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April 23, 2018

SUPPLEMENTAL ENGINEERING EXHIBIT FOR MINOR MOD TO KDOC

In connection with the repacking of TV stations following the Commission's incentive auction, and in accordance with a construction permit, as modified, it holds (see File No. 0000034430), KDOC will be relocating to a new facility where its antenna will be co-located with the antenna of KCBS. Representatives of KDOC and KCBS recently met to coordinate the installation of their equipment at the new location. The parties determined that KDOC's antenna should be positioned above KCBS'. They also determined that to optimize the alignment of their antennas, it would be necessary to reorient KDOC's antenna slightly and to adjust the antenna's beam tilt. These modifications will make it possible for the antenna stack to be fabricated and installed without complicating antenna design or compromising reliability.

To implement these changes, KDOC is filing this minor modification application. KDOC proposes to rotate the azimuth pattern for its antenna from 210 degrees to 220 degrees. KDOC also proposes to change its antenna beam tilt configuration to 1.25 degrees mechanical and 1.25 degrees electrical (its construction permit specifies 1.5 degrees electrical and 1.0 degrees mechanical). No other changes are proposed.

Although there would be a slight increase in KDOC's noise-limited contour in relation to what is authorized currently, the increase would be *de minimis*. As shown in the diagrams below, the proposed changes would extend the land portion of KDOC's noise-limited contour only in a small area. This area is sparsely populated and terrain blockage restricts signal availability.

Applying the Longley-Rice methodology provided for in OET Bulletin No. 69, and relying on the 2010 census database, KDOC has determined that only 82 persons reside in the portion of the new area in which service would be considered available under Section 73.622(e)(2) of the rules. In contrast, the total contour population is in excess of 18 million persons. Based on the fact that the proposed change would be *de minimis*, KDOC believes that it is consistent with the freeze on changes in full power and Class A television broadcast licensees and permittees or, if necessary, requests an exemption from the freeze.

Sincerely,



President  
Attachments

**KDOC-TV.C**  
 0000034430  
 Latitude: 34-13-55 N  
 Longitude: 118-04-21 W  
 ERP: 110.00 kW  
 Channel: 12  
 Frequency: 207.0 MHz  
 AMSL Height: 2016.0 m  
 Elevation: 1724.7 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: Directional  
 Elec Tilt: 1.5  
 Mech Tilt: 1.0  
 Tilt Azi: 210.0

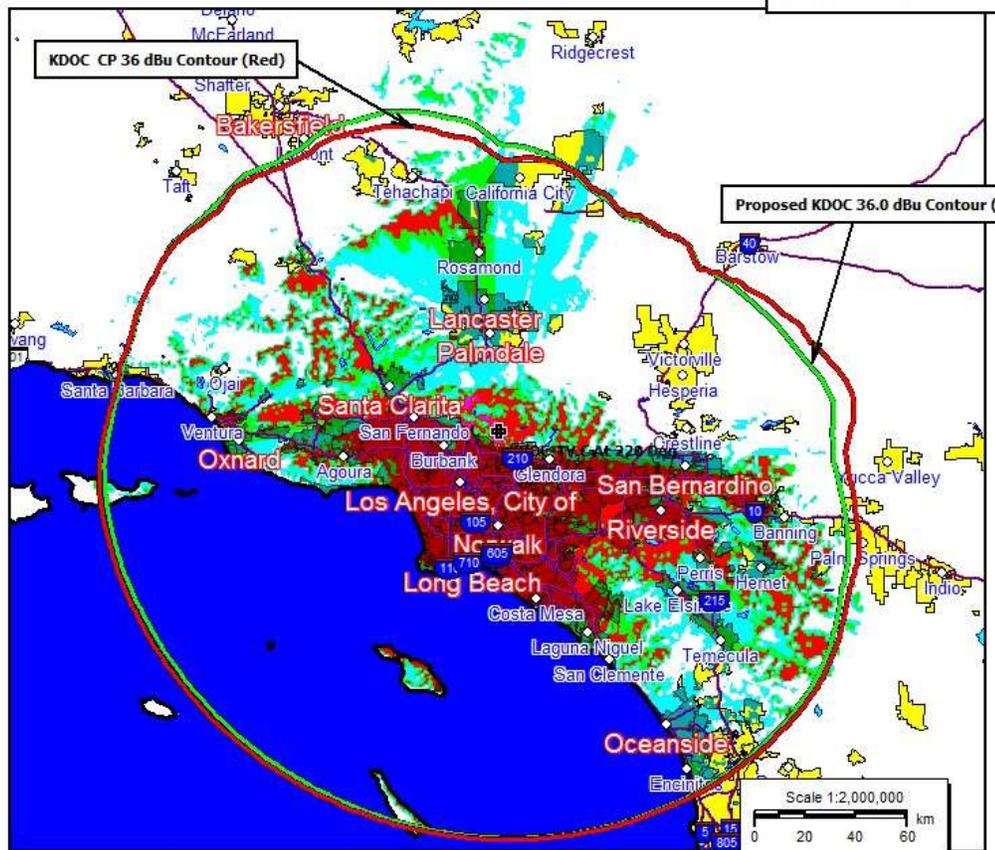
**KDOC-TV.C At 220 Deg**  
 Proposed  
 Latitude: 34-13-55 N  
 Longitude: 118-04-21 W  
 ERP: 110.00 kW  
 Channel: 12  
 Frequency: 207.0 MHz  
 AMSL Height: 2016.0 m  
 Elevation: 1724.7 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: Directional  
 Elec Tilt: 1.25  
 Mech Tilt: 1.25  
 Tilt Azi: 220.0

**Signal Strength Legend**

	> 100.0 dBuV/m
	80.0 - 100.0
	60.0 - 80.0
	41.0 - 60.0

**KDOC PROPOSED FACILITY & KDOC EXISTING CP FACILITY**

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 Frequency: 207.0 MHz  
 AMSL Height: 2016.0 m  
 Elevation: 1724.7 m  
 Horiz. Pattern: Directional  
 Vert. Pattern: Yes  
 Elec Tilt: 1.25  
 Mech Tilt: 1.25  
 Tilt Azi: 220.0

**Signal Strength Legend**

█	> 100.0 dBuV/m
█	80.0 - 100.0
█	60.0 - 80.0
█	41.0 - 60.0

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