

**TECHNICAL STATEMENT  
RE: MINOR MODIFICATION OF  
LICENSED FACILITY, LMS FILE NO. 0000100761  
WEEK-TV 536 KW-DA 211.6 M HAAT CH. 25  
PEORIA, ILLINOIS**

**INTRODUCTION**

WEEK License, LLC (the “Applicant”), the licensee of digital television broadcast station WEEK-TV Ch. 25 Peoria, IL, Facility ID No. 24801, submits this application to expand the station’s noise-limited contour beyond the current licensed facility through an increase in effective radiated power (ERP). This request to increase power for WEEK-TV is eligible for processing under the normal minor modification criteria in 47 CFR §73.3572.<sup>1</sup>

**PROPOSED MINOR MODIFICATION**

As stated above, the Applicant is requesting prior FCC authority to expand WEEK-TV’s licensed noise-limited contour through an increase in ERP. More specifically, the Applicant proposes to increase the station’s maximum ERP to 536 kW using the station’s existing antenna, which is a horizontally polarized directional antenna, Dielectric Model TUA-O4-16/64H-1-T-R. No other change to the station’s licensed facility is specified.

**INTERFERENCE PROTECTION**

The proposed power increase for WEEK-TV does not exceed the interference protection requirements to other full-service television and Class A TV broadcast stations in accordance with the criteria in 47 CFR §73.616. A detailed *TVStudy* analysis was performed to evaluate the proposal and attached as Figure 1 is a copy of the analysis summary, which

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<sup>1</sup> See *Media Bureau Lifts Freeze On The Filing Of Television Station Minor Modification Applications And Rulemaking Petitions Effective Fifteen Days After Publication In The Federal Register*, Public Notice, DA 20-1269 (rel. Oct. 29, 2020).



indicates no interference check failures were found.<sup>2</sup> The following analysis settings were used:

Study cell size:	1.0 km
Profile resolution:	0.1 km

## ENVIRONMENTAL IMPACT

For all of the reasons stated below, this application is categorically excluded from environmental processing in accordance with 47 CFR §1.1306. The criteria outlined in §1.1307(a) for certain types of facilities that may significantly affect the environment do not apply in this case because WEEK-TV will continue to utilize its existing panel antenna system and supporting tower structure. The proposed power increase is also not predicted to exceed the rules concerning human exposure to radio-frequency (RF) energy in §1.1307(b). This determination was made using the following technical parameters:

Frequency:	536 - 542 MHz (UHF Channel 25)
Effective Radiated Power:	536 kW
Antenna Type:	DIE TUA-O4-16/64H-1-T-R
Antenna Polarization:	Horizontal
Rotation:	0 degrees
Antenna Height AGL:	173.5 meters
Location coordinates NAD83:	40-37-46.0 N, 89-32-53.0 W
Site elevation AMSL:	227.1 meters
Overall tower height AGL:	184.1 meters
FCC ASRN:	1008775

Using the FCC methodology for predicting power density levels for television broadcast antennas, the proposed facility modification is calculated to result in a maximum power density of 6.09  $\mu\text{W}/\text{cm}^2$  at points 2 meters above ground (approximate human head height).<sup>3</sup> This

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<sup>2</sup> TVStudy Program - Version 2.2.5 was used in connection with the permissible 1.0 km cell size in 47 CFR §73.616(e)(1).


<sup>3</sup> See FCC OET Bulletin No. 65, Edition 97-01 (OET-65), Equation 10.



exposure level was determined using 10 percent antenna relative field, which is generally considered to be a typical value for UHF antennas. The maximum exposure limits applicable to Channel 25, as determined in accordance with 47 CFR §1.1310 for uncontrolled and controlled situations, are 357  $\mu\text{W}/\text{cm}^2$  and 1,787  $\mu\text{W}/\text{cm}^2$  respectively. Because the worst-case exposure level determined for WEEK-TV is not more than 5% of those guidelines, no further showing of compliance is necessary.

Appropriate warning signs to establish awareness of the potential for exposure in excess of the MPE limits are posted at the site. With regard to occupational exposure, all persons authorized to access the site, tower or antenna will be protected from excessive exposure to RF fields in accordance with the methods recommended in OET-65. The station will also reduce power or cease operation in coordination with other site users.

Respectfully submitted,



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Attachment  
Figure 1 – TVStudy Results

**FIGURE 1**  
**Interference Analysis Summary**  
**TVSTUDY, VERSION 2.2.5.**

Study created: 2020.11.23 10:58:52

Study build station data: LMS TV 2020-11-23

Proposal: WEEK-TV D25 DT APP PEORIA, IL  
File number: WEEK-TV – Power Increase  
Facility ID: 24801  
Station data: User record  
Record ID: 646  
Country: U.S.  
Zone: 1

Search options:  
Baseline record excluded if station has CP  
Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000072366	211.7 km
No	WHOI	D24	DT	LIC	PEORIA, IL	BLANK0000100514	0.0
No	KMOV	D24	DT	LIC	ST. LOUIS, MO	BLG0T20090626ACG	242.1
No	KTIN	D25	DT	LIC	FORT DODGE, IA	BLD0T20070822A08	471.0
Yes	KWK8	D25	DT	LIC	IOWA CITY, IA	BLG0T20070130AJ0	193.9
Yes	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000084058	211.7
Yes	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLG0T20090623ACJ	295.2
No	KMCI-TV	D25	DT	LIC	LAWRENCE, KS	BLANK0000074650	463.5
Yes	WOKA	D25	DT	LIC	PAIDUHAH, KY	BLANK0000087462	363.3
Yes	K25NG-D	D25	DC	LIC	ST. LOUIS, MO	BLDTL20130805ABR	229.6
No	WPNE-TV	D25	DT	LIC	GREEN BAY, WI	BLANK0000117903	438.8
No	WPVN-CD	D26	DC	LIC	CHICAGO, IL	BLANK0000106475	213.9
No	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000080446	213.9
No	WPVN-CD	D26	DC	LIC	CHICAGO, IL	BLDTA20130204ABC	213.0
Yes	WMHD-TV	D26	DT	LIC	PEORIA, IL	BLANK0000098193	1.0
No	KPLR-TV	D26	DT	LIC	ST. LOUIS, MO	BLANK0000125916	237.9
No	WKOW	D26	DT	LIC	MADISON, WI	BLG0T20111006AA0	269.7

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D25  
Latitude: 40 37 46.00 N (NAD83)  
Longitude: 89 32 53.00 W  
Height AMSL: 400.6 m  
HAAT: 211.6 m  
Peak ERP: 536 kW

Antenna: DIE-TUA-04-16/64H-1-T-R (ID 85946) 0.0 deg  
Elev Pattern: Generic  
Elec Tilt: 0.75

39.9 dBu contour:	ERP	HAAT	Distance
0.0 deg	351 kW	255.4 m	83.1 km
45.0	409	183.9	78.2
90.0	351	171.8	76.4
135.0	409	194.4	79.0
180.0	351	188.4	77.7
225.0	409	232.6	82.0
270.0	351	228.2	80.7
315.0	409	241.3	82.7

Distance to Canadian border: 556.4 km

Distance to Mexican border: 1614.2 km

Conditions at FCC monitoring station: Allegan MI  
Bearing: 52.5 degrees Distance: 370.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 272.8 degrees Distance: 1326.5 km

Study cell size: 1.00 km

Profile point spacing: 0.10 km (Higher profile resolution)

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

Maximum new IX to LPTV: 2.00%

Proposal causes 0.50% interference to BLG0T20070130AJ0 LIC scenario 1  
Proposal causes 0.09% interference to BLANK0000084058 CP scenario 1  
Proposal causes 0.01% interference to BLG0T20090623ACJ LIC scenario 1  
Proposal causes no interference to BLANK0000087462 LIC  
Proposal causes no interference to BLDTL20130805ABR LIC  
Proposal causes no interference to BLANK0000098193 LIC

Below is IX received by proposal WEEK-TV – Power Increase

Proposal receives 3.11% interference from scenario 1

No IX check failures found.