

**FEDERAL COMMUNICATIONS COMMISSION**  
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March 10, 2010

Brendan Holland, Esq.  
Davis Wright Tremaine LLP  
1919 Pennsylvania Avenue NW, Suite 200  
Washington, DC 20006-3402

In re: Gold Coast Broadcasting, LLC  
KCAQ (FM), Oxnard, California  
Facility Identification Number: 25092  
Application for Experimental Authorization

Dear Counsel:

The staff has before it a request for an Experimental Authorization, filed November 17, 2009, on behalf of Gold Coast Broadcasting, LLC ("GCB"), licensee of Station KCAQ(FM), Oxnard, California. GCB proposes to conduct experimental operations at the site of Station KCAQ, in to determine the benefits of operation with a vertically polarized signal.<sup>1</sup>

GCB proposes to install a vertically polarized antenna on the licensed KCAQ tower at the authorized antenna location, and to operate the station with its licensed effective radiated power, but with no horizontally polarized component. GCB proposes to test the effectiveness of the vertically polarized signal in the "extremely rugged and unusual terrain of KCAQ's service area". GCB states that it believes the problem of "picket fencing" in vehicular receivers can be eliminated through the use of a vertically polarized signal. GCB further states that the FM reception environment has changed. When the rules for FM broadcast stations were originally enacted, horizontally polarized outdoor antennas predominated; however, now there are very few outdoor FM antennas in use, and the vast majority of FM receive antennas are vertically polarized in design, such as vertical masts in vehicles and vertical wires in portable or desktop receivers. GCB further notes that the use of vertical-only polarization could cut energy requirements for the station nearly in half.

Our review indicates that the proposed experimental operation meets the requirements of Section 73.1510 of the Commission's rules and that the proposed experimental operation is not likely to result in interference to any other station. We agree with GCB's assessment that the FM reception environment has evolved over the past 50 years from horizontally polarized to predominately vertical, and that substantial energy saving would result from elimination of the horizontal component of the FM Broadcast signal. Thus, the Public Interest would be served through the collection of data on vertically polarized FM Broadcast signals which could be used

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<sup>1</sup> KCAQ is licensed for operation on Channel 284B (104.7 MHz), with effective radiated power of 4.5 kilowatts (H&V) and antenna height above average terrain of 464 meters.

in support of a Petition for Rule Making to modify Section 73.316 of the Commission's Rules to permit the use of vertical-only or predominately vertical polarization by FM stations.

Accordingly, the request for Experimental Authorization IS HEREBY GRANTED. Station KCAQ may operate with a vertically polarized antenna as described above. Effective radiated power shall not exceed 4.5 kilowatts. GCB shall employ whatever means are necessary to prevent excessive exposure of workers or the public to radio frequency radiation, pursuant to Section 1.1310. Within 60 days following completion of the experimental operation authorized herein, GCB shall file a full report of the research, experimentation and results with the Commission, pursuant to Section 73.1510(d). The authority granted herein does not convey or imply any authority for continued operation beyond the expiration date below. Any construction undertaken pursuant to this authority is entirely at GCB's own risk. This authority may be modified or cancelled by the FCC at any time without prior notice or right to hearing.

This authorization expires on **March 10, 2011**.

Sincerely,

A handwritten signature in blue ink, appearing to read "Charles N. Miller", with a long horizontal flourish extending to the right.

Charles N. Miller, Engineer  
Audio Division  
Media Bureau

cc: Gold Coast Broadcasting, LLC