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A & D Broadcasting, Inc.
FM Translator W295DK (106.9 MHz)
Louisburg, NC

ENGINEERING NARRATIVE STATEMENT
LICENSE TO COVER CP FACILITIES

TRANSMITTER SITE:

Existing site of WYRN-AM. FM facilities per authorized construction permit. The AM station and FM translator will be shut down for maintenance on the tower or its appurtenances for NIEMR compliance.

TECHNICAL DATA:

- 1. Antenna: Nicom BKG77-2 (Power gain 0.95 or -0.223 dB)
(147.4 w required at ant input to achieve authorized 140 w ERP)**
- 2. Coax "Pigtail", 3 ft (1m) RG213, xmtr to TX line input: 0.3 dB**
- 3. TX line, building to isocoupler: 7/8 in foam Heliax, 250 ft (76.2 m)
Loss = 0.938 dB**
- 4. Isocoupler and Connectors: Loss = 0.2 dB**
- 5. TX line, vertical run on tower: 7/8 in foam Heliax, 150 ft (45.7 m)
Loss = 0.563 dB**
- 6. Coax "Pigtail", 3 ft (1m) RG213 to antenna input: 0.3 dB**
- 7. TOTAL Losses: 2.301 dB or 1.699**
- 8. Transmitter power output required: $1.699 \times 147 \text{ w} = 249.7 \text{ w}$ (rounded 250)**

CONCLUSION:

It is believed no further information is necessary to conform this application. W295DK will supply additional information if necessary on request by Commission staff.

R. Morgan Burrow Jr., P.E. declares and states under penalty of perjury that he examined all of the attached material and performed the associated calculations. He believes the above information is accurate and true to the best of his knowledge.

Dated this the 7th day of February, 2020

A handwritten signature in black ink, appearing to read "R. Morgan Burrow Jr.", written in a cursive style.

R. Morgan Burrow Jr., P.E.
VA registration 17424