

RF HAZARD STATEMENT  
TANANA VALLEY TELEVISION COMPANY  
FM BROADCAST STATION KNLT  
PALMER, ALASKA  
CHANNEL 238C1 64 KW (H) -277 M

This RF Hazard Statement was prepared on behalf of Tanana Valley Television Company concerning an evaluation of compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy \* for its authorized facility, KNLT(FM), Palmer, Alaska, Channel 238C1.

The KNLT facility was constructed according to the terms of its construction permit given in FCC File No. BPH-20140812ACE. By means of the instant amendment, an increase in effective radiated power, and corresponding transmitter power output, is proposed. The following table summarizes the relevant details of the KNLT facility as now constructed:

Call Sign / Mode	Channel / Frequency	Average Effective Radiated Power	Antenna Radiation Center Height Above Ground	Transmitting Antenna Make and Model / Polarization
KNLT / analog	238 / 95.5 MHz	64 kW (H-only)	23 m	Shively model 6600-6 / Horizontally-polarized

The KNLT tower/transmitter site is completely enclosed by a chain-link fence with barbed wire to prevent unauthorized access. The fence is marked with appropriate RF warning signs. Also, as described below, additional fencing was added to the south side of the site to ensure RF hazard compliance.

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\* See FCC Office of Engineering and Technology Bulletin No. 56 for background information on non-ionizing RF energy of the type discussed here. Internet web reference:  
[http://www.fcc.gov/Bureaus/Engineering\\_Technology/Documents/bulletins/oet56/oet56e4.pdf](http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf)

Based on Section 73.1310 of the FCC Rules, the pertinent maximum permissible exposure (MPE) limits for the subject station are as follows:

Call Sign	Frequency (MHz)	MPE for Occupation/Controlled Environments Exposure ( $\mu\text{W}/\text{cm}^2$ )	MPE for General Population/Uncontrolled (GP/U) Exposure ( $\mu\text{W}/\text{cm}^2$ )
KNLT	95.5	1000.0	200.0

Pursuant to the condition on the construction permit for KNLT, RF measurements were conducted on the KNLT facility on November 7, 2015. The measurements were conducted by engineer, John Antonuk, of John Antonuk Technical Services.<sup>†</sup> The measurements were conducted with the KNLT transmitter power output set to 10 kW with a resulting ERP of 64 kW.

A Narda model NBM 550S meter was employed in the measurements. The meter serial number is E-0960. Narda probe EF-1891 with serial number A-0376 was employed in the measurements. The Narda meter calibration date is 10/15/2015 (Calibration ID 18735) and the Narda probe calibration date is 10/07/2015 (Calibration ID 18521). The measurement data are included as an Appendix to this report.

With KNLT operating at 64 kW ERP, measurements were conducted both within the fenced area and outside the fence perimeter including the driveway. A diagram of the KNLT transmitter site area showing the measurement results is included herein as Figure 1.

The RF measurements indicate that the spatially-averaged RF exposure level will not exceed the FCC MPE for GP/U environments of  $200 \mu\text{W}/\text{cm}^2$  at any location outside of the chain-link fenced area. In addition, the spatially-averaged RF exposure level will not exceed the FCC MPE for controlled environments of  $1,000 \mu\text{W}/\text{cm}^2$  at any location within the chain-link fenced area.

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<sup>†</sup> Contact mobile phone number: 907-460-4288.

The RF measurements indicated maximum peak readings below  $200 \mu\text{W}/\text{cm}^2$  at all locations outside of the fenced area with the exception of an area just to the south of the southern chain-link fenced boundary. Because the spatially-averaged RF exposure level is within the  $200 \mu\text{W}/\text{cm}^2$  MPE for GP/U environments, this is compliant with the FCC guidelines. However, as a precaution to ensure compliance with the FCC RF exposure guidelines additional fencing and signage was erected to enclose the affected area on the southern side of the chain-link fenced area. This is illustrated in the attached Figure 1.

The fenced areas of the site are restricted from access by all except authorized personnel who are aware of the RF environment and are able to exercise control of their exposure. Therefore, the area within the fencing is defined as a controlled environment. The area outside of the fenced areas would be defined as an uncontrolled environment. The measurements indicate that the MPE for controlled environments is met within the fenced area and the MPE for uncontrolled environments is met outside of the fenced areas. Therefore, the facility is in compliance with the FCC Rules regarding human exposure to RF energy.

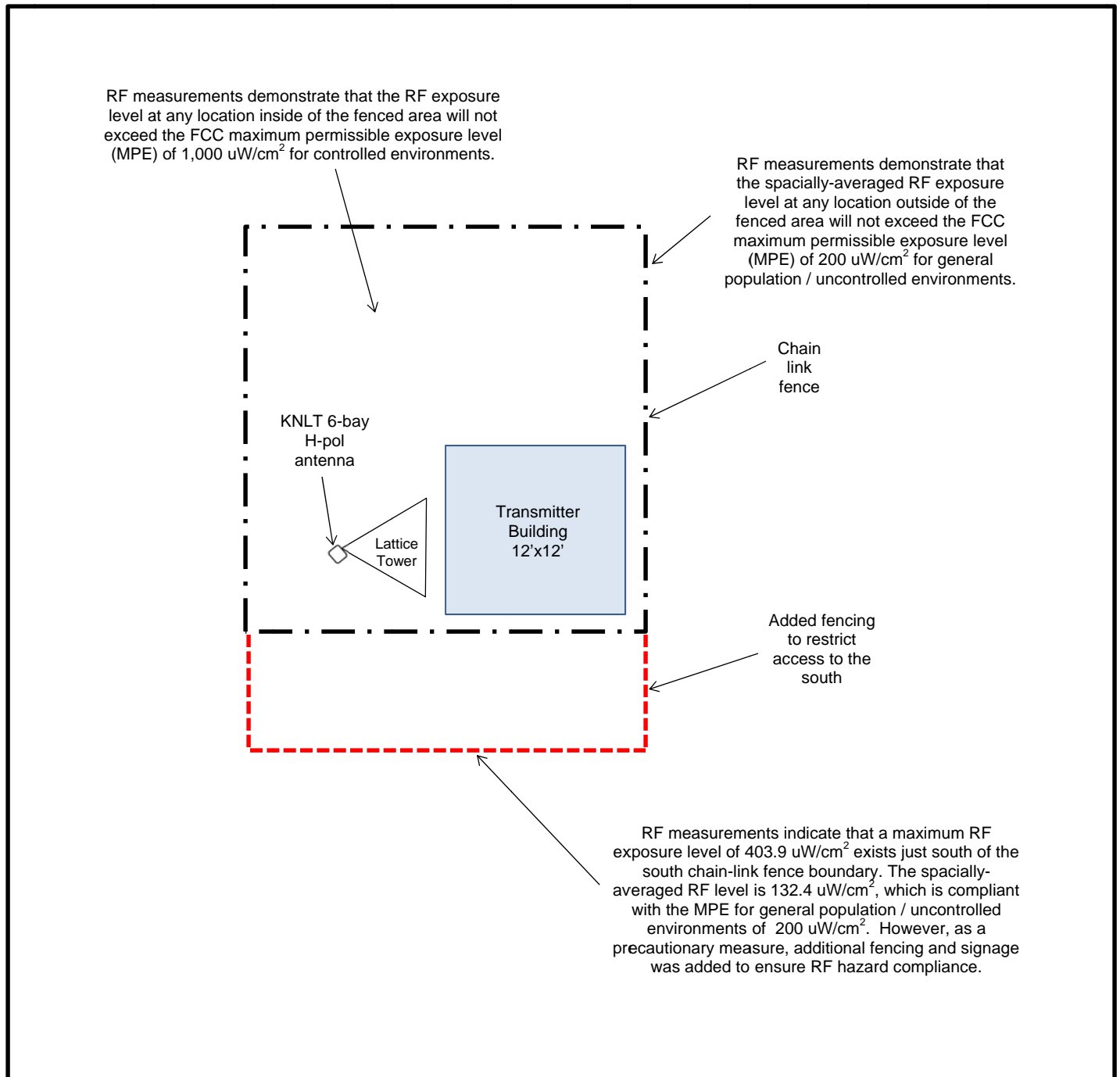
As described above, the transmitter site is restricted from access to the public. All licensees located at the transmitter site shall cooperate in the reduction of power or cessation of operations as necessary to protect persons having access to the tower or antennas from RF radiation in excess of the FCC guidelines.



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## TRANSMITTER SITE PLAN AND RF EXPOSURE MEASUREMENTS

FM BROADCAST STATION KNLT

PALMER, ALASKA

CH 238C1 64 KW (H) -277 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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Measurement Data Provided by John Antonuk Technical Services

One sheet follows.

location	Average mW/CM sq	Max mW / CM sq	remarks
driveway	0.0120	0.0182	
SE	0.0364	0.0903	
S	0.1324	0.4039	directly under antenna but outside the fence
SW	0.0689	0.1335	
NE	0.0184	0.0461	
Inside fence	0.3117	0.4808	
Inside bldg	0.2827	0.4594	
NW	0.0597	0.1212	

EQUIPMENT USED	Calibration date	Calibration ID #
Narda NBM 550 S SN# E-0960	10/15/2015	18735
Narda EF-1891 probe SN# A-0376	10/07/2015	18521