



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**AM BROADCAST STATION LICENSE**

Authorizing Official:

Official Mailing Address:

SACRED HEART RADIO, INC.  
P.O. BOX 2482  
KIRKLAND WA 98083

Son Nguyen  
Supervisory Engineer  
Audio Division  
Media Bureau

Grant Date: August 01, 2003

This license expires 3:00 a.m.  
local time, February 01, 2006.

Facility Id: 38492

Call Sign: KTTQ

License File Number: BZ-20030417ACF

DM

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Hours of Operation: Unlimited

Average hours of sunrise and sunset:  
Local Standard Time (Non-Advanced)

Jan.	7:30 AM	4:30 PM	Jul.	4:00 AM	7:45 PM
Feb.	7:00 AM	5:15 PM	Aug.	4:45 AM	7:00 PM
Mar.	6:00 AM	6:00 PM	Sep.	5:30 AM	6:00 PM
Apr.	5:00 AM	6:45 PM	Oct.	6:00 AM	5:00 PM
May	4:15 AM	7:15 PM	Nov.	7:00 AM	4:15 PM
Jun.	3:45 AM	7:45 PM	Dec.	7:30 AM	4:00 PM

Callsign: KTTO

License No.: BZ-20030417ACF

Name of Licensee: SACRED HEART RADIO, INC.

Station Location: SPOKANE, WA

Frequency (kHz): 970

Station Class: B

Antenna Coordinates:

Day

Latitude: N 47 Deg 36 Min 59 Sec

Longitude: W 117 Deg 21 Min 55 Sec

Night

Latitude: N 47 Deg 36 Min 59 Sec

Longitude: W 117 Deg 21 Min 55 Sec

Transmitter(s): Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Nominal Power (kW): Day: 5.0 Night: 1.0

Antenna Input Power (kW): Day: 5.0 Night: 1.08

Antenna Mode: Day: ND Night: DA

(DA=Directional Antenna, ND=Non-directional Antenna; CH=Critical Hours)

Current (amperes): Day: 9.8 Night: 4.55

Resistance (ohms): Day: 52 Night: 52

Non-Directional Antenna: Day

Radiator Height: 91.4 meters;

Top-Loaded/Sectionalized Tower Parameters: (See 47 CFR 73.160)

Tower No.	A	B	C	D
1	263.5	106.50	.00	.00

Theoretical Efficiency: 431.79 mV/m/kw at 1km

Antenna Registration Number(s):

Day:

Tower No.	ASRN	Overall Height (m)
1	1055022	

Night:

Tower No.	ASRN	Overall Height (m)
1	1055022	
2	1055023	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Night: 313.82  
 Standard RMS (mV/m/km):  
 Augmented RMS (mV/m/km): Night: 368.03  
 Q Factor: Night:

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	106.5
2	1.0000	162.000	90.0000	164.000	0	106.5

\* Tower Reference Switch

0 = Spacing and orientation from reference tower

1 = Spacing and orientation from previous tower

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	20.0	10.0	519.98
2	35.0	30.0	456.55
3	50.0	30.0	353.61
4	67.8	35.4	199.16
5	85.5	18.6	75.20
6	94.8	18.4	137.10
7	127.5	35.0	344.74
8	145.0	35.0	401.63
9	242.4	25.0	48.28
10	254.9	24.9	128.75
11	267.3	24.9	271.53
12	288.7	42.6	427.59
13	310.0	32.0	535.80
14	326.0	32.0	574.91
15	342.0	18.0	592.53
16	351.0	18.0	577.46

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	0	0.64
2	113	1

Antenna Monitor: POTOMAC INSTRUMENTS AM-19

Sampling System Approved Under Section 73.68 of the Rules.

Special operating conditions or restrictions:

- 1 Antenna system consists of two uniform cross section, series-excited, vertical steel radiators, using the lower section of the sectionalized tower #1(N) and the standard tower #2(S) for the directional nighttime antenna. Daytime non-directional antenna uses the upper and lower sections of the sectionalized tower #1(N).

MONITOR POINT DESCRIPTIONS

85.5° - From the intersection of 37th Street and Eastern, proceed east on 37th 636, then south on a farm road for 675 feet, 3.27 km from site, max 48.0 mV/m nighttime.

242.5° - From intersection of Hatch Road and 54th Street, proceed 150 north on Hatch to west shoulder, opposite golf course, 2.48 km from site, max 11.0 mV/m nighttime.

\*\*\* END OF AUTHORIZATION \*\*\*