

TECHNICAL EXHIBIT  
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT  
(FCC FILE NO. BMPTTL-20001222AAP)  
LPTV STATION K64EJ  
FACILITY ID 31388  
BOISE, IDAHO  
CH 51 150 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application to modify the construction permit of LPTV station K64EJ at Boise, Idaho (Facility ID: 31388; File No. BMPTTL-20001222AAP). Specifically, this application proposes to change transmitter site, decrease the antenna radiation center height above mean sea level from 2146 meters to 1800 meters, increase the effective radiated power (ERP) from 18.7 kW to 150 kW and modify the antenna system. No other changes are proposed, including no change in channel (51), frequency offset designation (-) or community of license (Boise). As detailed below, this application is considered a "minor change" in facilities pursuant to Section 73.3572.

The proposal would not be subject to environmental processing in accordance with Section 1.1306. It is proposed to side-mount the directional antenna on an existing 36 meter supporting structure. The existing tower does not require tower registration based on the FCC's TOWAIR program. It is believed that the instant application conforms with all other applicable rules and regulations of the Federal Communications Commission.

Minor Change Application

Figure 1 depicts the authorized and herein proposed 74 dBu contours for K64EJ. As indicated, the proposed 74 dBu contour encompasses a portion of the authorized 74 dBu contour. Therefore, the proposed modification is considered a "minor" change in facilities pursuant to Section 73.3572.

Response to Paragraph 13(a) - TV Broadcast Station Protection

A study has been conducted using the provisions of Section 74.705 which indicates that the proposed K64EJ operation will not create prohibited interference to other existing, authorized or proposed NTSC full-power stations.

Response to Paragraph 13(b) - DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed K64EJ operation on channel 51 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 50, 51 and 52.<sup>1</sup>

Response to Paragraph 13(c) - LPTV/TV Translator and Class A Station Protection

A study has been conducted using the provisions of Section 74.707 which indicates that the K64EJ proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator and Class A stations.

Environmental Considerations

The proposed K64EJ 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 on Page 13 of the Bulletin. As shown on Figure 2, the vertical plane field values at depression angles toward the tower base (-60° to -90° elevation) are less than 0.14. Therefore, using a greater than expected vertical relative field value of 0.14, a maximum visual effective

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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 2 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

radiated power of 150 kilowatts and 10 percent aural power, the calculated power density at 2 meters above ground level at the base of the tower is 0.2506 milliwatt per square centimeter ( $\text{mW}/\text{cm}^2$ ), or 54 percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ( $0.46 \text{ mW}/\text{cm}^2$  for TV channel 51). However, as this is a multi-user site, measurements will be made to substantiate compliance with the RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

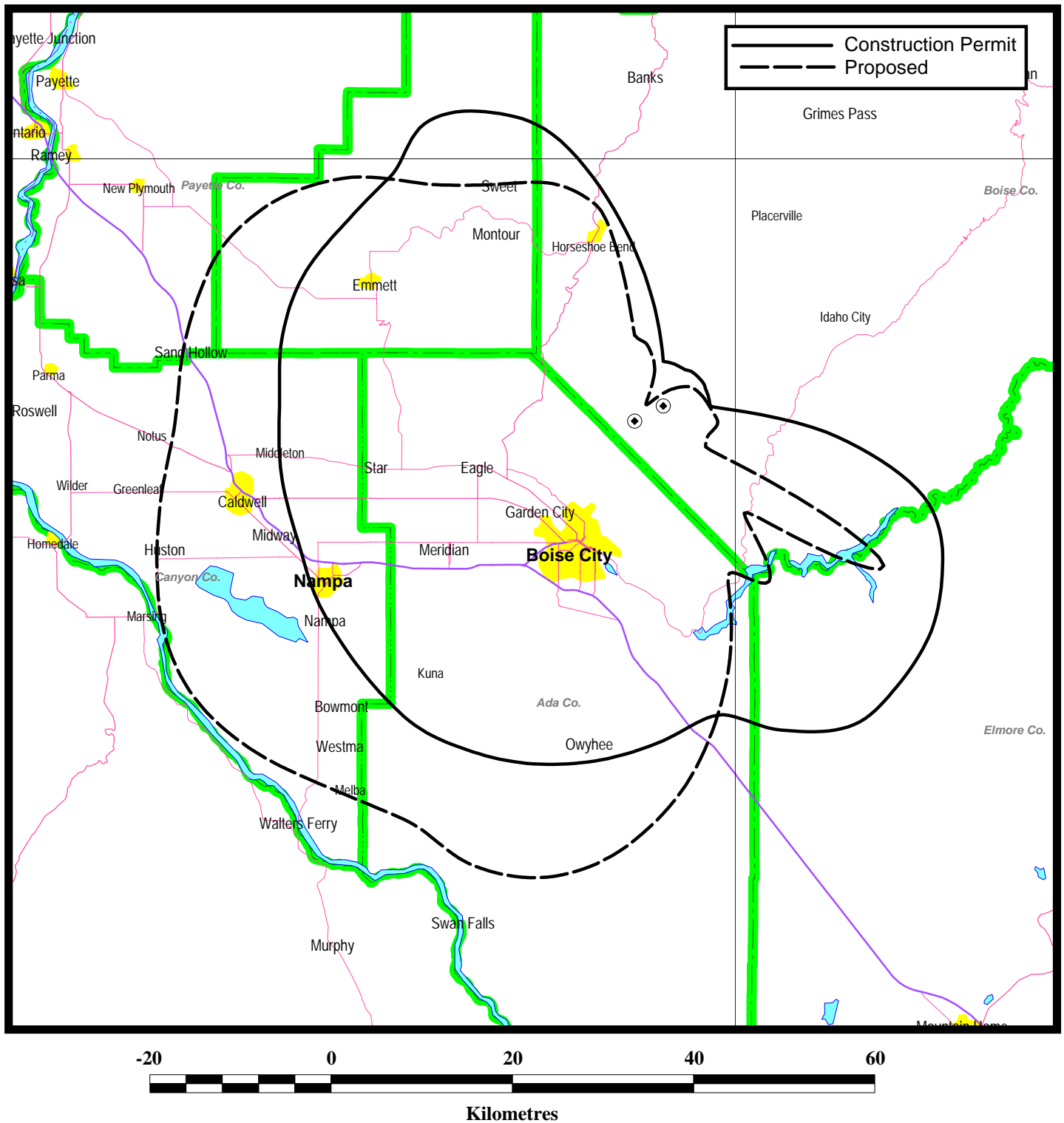
In addition, it appears that the existing tower is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

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July 15, 2002

Figure 1



## PREDICTED 74 DBU CONTOURS

STATION K64EJ  
BOISE, IDAHO  
CH 51 150 KW (MAX-DA)

## Superior Broadcast Products

3 bay Panel Vertical

UHF Broadband

Azimuth: 0 °

E/Emax

