

KFDY-LD DISPLACEMENT MINOR MOD TO LICENSE FOR CH 34 15 kW DA  
FCC LICENSE FILE NUMBER 0000113709  
LINCOLN, NEBRASKA  
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS  
August 24, 2023

KFDY-LD is a licensed LPTV facility on CH 27 as authorized for LPTV DTV operation under FCC file number 0000113709. KUON-TV, CH 12, Lincoln, Nebraska, has filed for CH 27 in FCC file number 0000199898 and displaces the KFDY-LD facility.

This application specifies CH 34 as a displacement channel for KOHA-LD. This application specifies the licensed tower site and RC AMSL with a change in antenna system increase in ERP. Updated RFR calculations are provided herein.

The proposed antenna system is an ATC-BCE28M-V3-34, eight slot, elliptically polarized antenna system with 0.5 degrees of electrical beam tilt. The maximum relative field in the elevation pattern across the depression angle range of 15 to 90 degrees is less than 0.25 with a radiation center 140.8 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.25 has been used to calculate the power density 2 meters above ground. The maximum power density is 2.05 uw/cm squared calculated for an ERP of 15,000 watts H. polarization and 4,500 watts V. polarization. This value is 0.52% of the Public Exposure MPE per section 1.1310. Based on this analysis it is believed that the proposed facility is in compliance with OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed structure is an existing site with access and power.

Attached is a copy of the TVStudy report for CH 34 based on the proposed 15 kW ERP and DA antenna described above with an orientation of 325 degrees. As can be seen in the station tabulation there is no impermissible caused interference. It is believed that the proposed facility provides full protection to other television facilities.

# REPORT

Study created: 2023.08.24 15:43:34  
Study build station data: LMS TV 2023-08-24  
Proposal: KFDY-LD D34 LD LIC LINCOLN, NE  
File number: BLANK0000113709  
Facility ID: 67012  
Station data: User record  
Record ID: 1351  
Country: U.S.

## Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KBIN-TV	D33	DT	LIC	COUNCIL BLUFFS, IA	BLEDT20050711ABX	87.7 km
No	K33AC-D	D33	LD	LIC	PAWNEE CITY, NE	BLDFT20081114ACQ	64.4
Yes	KDIN-TV	D34	DT	APP	DES MOINES, IA	BLANK0000210675	277.9
No	WQEC	D34	DT	CP	QUINCY, IL	BLANK0000035763	457.0
No	WQEC	D34	DT	LIC	QUINCY, IL	BLEDT20040715ADL	457.0
No	K34NU-D	D34	LD	LIC	JACKSON, MN	BLANK0000064444	346.4
No	WDAF-TV	D34	DT	LIC	KANSAS CITY, MO	BLANK0000155694	251.9
No	K34IB-D	D34	LD	LIC	DECATUR, NE	BLDFT20081125APS	145.1
No	KUSD-TV	D34	DT	LIC	VERMILLION, SD	BLEDT20100310ABZ	258.5
No	KHIN	D35	DT	LIC	RED OAK, IA	BLANK0000030114	132.9
No	K35KX-D	D35	LD	LIC	TOPEKA, KS	BLANK0000121576	227.0
Yes	KLKN	D35	LD	CP	LINCOLN, NE	BLANK0000120472	9.6
No	KNEN-LD	D35	LD	LIC	NORFOLK, NE	BLANK0000004598	156.7

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: Full Service  
Latitude: 40 43 39.70 N (NAD83)  
Longitude: 96 36 50.90 W  
Height AMSL: 566.9 m  
HAAT: 0.0 m  
Peak ERP: 15.0 kW  
Antenna: ALIVE TELECOM OMNIOID 325.0 deg  
Elev Pattnr: Generic  
Elec Tilt: 0.50  
50.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	13.1 kW	184.1 m	48.6 km
45.0	8.08	172.0	45.4
90.0	6.22	160.9	43.3
135.0	7.46	149.5	43.5
180.0	6.72	158.3	43.6
225.0	6.59	183.4	45.0
270.0	10.9	187.4	47.8
315.0	14.9	202.7	50.3

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 175 m

Distance to Canadian border: 893.8 km

Distance to Mexican border: 1292.2 km

Conditions at FCC monitoring station: Grand Island NE

Bearing: 278.7 degrees Distance: 154.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 267.8 degrees Distance: 731.0 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.

## CONCLUSION

Based on the information supplied herein, and accompanying application for construction permit, it is believed that the proposed facilities meet all applicable FCC requirements for construction permit.

The foregoing was prepared on behalf of Flood Communications of Omaha, LLC by Clarence M. Beverage of Communications Technologies, Medford, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



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August 24, 2023