Statement of Hammett & Edison, Inc., Consulting Engineers

Hammett & Edison, Inc., Consulting Engineers, has been retained by Public Media Group of Southern California (PMGSC), licensee of TV Station KCET and TV Translator Station K09XW-D, DTV Channel 9, Palm Desert, California, to prepare the technical portions of an amended minor-change application for a construction permit to relocate the station.

Existing K09XW-D Operation

K09XW-D is currently licensed to transmit from Santa Rosa Peak, a remote site with an elevation of over 8,000 feet AMSL, only accessible for a short period each year as the access road is controlled by the U.S. Forest Service. The site has no commercial power, and so must run on generator power year round. The authorized effective radiated power (ERP) is 300 watts HPOL only using a directional antenna array with major lobes at 355°T and 70°T. The transmitter became inoperative on or around July 21, 2022, and stay-silent authority was granted on August 15, 2022, with a January 21, 2023, expiration date. The stay-silent was extended on January 3, 2023, to July 21, 2023.

Reason for Amended Application

This application amendment is required because the height available on a building-mounted H-frame antenna structure was not as great as originally reported, requiring a reduction in the center-of-radiation (C.O.R.) height of the transmitting antenna array, from 16.2 meters AGL/491.1 m AMSL to 9.8 meters AGL/484.7 m AMSL. A 0.4 dB reduction in the requested ERP was also necessary, from 169 W ERP (DA) HPOL/84.5 W ERP (DA) VPOL to 154 W ERP (DA) HPOL/77.0 W ERP (DA) VPOL, in order to keep the OET-69 predicted interference to KECY-TV, Channel 9, El Centro, California, to 0.5% or less.

Proposed Operation

It is proposed to relocate K09XW-D with no change in frequency from Santa Rosa Peak to Edom Hill, an established broadcast site near Palm Springs, California. This would be a move of less than 48 km (30 miles), namely 35.7 km (22.2 miles), and as shown by the attached figure, there would be contour overlap between the licensed F(50,90) 48 dBu protected contour and the proposed F(50,90) 48 dBu protected contour, thus meeting the requirements for a minor-change modification. A directional transmitting antenna array consisting of three Kathrein-Scala CA2 VHF dipole reflector antennas is proposed, with its axis of symmetry at 215°T. An ERP of 169 watts with 50% elliptical polarization (*i.e.,* VPOL = 50% of HPOL) is proposed. The relative field azimuth pattern for the VPOL antenna is everywhere equal to or less than the relative field for the HPOL pattern. The transmitter will be

non-heterodyne and will employ the Full Service emission mask. The transmitter will be fed via a hard-wired cable from an available KCET program feed at the Edom Hill site.

When studied on an OET-69 basis, the proposed operation is not predicted to cause more than 0.5% incremental interference to any full service or Class A TV station, nor more than 2% incremental interference to any LPTV or TV Translator station. Processing on an OET-69 basis with 1 km x 1 km cell size, 1-second terrain data, and one point per kilometer of terrain extraction is requested.

Mexican Considerations

The proposed operation would increase the distance to the U.S.-Mexico border from 105.6 km to 141.0 km, would decrease the main beam ERP from 300 watts to 154 watts, and would decrease the effective height from 2,288 m AMSL/970 m HAAT to 484.7 m AMSL/175.5 m HAAT. No interference is predicted to any licensed or permitted Mexican TV station.

Environmental Considerations

An environmental assessment is not required, as grant of this request would not be considered a major environmental action. The proposed transmitting antenna will be side-mounted on an existing rooftop H-Frame at the site that does not require an Antenna Structure Registration, and there will be no increase in the structure height. Edom Hill is a controlled access site with a fence and a locked gate, and thus qualifies for the occupational radio frequency exposure limit applying to controlled access sites. The maximum calculated power density at 2 meters above ground is 2.8% of the occupational exposure limit of 1.00 mW/cm^2 at the Channel 9 center frequency of 189 MHz. The maximum predicted power density on the building roof due to the operation of the proposed K09XW-D by itself is predicted to be 7.3% of the occupational limit. If rooftop access is needed, the K09XW-D operation will first be reduced to 68% or lower power, and a sign to that effect will be posted at the rooftop access location(s). This would ensure that the K09XW-D contribution to the rooftop exposure, by itself, would revert to 5% or less of the occupational limit, thus also qualifying for categorical exclusion from responsibility for the rooftop exposure conditions. The proposed operation would therefore be categorically excluded under Section 1.1307(b)(5) of the FCC Rules from having to consider the contributions of other stations at the site. None of the other factors specified in Section 1.1307 of the Rules are believed to apply.

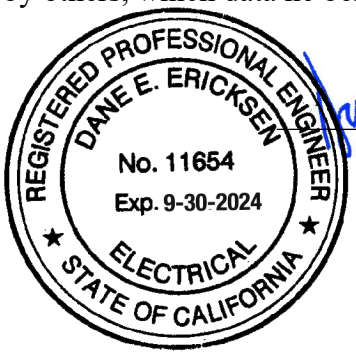
Figure

In carrying out these engineering studies, the following figure was prepared under my direct supervision:

1. Map showing proposed and licensed K09XW-D protected contours.

Authorship

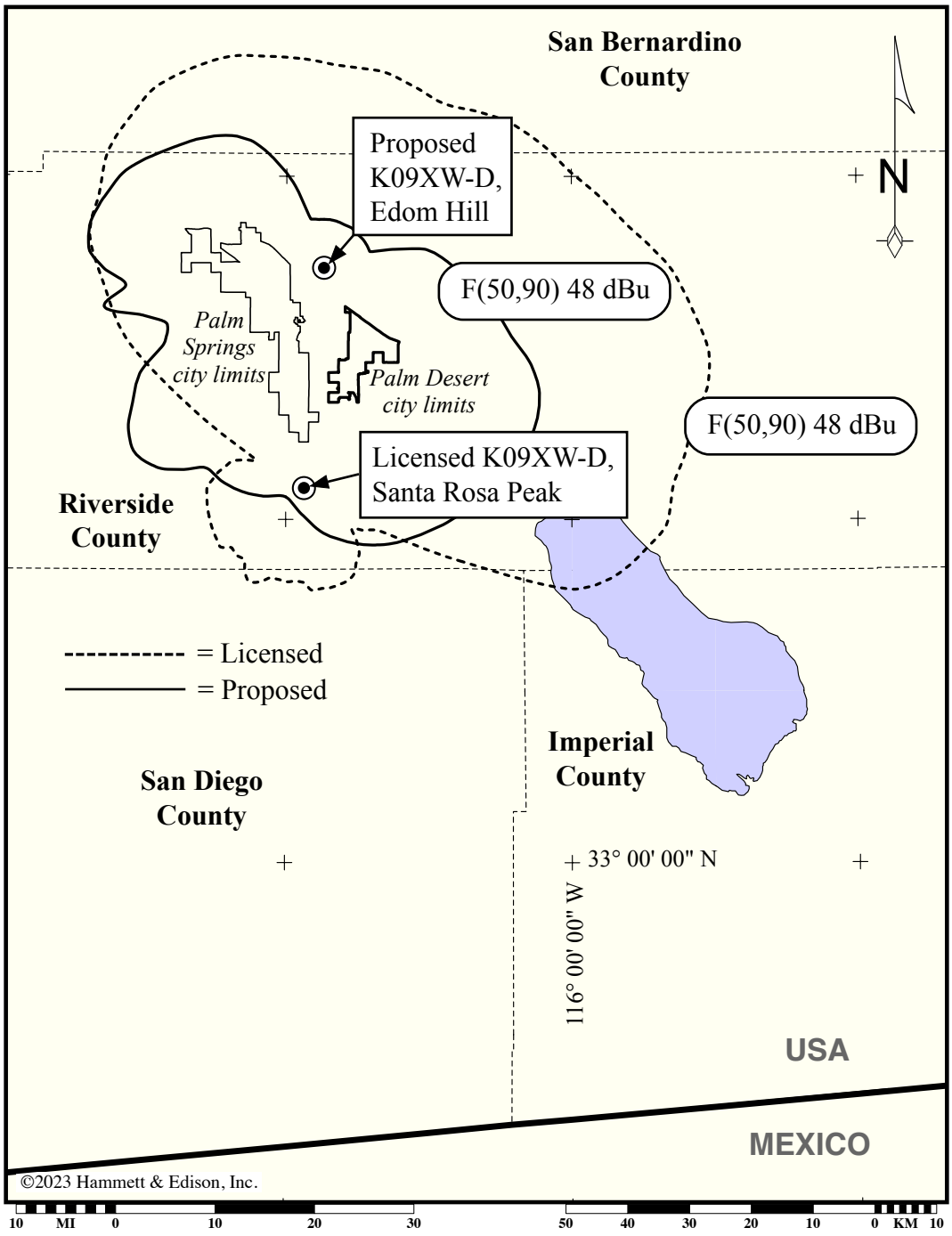
The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-11654, which expires on September 30, 2024. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



Dane E. Ericksen, P.E.

March 8, 2023

Proposed vs Licensed K09XW-D
Protected Contours



Lambert conformal conic map projection. Geographic coordinate marks shown at 30-minute increments. City and county lines taken from U.S. Census Bureau TIGER/Line 2010 data.