From: Brian Jamison
To: Jae Lim
Subject: RE: SES-MOD-20181010-03903; Call Sign: E890979
Date: Tuesday, July 14, 2020 1:40:05 PM
Attachments: image001.png

Hello
Yes your calculations are good and I just checked our 5 degrees is good that calculation and the 35.2 dBW/4kHz. Thank you for your help.

Brian Jamison
SCETV Engineering Maintenance Manager
South Carolina ETV and Public Radio
1041 George Rogers Boulevard | Columbia, S.C. | 29201
M 803.440.2045| www.scetv.org

If all else fails, communication doesn't.

From: Jae Lim <Jae.Lim@fcc.gov>
Sent: Tuesday, July 14, 2020 1:29 PM
To: Brian Jamison <bcjamison@scetv.org>
Subject: RE: SES-MOD-20181010-03903; Call Sign: E890979

Hi Brian,

Per our discussion, this is my calculation.
73 dBW-49.2 dBW (antenna gain)=23.8 dBW
23.8 dBW-10log(18M)+10log(4k)= -12.75 dBW/4kHz

FCC CFR 25.212 states "An earth station may be routinely licensed for digital transmission, including digital video transmission, in the conventional Ku-band, or, except for an ESIM, in the extended Ku-band, if input power spectral density into the antenna will not exceed -14 dBW/4 kHz and the application includes certification pursuant to §25.132(a)(1) of conformance with the antenna gain performance requirements in §25.209(a)"

14-12.75= 1.25 dBW/4kHz.
So EIRP density should be reduced by 1.25 dBW/4kHz.

73 dBW-10log(18M)+10log(4k)=36.45 dBW/4kHz EIRP density.
36.45 dBW/4kHz -1.25 dBW/4kHz = 35.2 dBW/4kHz.

EIRP density should be 35.2 dBW/4kHz or lower.

Elevation should also be 3 degrees or greater.
We do however prefer 5 degrees.

Please let us know if you agree with 5 degree elev and 35.2 dBW/4kHz.

Thanks.

Jae Lim
FCC/IB

From: Barry Persh <bpersh@graymillerpersh.com>
Sent: Tuesday, June 23, 2020 12:51 PM
To: Jae Lim <Jae.Lim@fcc.gov>
Subject: RE: SES-MOD-20181010-03903; Call Sign: E890979

Thanks – we are checking with the applicant and their engineer on these questions.

Barry S. Persh | Gray Miller Persh LLP
2233 Wisconsin Avenue NW, Suite 226
Washington, DC 20007
(202) 776-2458
bpersh@graymillerpersh.com

From: Jae Lim <Jae.Lim@fcc.gov>
Sent: Monday, June 22, 2020 2:32 PM
To: Barry Persh <bpersh@graymillerpersh.com>
Subject: SES-MOD-20181010-03903; Call Sign: E890979

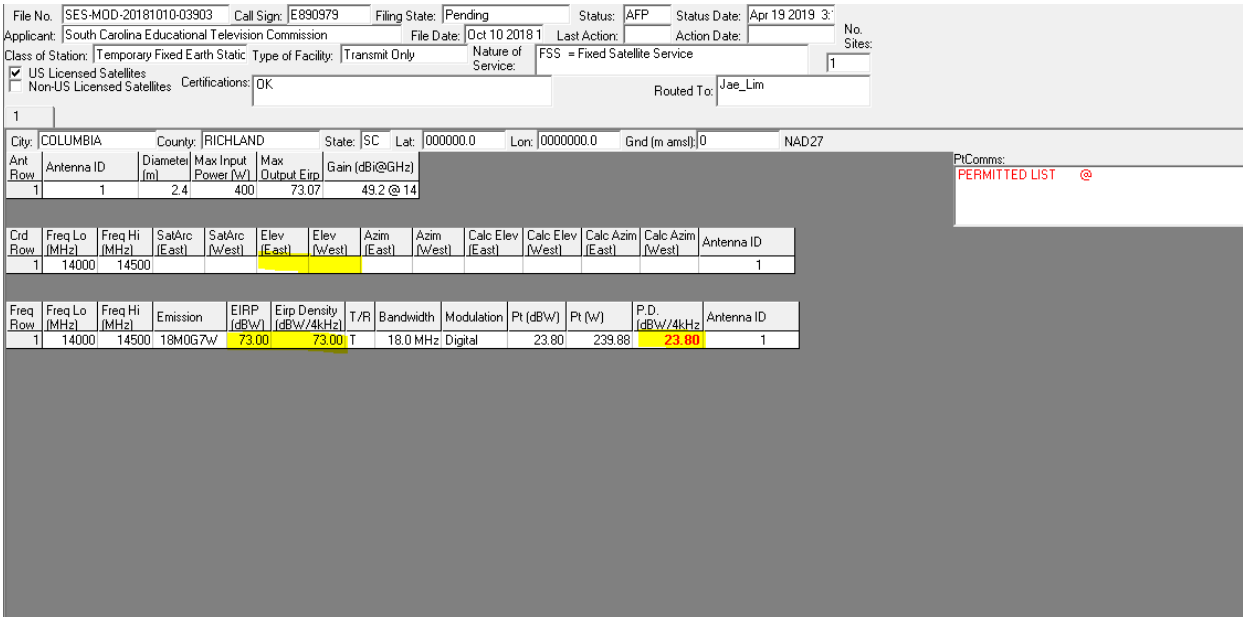
Hi Barry Persh,

I hope all is well with you and your family.

Per 25.205, antenna must not transmit below antenna elevation angle 3 degrees. Please verify elevation.

PowDen (23.8 dBW) on 14000-14500 18M0G7W exceeds Max Digital PowDen of -14 for Routine Processing. To meet Routine Processing level, this Power Density must be reduced by 37.8 dB. Please verify your EIRP and EIRP Density values.

Thanks.



File No. SES-MOD-20181010-03903 | Call Sign: E890979 | Filing State: Pending | Status: AFP | Status Date: Apr 19 2019 3:
Applicant: South Carolina Educational Television Commission | File Date: Oct 10 2018 1 | Last Action: | Action Date: | No. Sites:
Class of Station: Temporary Fixed Earth Static | Type of Facility: Transmit Only | Nature of Service: FSS = Fixed Satellite Service | 1
US Licensed Satellites | Non-US Licensed Satellites | Certifications: OK | Routed To: Jae_Lim
1
City: COLUMBIA | County: RICHLAND | State: SC | Lat: 000000.0 | Lon: 0000000.0 | Gnd (m amsl): 0 | NAD27

Ant Row	Antenna ID	Diameter (m)	Max Input Power (W)	Max Output Eirp	Gain (dBi@GHz)
1	1	2.4	400	73.07	49.2 @ 14

PtComms: PERMITTED LIST @

Crd Row	Freq Lo (MHz)	Freq Hi (MHz)	SatArc (East)	SatArc (West)	Elev (East)	Elev (West)	Azim (East)	Azim (West)	Calc Elev (East)	Calc Elev (West)	Calc Azim (East)	Calc Azim (West)	Antenna ID
1	14000	14500											1

Freq Row	Freq Lo (MHz)	Freq Hi (MHz)	Emission	EIRP (dBW)	Eirp Density (dBW/4kHz)	T/R	Bandwidth	Modulation	Pt (dBW)	Pt (W)	P.D. (dBW/4kHz	Antenna ID
1	14000	14500	18M0G7W	73.00	73.00	T	18.0 MHz	Digital	23.80	239.88	23.80	1

Jae Lim
FCC/IB
1-202-418-2899
