Technical Exhibit

Genesis Broadcasting Network Corporation
Technical Exhibits in Support of Minor Modification of Construction Permit to
WGES

CHANNEL 215C2
33 kW
94 meters HAAT

25 14 7.0 N x 80 19 35.0 W
Key Largo, Florida

June 16, 2003
Genesis Broadcasting Network Corporation
Technical Exhibits in Support of Minor Modification of Construction Permit
for WGES

**WGES Channel 215C2 – 90.9 Mhz - 33 kW - 94 M HAAT - Key Largo, Florida**

This Exhibit is in support of the Minor Modification of Construction Permit application by Genesis Broadcasting Network Corporation for changes to WGES in Key Largo, Florida that will change antenna location, HAAT, and ERP.

The applicant proposes to place its facility on an existing tower at 25 14 7.0 N x 80 19 35.0 W, the coordinates shown herein, and no notification of the FAA is required. This tower is located approximately 6.0 km south of Card Sound Road on Florida Highway 905. This tower is located on county property within a fenced Monroe County waste transfer facility. There is one FM translator located on this tower, and one proposed NCE FM station. The Main Studio facility of the applicant will not be located at the transmitter site but will be within the 70 dBu contour of the proposed signal as required.

Contour protection to co-channel, first, and second adjacent channels is shown herein and is 100%. There are no third adjacent channels located close to the proposed facilities. The application meets the requirements of Sec. 73.507, c regarding all existing commercial facilities.
WGES MINOR MODIFICATION
OF CONSTRUCTION PERMIT
Co-Channel Channel Study

WSOR
60 dBu F(50,50)

40 dBu F(50,10)

WGES PROPOSED
60 dBu F(50,50)

40 dBu F(50,10)
WGES MINOR MODIFICATION OF CONSTRUCTION PERMIT
1st Adjacent Channel Study
WGES MINOR MODIFICATION OF CONSTRUCTION PERMIT 2nd Adjacent Channel Study
WGES MINOR MODIFICATION
OF CONSTRUCTION PERMIT
60 & 70 dBu city of license coverage
Genesis Broadcasting Network Corporation  
Technical Exhibits in Support of Minor Modification of Construction Permit  
for WGES  

**Blanketing Interference and Other Facilities Nearby**

The Blanketing Interference Contour for the proposed facility as calculated by the FCC method in Sec. 73.318 is 2.27 km from the base of the tower. No significant population resides within this contour. There is no expected third-order interference as the result of this application, but should any interference occur, the applicant will fully comply with the requirements of Sections 73.315 (b), 73.316 (d), and 73.318.

There are no AM radio stations within 10 km of the proposed facilities.

There is one Class-D FM station, W228AY operating on channel 228D with 0.027 kW ERP from the proposed site. There is one proposed NCE FM station (WMKL) proposed to operate on channel 219C2 with 50.0 kW ERP from the proposed site.

There are no television stations within 10 km of the proposed facilities.
TV channel 6 interference zone determined as per section 73.525(e).

2002 Census Population: 2,223 persons

WGES
MINOR MODIFICATION OF CP
TV Channel 6 Interference Zone
(Section 73.525)
Technical Exhibits in Support of Minor Modification of Construction Permit for WGES

**Rf Radiation Compliance**

The Rules require that an addition to any multiple use site must not contribute non-ionizing RF Radiation in excess of the TOTAL limits for each class of service in either of the two selected environments.

W228AY operates at 0.027 kW with its antenna located at 91 meters above ground level. W228AY contributes a maximum of 0.00013 microwatts per square centimeter at 2 meters above ground level which occurs at 48 meters from the base of the tower. Thus, this amount is 0.013% of the controlled environment and 0.065% of the uncontrolled environment limit.

WMKL-FM (CP) is proposed to operate at 50 kW with its antenna located at 91 meters above ground level. A 5-bay Shively 6810 Series antenna is proposed. As such, WMKL would contribute a maximum of 0.024 microwatts per square centimeter at 2 meters above ground level which occurs at 37 meters from the base of the tower. Thus, this amount is 2.4% of the controlled environment and 12% of the uncontrolled environment limit.

WGES-FM (Proposed) is proposed to operate at 33 kW with its antenna located at 91 meters above ground level. A 5-bay Shively 6810 Series antenna is proposed. As such, WGES would contribute a maximum of 0.017 microwatts per square centimeter at 2 meters above ground level which occurs at 37 meters from the base of the tower. Thus, this amount is 1.6% of the controlled environment and 8% of the uncontrolled environment limit.

Thus, considering all current and proposed facilities operating from the proposed site, WGES’s addition would bring the total radiation in the controlled environment to 4.013% of the ANSI limit while the total radiation in the uncontrolled environment would be 20.1% of the ANSI limit which occurs at 37 meters from the base of the tower. This tower is fenced both at the base and within a much larger fence around the property (approximately 100 meters from the tower) where the tower is located. Therefore, this proposal is fully compliant with the provisions of OST Bulletin #65 as recently amended.

The contributions of these facilities were calculated using FM-Model from OET. The EPA Dipole antenna (worst case) was used for W228AY. However, in the cases of WMKL and WGES, the Shively 6800 Series 5-bay model was used.