FCC ENFORCEMENT BUREAU

Surviving an FCC Inspection
For the College Broadcasters Inc.

David Dombrowski
Regional Director
FCC ENFORCEMENT BUREAU

- Travis LeBlanc, Chief
- Universal Service Fund Strike Force
- Investigations and Hearings Division
- Market Disputes Resolution Division
- Spectrum Enforcement Division
- Telecommunications Consumers Division
- Field Division
PRIMARY MISSION

Signal Interference Resolution
  Public Safety
    • State and Local
    • Federal
Licensees
  • Cellular
  • Land Mobile
  • Satellite
  • Broadcast

National Special Security Events
Federal Emergency Management Agency
Radiofrequency Electromagnetic Exposure (RFR)
PRIMARY MISSION
Radio and Television Stations are either Commercial or Non-Commercial Educational (NCE) Stations.

- Commercial stations support themselves through advertising

- NCE Stations support themselves through government funding and contributions from viewers or listeners and for-profit entities.
BROADCAST LICENSING

• Before filing for a license station must apply for a Construction Permit.

• The applicant must demonstrate they are a “qualified applicant” and the station will serve the local community's needs and interests.

• The station must comply with all legal and technical requirements.

• Once the construction permit is granted, the station must be constructed and operated as proposed in application.
BROADCAST LICENSING

Call sign: WQXI  License No.: QL22-19891222X
Name of licensee: TEMPLE UNIVERSITY OF THE COMMONWEALTH SYSTEM OF HIGHER ED
Station Location: PA-PHILADELPHIA
Frequency (MHz): 90.1
channel: 211
Class: B
Hours of operation: Unlimited

Transmitter: Type Accepted, see Sections 73.1660, 73.1665 and 73.1670 of the Commission’s Rules.

Transmitter output power:
Antenna type: Directional
Description (KNE): QL22-19891222X
Antenna coordinates: North latitude: 40 deg 04 min 21 sec
West longitude: 75 deg 10 min 19 sec

<table>
<thead>
<tr>
<th>Horizontally Polarized Antennas</th>
<th>Vertically Polarized Antennas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective radiated power in the Horizontal Plane (kW):</td>
<td>12.0</td>
</tr>
<tr>
<td>Maximum effective radiated power (kW):</td>
<td>12.5</td>
</tr>
<tr>
<td>Height of radiation center above ground (meters):</td>
<td>500</td>
</tr>
<tr>
<td>Height of radiation center above mean sea level (meters):</td>
<td>374</td>
</tr>
<tr>
<td>Height of radiation center above average terrain (meters):</td>
<td>508</td>
</tr>
<tr>
<td>Antenna structure registration number: Not Required</td>
<td></td>
</tr>
<tr>
<td>Overall height of antenna structure above ground:</td>
<td>350 Meters</td>
</tr>
<tr>
<td>Obstruction marking and lighting specifications for antenna structure:</td>
<td></td>
</tr>
</tbody>
</table>

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional, or modified existing, or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

None Required

Special operating conditions or restrictions:

1. Neither the horizontally nor vertically polarized radiation component shall exceed the following value at any azimuth:

   11.0 kW
Public Participation in Application Process

Formal Petition to Deny
- Must be a “party of interest”,
- Supported by affidavit
- Timely filed (30 days before expiration)
- Served upon station

Informal Objection to Application.
- Filed before action taken on application.
- Include sufficient evidence of violation.
BROADCAST FEES

47 U.S.C. §159 establishes four broad categories of Commission activities as regulatory.

These are all

- Enforcement activities,
- Policy and rulemaking activities,
- User information services, and
- International activities.

The statute then requires the FCC to "assess and collect" fees to recover the costs of these activities. Thus, the fees that cover the costs of these four types of activities are called regulatory fees.
## Broadcast Fees

### Payment Type Codes and Payment Amounts For FY 2016 Radio Station Regulatory Fees

<table>
<thead>
<tr>
<th>Population Served</th>
<th>AM Class A</th>
<th>AM Class B</th>
<th>AM Class C</th>
<th>AM Class D</th>
<th>FM Classes A, B1 &amp; C3</th>
<th>FM Classes B, C, C0, C1 &amp; C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=25,000</td>
<td>1617</td>
<td>1623</td>
<td>1629</td>
<td>1635</td>
<td>1641</td>
<td>1647</td>
</tr>
<tr>
<td></td>
<td>$990</td>
<td>$715</td>
<td>$620</td>
<td>$685</td>
<td>$1,075</td>
<td>$1,250</td>
</tr>
<tr>
<td>25,001 - 75,000</td>
<td>1618</td>
<td>1624</td>
<td>1630</td>
<td>1636</td>
<td>1642</td>
<td>1648</td>
</tr>
<tr>
<td></td>
<td>$1,475</td>
<td>$1,075</td>
<td>$925</td>
<td>$1,025</td>
<td>$1,625</td>
<td>$1,850</td>
</tr>
<tr>
<td>75,001 - 150,000</td>
<td>1619</td>
<td>1625</td>
<td>1631</td>
<td>1637</td>
<td>1643</td>
<td>1649</td>
</tr>
<tr>
<td></td>
<td>$2,200</td>
<td>$1,600</td>
<td>$1,375</td>
<td>$1,525</td>
<td>$2,400</td>
<td>$2,750</td>
</tr>
<tr>
<td>150,001 - 500,000</td>
<td>1620</td>
<td>1626</td>
<td>1632</td>
<td>1638</td>
<td>1644</td>
<td>1650</td>
</tr>
<tr>
<td></td>
<td>$3,300</td>
<td>$2,375</td>
<td>$2,075</td>
<td>$2,275</td>
<td>$3,600</td>
<td>$4,125</td>
</tr>
<tr>
<td>500,001 - 1,200,000</td>
<td>1621</td>
<td>1627</td>
<td>1633</td>
<td>1639</td>
<td>1645</td>
<td>1651</td>
</tr>
<tr>
<td></td>
<td>$5,500</td>
<td>$3,975</td>
<td>$3,450</td>
<td>$3,800</td>
<td>$6,000</td>
<td>$6,875</td>
</tr>
<tr>
<td>1,200,001 - 3,000,000</td>
<td>1622</td>
<td>1628</td>
<td>1634</td>
<td>1640</td>
<td>1646</td>
<td>1652</td>
</tr>
<tr>
<td></td>
<td>$8,250</td>
<td>$5,950</td>
<td>$5,175</td>
<td>$5,700</td>
<td>$9,000</td>
<td>$10,300</td>
</tr>
<tr>
<td>3,000,001 - 6,000,000</td>
<td>1679</td>
<td>1680</td>
<td>1681</td>
<td>1682</td>
<td>1683</td>
<td>1684</td>
</tr>
<tr>
<td></td>
<td>$11,000</td>
<td>$7,950</td>
<td>$6,900</td>
<td>$7,600</td>
<td>$12,000</td>
<td>$13,750</td>
</tr>
<tr>
<td>&gt;6,000,000</td>
<td>1693</td>
<td>1694</td>
<td>1695</td>
<td>1696</td>
<td>1697</td>
<td>1698</td>
</tr>
<tr>
<td></td>
<td>$13,750</td>
<td>$9,950</td>
<td>$8,625</td>
<td>$9,500</td>
<td>$15,000</td>
<td>$17,175</td>
</tr>
</tbody>
</table>
ENFORCEMENT PROCESS

Triggers for Inspection or Investigation

- Listener/viewer complaints
- Industry complaints
- Competitor complaints
- Items observed at field inspections
- Items observed during measurements/monitoring
- Survey information collection
EMERGENCY ALERT SYSTEM

Equipment is installed and operational

Log weekly tests sent and received

- 3 received (LP1, LP2, IPAWS)
- 1 transmitted
- Required Monthly transmitted within 60 minutes

Weekly review and determine cause of failure

Ensure you are monitoring correct assignments (See State Plan)

EAS Operating Handbook
TOWER MARKING AND LIGHTING

Correct coordinates and height
Tower properly registered in ASR database
Registration number posted
Painting in good condition (if applicable)
Obstruction lighting functioning
Daily light observations, log any outages
Quarterly tower inspections and logs
Antenna towers having radio frequency potential at the base (series fed, folded unipole, and insulated base antennas) must be enclosed within effective locked fences or other enclosures…. However, individual tower fences need not be installed if the towers are contained within a protective property fence.
TOWER FENCING

Violation

Although the gate was closed, the lock was not secured.

This is still considered unrestricted access.
PUBLIC INSPECTION FILE

The public inspection file contains information to assist viewers and listeners in determining if the station is in violation of FCC Rules.

All stations must maintain a public inspection file at its main studio and make it available to the public during normal business hours.

The main studio must be located in or near the community of license.
PUBLIC INSPECTION FILE

Contents

• The License

• Applications and Related Materials

• Contour Maps (define the station’s service area)

• Material Relating to FCC Investigation

• Ownership Reports (lists the officers, members of governing board and those with more than 1% interest)
PUBLIC INSPECTION FILE

Contents

• List of Contracts
  
  Such as contracts for Network Affiliation, Ownership or Control of licensee/stock, and Station Management Agreements

• Political File (request from candidates for airtime)

• Annual Employment Reports and Related Material
PUBLIC INSPECTION FILE

Contents

• The Public and Broadcasting Manual (Link)

• Letters and Emails from the Public

  *NCE stations not subject to this rule*

• Issues/Program Lists

  *Quarterly list of programs that provided the most significant treatment of community issues*

• Radio Time Brokerage Agreements

• List of Donors (NCE stations)
The station must maintain a meaningful management and staff presence at its main studio. This consists of full-time managerial and full-time staff personnel during normal business hours.

Must make the station available for inspection during normal business hours.

They must "report to work at the main studio on a daily basis, spend a substantial amount of time there and...use the studio as a 'home base.'"
TRANSMITTER METERING

Measure
- Power
- Modulation
- AM Directional Array Parameters
- Tower Lighting

Equipment must be calibrated

Station must establish monitoring procedures

Provide these schedules upon request
POWER MEASUREMENTS

Can be read using the Direct or Indirect Method

Direct Power Measurements
Power read from meter
(e.g. 50 KW)
Indirect Power Measurements of FM Transmitter

TX Output Power \( = \) Ep \( \times \) Ip \( \times \) F

7425 Watts  4500 Volts  2.6 Amps  66%

Ep = DC input voltage to final RF stage
Ip = Total DC current to final RF stage
F = Efficiency factor of transmitter
Indirect Power Measurements of AM Transmitter

\[
\text{TX Output Power} = I \times I \times R
\]

\[
5000 \text{ Watts} \quad 10.0 \text{ A} \quad 10.0 \text{ A} \quad 50 \text{ Ohms}
\]

\[
I = \text{Common Point Current (AMD) or Base Current}
\]

\[
R = \text{Resistance of Antenna}
\]
POWER MEASUREMENT

Power must be within 90% to 105% of that authorized

Example
If Station is authorized 1000 Watts
Measured Power must be between 900 Watts and 1050 Watts
**STATION LOGS**

As simple or as detailed as you want
Maintained for 2 years
Must be kept in orderly and legible manner
Clearly document any problem with station

Must include:

- EAS Activations
- Tower Lighting Outages
- Any adjustments or corrections
- Chief Operator Signature and date
CHIEF OPERATOR

- Designation must be in writing

- Reviews and signs and dates logs once a week to ensure station is operating in compliance with FCC rules and terms of station’s license

- Responsible for inspection and calibration of transmission system, monitors, metering and control systems, equipment performance measurements and other tests
RADIO FREQUENCY RADIATION SAFETY

FCC Maximum Permissible Exposure Limits
RADIO FREQUENCY RADIATION SAFETY

Tower Sites need fencing and warning signs to restrict access to areas where limits may be exceeded and a plan for protecting workers who climb the towers.
This rooftop utilizes RF warning signs, a restrictive barrier around the paging antennas, and painted warning areas on the rooftop itself. These are some of the methods that can be used to comply with RF safety limits. In lieu of these methods, if there were only a few antennas and the site was “uncomplicated”, a detailed map outlining the restricted areas along with contact information could be posted on the door and made available to contractors entering the rooftop.
RADIO FREQUENCY RADIATION SAFETY

Common mistakes:

- Failure to restrict access to areas that exceed the FCC occupational limits
- Failure to ensure that all persons accessing areas that exceed public limits have been properly trained in RFR Safety.
- Failure to consider all RFR sources (STL or RPU stations)
- Failure to re-evaluate transmitter site
BASED FORFEITURE AMOUNTS
(47 C.F.R. 1.80)

- Unlicensed Operation: $10,000
- Tower marking and/or lighting: $10,000
- Unauthorized substantial transfer of control: $8,000
- EAS equipment not installed or operational: $8,000
- Failure to permit inspection: $7,000
- Interference: $7,000
- Exceeding of authorized antenna height: $5,000
- Use of unauthorized equipment: $5,000
- Exceeding power limits: $4,000
- Failure to respond to Commission communications: $4,000
- Unauthorized emissions: $4,000
- Construction or operation at unauthorized location: $4,000
- Failure to make required measurements: $2,000
- Failure to provide station ID: $1,000
Top Ten Violations Cited

- EAS Issues (Part 11)
- Public Inspection File Issues (73.3526)
- Chief operators (73.1870)
- AM tower base fencing (73.49)
- Unauthorized Operation (73.1745)
- Antenna Structure Issues (Part 17)
- Transmission system operation (73.1350)
- Station main studio location (73.1125)
- Equipment Performance Measurements (73.1590(a))
- Broadcast Auxiliary Stations (Part 74)
ALTERNATIVE BROADCAST INSPECTION PROGRAM (ABIP)

Stations elect to participate and use a certified Inspector

Certificate of compliance issued when no violations exist.

Stations exempt from FCC inspection for 3 years

Promotes self-policing of stations
FCC PIRATE RADIO ENFORCEMENT
The FCC has a sophisticated allocation process that spaces adjacent and co-channel stations from each other to prevent interference.

Pirate radio stations operate in these spaces between licensed stations.
Why is Pirate Radio a Concern?

- Their operations are unlicensed and illegal
- They do not have Emergency Alert System equipment
- They block stations who are Primary Stations in EAS alert chain
- Radio Frequency Radiation Exposure concerns
- Potential for Interference to Cellular and FAA Frequencies
FCC Enforcement Actions Against Pirate Radio by Location

INTERACTIVE MAP
David C. Dombrowski
Regional Director
Region One
Enforcement Bureau
Federal Communications Commission

David.Dombrowski@fcc.gov
215-880-1161