

RF WORKSHEET #1 - FM (including translators & boosters)

PLEASE COPY BEFORE USING. THE DETERMINATION OF COMPLIANCE MAY INVOLVE REPEATED CALCULATIONS. IF LOCATED ON A MULTIPLE FM USER TOWER, PLEASE COMPLETE RF WORKSHEET 1A BEFORE PROCEEDING.

EFFECTIVE RADIATION CENTER HEIGHT

Enter proposed "Height of radiation center above ground" OR as listed in line 1 23 m (1)

Is antenna supporting structure located on the roof of a building ? (check one) ☐ Yes ☒ No (2)

If line 2 is "yes," enter the building height measured at the base of the antenna

If line 2 is "no," enter "0" in line 3 0 m (3)

Subtract line (3) from line (1) 23 m (4)

Subtract the value 2.0 from line (4) 21 m (5)

TOTAL EFFECTIVE RADIATED POWER

(If "beam tilt" is utilized, list maximum values)

List Effective Radiated Power in the Horizontal Plane. .360 kW

List Effective Radiated Power in the Vertical Plane 1.055 kW

Add Lines (6) and (7) OR list value from Line 2 in Worksheet 1A 1.415 kW (8)

PERCENTAGE OF FCC RF LIMIT(S) FOR MAXIMUM PERMISSIBLE EXPOSURE

Multiply Line (8) by 33.41 47.28 (9)

Multiply the value listed in line (5) by itself 441 (10)

Divide Line (9) by Line (10) .1072 (11)

Multiply Line (11) by (100) 10.72 % (12)

DETERMINATION OF COMPLIANCE WITH CONTROLLED/OCCUPATIONAL LIMIT

Does Line (12) exceed 100% ☐ Yes ☒ No (13)

IF YOU ANSWERED "YES" IN LINE (13), THE WORKSHEETS MAY NOT BE USED IN THIS CASE. *

IF YOU ANSWERED "NO" IN LINE (13), THEN THE SITE SHOULD COMPLY WITH THE FCC'S CONTROLLED/OCCUPATIONAL RF EXPOSURE LIMITS FOR GROUND LEVEL EXPOSURE. #

CONTINUE

* In this case, you may need to prepare an Environmental Assessment.

RF WORKSHEET #1A -Multiple FM Use Tower

The procedure below will allow for a "worst-case" determination to be made in situations where several FM stations share a common tower. This determination is based upon the "worst case" assumption that all RF energy is emanating from a single antenna located at the same height (i.e., antenna center of radiation above ground level) as the lowest user on the tower.

Complete for all call signs.

For each call sign, the total of the Horizontal and the Vertical ERP's must be used. If "beam tilt" is utilized, list maximum values.

COLUMN 1 CALL SIGN	COLUMN 2 HEIGHT OF ANTENNA RADIATION CENTER ABOVE GROUND LEVEL	COLUMN 3 TOTAL EFFECTIVE RADIATED POWER (HORIZONTAL AND VERTICAL)
Proposed	26 meters	.495 kilowatts
K204EP	25 meters	.01 kilowatts
K217DR	25 meters	.01 kilowatts
KORT-FM	23 meters	.720 kilowatts
	meters	kilowatts
	meters	kilowatts

List the smallest value in Column 2..... 23 m (1)
List the total of all values in Column 3..... 1.415 kW (2)

The value listed in line (1) above must be used in line (1) on Worksheet 1.
The value listed in line (2) above must be used in line (8) on Worksheet 1.

Now complete worksheet 1 (except for lines 6 and 7).