



RFR ATTACHMENT, Facility 2

RADIATION HAZARD FORMULA  
W19AR  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the TV band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)((0.4VP)+AP)}{(R)(R)}$$

where: S = Power Density

VP = Total visual power in watts (Horizontal + Vertical)

AP = Total aural power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Unknown

In this case VP = 693 and AP = 139 and R = 18

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.33333 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0429046

mW/sq m, or: 12.87% of the allowable.

It is evident that no practical hazard should exist.

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED W26CD-D  
CHANNEL 26 – SCRANTON, PENNSYLVANIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Scranton facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kw, an antenna radiation center 25 meters above ground, and the vertical pattern of the ERI antenna, maximum power density two meters above ground of  $0.0088 \text{ mw/cm}^2$  is calculated to occur 21 meters from the base of the tower. Since this is only 2.5 percent of the  $0.36 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 26 (542-548 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.

RFR ATTACHMENT, Facility 4

RADIATION HAZARD FORMULA

W48AQ

CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the TV band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)((0.4VP)+AP)}{(R)(R)}$$

where: S = Power Density

VP = Total visual power in watts (Horizontal + Vertical)

AP = Total aural power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Bogner

In this case VP = 1458 and AP = 292 and R = 16

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.44933 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.1141863

mW/sq m, or: 25.41% of the allowable.

It is evident that no practical hazard should exist.

RFR ATTACHMENT, Facility 5

RADIATION HAZARD FORMULA  
W51BP  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the TV band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)((0.4VP)+AP)}{(R)(R)}$$

where:

S = Power Density

VP = Total visual power in watts (Horizontal + Vertical)

AP = Total aural power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is:

Scala

In this case VP = 883 and AP = 177 and R = 19

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.46133 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0490545

mW/sq m, or: 10.63% of the allowable.

It is evident that no practical hazard should exist.

RFR ATTACHMENT, Facility 6

RADIATION HAZARD FORMULA  
W274AO  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Scala CL-FM

In this case P = 72 and R = 12

and F = 0.39 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0025401

mW/sq m, or: 1.27% of the allowable.

It is evident that no practical hazard should exist.

RFR ATTACHMENT, Facility 7

RADIATION HAZARD FORMULA  
W212AT  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Jampro JLLP-1

In this case P = 4 and R = 19

and F = 1 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0003701

mW/sq m, or: 0.19% of the allowable.

It is evident that no practical hazard should exist.

RFR ATTACHMENT, Facility 8

RADIATION HAZARD FORMULA  
W269CF Vertical  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Scala CA-2V

In this case P = 79 and R = 9

and F = 0.35 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.0039905

mW/sq m, or: 2.00% of the allowable.

It is evident that no practical hazard should exist.

RFR ATTACHMENT, Facility 9

RADIATION HAZARD FORMULA  
W269CF Horizontal  
CLARKS SUMMIT, PA

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in OET Bulletin 65.

For the FM band, the power density may be computed from the formula:

$$S = \frac{(33.4)(F)(F)(P)}{(R)(R)}$$

where: S = Power Density

P = Total power in watts (Horizontal + Vertical)

R = Height of center of radiation in meters above ground minus 2

F = Relative field factor in the downward direction of interest (-60 to -90 degrees elevation) as supplied by the antenna manufacturer.

The antenna model is: Scala CA-2D

In this case P = 0 and R = 9

and F = 0.41 FCC General Population/

Uncontrolled Exposure limits permit up to 0.2 mW/sq cm exposure

at this frequency. Therefore at ground level, S = 0.000549

mW/sq m, or: 0.27% of the allowable.

It is evident that no practical hazard should exist.