

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
LPTV STATION K25FG
FACILITY ID 25355
ROSEBURG, OREGON
CH 25 13.1 KW

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of WATCHTV, INC., in support of an application for construction for LPTV station K25FG at Roseburg, Oregon (Facility ID: 25355; File No. BLTTL-19960529JB). Station K25FG is currently licensed to operate on channel 25 with a non-directional effective radiated power (ERP) of 13.1 kilowatts and an antenna radiation center height above mean sea level (RCAMSL) of 374 meters. This application proposes to modify the licensed facility by changing transmitter site location, and increase the antenna radiation center height above mean sea level (RCAMSL). No other changes are proposed, including no change in ERP (13.1 kW), channel (25), frequency offset (-), antenna system or community of license (Roseburg). As detailed below, this application is considered a "minor change" in facilities pursuant to Section 73.3572.

Proposed Operation

It is proposed to operate K25FG on channel 25 (536-542 MHz) with a "minus" carrier frequency offset using a Scala SL-8 non-directional "off the shelf" antenna (ID 39658). The maximum ERP will be 13.1 kW at any horizontal or vertical angle. The antenna radiation center height above mean sea level will be at 480.8 meters.

Minor Change Application

Figure 1 depicts the licensed and herein proposed 74 dBu contours for K25FG. As indicated, the proposed 74 dBu contour nearly encompasses the licensed 74 dBu contour. Therefore, the proposed modification is considered a "minor change" in facilities pursuant to Section 73.3572.

Response to Paragraph 6 - Antenna Structure Registration Number

Station K25FG proposes to utilize its existing Scala SL-8 non-directional antenna and side-mount it at the 27-meter level on an existing 53.3 meter tower. The FCC Tower Registration Number for the existing structure is 1061121.

Response to Paragraph 13 - TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed K25FG operation will not create prohibited interference to other existing, authorized or proposed TV broadcast analog (NTSC) full-power stations.

Response to Paragraph 13 - DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed K25FG operation on channel 25 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 24, 25 & 26.¹ Interference calculations for the proposed K25FG operation are summarized below.

Protected DTV Station	Service Population	Proposed Interference Population
KVAL-DT, DTV Ch. 25 Eugene, OR CPMOD (BMPCDT-20060706AFS)	627,310	2,177 (0.35%)

¹ The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. A Sun based processor computer system was employed.

Response to Paragraph 13 - LPTV/TV Translator, Class A Station Protection

A study has been conducted using the provisions of Sections 74.707 and 74.708 which indicates that the K25FG proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator and Class A stations.

Protected LPTV Station	Service Population	Proposed Interference Population
K24FH, LPTV Ch. 24 Glide, OR LIC (BLTT-20040406AAT)	--	No Interference
K25JW-D, Digital LPTV Ch. 25 Hugo, OR CP (BDCCDTT-20061030AHO)	--	No Interference
K02AU, LPTV Ch. 26 Glide, OR CP (BPTT-20030721AIP)	--	No Interference

Environmental Considerations

The proposed K25FG television facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". The calculated power density at the base of the tower was calculated using the appropriate equation of the Bulletin.

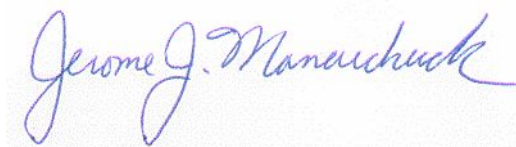
Figure 2 depicts the vertical pattern data for the proposed directional antenna. Using a vertical relative field value of 0.25 at depression angles towards the tower base (-60° to -90° elevation), a maximum visual ERP of 13.1 kilowatts and 10 percent aural power, the calculated power density at 2 meters above ground level at the base of the tower is 0.0219 milliwatts per square centimeter (mW/cm^2), 6.1 percent of the Commission's recommended limit of $0.36 \text{ mW}/\text{cm}^2$ for TV channel 25 applicable to general population/uncontrolled exposure areas,

and 1.2% percent of the Commission's recommended limit applicable to controlled exposure areas.

Based on information from an agent of the applicant, the proposed site is a controlled site, as there is a perimeter fence which prevents the general public from approaching within 65 yards (59.4 meters) of the tower. The site is also marked with appropriate warning signs.

Using a vertical relative field value of 0.3, the calculated power density at 2 meters above ground level at the fence is 0.005 milliwatts per square centimeter (mW/cm²), or 1.38 percent of the Commission's recommended limit for general population/uncontrolled exposure areas. Therefore, it is believed the proposed facility complies with the FCC's requirements with regard to radio frequency radiation exposure. Furthermore, as this site is a multi-user site, an agreement will be in effect to control access to the site. In the event that workers or other authorized personnel enter the restricted area appropriate measures shall be taken to limit RF energy exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

It is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be provided to the FCC by the tower owner.



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Figure 1

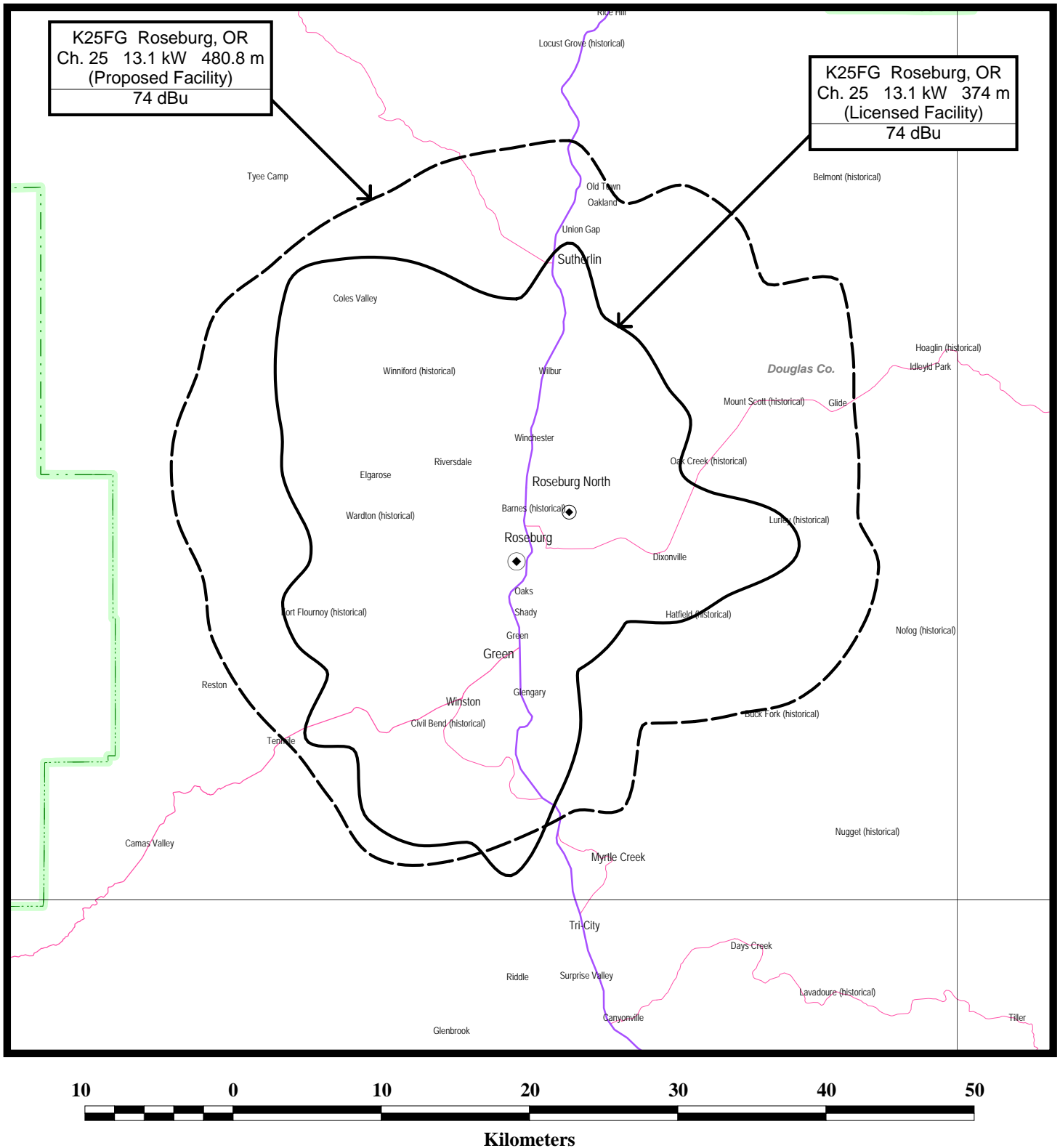
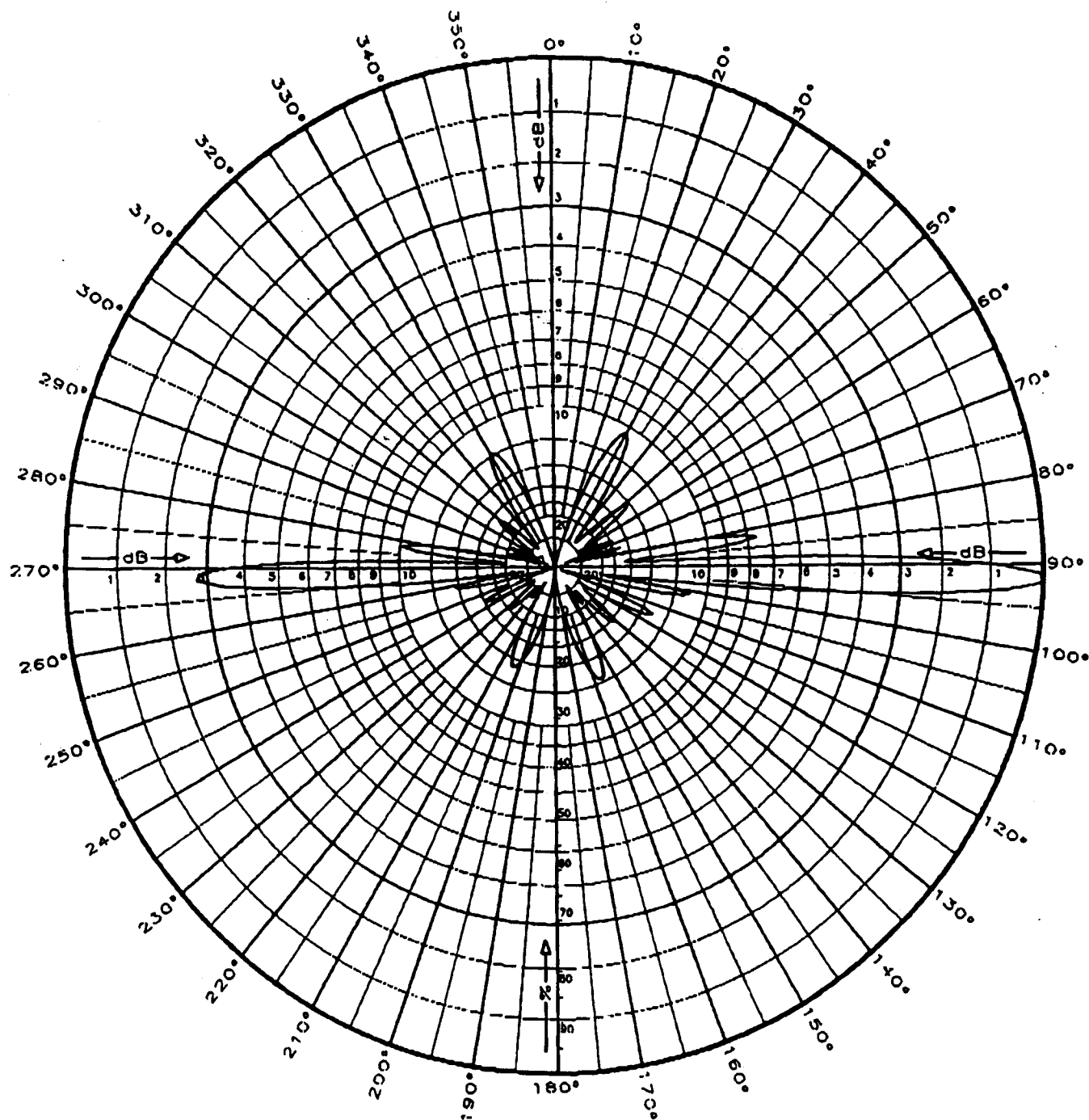


Figure 2



ONE SCALA SL-8 PARASLOT
 WITH 1.75 DEGREE DOWNTILT
 ANY SPECIFIED UHF-TV CHANNEL
 GAIN: 11.4 dBd.
 POWER GAIN: 13.8
 HORIZONTAL POLARIZATION
 VERTICAL PLANE PATTERN

SCALA

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