K32FW-D MINOR MODIFICATION TO CP FCC FILE #0000153438
CH 32 1 kW DIRECTIONAL RC 559.3 M AMSL PIERRE, SOUTH DAKOTA
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS
APRIL 2024

Proposed Change in Facilities

K32FW-D is a licensed LPTV DTV facility authorized in file number 0000151961. The proposed facility is believed to qualify as a minor change:

The applicant proposes herein to move to an existing, guyed, tower 54.9 meters in height, FCC Registration #1217629.

The site change and proposed facilities are believed to comply with FCC policy and rules based on the following:

The proposed CH 32 LPTV protected contour overlaps the licensed contour as depicted on Figure 1 attached.

The proposed site is located a distance of 8.02 kilometers (5 miles) from the licensed site coordinates in compliance with rule section 74.787 (b) (iii).

The proposed antenna system consists of a single Kathrein CL-1469B, FCC Pattern ID 1009719, oriented at 90 degrees true without beam tilt. The antenna radiation center is 41.1 meters AGL. 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 1.36 uw/cm squared calculated for an ERP of 1,000 watts H. Polarization. This value is 0.35% of the Public Exposure MPE of 357 microwatts per centimeter squared. 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 tower is existing along with the transmitter building, access road and power.

Below is a copy of the TVStudy interference analysis for CH 32 based on the facilities described above with the antenna pattern lobe oriented at 90 degrees true. As can be seen at the conclusion of the report there is no impermissible caused interference or received interference above 2%. It is believed that the proposed facility provides full protection to other television facilities.

TVStudy Report

Study created: 2024.04.11 08:33:01

Study build station data: LMS TV 2024-04-07

```
    Proposal: K32FW-D D32 LD CP PIERRE, SD
 File number: BLANK0000153438
 Facility ID: 129373
Station data: User record
   Record ID: 1499
     Country: U.S.
```

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KFYR-TV	D31	DT	LIC	BISMARCK, ND	BLCDT20071108ADF	250.2 km
No	KMEG	D32	DT	LIC	SIOUX CITY, IA	BLANK0000064025	391.6
No	DK32JG-D	D32	LD	CP	RAPID CITY, SD	BLANK0000001107	289.4
No	DK32JG-D	D32	LD	LIC	RAPID CITY, SD	BLDTL20140228ABP	289.7
No	K32DK-D	D32	LD	LIC	WATERTOWN, SD	BLDTL20131213AAT	266.9
No	K33MI-D	D33	LD	LIC	ABERDEEN, SD	BLANK0000016950	192.2
No	KRPC-LP	D33	LD	LIC	RAPID CITY, SD	BLDTL20130130ADW	229.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D32
       Mask: Full Service
   Latitude:  44 22 18.90 N (NAD83)
  Longitude: 100 24 29.50 W
Height AMSL: 559.3 m
       HAAT: 0.0 m
   Peak ERP: 1.00 kW
    Antenna: KAT CL-1469B 20.0 deg
```

Elev Pattrn: Generic

50.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.000 kW	63.8 m	2.6 km
45.0	0.050	37.9	9.1
90.0	1.00	56.8	23.8
135.0	0.050	51.7	10.7
180.0	0.000	53.5	2.4
225.0	0.000	69.7	2.7
270.0	0.000	16.7	1.8
315.0	0.000	40.6	2.1

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 49 m

Distance to Canadian border: 514.3 km

Distance to Mexican border: 1496.7 km

Conditions at FCC monitoring station: Grand Island NE
Bearing: 156.4 degrees Distance: 416.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 221.8 degrees Distance: 613.7 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.

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

Clarence M. Beverage
for Communications Technologies
Medford, New Jersey
April 11, 2024