KLEIN BROADCAST ENGINEERING, L.L.C.

dedicated to improving the science and technology of radio & television communications

MAY 2007

FCC FORM 302-FM APPLICATION
for
STATION LICENSE to COVER CONSTRUCTION PERMIT
&
PROGRAM TEST AUTHORITY
FCC File # BPH-20061002BTX
(Facility ID: 37028)
N R C BROADCASTING, INC.
K C U V (FM)
FM CHANNEL 272 A / 102.3mHz.
GREENWOOD VILLAGE , COLORADO

INTRODUCTION and ENGINEERING STATEMENT

The firm of Klein Broadcast Engineering, L.L.C, has been retained by the licensee of KCUV(FM), to prepare the engineering calculations and exhibits required by FCC Form 302-FM, an application for FM Broadcast Station License to cover the above captioned outstanding construction permit and Program Test Authority.

The specifications of the facility are as follows:

Summary of Proposed Operation:

Effective Radiated Power	1.0 kW	H & V
Antenna Height Above Average Terrain	238 meters	H & V
Antenna Radiation Center Above Mean Sea Level	2256 meters	H & V
Antenna Radiation Center Above Ground Level	49 meters	H & V

Antenna Structure Registration Number 1033691

These specifications are exactly as specified in the station's FCC Construction Permit, FCC File Number BPH-20061002BTX.

Transmitter Power Output (T.P.O.) 0.170 kilowatt

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page two: KCUV(FM)

The KCUV(FM) construction permit has eight (8) "Special Operating Conditions or Restrictions." They are addressed below:

SPECIAL OPERATING CONDITION or RESTRICTION #1.

BEFORE PROGRAM TEST COMMENCE, sufficient measurements shall be made to establish that the operation authorized in this construction permit is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements must be made with all stations simultaneously utilizing the shared antenna. These measurements shall be submitted to the Commission along with FCC Form 302-FM application for license.

ANSWER to SPECIAL OPERATING CONDITION #1.

The applicant has complied with the Special Operating Condition or Restriction #1 by including within this FCC Form 302-FM application for Station License and Program Test Authority the requested RF Proof of Performance Measurements Report. The report is marked Exhibit E-2 and demonstrates compliance with 47 C.F.R. Section 73.317(b) through 73.317(d) of the Commission's Rules.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page three: KCUV(FM)

SPECIAL OPERATING CONDITIONS or RESTRICTIONS #2.

BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee shall submit the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components. This proof-of-performance may be accomplished using the complete full size antenna, or individual bays there from, mounted on a supporting structure of identical dimensions and configuration as the proposed structure, including all braces, ladders, conduits, coaxial lines, and other appurtenances; or using a carefully manufactured scale model of the entire antenna, or individual bays there from, mounted on an equally scaled model of the proposed supporting structure, including all appurtenances. Engineering exhibits should include a description of the antenna test facilities and equipment employed, including appropriate photographs or sketches and a description of the test procedures, including scale factor, measurements frequency and equipment calibration.

ANSWER to SPECIAL OPERATING CONDITION #2.

The applicant and permittee has installed the antenna type and model specified herein. It is the same model and type as originally specified in the FCC Form 301 application for FM Broadcast Station Construction Permit. The antenna employed in an Electronics Research, Inc., model, 1082-8CP-DA, eight section, E.P.A. Type 1 (one) FM broadcast antenna. All of the information requested in Special Operating Condition #2, is contained in Engineering EXHIBIT E-3 of this instant application.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page four: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #3.

BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee shall submit an affidavit from a licensed surveyor to establish that the directional antenna has been oriented at the proper azimuth.

ANSWER to SPECIAL OPERATING CONDITION #3.

Engineering EXHIBIT E-4 is the wet stamped, signed and sealed certification survey requested by Special Operating Condition or Restriction #3, from Creighton R. Moore , a Registered Professional Land Surveyor in the State of Colorado. Mr. Moore is also Principal and President of C.R. Moore Land Surveying, a professional land use planning and surveying company in Arvada, (Denver) Colorado. As can be seen from the drawing marked Exhibit E-4, the panels are oriented at the proper azimuths. This is the original survey of the antenna installation for a Master Antenna System that is shared by numerous other FM stations that now include KCUV. This document was supplied to the applicant by the owner of the Master Shared Antenna System Clear Channel Communications of Denver.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page five: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #4.

BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee/licensee shall submit an affidavit that the installation of the directional antenna system was overseen by a qualified engineer. This affidavit shall include a certification by the engineer that the antenna was installed pursuant to the manufacturer's instructions and a list of qualifications of the certifying engineer.

ANSWER to SPECIAL OPERATING CONDITION #4.

Engineering EXHIBIT E-5 is a certification and statement of Clear Channel of Colorado, Director of Technical Services, Mr. Jack Lambiotte. Mr. Lambiotte personally directed the installation of the master directional antenna system employed at KCUV(FM) and directed the installation strictly according to the antenna manufacturer's instructions.

The engineering qualifications of Mr. Jack Lambiotte are a matter of record with the Federal Communications Commission. He has been employed in the broadcast engineering profession since 1982. Since that time he has directed the installation of twenty-five FM directional antenna systems and is greatly experienced with the design and installation of such antenna systems. He holds an AA Degree, issued by the U.S. Air Force, in Electronics. He has been actively involved with the design, installation and maintenance of electronic communications systems for the past 30 or more years.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page six: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #5.

The relative field strength of neither the measured horizontally nor vertically polarized radiation component shall exceed at any azimuth the value indicated on the composite radiation pattern authorized by this construction permit.

A relative field strength of 1.0 on the composite radiation pattern herein authorized corresponds to the following effective radiated power:

1.0 kilowatt

Principal minima and their associated field strength limits:

230 - 310 degrees true: 0.250 kilowatt

ANSWER to SPECIAL OPERATING CONDITION #5.

Compliance with the radiation limitations set forth in Special Operating Condition or Restriction #6 is demonstrated in the tabulation of the composite radiation pattern tabulation contained in Engineering EXHIBIT E-# of the instant application.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page seven: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #6.

PROGRAM TESTS FOR KCUV (FACILITY ID# 37028) WILL NOT COMMENCE ON CHANNEL 272A WITH THE FACILITIES SPECIFIED HEREIN UNTIL PROGRAM TESTS FOR KSMT (FACILITY ID# 57336) COMMENCE ON CHANNEL 271A WITH THE FACILITIES SPECIFIED IN BPH-20061002BWT AND A LICENSE WILL NOT BE GRANTED FOR KCUV ON CHANNEL 272A WITH THE FACILITIES SPECIFIED HEREIN UNTIL A LICENSE IS GRANTED FOR KSMT ON CHANNEL 271A WITH THE FACILITIES SPECIFIED IN BPH-20061002BWT.

ANSWER to SPECIAL OPERATING CONDITION #6.

While this Engineering Statement was being written, the Commission granted Station KSMT at Breckenridge, Colorado, a new station license and program test authority to operate with the facilities specified in FCC FM Broadcast Station Construction Permit, FCC File Number, BPH-20061002BWT. The FCC File Number for the New Station License for Station KSMT is BLH-20070504ABR. A copy of this license is attached and marker EXHIBIT E-6. By action of the Commission and a grant of a new station license and program test authority for Station KSMT, the applicant has complied with the requirements of Special Operating Condition or Restriction #6.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page eight: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #7.

Permittee has specified the use of the antenna listed below to demonstrate compliance with the FCC radiofrequency electromagnetic field exposure guidelines. If any other type or size of antenna is to be used with the facilities authorized herein, THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. SECTION 73.1620 WILL NOT APPLY. In this case, a FORMAL REQUEST FOR PROGRAM TEST AUTHORITY must be filed in conjunction with FCC Form 302-FM, application for license, BEFORE program tests will be authorized. This request should be made at least 10 days prior to the date on which program tests are desired to commence. The request must include a revised RF field showing to demonstrate continued compliance with FCC guidelines.

EPA Type 1, eight sections, 0.8 wavelength spacing

ANSWER to SPECIAL OPERATING CONDITION #7.

The applicant is using the installed shared eight section, 0.8 wavelength spaced, directional antenna system. The manufacturer is Electronics Research, Inc. and the model number of the antenna is 1082-8CP-DA (EPA Type 1). The underlying construction permit application specified a eight section ERI (EPA Type 1) antenna and we are using the specified (EPA Type 1) antenna.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page nine: KCUV(FM)

SPECIAL OPERATING CONDITION or RESTRICTION #8.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic fields in excess of FCC guidelines.

ANSWER to SPECIAL OPERATING CONDITION #8.

The permittee/licensee will comply with Special Operating Condition #8 and will take all necessary precautions to protect the General Public and Workers on, in or near the site, from exposure to non-ionizing radio frequency radiation in excess of FCC guidelines.

Engineering EXHIBIT E-1 is a copy of the FCC construction permit underlying this Form 302-FM application and is included herein to aid Commission Staff in the processing of this application.

FCC FORM 302-FM

INTRODUCTION and ENGINEERING STATEMENT cont'd page ten: KCUV(FM)

The instant application requests the Commission grant PROGRAM TEST AUTHORITY and a new STATION LICENSE for FM Broadcast Station K C U V (FM), as specified herein.

The applicant, N R C Broadcasting, Inc., respectfully requests the Commission staff consider and grant the instant application for the facilities requested herein.

Respectfully submitted,

Elliott Kurt Klein
Consulting Broadcast Engineer

14 May 2007