

# Engineering Statement

This application requests a minor CP modification of KXRS, Hemet California. This application requests coordinate changes and center of radiation changes for BMPH-20090210AEA. The facility ID is 36829. This CP Modification application complies with all the same rules as the three earlier CP's for this facility. There are only two parameters that change from the previous CP's. First is a change in the center of radiation and subsequent change in HAAT. Second is the coordinate change of 7 seconds. The tower would remain 13 meters in height with an antenna mounted at 9.4 meters AGL. A Channel Spacing Study is included in this application showing that there are no short spacing's to any full power facilities and the two LPFM's are grandfathered under the provisions of the rules.

This application, like all previously granted CP's for this facility is fully spaced to all full power broadcast facilities. There are two short spacing's, but these would be grandfathered in as they are LPFM's and have been in the CDBS since the original application BPH-20040205AK. These LPFM's are KWBB-LP and KGIC-LP. In both cases the proposed CP modification is compliant in that both LPFM's are the same distance from the proposed CP modification as they are from the current CP. KWBB-LP is short by 40Km and KGIC-LP is short by 15Km. Using the rounding principal of 73.208C8, this proposed KXRS application does not move closer to either of these LPFM's. In the case of the only LPFM that is actually on the air, KGIC-LP, the proposed application move actually increases the distance to that facility by a small amount. KWBB-LP, as I understand it, has been dark for a number of years.

## Ground Elevation Determination

There was considerable variance in the ground elevations from the three previous KXRS CP's even though they all used the same coordinates. In this application, we intend to also correct these discrepancies. The ground elevation was determined by a very careful measurement using Google Earth, and confirmed by the California USGS digitized topographic maps software, utilizing 7.5 minute topographic maps. The Ground elevation is 1318 meters. With a 13 meter tower and the antenna's center of radiation at 9.4 meters AGL. The center of radiation becomes 1327 meters.

## Height Above Average Terrain Determination

The HAAT was determined through the use of the FCC's HAAT utility. A copy of those findings are in an exhibit in this application. The method used to determine HAAT was utilizing the **FCC model with 12 evenly spaced radials**. The HAAT was determined to be 97 meters. An FCC HAAT Study is included in this application.

## City Grade Coverage Determination

A coverage map has been included as an additional exhibit showing the 70dBu city grade coverage as well as the 60dBu 50:50 service grade coverage of the proposed CP modification.

### **Environmental Protection Determination**

An ANSI Human Radiation Exposure showing is also included in this application. The Tower area surrounding the proposed tower will be fenced with a substantial fence to keep the general population at a safe distance from the proposed tower. The ½ wave antenna proposed will further reduce the downward radiation. Because of the slope of the hillside, a simple FM Model ANSI showing does not give the entire picture. Therefore the mitigation of exposure to the general population will be dealt with utilizing substantial fencing. In the event servicing of the antenna or tower becomes necessary. Lazer broadcasting will turn the power off while workman are in the vicinity of the antenna or tower.

### **Supplemental History And Reason For This Minor Change Mod.**

I am going to include in this engineering statement a supplemental account of how this facility has attempted to build a small transmission tower and building on property which Lazer Broadcasting has owned since the first application for this move in 2004. The San Bernardino Planning Department issued an affirmative response to Lazer's initial request for a CUP to construct. Subsequent to that, when the action went before the San Bernardino County Board of Supervisors, the proposal to build was cancelled. Since that time, it has been a struggle to get approval to construct. There are various outside sources that do not want this station to go on the air and have spent hundreds of thousands of dollars to thwart Lazer Broadcasting from constructing. The very reason for this application is to try and satisfy the county of San Bernardino.

There were three previous applications:

1. BPH-20040205AK. This CP was granted over 14 years ago. This application had a tower location at 34-01-41 116-58-40. The elevation listed in this application was 1264 meters AGL. The height of the tower was 30 meters and the HAAT of the facility was 85 meters.
2. In 2012 application BMPH-20081212ABT was granted. This CP modification was for the same coordinates as #1. Yet it showed a tower height of 24 meters tall and a center of radiation of 1298. The antenna was located at 20 meters AGL. This was the first application in this sequence to recognize that there were two LP-FM's within the spacing distances of KXRS. Both of these LPFM's did not receive protection under the, then, rules, and as I understand, KXRS is grandfathered from further protections.
3. In 2009 BMPH-20090210AEA was filed and granted. This facility also had the same coordinates as the two previous sites. The ground elevation for this application was 1284 meters with a tower height of 13 meters and a center of radiation of 1294 meters AMSL and 9.4 meters AGL.

In May, 2018, Lazer Broadcasting was granted the right to construct this facility by San Bernardino County. The San Bernardino County Planning Department made some recommendations which Lazer is trying to comply with. Therefore we are proposing to move the 13 meter tower 7 seconds east of the current CP site. The reason for this is to keep the facility in as compact of an area as possible and to limit the amount of damage to the environment because of construction. The existing CP would require a buried transmission line of nearly 1000 feet from the transmitter building, whereas, the proposed CP mod we are requesting would only require a transmission line of approximately 300 feet. This would accomplish several things. First, a reduction in the disturbance of the environment. Second, it would lessen the footprint on the natural habitat. Third, it would be considerably less expensive to construct by the simple reduction of transmission line necessary. Fourth, it would make the facility much easier to service. The terrain at this site is quite steep an access to the antenna is a major issue.

Respectfully Submitted

By Lynden L. Williams

I am a First Class Licensed Engineer since 1965. My qualifications are a matter of record with the FCC based on numerous previous submissions.