

ENGINEERING REPORT RE MODIFICATION OF
CONSTRUCTION PERMIT (BPED-20040329ABQ)
MINOR CHANGE APPLICATION TO CHANGE CHANNEL AND
INCREASE POWER OF STATION
KGDP-FM, SANTA MARIA, CALIFORNIA
CHANNEL 213B (90.5 MHz) 17.5 kW (Max. DA) 258 M

Exhibit 13 - 22 - FCC 340 Minor Change Application – September 2005
Section VII – FM Engineering on Channels 200-220

TECHNICAL SPECIFICATIONS

INTRODUCTION

This engineering report has been prepared on behalf of People of Action (“POA”), licensee of FM radio station KGDP-FM, Santa Maria, California and is in support of its minor change application to modify the POA outstanding construction permit (BPED-20040329ABQ). POA proposes to change the station channel from 214B1 to 213B, increase the station’s power and the antenna height above average terrain (HAAT) from a new antenna site. Currently, KGDP-FM is licensed for operation on Channel 214B1 (90.7 MHz) with 3 kilowatts maximum DA (H&V) effective radiated power (ERP) and 223 meters antenna height above average terrain (HAAT), utilizing a directional antenna. KGDP-FM also has a construction permit authorization for operation on Channel 214B1 (90.7 MHz) with 3 kilowatts maximum DA (H&V) effective radiated power (ERP) and 252 meters (HAAT), utilizing a directional antenna from a different antenna site.

KGDP-FM is currently operating under an FCC Special Temporary Authorization (STA) from the site now proposed for its main operation. The STA was granted in the Commission’s letter dated July 21, 2005. KGDP-FM now proposes to change the channel from CH. 214B1 (90.7 MHz) to CH. 213B (90.5 MHz), increase power to 17.5 kW (Max. ERP) and increase HAAT to 258 meters, utilizing a directional antenna.

Exhibits requested by Section VII – FM Engineering on Channels 200-220 of the FCC Form 340 are included in this report.

ANTENNA SITE

The proposed antenna site of KGDP-FM is located at State Road 1, Lompoc, Santa Barbara County, California. The geographic coordinates (NAD-27) of the existing tower are as follows:

North Latitude: 34° 44’ 30”

West Longitude: 120° 26’ 45”

EQUIPMENT DATA

Transmitter: Type-approved

Antenna: Dielectric, 4-Bay, Directional; circularly polarized

Engineering Statement of KGDP-FM, Santa Maria, California

POWER DATA

Power input to antenna = as required to achieve ERP of 17.5 kW

Effective Radiated Power (Maximum) = 17.5 kW

ELEVATION DATA

Elevation of the site above mean sea level: 384 meters

Overall height of the supporting structure above ground level: 35.7 meters

Height of antenna radiation center above ground level: 25 meters

Height of antenna radiation center above average terrain: 258 meters

ALLOCATION SITUATION

The proposed KGDP-FM allocation situation does not result in any prohibitive contour overlap with other FM NEC stations or applications within plus/minus 3 channels. Detailed studies show the contour relation between the proposed KGDP-FM operation and first adjacent channel station KMRO(FM), Camarillo, California. Allocation tabulations and contour maps are attached. The KGDP-FM proposed operation is within the service area of Channel 6 TV station KSBY(TV), San Luis Obispo, California. In accordance with Section 73.525 of the Commission's Rules, a letter from KSBY(TV) is attached indicating its conditional concurrence to the KGDP-FM proposal.

TOPOGRAPHIC DATA

The v-soft 3-second US terrain data base was used for all stations for coverage and interfering contours.

CONTOUR DATA

The contours shown are based on the FCC curves from Figure 1 and 1a of section 73.333 of the FCC rules. Tabulations showing the distances to contours and HAAT for specified azimuths are attached for KGDP-FM and KMRO(FM).

MAIN STUDIO LOCATION

The main studio is located within the predicted 3.16 mV/m contour of the proposed KGDP-FM operation in accordance with Section 73.1125 of the Commission's Rules.

FAA DATA

FAA notification is not required since the tower has been registered (Antenna Structure Registration No. 1223649) and there is no change in height proposed.

ENVIRONMENTAL STATEMENT

Since this proposal does not require any construction other than side-mounting of the new FM antenna on an existing tower site, the environmental concerns listed in Section 1.1307(a) of the Commission's Rules are not pertinent; consequently, those issues have not been addressed in this proposal.

However, an evaluation was made to determine compliance with the FCC specified standards for human exposure to RF radiation as set forth in the OST Bulletin No. 65 dated August 1997. For a combined effective radiated power of 35 kW (17.5 kW H&V) and an antenna radiation center of 25 meters above ground level (0.25 relative field value), the proposed FM operation would have a maximum of 138.2 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF radiation level at 2 meters above ground level.

Since station KRQK(FM) is currently operating from the Pinnacle tower with 3.7 kW (H&V) ERP and antenna radiation center of 36.6 meters above ground, the combined RF field near the base of the tower has also been determined. KRQK's FM operation based on the aforementioned facilities would have a maximum of 8.3 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field level at 2 meters above ground level based on a downward relative field of 0.2.

The combined "worst case" calculated power density at the base of the tower is less than the FCC recommended limit for the general public/uncontrolled environment.

The Commission guidelines for the FM band are $1000 \mu\text{W}/\text{cm}^2$ for the occupational/controlled environment and $200 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment. According to the applicant there is no public access to the tower site. It is located on a private fenced ranch and access to the actual tower site is through a locked gate in the fencing surrounding the tower. Therefore, members of the public and personnel working around the proposed transmitting facility will not be exposed to RF fields exceeding the Commission's guidelines. A fence appropriately marked with warning signs is currently installed around the tower to block unauthorized access. With respect to work performed on the tower structure, KGDP-FM in conjunction with station

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KRQK(FM) will establish procedures, including reducing or turning off the power, to ensure the workers are not exposed to RF fields above the Commission's guidelines.

For the reasons stated above, this proposal does not involve any action specified in Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.