January 22, 2021

K17II-D Application for STA for Temporary Broadcast Facility

Engineering Exhibit

The purpose of this application is to request special temporary authority (STA) for K17II-D (FCC File Number BLDTL-20090819AEC), Logan, Utah, Facility ID 168494, licensed to NBC Telemundo License LLC to allow operation at a temporary location. While the defective transmitter reported in the STA to remain silent request has been replaced, the originally licensed site is no longer available. K17II-D has identified a temporary site in Logan for use until the license can be modified to specify a new permanent site and a facility constructed at the site. A new permanent site has been found and confirmed to be available but a potential interference issue with an adjacent channel station at the site needs to be resolved before an application can be filed for the site. Work is continuing to resolve the issue and once resolved the plan is to complete the new permanent facility within six months assuming FCC approval. A grant of the STA to use the temporary Logan site will allow K17II-D to provide interference free coverage to 47,675 people in Logan until the facility is relocated to a permanent mountain top location

Antenna System

This application specifies use of a Scala CL-1469 log-periodic antenna (FCC antenna ID 20778) rotated 140 degrees from true north mounted on a pole 1.1 meters above the crest of the roof of the building at 3006 N Main Street, Logan UT 84341. The antenna will be horizontally polarized.

Environmental Statement

The facilities requested in this application will be located on an existing building with the total support structure height not more than 1.22 meters above the roof of the building.

RF power density from the antenna located 4.115 meters above ground with an effective radiated power of 250 watts was calculated using the procedures described in FCC Office of Engineering and Technology Bulletin 65. At this time the proposed K17II-D operation will be the only facility transmitting from this location. No area inside or around the building or in or on adjacent buildings is calculated to exposed to RF power densities above the 327 mW/cm^2 limit at 491 MHz for exposure in an uncontrolled environment. In the main beam of the antenna, the RF power density is below the maximum permissible exposure limit for an uncontrolled environment at distances greater than 8.2 meters from the antenna.

The RF power density on the roof of the building is calculated to exceed the maximum permissible power density of 1.637 mW/cm^2 for occupational exposure. Warning signs will be posted on the roof. The roof is accessible only with permission and notification of the building manager, who will ensure the K17II-D transmitter is powered off before anyone is allowed on the roof to protect workers on the roof-top from RF exposure above the limits specified in FCC rule §1.1310.

Interference Analysis

A TVStudy Interference Check showed no new interference to existing or authorized facilities in the LMS database dated January 18, 2021. The proposed STA operation is predicted to receive 7.19% combined interference from KISU-TV (DD) and K16IX-D. To the extent required, K17II-D agrees to accept this interference.

Coverage

The FCC service area contour of the proposed STA is completely contained within the K17II-D licensed service area as shown on the attached map.

Doug Lung
January 22, 2021

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