

ENGINEERING STATEMENT

IN SUPPORT OF

MINOR MODIFICATION OF A LICENSED DIGITAL TRANSLATOR FACILITY

K34CR-D

ALAMOGORDO, NM

Background

Hearst Properties Inc. (Hearst) is the licensee of digital television translator station K34CR-D (LMS File No. 0000139141, Facility ID. 53906) near Alamogordo, NM. The station currently operates on Ch. 34 with an ERP of 1.0 kW. Hearst, in the instant application, is seeking to increase the K34CR-D ERP from 1.0 kW to 3.2 kW. All other facility parameters would remain the same as currently authorized.

Site and Tower

The tower is located at 32° 49' 49.3" N and 105° 53' 18.9" W (NAD83). The overall height of the tower is 12.0m AGL and it passes the TOWAIR program. Therefore, the tower does not require an ASR, nor notification to the FAA.

KOAT intends to reuse the existing antenna which is side-mounted on the tower. Note, during the process of preparing the modification application, it was discovered that

the original analog translator construction permit application contained typographical errors in the tower coordinates. The current K34CR-D license list the tower coordinates as:

32° 49' 47.8" N (NAD83)
105° 53' 15.8" W

The actual coordinates of the tower are:

32° 49' 49.3" N (NAD83)
105° 53' 18.9" W

The discrepancy has been corrected in the application.

The site will remain the same as that of the licensed digital facility, as will the height of the antenna radiation center.

Antenna and Power

Hearst is proposing to continue using the licensed Kathrein/Scala SL-8 omnidirectional antenna for the facility with a horizontally polarized ERP of 3.2 kW (no vertical polarization component).

Interference

An interference check study was run using the FCC TVStudy software (Version 2.2.5) for the proposed facility parameters (including the use of a Simple Mask). The results of the study (copy attached hereto) show that potential interference is not predicted to exceed 0.49% to any full-service DTV or Class A stations or 1.99% to any digital low power stations as required by the Commission's Rules.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report.

The location of the proposed facility is assumed to currently be “in compliance” with FCC guidelines for human exposure to RFR (as defined in OET-65). The worst-case ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.015395 mW/cm², which is less 5% of the MPE limit for public exposure (0.395333 mW/cm²) at Ch. 34. Per Section 1.1307(b) of the FCC Rules, the operation is categorically excluded from taking corrective action in areas with levels above the MPE limit since the contribution to the overall RFR from the facility is less than 5%.

Hearst agrees to comply with the Commission’s requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.



Benjamin Pidek, P.E.
September 1, 2022

Attached:
TVStudy Interference Check Report

TVStudy TV Interference Check Report for K34CR-D on Ch. 34

Study created: 2022.08.24 21:57:54

Study build station data: LMS TV 2022-08-12

Proposal: K34CR-D D34 LD LIC ALAMOGORDO, ETC., NM
File number: K34CR_Max_3_2k_CoordCorr
Facility ID: 53906
Station data: User record
Record ID: 219
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KVBA-LD	N19+	TX	LIC	Alamogordo, NM	BLTTL20070720AAD	1.6 km
No	DK19HV	N19z	TX	APP	DEMING, NM	BLTT20100629AOR	176.0
No	K20HA-D	N20z	TX	LIC	CABALLO, NM	BLTT20050202ADM	125.6
No	KCWF-LP	N20+	TX	LIC	LAS CRUCES, NM	BLTTL20110415AAC	94.4
No	K33NX-D	D33	LD	LIC	CARLSBAD, NM	BLANK0000062910	157.0
No	K33OB-D	D33+	LD	LIC	ROSWELL, NM	BLANK0000122546	135.9
No	K33PG-D	D33	LD	LIC	SOCORRO, NM	BLANK0000059488	170.2
No	K33PE-D	D33	LD	LIC	TRUTH OR CONSEQUENCE, NM	BLANK0000067707	135.1
No	KUVE-DT	D34	DT	LIC	GREEN VALLEY, AZ	BLANK0000063897	454.2
No	DDK21GC	D34	LD	APP	SAFFORD, AZ	BDISDTT20090630AAH	370.8
Yes	K38IM	D34+	LD	CP	ALBUQUERQUE, NM	BLANK0000195613	269.9
Yes	DDK34FU	N34-	TX	APP	ARREY & DERRY, NM	BLTT20040325ACF	125.6
No	K34HF-D	D34	LD	LIC	CUBA, NM	BLDTT20060718ABG	364.5
No	K34KZ-D	D34	LD	LIC	HOBBS, NM	BLDTL20130201ACL	256.5
Yes	K34QU-D	D34	LD	CP	MAGDALENA, NM	BNPDTL20100513AEA	147.4
No	DK34GL	D34	LD	APP	SANTA ROSA, NM	BDFCDTT20120604ADW	261.1
No	K34NB-D	D34	LD	LIC	LUBBOCK, TX	BLANK0000151871	378.2
No	K34NB-D	D34	LD	CP	LUBBOCK, TX	BLANK0000153525	389.5
No	K29NW-D	N34+	TX	LIC	MIDLAND, TX	BLTTL20061107AEM	367.4
No	K34MX-D	D34	LD	LIC	ODESSA, TX	BLANK0000178823	347.8
No	KNME-TV	D35	DT	LIC	ALBUQUERQUE, NM	BLANK0000131933	269.8
No	K35JR-D	D35	LD	LIC	ARREY & DERRY, NM	BLDTT20110902AAQ	125.6
No	K35HB-D	D35	LD	LIC	DEMING, NM	BLDTT20110824ABW	176.0
Yes	K35GU-D	D35	LD	APP	RUIDOSO, NM	BLANK0000197520	64.6
Yes	K35GU-D	D35	LD	LIC	RUIDOSO, NM	BLDTT20140506AAP	64.5
Yes	DDKKNJ-LP	N36	TX	APP	ALAMOGORDO, NM	BLTT19890606IQ	0.1
No	K32NL-D	N41	TX	LIC	DEMING, NM	BLTT20030113ABZ	176.0
No	XHJUB	D33	DT	LIC	CIUDAD JUAREZ, CH	BLANKBPFS20160304AAG	136.9
Yes	XHCJE	D34	DT	LIC	CIUDAD JUAREZ, CH	BLANKBPFS20160224AAV	141.9
No	CADENATRES	D34	DT	LIC	NUEVO CASAS GRANDES, CH	BLANKBPFS20160525AAR	330.7
No	XHCNS	D34	DT	LIC	CANANEA, SO	BLANKBPFS20160301AAQ	464.9
No	XEJ	D35	DT	LIC	CIUDAD JUAREZ, CH	BLANKBPFS20160304AAH	141.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D34
Mask: Simple
Latitude: 32 49 49.30 N (NAD83)

Longitude: 105 53 18.90 W
Height AMSL: 2384.9 m
HAAT: 0.0 m
Peak ERP: 3.20 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.75

50.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	3.20 kW	569.5 m	57.2 km
45.0	3.20	-14.2	22.6
90.0	3.20	-110.8	22.6
135.0	3.20	-147.9	22.6
180.0	3.20	661.4	59.2
225.0	3.20	1068.2	66.2
270.0	3.20	1091.8	66.6
315.0	3.20	1015.0	65.3

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 517 m

Distance to Canadian border: 1797.2 km

**Proposal is within coordination distance of Mexican border
Distance to Mexican border: 129.7 km

Conditions at FCC monitoring station: Douglas AZ
Bearing: 248.4 degrees Distance: 383.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 3.8 degrees Distance: 812.0 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

No IX check failures found.