Consulting Engineers
CTJC
CARL T. JONES CORPORATION

STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
MAXIMIZATION CONSTRUCTION PERMIT
KBOI-TV - BOISE, IDAHO
DTV - CH. 9 - 35 kW - 862 m HAAT

Prepared for: SINCLAIR BOISE LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

GENERAL

This office has been authorized by SINCLAIR BOISE LICENSEE, LLC, licensee of KBOI-TV, channel 9, facility ID number 49760, licensed to Boise, Idaho, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for construction permit, in accordance with Public Notice DA 17-1086 announcing the Media Bureau's temporarily lifting of the freeze that was imposed on April 5, 2013 on the filing and processing of minor modification applications that would increase a full power television station's noise limited contour or a Class A station's protected contour in one or more directions beyond the station's authorized facilities. The instant proposal, which is a minor change according to the Commission's rules, will expand the coverage area of KBOI-TV, which was not assigned a new channel in connection with the incentive auction repack process.

NON-DIRECTIONAL ANTENNA

The applicant proposes to utilize its authorized antenna, an ERI model ATW4V6-HTO-6 horizontally polarized non-directional transmitting antenna (FCCID# 110774). The center of radiation is at a height above ground of 94 meters, and a height above average terrain of 862 meters.

There will be no change in the tower structure and the overall structure height of 2,253.4 meters Above Mean Sea Level (AMSL) will be maintained. (See ASR #1209884) The instant application proposes only to increase the Effective Radiated Power (ERP) from 25 kW to 35 kW.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (36 dBu) contour, and the principal community (43 dBu) contour. The 43 dBu contour completely encompasses the principal community of license, Boise, Idaho.

ALLOCATION CONSIDERATIONS

Post-Transition DTV Considerations

A study was performed, using the FCC's software, tv_study, v. 2.2.4, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix B, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations.

International DTV Considerations

The KBOI-TV site is located more than 500 kilometers from the nearest point on the US/Canadian border and more than 1,200 kilometers from the nearest point on the US/Mexican border.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KBOI-TV site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

RADIO FREQUENCY IMPACT

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance to determine whether FCC-regulated facilities comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines. The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHZ and 300 MHZ is 200 microwatts per centimeter squared ($\mu W/cm^2$) for an "uncontrolled" environment, and is 1000 microwatts per centimeter squared ($\mu W/cm^2$) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHZ and 1500 MHZ, primarily UHF DTV stations, is determined for an "uncontrolled" environment by dividing the operating frequency in MHZ by 1.5, and is determined for a "controlled" environment by dividing the operating frequency in MHZ by 0.3.

The predicted emissions of KBOI-TV must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KBOI-TV, which will operate on television Channel 9 (186-192 MHZ), the MPE is 200 microwatts per centimeter squared ($\mu W/cm^2$) in an "uncontrolled" environment and 1,000 $\mu W/cm^2$ in a "controlled" environment. The proposed KBOI-TV facility will operate with a maximum ERP of 35 kW from a horizontally polarized omni-directional transmitting antenna with a centerline height of 94 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the KBOI-TV facility is predicted to produce a power density at two meters above ground level of 12.993 $\mu W/cm^2$, which is 6.50% of the FCC guideline value for an "uncontrolled" environment, and 1.30% of the FCC's guideline value for "controlled" environments.

However, because the proposed facility is located in close proximity to a number of other television and radio broadcast stations, the cumulative power density of all the stations operating from the shared site must be considered. In light of the above, once the proposed facility is authorized and installed, an RFR measurement survey will be undertaken to determine the effect of the proposed facility on the RFR environment. Any necessary changes to the existing RFR safety plan will be made accordingly.

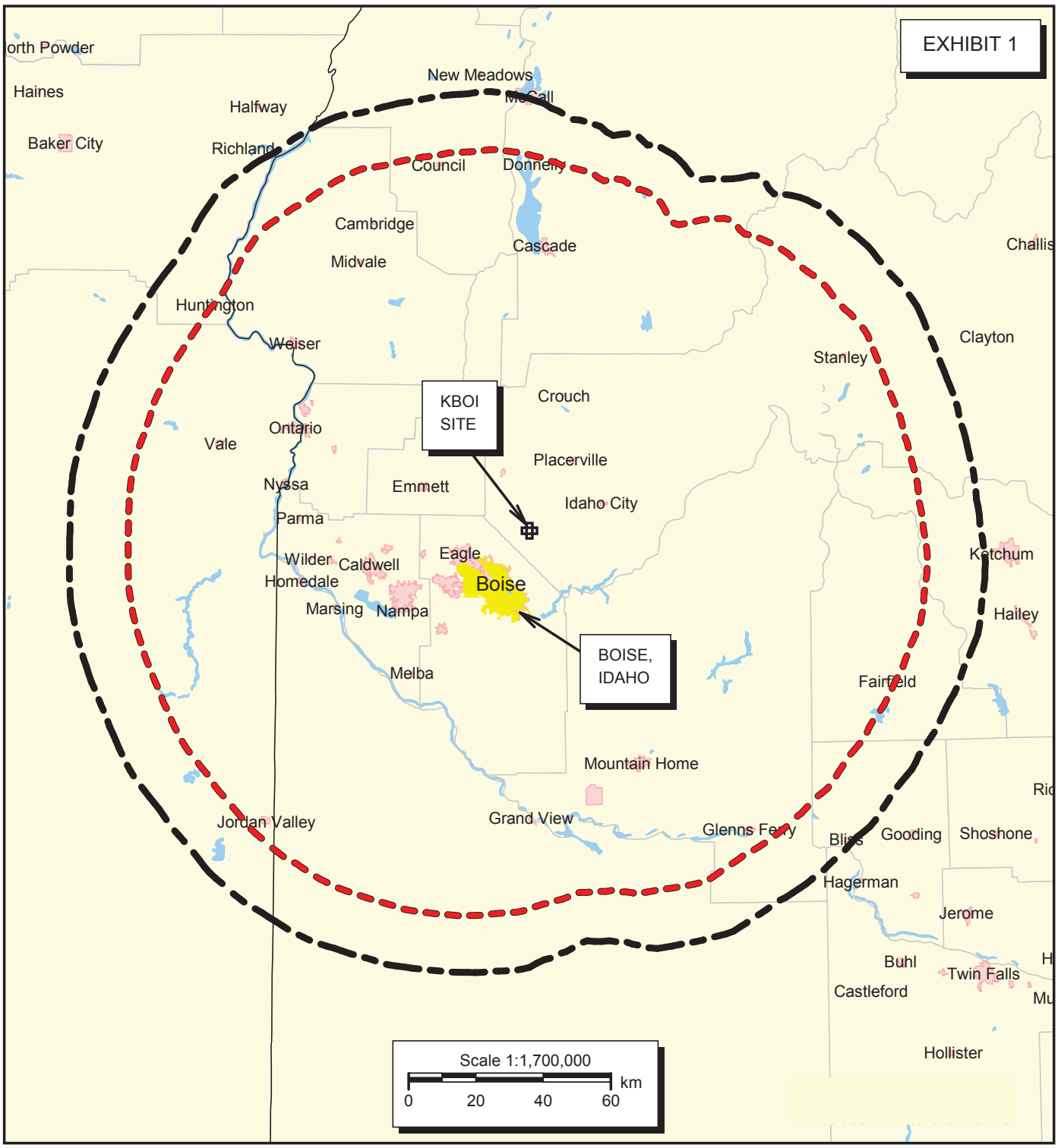
OCCUPATIONAL SAFETY

The licensee of KBOI-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KBOI-TV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

SUMMARY

It is submitted that the instant minor modification application for a construction permit to increase KBOI-TV's ERP from 25 kW to 35 kW as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: December 6, 2017



PREDICTED COVERAGE CONTOURS

KBOI - BOISE, IDAHO
DTV Channel 9 - 35 kW ERP - 862 M HAAT
DECEMBER, 2017

Predicted Noise Limited 36 dBu
F(50,90) Coverage Contour

Predicted Principal Community 43 dBu
F(50,90) Coverage Contour

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Relative Field Values

Antenna Make	Model	Service	Antenna Id
ERI	ATW4V6-HTO-6	DT	110774

Antenna relative field values:

0°	1	10°	1	20°	1	30°	1	40°	1	50°	1
60°	1	70°	1	80°	1	90°	1	100°	1	110°	1
120°	1	130°	1	140°	1	150°	1	160°	1	170°	1
180°	1	190°	1	200°	1	210°	1	220°	1	230°	1
240°	1	250°	1	260°	1	270°	1	280°	1	290°	1
300°	1	310°	1	320°	1	330°	1	340°	1	350°	1

Additional Azimuths:

Relative Field Polar Plot

Federal Communications Commission
445 12th Street SW
Washington, DC 20554
More FCC Contact Information...

Phone: 1-888-CALL-FCC (1-888-225-5322)
TTY: 1-888-TELL-FCC (1-888-835-5322)
Fax: 1-866-418-0232
E-mail: fccinfo@fcc.gov

APPENDIX A

SUMMARY OF RADIOFREQUENCY RADIATION STUDY

KBOI-TV, Boise, Idaho
Channel 9, 35 kW, 862 m HAAT
December, 2017

CALL	SERVICE	CHANNEL	FREQUENCY	POLAR-IZATION	ANTENNA HEIGHT mAGL**	ERP (kW)	VERT. RELATIVE FIELD FACTOR	WORST-CASE PREDICTED POWER DENSITY (μW/cm²)	FCC UNCONTROLLED LIMIT (μW/cm²)	PERCENT OF UNCONTROLLED LIMIT
KBOI-TV	DT	9	189	H	92	35.000	0.300	12.993	200.00	6.50%

TOTAL PERCENTAGE OF FCC GUIDELINE VALUE = 6.50%

**This evaluation includes facilities collocated at the site, and facilities that are located within 315 meters.*

*** The antenna heights indicated aboed are 2 meters less that the actual antenna heights to consider the 2 meter human height allowance.*

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KBOI-TV - BOISE, IDAHO
Appendix B - Longley-Rice Interference Analysis
DECEMBER, 2017

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tvstudy v2.2.4 (Z2Qqz3)
Database: localhost,  Study: KBOI 9 OMNI 35 KW 171205,  Model: Longley-Rice
Start: 2017.12.05 13:15:21

Study created: 2017.12.05 13:15:21

Study build station data: LMS TV 2017-12-04 (43)

    Proposal: KBOI-TV D9 DT APP BOISE, ID
 File number: KBOI 9 OMNI 35 KW 171205
 Facility ID: 49760
Station data: User record
   Record ID: 2567
     Country: U.S.
        Zone: II

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number             Distance
Yes  KNIN-TV   D10        DT  LIC     CALDWELL, ID             BLCDT20111007AEB          0.1 km

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D9
   Latitude:  43 45 20.80 N (NAD83)
  Longitude: 116  5 57.00 W
Height AMSL: 2245.0 m
       HAAT: 862.0 m
   Peak ERP: 35.0 kW
    Antenna: ERI-ATW4V6-HTO-6 (ID 110774) 0.0 deg
Elev Pattrn: Generic
  Elec Tilt: 1.50

36.0 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   35.0 kW   666.8 m  128.0 km
 45.0       35.0      693.3    129.0
 90.0       35.0      907.2    134.0
135.0       35.0      869.9    133.1
180.0       35.0      704.9    129.4
225.0       35.0     1085.5    138.4
270.0       35.0     1006.4    136.5
315.0       35.0      958.7    135.3

ERP exceeds maximum
ERP: 35.0 kW   ERP maximum: 16.6 kW

Distance to Canadian border: 583.0 km

Distance to Mexican border: 1232.5 km
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Appendix B - Interference Analysis
KBOI-TV - Boise, Idaho
Channel 9 - 35 kW - Page 2

Conditions at FCC monitoring station: Ferndale WA
Bearing: 321.7 degrees Distance: 760.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 110.4 degrees Distance: 980.9 km

Study cell size: 2.00 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%

Interference to BLCDT20111007AEB LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNIN-TV	D10	DT	LIC	CALDWELL, ID	BLCDT20111007AEB	
Undesireds:	KBOI-TV	D9	DT	BL	BOISE, ID	DTVBL49760	0.1 km
	KBOI-TV	D9	DT	APP	BOISE, ID	KBOI 9 OMNI 35 KW 1712	0.1
	KWSU-TV	D10	DT	LIC	PULLMAN, WA	BLANK0000001648	355.4
	KMVT	D11	DT	LIC	TWIN FALLS, ID	BLCDT20090403ABW	177.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
38607.4	709,494	33800.1	704,217	33146.1	703,804	33130.0	703,738	0.05	0.01

Undesired	Total IX		Unique IX, before		Unique IX, after	
KBOI-TV D9 DT BL	566.4	391	566.4	391		
KBOI-TV D9 DT APP	582.5	457			582.5	457
KWSU-TV D10 DT LIC	8.0	1	8.0	1	8.0	1
KMVT D11 DT LIC	79.6	21	79.6	21	79.6	21

Interference to BLCDT20111007AEB LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNIN-TV	D10	DT	LIC	CALDWELL, ID	BLCDT20111007AEB	
Undesireds:	KBOI-TV	D9	DT	BL	BOISE, ID	DTVBL49760	0.1 km
	KBOI-TV	D9	DT	APP	BOISE, ID	KBOI 9 OMNI 35 KW 1712	0.1
	KWSU-TV	D10	DT	APP	PULLMAN, WA	BLANK0000035683	355.4
	KMVT	D11	DT	LIC	TWIN FALLS, ID	BLCDT20090403ABW	177.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
38607.4	709,494	33800.1	704,217	33146.1	703,804	33130.0	703,738	0.05	0.01

Undesired	Total IX		Unique IX, before		Unique IX, after	
KBOI-TV D9 DT BL	566.4	391	566.4	391		
KBOI-TV D9 DT APP	582.5	457			582.5	457
KWSU-TV D10 DT APP	8.0	1	8.0	1	8.0	1
KMVT D11 DT LIC	79.6	21	79.6	21	79.6	21

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KBOI-TV	D9	DT	APP	BOISE, ID	KBOI 9 OMNI 35 KW 1712	

Service area		Terrain-limited		IX-free		Percent IX	
55574.4	719,347	48942.8	712,203	48942.8	712,203	0.00	0.00