EXPLANATION OF APPLICATION/TECHNICAL SUMMARY

THIS APPLICATION SEEKS TO REVISE THE FACILITIES FOR KCBD AUTHORIZED BY SPECIAL TEMPORARY AUTHORITY ('STA') IN BDSTA-20150218ABZ FOR KCBD CONTINUE TO OPERATE. SPECIFICALLY, IT IS PROPOSED TO INCREASE THE ERP FROM 0.88 KW TO 3.3 KW. NO OTHER CHANGES ARE PROPOSED. AS NOTED IN THE ABOVE-REFERENCED STA APPLICATION, IN EARLY FEBRUARY KCBD 'S TOWER WAS SEVERELY DAMAGED BY A SMALL AIRPLANE CRASH. THE TOWER IS CURRENTLY UNDER CONSTRUCTION. THE EXPECTED DURATION OF THE STA IS 6 MONTHS.

THE ADDITIONAL PARAMETERS FOR THE PROPOSED KCBD STA FACILITY ARE LISTED BELOW:

1. SERVICE : FULL POWER DTV
2. TRANSMITTER OUTPUT POWER : 4 KW
3. INTERFERENCE: THE PROPOSED FACILITY COMPLIES WITH THE POST-TRANSITION INTERFERENCE PROTECTION PROVISIONS OF SECTION 73.616.

TECHNICAL SUMMARY
INTERFERENCE STUDY PARAMETERS: THE OET-69 INTERFERENCE STUDY WAS BASED ON A 2 KM CELL SIZE AND A 1 KM TERRAIN DISTANCE.

FIGURE 1: MAP DEPICTING THE FCC PREDICTED 36 DBU, F(50,90), NOISE-LIMITED CONTOURS FOR KCBD'S LICENSED MAIN OPERATION (BLCDT-20100305ABI) AND HEREIN PROPOSED STA OPERATION. AS INDICATED, THE 36 DBU CONTOUR OF KCBD'S PROPOSED STA OPERATION WILL NOT EXTEND BEYOND KCBD'S LICENSED MAIN 36 DBU CONTOUR.

THE PROPOSED STA OPERATION WILL PROVIDE THE NECESSARY PROTECTION TO RADIO ASTRONOMY INSTALLATIONS AND FCC MONITORING STATIONS.

RFR COMPLIANCE: THE PROPOSED STA FACILITIES WERE EVALUATED IN TERMS OF POTENTIAL RADIO FREQUENCY (RF) ENERGY EXPOSURE AT GROUND LEVEL TO WORKERS AND THE GENERAL PUBLIC. THE RADIATION CENTER FOR THE PROPOSED DIGITAL ANTENNA IS LOCATED 152 METERS ABOVE GROUND LEVEL. THE MAXIMUM DIGITAL ERP IS 3.3 KW (HORIZONTAL POLARIZATION). A WORST-CASE VERTICAL PLANE RELATIVE FIELD VALUE OF 1.0 (FOR ANGLES BELOW 60 DEGREES DOWNWARD) IS PRESUMED FOR THE ANTENNA'S DOWNWARD RADIATION. THE CALCULATED POWER DENSITY AT A POINT 2 METERS ABOVE GROUND LEVEL IS 0.0049 MW/CM2. THIS IS 2.45% OF THE FCC'S RECOMMENDED LIMIT OF 0.2 MW/CM2 FOR CHANNEL 11 FOR AN UNCONTROLLED/GENERAL POPULATION ENVIRONMENT. THEREFORE, BASED ON THE RESPONSIBILITY THRESHOLD OF 5%, THE PROPOSAL WILL COMPLY WITH THE RF EXPOSURE REQUIREMENTS CONTAINED IN THE FCC RULES.

ACCESS TO THE TRANSMITTING SITE IS RESTRICTED AND APPROPRIATELY MARKED WITH RFR WARNING SIGNS. FURTHERMORE, A PROTOCOL SHALL BE IN EFFECT IN THE EVENT THAT WORKERS OR OTHER AUTHORIZED PERSONNEL ENTER THE RESTRICTED AREA OR CLIMB THE TOWER TO ENSURE THAT APPROPRIATE MEASURES WILL BE TAKEN TO ASSURE WORKER SAFETY WITH RESPECT TO RF ENERGY EXPOSURE.