APPLICATION FOR CONSTRUCTION PERMIT

N EW - GLENDIVE, MONTANA
BNPFT-20170726AJX
FACILITY ID: 200542
103.1 MHz / 250 W ERP ND

GLENDIVE BROADCASTING CORP.

DECEMBER, 2017

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APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Glendive Broadcasting Corp.** ("Glendive"), applicant for a new FM translator station to serve Glendive, Montana, and are in support of their application for construction permit.[1] This application is being filed as the initial long-form application for the facility following its singleton determination by the Staff. The short-form engineering proposal was assigned FCC File No. BNPFT-20170726AJX, and was filed during the Commission's July 2017 new translator filling window as part of the *Revitalization of the AM Radio Service*.

The proposed facility would operate on FM channel 276 with a maximum effective radiated power of 250 Watts utilizing a non-directional antenna. The proposed center of radiation is 845.5 meters above mean sea level, which corresponds to 100 meters above ground level. No change in the technical parameters specified under the short-form engineering is proposed for the long-form application.

The proposed facility would serve as a translator for AM station KXGN at Glendive, Montana.[2] Exhibit E-1 provides a comparison between the proposed translator 60 dBu service contour, the KXGN 2 mV/m service contour, and a twenty-five mile radius centered on the KXGN transmitter site. This map demonstrates that the proposed translator 60 dBu service contour is wholly contained within both the KXGN 2 mV/m service contour and a twenty-five mile radius centered on the KXGN transmitter site. KXGN is a class C facility with identical technical parameters during both daytime and nighttime hours of operation.

[1] The Facility ID for the proposed translator facility at Glendive, Montana is 200542.
[2] The Facility ID for KXGN at Glendive, Montana is 24285.

The proposed facility complies with the provisions of Section 74.1204 of the Commission's Rules. Due to the channel of operation, Section 74.1205 is not applicable. Exhibit E-2 is a tabular interference study for the proposed translator facility. This study demonstrates that the contour overlap provisions of Section 74.1204 would be met by the proposed translator facility. In fact, there are no co-channel facilities within 290 kilometers of the proposed translator. Similarly, due to the rural nature of the proposed translator location, there is a wide geographic spacing between the proposed facility and other authorizations on relevant channels. As a result, only the tabular interference study will be included in this technical exhibit.

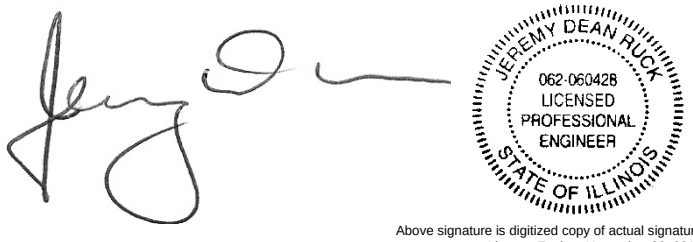
The proposed facility would not constitute a significant environmental impact, and is exempt from environmental processing. The translator antenna would utilize an existing tower that is registered with the Commission. The addition of the translator antenna to this tower would not increase the existing environmental impact already present the tower.

Additionally, the proposed facility would not constitute a radiofrequency radiation hazard to persons at the site. The Commission's online *FM Model* utility returns a calculated maximum power density of 0.326 $\mu W/cm^2$ at a distance of 55 meters from the tower. This value complies with the uncontrolled environment of the Commission's safety standard. The Nicom BKG77/2 model antenna is considered a "type-2" antenna, and was analyzed as such.

Glendive certifies that it will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the

applicable safety standards. Coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



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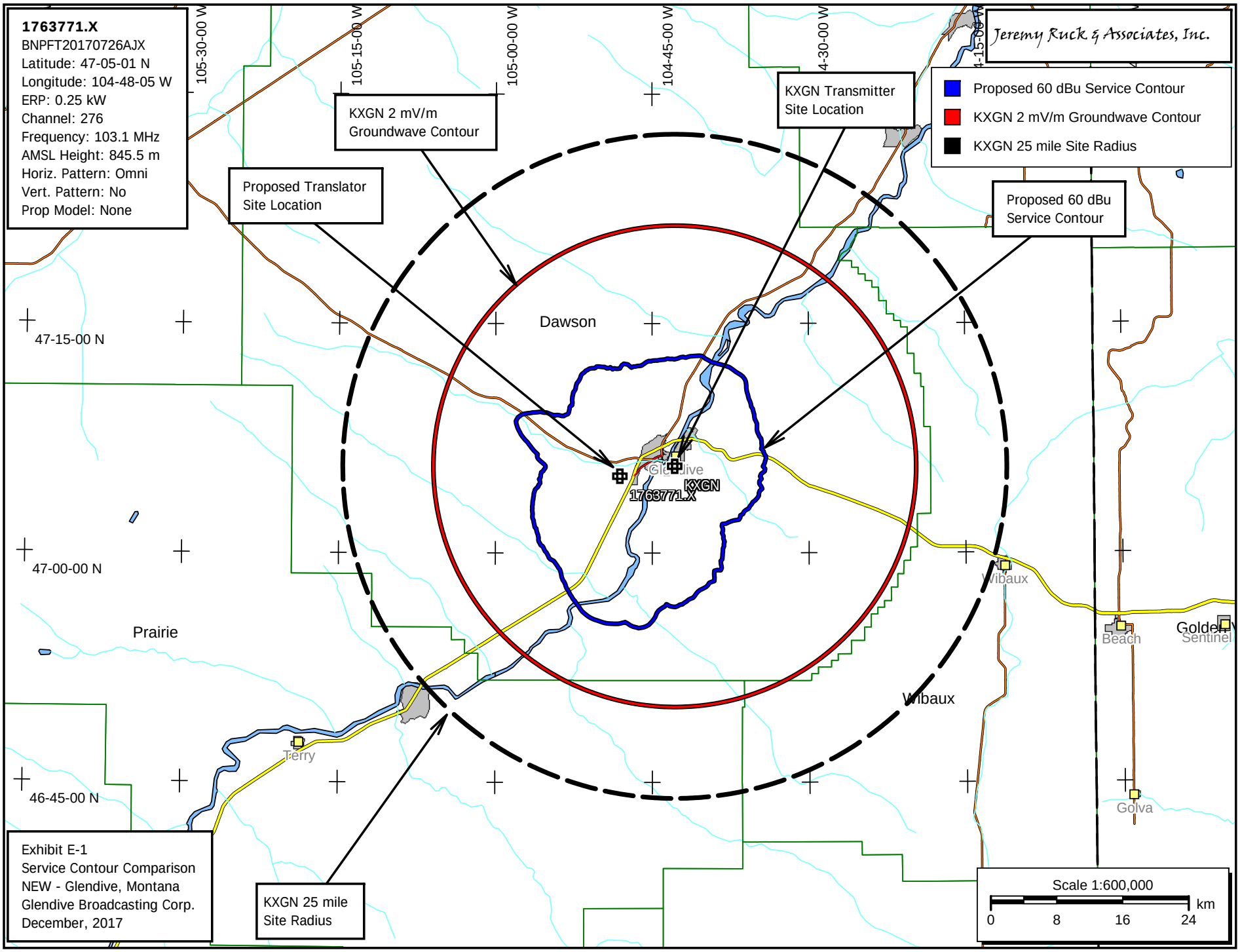
License Expires November 30, 2019

Jeremy D. Ruck, PE
December 5, 2017


1763771.X
BNPFT20170726AJX
Latitude: 47-05-01 N
Longitude: 104-48-05 W
ERP: 0.25 kW
Channel: 276
Frequency: 103.1 MHz
AMSL Height: 845.5 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
Proposed 60 dBu Service Contour
KXGN 2 mV/m Groundwave Contour
KXGN 25 mile Site Radius
KXGN 2 mV/m Groundwave Contour
KXGN Transmitter Site Location
Proposed Translator Site Location
Proposed 60 dBu Service Contour
105-30-00 W
105-15-00 W
105-00-00 W
104-45-00 W
104-30-00 W
104-15-00 W
47-15-00 N
47-00-00 N
46-45-00 N
Dawson
Prairie
Wibaux
Terry
Beach
Golva
KXGN
1763771.X
Exhibit E-1
Service Contour Comparison
NEW - Glendive, Montana
Glendive Broadcasting Corp.
December, 2017
KXGN 25 mile Site Radius
Scale 1:600,000
0
8
16
24
km

Jeremy Ruck & Associates, Inc.
Consulting Engineers - Canton, Illinois

Exhibit E-2 - Tabular Interference Study
NEW - Glendive, Montana

REFERENCE CH# 276D - 103.1 MHz, Pwr= 0.25 kW, HAAT= 0.0 M, COR= 846 M DISPLAY DATES
47 05 01.0 N. Average Protected F(50-50)= 7.09 km DATA 12-05-17
104 48 05.0 W. Omni-directional SEARCH 12-05-17

CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
276D	1763771	APP	_C_	0.0	0.00	47 05 01.0	0.250	45.0	13.1	-58.2*	-58.2*
Glendive		MT		0.0	BNPFT20170726AJX	104 48 05.0		846	Glendive Broadcasting Corp		

Terrain database is FCC 30 meter , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: Canada- AM tower