

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
LPTV STATION K29DP  
FACILITY ID 48587  
LORDSBURG, NEW MEXICO  
CH 29 0.133 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of LIN of New Mexico, LLC., in support of an application for construction for LPTV station K29DP at Lordsburg, New Mexico (Facility ID: 48587; File No. BLTT-19980108JH). Station K29DP is currently licensed to operate on channel 29 with a maximum directional effective radiated power (ERP) of 0.133 kilowatts and an antenna radiation center height above mean sea level (RCMSL) of 1529 meters. This application proposes to modify the licensed facility by correcting the transmitter site coordinates, and decreasing the antenna radiation center height above mean sea level (RCMSL). No other changes are proposed, including no change in ERP (0.133 kW), channel (29), frequency offset (+), antenna system or community of license (Lordsburg). As detailed below, this application is considered a "minor change" in facilities pursuant to Section 73.3572.

Proposed Operation

It is proposed to correct the existing site coordinates and operate on channel 29 (560-566 MHz) with a "plus" carrier frequency offset using a Scala 4DR-4-2HN directional "off the shelf" antenna (ID 20740). The maximum ERP will be 0.133 kW at any horizontal or vertical angle. The antenna radiation center height above mean sea level will be at 1377 meters. The proposed site is described by the following coordinates, N 32° 19' 40", W 108° 43' 35".

Minor Change Application

Figure 1 depicts the licensed and herein proposed 74 dBu contours for K29DP. As indicated, the proposed 74 dBu contour overlaps a portion of 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 K29DP proposes to utilize its existing Scala 4DR-4-2HN directional antenna and side-mount it at the 9-meter level on an existing 15.2 meter (50 ft.) tower. The FAA has been notified of the existing tower, and once a Determination of No Hazard has been issued a copy will be provided to the FCC.

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 K29DP 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 K29DP operation on channel 29 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 28, 29 & 30.<sup>1</sup>

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 K29DP proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator and Class A stations.

Environmental Considerations

The proposed K29DP television facilities were evaluated in terms of potential radiofrequency radiation

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<sup>1</sup> 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.

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 Scala 4DR-4-2HN directional antenna. Using a vertical relative field value of 0.28 at depression angles towards the tower base ( $-60^{\circ}$  to  $-90^{\circ}$  elevation), a maximum visual ERP of 0.133 kilowatts and 10 percent aural power, the calculated power density at 2 meters above ground level at the base of the tower is 0.0036 milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ), 0.95 percent of the Commission's recommended limit of  $0.38 \text{ mW}/\text{cm}^2$  for TV channel 29 applicable to general population/uncontrolled exposure areas. Since this is less than 5% of the limit it is believed the proposal complies with the FCC's RF rules.

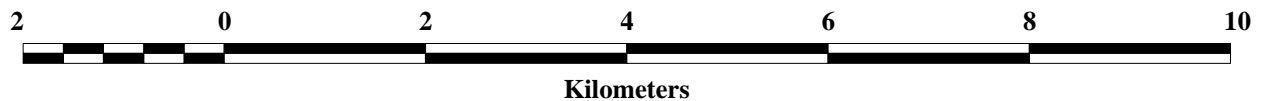
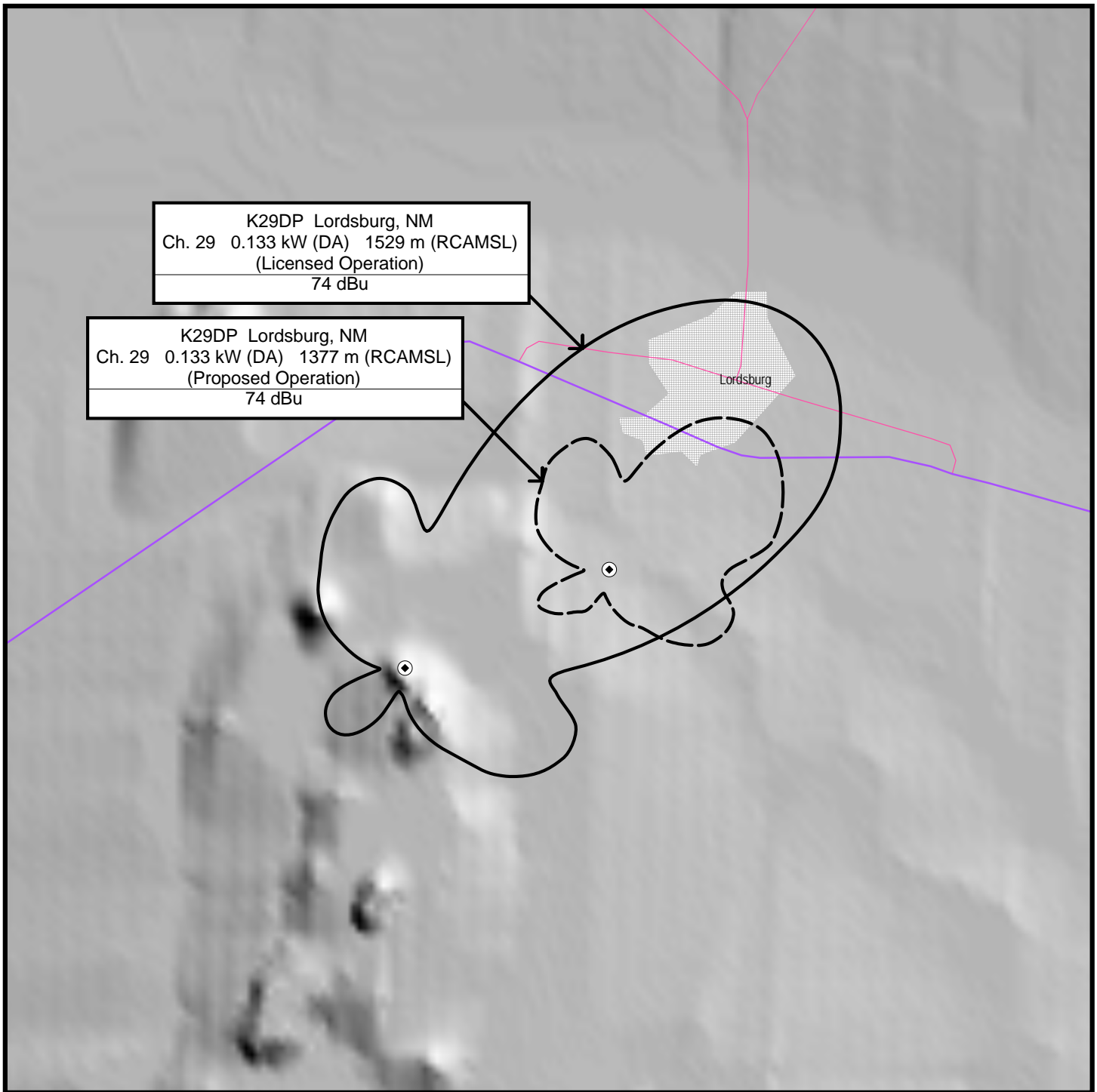
It is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be provided to the FCC by the tower owner.



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## **FCC PREDICTED COVERAGE CONTOURS**

LPTV STATION K29DP  
LORDSBURG, NEW MEXICO  
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2

