

TECHNICAL STATEMENT

NEW AM, GOLDEN, COLORADO, 1550 KHZ, 1-KW DAY, 0.27 KW NIGHT, ND
ADVANCED MODULATION BROADCASTING, LLC

FCC FORM 301

FEBRUARY 2010

The Technical Statement supports a “long form” application for construction permit for a new AM Class B station on 1550 kHz at Golden, Colorado, facility ID 161314.

In a letter dated December 18th, 2009 (1800B3-BSH/LAS) from the commission, Advanced Modulation Broadcasting, LLC was requested to submit a long form FCC form 301 within 60 days for a new AM station for Golden, Colorado on 1550 Khz in regards to MX Group 84-39C. This application is to fulfill that requirement.

Proposed Transmitter Location

The proposed site is an existing tower located on Lookout Mountain just west of the city of Golden. This tower will be modified with the addition of a folded unipole to the electrically grounded tower. The current tower is 18.9 meters (62 feet) overall. The tower is located at N39°-43'-46", W105°-14'-09", NAD 27. The electrical height of this tower will be 34 degrees with the 60 foot unipole added, and another 20 degrees of top loading added to the top of the tower using excited guy wires. The top 8.2 meters of the guy wires will be used.

The proposed ground system will consist of a 20 foot by 20 foot square ground screen located at the base of the tower, with an additional 120, evenly spaced, 48.4 (159.6 feet or ¼ wavelength) meter long radials at the base of the tower. The plot layout shows

that some of the radials on the East and West portions of the property boundaries will be slightly truncated.

Blanketing

There are 6 persons residing within the 1000 mV/m contour based on the 2000 U.S. Census data. A map is attached showing the 1000 mV/m coverage area.

Community Coverage

The proposed daytime field strength contours are attached with an exhibit. As indicated, the proposed daytime 5 mV/m contour will completely encompass the city limits of Golden. The 23.723 mV/m nighttime interference free (NIF) contour encompasses 88% of the city of Golden. FCC M-3 ground conductivity data was used in determining the extent of the coverage contours.

Daytime Allocation Study

A daytime allocation study was made utilizing FCC figure M-3. Daytime field strength contours were calculated in accordance with Section 73.183. Based on this analysis, the proposed facility will comply with all relevant allocation criteria. A exhibit is attached showing all of the pertinent co-channel and adjacent channel stations of interest.

Nighttime Allocation Study

A nighttime allocation study was made to determine the limiting station for the proposed operation. Canadian Station CBE Windsor on 1550 khz was found to be the most limiting. Attached is an exhibit showing compliance to CBE. Also attached are several exhibits showing the protection to all pertinent co-channel and adjacent channel

stations of interest. Also the calculations for the nighttime interference free contour (NIF).

Ground Level Radiofrequency Electromagnetic Field Exposure and Environmental Statement

A fence restricting access will be installed at the base of the tower to assure that persons on the property outside the fenced area will not be exposed to radiofrequency field levels in excess of those recommended by ANSI. Using Figures 2 and 3 of Supplement A to OET Bulletin 65, the worse case interpolated distance at which the electric and magnetic fields would fall below ANSI guidelines is less than 1.7 meters. A fence will be 2.1 meters (7 feet) square centered around the base of the tower. RF radiation signs will be posted on each face of the fencing. This is in compliance with the standards specified in Section 1.1307(b) for human exposure to radiofrequency radiation. The station will cease operation when maintenance work is performed on the tower to insure safety to tower personnel.

Since this is an existing tower site, that will only need some minor modification to allow transmission of the new non-directional AM facility, no other environmental concerns are necessary. The tower was constructed prior to March 16, 2001. The National Programmatic Agreement generally allows such a collocation without consultation or review under Section 106 and Subpart B of 36 CFR §800. The applicant believes that it is in full compliance with the Agreement, and that no further study is required.