred within each frequency interval is determined and the fractional contributions are summed. While many of the licensees at the site are excluded from performing routine RF evaluations, Commission Rules specify that a general compliance analysis must consider all significant contributors including those otherwise excluded.

For WMKY, WKMR-DT , and all the other radiators except WKMR, a far-field prediction based on pages 19-23 of OET 65 is used to calculate the worst case upper limit:

$$PD = \frac{(2.56)(1.64)(F^2)(VERP+HERP)(1000\ mW/W)}{4\pi R^2}$$

where PD is the power density in mW/cm^2, R is the slant range in centimeters from the center of radiation, F is the antenna relative field factor, VERP is the vertically polarized effective radiated power, and HERP is the horizontally polarized effective radiated power.

For WKMR, an NTSC TV station, equation (1) on page 30 of Supplement A of OET 65 is used to calculate the worst case upper limit:

$$PD = \frac{(2.56)(1.64)(F^2)[(0.4)(Visual\ ERP)+(Aural\ ERP)](1000\ mW/W)}{4\pi R^2}$$

The factor of 0.4 converts peak visual ERP to an RMS value.

The total MPE for controlled exposure is about 10.1 percent and the MPE for uncontrolled exposure is about 50.4 percent. The contribution of the proposed WMKY facility is about 2.00 percent of the MPE(C) and 10.0 percent of the MPE(U). Actual on-site measurements may show that radiation levels at the site are lower than the calculated worst case levels.

TOWER: WKMR(TV)

DATE: 29-Aug-03
TOWER SITE ELEV (M AMSL): 423.4
TEST LOCATION ID: 1
BEARING FROM TOWER (DEG): 0
DISTANCE FROM TOWER (M): 3.0
ELEV ABOVE TOWER SITE (M): 5.5
PERSON HEIGHT (M): 2

STATION	FREQ (MHZ)	HERP(VIS) (kW)	HERP(AUR) (kW)	VERP(AUR) (kW)	RCAGL (M)	REL FIELD	PD (mW/cm2)	47 C.F.R. 1.1310 MPE(C) (mW/cm2)	% OF MPE(C)	MPE(U) (mW/cm2)	% OF MPE(U)
TWO-WAY RADIOS BELOW 300 MHZ:											
KNEA896 Transp. MVE	44.6200	0	0.0	0.100	91.40	1.000	0.00047	1.00	0.05	0.20	0.24
DES	45.4000	0	0.0	0.100	165.50	1.000	0.00013	1.00	0.01	0.20	0.07
DES	45.8600	0	0.0	0.100	55.80	1.000	0.00143	1.00	0.14	0.20	0.71
KRB607 KET 2-way	46.5400	0	0.0	0.100	89.60	1.000	0.00050	1.00	0.05	0.20	0.25
KIJ737	47.1400	0	0.0	0.100	61.00	1.000	0.00116	1.00	0.12	0.20	0.58
Amateur Radio	146.9100	0	0.0	0.200	121.90	1.000	0.00051	1.00	0.05	0.20	0.26
KNNJ414 Transp. HWY	151.0850	0	0.0	0.200	121.90	1.000	0.00051	1.00	0.05	0.20	0.26
WPTF611 Forestry	151.2650	0	0.0	0.190	117.30	1.000	0.00053	1.00	0.05	0.20	0.26
USA Mobile	155.2400	0	0.0	0.250	60.70	1.000	0.00294	1.00	0.29	0.20	1.47
Police (Rowan Co.)	155.3700	0	0.0	0.200	65.20	1.000	0.00200	1.00	0.20	0.20	1.00
NOAA	162.0000	0	0.0	2.000	39.60	1.000	0.06429	1.00	6.43	0.20	32.14
Justice Dept. FBI	163.9375	0	0.0	0.200	71.90	1.000	0.00161	1.00	0.16	0.20	0.80
Transp. HWY	157.0850	0	0.0	0.200	128.30	1.000	0.00046	1.00	0.05	0.20	0.23
IFOWS	171.8500	0	0.0	0.200	91.40	1.000	0.00095	1.00	0.09	0.20	0.47
TWO-WAY RADIOS ABOVE 300 MHZ:											
KSQ701 State Police	453.8500	0	0.0	0.158	98.10	0.100	0.00001	1.51	0.00	0.30	0.00
KPL363 Morehead State Univ	455.2500	0	0.0	0.329	110.00	0.100	0.00001	1.52	0.00	0.30	0.00
WNAZ403 Rowan Co DES	462.9750	0	0.0	0.800	130.10	0.100	0.00002	1.54	0.00	0.31	0.01
WNIY711 Rowan Co Brd of Ed	464.7500	0	0.0	0.180	91.10	0.100	0.00001	1.55	0.00	0.31	0.00
WNRU727 Nextel	861.7125	0	0.0	0.600	143.60	0.100	0.00001	2.87	0.00	0.57	0.00
WPQW803 Nextel	863.7125	0	0.0	0.600	161.20	0.100	0.00001	2.88	0.00	0.58	0.00
WPFN485 Arch Wireless	929.2125	0	0.0	1.000	66.10	0.100	0.00010	3.10	0.00	0.62	0.02
KNKO525 Arch Wireless	931.5125	0	0.0	0.800	102.10	0.100	0.00003	3.11	0.00	0.62	0.00
MICROWAVES:											
WEE472 KEWS	6655	0	0.0	1.000	17.70	0.040	0.00047	5.00	0.01	1.00	0.05
WCT710 KET	6925	0	0.0	1.000	45.10	0.040	0.00004	5.00	0.00	1.00	0.00
WCT711 KET	6950	0	0.0	1.000	19.20	0.040	0.00037	5.00	0.01	1.00	0.04
KET	12650	0	0.0	4.000	21.30	0.040	0.00107	5.00	0.02	1.00	0.11
FM (LESS THAN 100 MHZ):											
WMKY	90.3000	0	37.0	37.000	148.00	0.400	0.02003	1.00	2.00	0.20	10.01
FM (MORE THAN 100 MHZ):											
None											
VHF TV:											
None											
UHF TV:											
WKMR(TV)	617.0000	676	67.6	0.000	175.00	0.100	0.00402	2.06	0.20	0.41	0.98
WKMR-DT	479.0000		51.4		164.00	0.140	0.00137	1.60	0.09	0.32	0.43
								TOTALS:	10.08		50.40