

# VIR JAMES P. C.

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DIRECTIONAL ANTENNAS  
AM - FM - TV  
APPLICATIONS  
PROOFS  
FIELD MEASUREMENTS  
AUDIO AND RF ENGINEERING  
EMERGENCY REPAIR

## ENGINEERING STATEMENT

Concerning an amendment to an application for Construction Permit for a new FM Broadcast Station to serve Sterling, Colorado.

Media Logic LLC was the successful bidder in auction for the Sterling Channel 248 and herein applies for a One Step Construction Permit to change the assigned Class from C3 to C2 with an effective radiated power of 26kW. The FCC staff has noted that the FAA approval and tower registration has not been filed as an amendment. Further research found a problem with the FAA process and a second application was filed with the FAA for approval of the tower. While reviewing the situation it was noted that one of the short spaced applicants that limited the Sterling facility has been dismissed at the applicant's request allowing an increase in the ERP in that direction. Therefore this amendment also specifies nondirectional operation at 26kW.

Media Logic LLC, Inc., has retained the services of Vir James, P.C., Broadcast Engineering Consultants, to prepare the engineering portions of this FM application.

## FAA APPROVAL AND ASR

The FAA notice was submitted as 2006ANM769OE and recently the applicant found that the coordinates were not correctly transferred from the form 7460-1 to the internal FAA files and it was not being processed. The tower was given a new study number with the correct coordinates as 2006ANM1940OE and that study has been promised expedited processing.

The applicant proposes to install the FM antenna and transmitter on a new tower. The tower will be located southwest of the intersection of Country Road 14 and County Road 25 near Merino, Colorado.

It is the intent of the applicant to utilize a type accepted transmitter, a ten bay circularly polarized omnidirectional FM antenna, and 145 m of Andrew HJ8-50 transmission line with an attenuation of 0.61 dB (86.9% efficiency).

The overall system parameters are given below:

XMTR OUPUT	5.4 kW	(7.36 dBk)
Line Loss	0.7 kW	(-0.61 dB)
Antenna Input Power	4.7 kW	(6.75 dBk)
Antenna Gain	5.5 H & V (Power)	(7.4 dB)
ERP (H&V)	26 kW	(14.15 dBk)

The applicant proposed to side-mount the FM antenna on a 153m vertical, steel tower. The transmitter building will be located at the base of the tower. The main studio will be located within the city grade contour.

The facility will comply with FCC RF power level standards under OST-65 by virtue of the height of the antenna above ground level. No employee will be allowed to climb the tower when energized.

The distances to the 70 dBu (3.16 mV/m) and the 60 dBu (1 mV/m) contours shown in this application and all interference contours were obtained in accordance with FCC Section 73.313, as amended.

A study of existing and proposed FM stations and allocations on file as of the date of this application shows that there are neither cochannel nor adjacent channel commercial FM stations within the minimum distance separations specified in Section 73.207 of the FCC rules or within the minimum distance separations specified in Section 73.215.

CH.	FREQ.	NEAREST ALLOCATION CITY	CALL	SEPARATION IN KM	
				ACUTAL	REQ'D
247C	97.3MHz	BOULDER, CO	KBCOFM	178.3	188/176
248C1	97.5	CHADRON, NE	KQSK	235.7	224
249C3	97.9	STRASBURG, CO	APPL	115.0	117/106

There are no stations or proposals for frequencies 10.6 or 10.8 MHz removed from 97.5 MHz within 50 km of the proposed Sterling so no IF interference can result.

Hence, the proposed Sterling operation on Channel 244C2 in Sterling, Colorado, would neither cause nor receive interference with respect to existing or proposed FM stations.

This application for modified FM Construction Permit has been prepared in accordance with the appropriate parts of Section 73 of the FCC Rules and Regulations.

Respectfully submitted,



Timothy C. Cutforth, P.E.  
13 July 2006

