

**ENGINEERING REPORT
Original Construction Permit
Application for a New Station**

**NEW(FM) – Anniston, AL
Channel 261C3 (100.1 MHz)**

**Associated with the Feb. 22-26, 2010
Filling Window for Certain Vacant
Commercial Allotments Reserved for
Non-Commercial Use**

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- Exhibit 24.1 - RF Compliance Study

(Exhibit Numbering is in response to FCC Online Form 340, Section VII)

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DISCUSSION OF REPORT

This firm was retained to prepare the required engineering report in support of an original construction permit application for a new facility associated with the February 22-26, 2010 filing window for certain vacant commercial allotments reserved for non-commercial use. This Form 340 Filing requests facilities for the CH261C3 – Anniston, AL vacant allotment. Operation on CH261C3 (100.1 MHz) with 25.0 kW at 78.2 meters HAAT is requested.

The existing site for the Class C3 operation does not meet all domestic spacing requirements of 47 C.F.R. §73.207 toward other stations in the allocation, therefore filing under §73.215 is requested. A tabulation of the existing and required spacing toward each of the other relevant stations is found in **Exhibit 17.1**. Processing under §73.215 is requested toward WCKF(FM) – Ashland, AL; and WDXX(FM) (License and Construction Permit) – Selma, AL. As WCKF(FM) is presently licensed under §73.215 already, WCKF(FM) has been protected at its present operating facilities. As both the WDXX(FM) Licensed and WDXX(FM) authorized Construction Permit facilities are notified as fully spaced stations, contour protection has been afforded both facilities at max Class C2 parameters of 50.0 kW at 150 meters HAAT. The required contour map and tabulation studies toward WCKF(FM), WDXX(FM).L and WDXX(FM).C have been included in **Exhibit(s) 20.1 to 20.3**. A directional pattern for the proposed CH261C3 – Anniston, AL facility has been included in **Exhibit 17.2**.

For purposes of this application, the existing CH261C3 – Vacant Allotment reference point remains both fully spaced to all allocation requirements and places a 23.2 km Class C3 city reference arc over 100% of Anniston, AL. As the existing CH261C3 – Vacant Allotment reference point has already been accepted by the Commission, it is believed no further showings are necessary.

The proposed CH261C3 service contours have been calculated in accordance with the Rules, and the data obtained has been tabulated and plotted in this report. The plotted contours are found as **Exhibit 15.4** of this report. The tabulation of the distances to the respective contours shown in this discussion is based on the use of the standard eight cardinal bearings, which were also used for the computation of the HAAT. However, the plotted contours shown in **Exhibit 15.4**, are based on the use of a full 360 terrain radials. The NGDC 30 second terrain database has been used in calculation of both HAAT and contour distance computations. This exhibit shows the overall service provided by the 1.0 mV/m and the 3.16 mV/m contour which serves 100% of Anniston, AL.

The proposed antenna will be mounted on existing Antenna Structure Registration 1228824. A copy of the existing ASR has been included in **Exhibit 15.1**. As this proposal will not increase the overall tower height, it is believed the FAA need not be notified. A copy of the vertical antenna plan has been included as **Exhibit 15.2**.

The remainder of the information in this report and exhibit numbering is responsive to the Rules of the Commission, and provides the data for FCC Online Form 340.

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DISCUSSION OF REPORT (continued)

RADIATION PROTECTION: The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

The FM Broadcast facility proposed in this application is within the uncontrolled limits as noted in the supplied **Exhibit 24.1** study. The RF radiation will not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1310 of the Commission's rules. The facility will be properly marked with signs, and entry will be restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

DISTANCES TO CONTOURS: The table below shows the distances to the 3.16 mV/m and 1.0 mV/m contours from the proposed facility using an ERP of 25.0 kW at an HAAT of 78.2 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 334041.8 W. Lng. = 855108.9							
HAAT and Distance to Contour,							
FCC, FM 2-10 Mi, 51 pts Method - NGDC 30 SEC							
Azi.	AV EL	HAAT	ERP kW	dBk	Field	70-F5	60-F5
000	199.4	117.0	5.3130	7.25	0.461	17.09	29.56
045	258.8	57.6	12.7449	11.05	0.714	14.76	26.17
090	339.8	-23.4	25.0000	13.98	1.000	12.66	22.67
135	227.1	89.3	25.0000	13.98	1.000	21.98	37.20
180	242.1	74.3	25.0000	13.98	1.000	20.06	34.22
225	210.9	105.5	20.1601	13.04	0.898	22.69	38.24
270	231.8	84.6	15.8404	12.00	0.796	19.12	32.71
315	195.8	120.6	5.7961	7.63	0.481	17.79	30.54
Ave El= 238.22 M HAAT= 78.18 M AMSL= 316.4 M							

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