UGANDA COMMUNICATIONS COMMISSION

GUIDELINES ON THE ESTABLISHMENT AND OPERATION OF AN FM RADIO STATION IN UGANDA

March 2019

Table of Contents

1. INTRODUCTION

Uganda Communications Commission (UCC) is mandated under Section 5 of the Uganda Communications Act 2013 to, among others:

i. monitor, inspect, licence, supervise, control and regulate communication services (which includes FM radio broadcasting services).
ii. allocate, license, standardize and manage the use of the radio frequency spectrum resources in a manner that ensures widest variety of programming and optimal utilization of spectrum resources;
iii. set national standards and ensure compliance with national and international standards and obligations laid down by international communication agreements and treaties to which Uganda is a party;
iv. set standards, monitoring and enforce compliance relating to content.

In furtherance of the above, UCC has developed guidelines on the establishment and operation of an FM radio station in Uganda.

2. PURPOSE

The intent of the guidelines is to improve compliance in the industry by facilitating awareness on the regulatory requirements for the establishment and operation of a radio station in Uganda.

3. SCOPE OF THE GUIDELINES

These guidelines present regulatory provisions with respect to the following: -

(a) Application process for a radio broadcasting license and for radio frequency spectrum,

(b) Administrative and technical operational requirements of a licensed FM radio station,

(c) Terms and conditions for authorisation to use radio frequency spectrum,

(d) Inspection of a licensed FM radio station,

(e) Interference management,

(f) Spectrum withdrawal, and

(g) Modification of authorised station specifications.

4. APPLICABLE LEGISLATION, REGULATIONS AND GUIDELINES

This document shall be read and applied together with the following:

a) Uganda Communications Act 2013,

b) The Communications (Telecommunications & Radio communications Type Approval) Regulations 2005,

c) The Communications (Radio) Regulations, 2005,

d) UCC Spectrum Management Guidelines 2017,

e) The terms and conditions of the broadcasting License and of the spectrum authorization.

5. INTERPRETATIONS

FM broadcast transmitter: It is a transmitter that operates in the frequency band 87.5 -108 MHz.

Person: It is any individual, company, association, or body of persons corporate or unincorporated.

"Radio communications apparatus" or "radio communications station" means any apparatus or station, as the case may be, for transmitting or receiving of radio communication other than a domestic radio set and where

(a) that radio communications apparatus or station cannot lawfully be used without a radio communications licence or without an exemption under section 23;

(b) radio communication in the form of messages, audio or visual images is received or transmitted by that apparatus or station;

(c) an apparatus is electrically coupled with another apparatus or station for the purpose of enabling any person to receive or transmit messages, sound or visual images;

Radio Mast: A structure designed or used to provide elevation, stabilized support, or position control communications apparatus or radio communications station.

STL (Studio Transmitter Link) equipment: Equipment used to establish a point to point transmission path to send audio and/or video signals from the broadcasting base or studio to a transmitter in another location.

Type approval: It is the process by which communications equipment that meets the minimum technical requirements specified by UCC, is authorised by the Commission to be sold, distributed, imported or used in Uganda.

Type Approval Certificate: A document issued by the Commission certifying compliance of the respective equipment with the relevant technical standard(s) and/or specifications prescribed by the Commission.

Tower: It is a self-supporting structure usually made using latticed or tubular elements, that supports antennas at heights where they can satisfactorily send or receive radio waves.

6. APPLICABILITY AND EXCEPTIONS

The provisions of this guidelines shall apply to all FM radio broadcasting service operations in the frequency range 87.5 to 108 MHz.

7. REQUIREMENTS FOR ESTABLISHING AND PROVIDING FM RADIO BROADCASTING SERVICES IN UGANDA

According to Section 21 of the Uganda Communications Act of 2013, a person shall not, without a licence issued by UCC: -

i) establish or use any radio station or provide radio communication services;

ii) possess, install, connect or operate any radio communications apparatus or interference-causing apparatus.

7.1 Application for a licence and frequency

A person interested in offering FM radio broadcasting services in Uganda is required to submit a formal expression of interest to UCC (in writing) to provide FM radio broadcasting services.

This expression of interest should highlight the type of planned programming content (e.g. music, news, education etc.), the planned location of the FM radio station and desired geographical area(s) of coverage.

On receipt of this expression of interest, UCC will study the availability of radio spectrum in the geographical area highlighted and advise accordingly. ***Annex 1*** provides details on considerations taken in determining the availability of spectrum in a particular geographical area.

Where radio spectrum is available, a reservation is made by UCC and applicant duly advised to progress with submission of relevant documents. However, such reservation is conditional on the applicant: -

i) Completing the license and spectrum authorisation application process within a stated timeframe; and

ii) Formally accepting the technical permissible parameters associated with usage of the reserved spectrum.

The applicant must then pay the license application fees and submit the following documents: -

a) Certificate of incorporation,

b) Memorandum and Articles of Association,

c) Business plan,

d) Financial Statements,

e) Tax Clearance Certificates, and

f) Technical information highlighted in ***Annex 2***

The successful completion of the application process is dependent on the application containing all the required information.

If an application is found satisfactory by UCC, the successful applicant shall then be advised and required to pay the applicable annual licence fees (that are dependent on the area of coverage), spectrum fees and type approval fees. This must be fulfilled prior to the issuance of a radio broadcasting license agreement and operating certificate, a spectrum authorisation (which includes the frequency assignment), type approval certificates for broadcasting equipment and the commencement of business.

7.2 Spectrum Authorisation

Spectrum authorisation is only done for an FM station that has a valid radio broadcasting licensed issued by UCC.

The licensed FM radio station shall submit meet the following conditions before spectrum authorisation is made: -

(a) Submission of the technical information below as outlined in ***Annex 2***: -

i) Filled out technical form UCC-FMR-ADM-01, UCC-FIX- FMR-01, UCC-FIX-FMR-02 (if applicable) and UCC4002-SMT-SAT-04 (if applicable).

ii) A schematic diagram of the network that shows how signals are to be relayed from the Studio to the broadcast antenna.

iii) Copy of Technical specification sheet from the manufacturers of the broadcast transmitter, broadcast antenna, band pass filter, STL Transmitter & receiver (if applicable), STL antenna (if applicable) and VSAT (if applicable).

iv) Type approval application forms and associated documents for broadcast equipment.

(b) Payment of spectrum fees and VSAT (Very Small Aperture Terminal) authorisation fee (if applicable).

After satisfactorily addressing the above mentioned requirements, UCC will issue a radio frequency authorisation that grants the licensed broadcaster rights to use the respective radio frequency/frequencies subject to terms and conditions in respect of the following: -

(i) Avoidance of harmful interference,

(ii) Protection of public health,

(iii) Ensuring quality of service,

(iv) Promoting effective and efficient use of spectrum, and

(v) Preventing spectrum hoarding

Spectrum authorisation shall be issued for:

(a) Radio broadcasting frequency
(b) STL frequency

It should be noted that a spectrum authorisation does not confer ownership of the associated frequencies. Transfer of spectrum is therefore only done by UCC. Any other arrangement in respect of change of ownership is null and void.

7.3 Equipment Type Approval

Prior to purchase or acquisition of the radio communications apparatus for installations or as a standby from a dealer/manufacturer or another radio station or from a donor/sponsor, a broadcaster or prospective broadcaster shall first ensure that this apparatus has duly been type approved by UCC. Such apparatus includes, but is not limited to, the following:

a) FM broadcast transmitter,

b) Band pass filter, and

c) STL Transmitter & Receiver.

The requirements for application for type approval certification include: -

(a)Submission of the following technical information as outlined in ***Annex 2***: -

(i) Type approval form for the radio communication apparatus (if applicable);

(ii) Copy of Test reports from an accredited test laboratory verifying

- the electromagnetic conformity,
- RF conformity,
- health & safety conformity, and
- operational functions of equipment;

(iii) Copy of Manufacturer's Declaration of conformity (signed & stamped) to the following international standards: -

a) IEC 60215 on safety requirements,

b) ETSI EN 302 018-1 on Electromagnetic compatibility and Radio Spectrum Matters (ERM), and

c) ETSI EN 302 018 on Transmitting equipment for the Frequency Modulated (FM) sound broadcasting service.

(b) Type approval fees.

Once all the requirements are satisfactorily met and type approval fees are paid, a type approval certificate is issued.

8. SETTING UP OF AN FM RADIO STATION

8.1 Technical Specifications of Spectrum Authorisation

The radio station shall be established and operated in conformity with the terms and condition stipulated in the spectrum assignment letter.

The technical specifications shall include, but shall not be limited, to the following: -

(i) Installation of FM broadcast transmitter and STL transmitter equipment that do not exceed the specified transmitter power of the frequency assignment;

(ii) Installation of authorised make and model of the FM broadcast transmitter and STL transmitter;

(iii) Installation of FM broadcast transmitter and STL transmitter at specified locations;

(iv) Signal bandwidth shall be limited to 150Khz hence the modulation levels shall not exceed +/-75KHz;

(v) Installation of FM broadcast antenna at a specified height; and

(vi) Installation of an external band pass filter to avoid harmonics spill overs and out of band emissions.

8.2 Specifications for the Studio & Transmission Facilities

This comprises the minimum operational requirements that shall be put in place in the studio and transmission facilities as described below. The objectives of these requirements are to ensure continuity and safety in the provision of the quality radio broadcasting services.

8.2.1 Requirements at the Studio Facility

(i) Access Control
Electronic access control shall be installed on the 'on-air' studio. This shall include among others biometrics/ magnetic strips systems/ Smartcard Systems.

(ii) Acoustic treatment
The on-air studio room shall be acoustically treated to deal with echoes, reverberations and noise.

(iii) Air conditioning
The on-air studio shall have air conditioning for cooling of studio equipment.

(iv) Power backup
A power backup system shall be installed to ensure the station is kept on-air even where the main power grid is not available.

(v) Fire safety measures

There shall be firefighting equipment such as fire extinguishers.

8.2.2 Requirements at the Transmission Facility

(i) Access Control

There shall be electronic or mechanical access controls to the transmission facility.

(ii) Air conditioning

The transmission room/facility shall be well ventilated and temperature controlled for cooling of transmission equipment and peripherals.

(iii) Power Backup

There shall be a power backup system to ensure the station is always available on-air even if the main power grid is not available.

(iv) Tower climbing & Safety gears

Tower climbing equipment and safety gears shall be available for the technical personnel that will carry out maintenance and other activities at the transmission facility.

(v) Fire safety measures

There shall be firefighting equipment such as fire extinguishers.

(vi) Design and Construction of Radio Mast/ Tower

The mast shall have the following items in place: -

a) Red and white coloured markings,

b) Aircraft warning lights/Aviation warning lights, and

c) Earthing and Lightning protection.

8.3 Electrical Safety Requirements at the Studio and Transmission Facilities

(i) Isolation and switching mechanisms

The purpose of the isolation mechanism is to enable work to be carried out on, or in the vicinity of, parts that are normally live in service, without risk of injury or death from electric shock or electric burns.

The functions of the switching mechanisms are: -

a) To switch off equipment for mechanical maintenance thus enabling non-electrical work to be carried out on the equipment safely;

b) To rapidly disconnect electricity to remove an unexpected hazard.

(ii) Electrical wires and electrical sockets

There shall be no exposed electrical wires and loose electrical sockets in the studio and transmission facilities to prevent electrical hazards.

(iii) Lightning protection equipment
Lightening protection equipment shall be installed to protect the studio and transmission facilities and electrical equipment from destruction, and to protect individuals in the said facilities from injury.

(iv) Grounding
There shall be grounding/earthing of masts and electrical installations that includes transmission equipment, feeders and studio equipment to prevent fire risks and damage of installations.

(v) Surge protective devices
Surge protective devices shall be installed to protect electrical equipment from voltage spikes from power surges and lighting strikes.

(vi) Cable trunking
The cable trunking shall conform to IEC 61084-1:2017[1].

8.4 Administrative Requirements

The following documents shall be maintained and made readily available and accessible at the station's premises for inspection and verification by UCC.

(i) Copy of valid license certificate issued by UCC;

(ii) Instruction service manuals to enable technical personnel carry out the necessary installation, operation and maintenance of transmitter and other equipment;

(iii) Operational and maintenance log book that includes operational performance, maintenance works and changes made to the transmission equipment during maintenance or re-installations;

(iv) Copy of Type approval certificates issued by UCC for FM broadcast transmitter, STL equipment (as applicable) and band pass filter; and

(v) Copy of an electrical installation clearance certificate from UMEME Ltd/ other electricity distribution licensed by Electricity Regulatory Authority (ERA) for the station premises and transmission facility.

[1] This standard specifies requirements for cable trunking and ducting systems intended for mounting on walls or ceilings.

8.5 Business Continuity Measures

The following shall be implemented:

(a) Disaster recovery measures that will ensure continuation of the radio broadcasting service in the event that a natural or man-made disaster occurs;

(b) Redundancy measures that will ensure the FM radio station can seamlessly continue offering a service in the event of equipment failure; and

(c) Backup measures that will ensure continuity in case of data/ information losses.

8.6 Broadcasting Standards and Codes

UCC has developed standards and codes that are aimed at promoting responsible broadcasting, protecting listeners from undue offence, and promoting impartiality and accuracy.

All FM stations shall abide and shall comply with the following standards: -

(i) Minimum Broadcasting Standards,

(ii) Code of Practise for Broadcasting,

(iii) General Programming standards,

(iv) Religious Programming,

(v) Advertising Standards, and

(vi) Guidelines for Live coverage of events

8.7 Reporting Requirements

Section 44 of the Uganda Communications Act 2013 requires all licensees to submit to UCC in the prescribed format, a report on the operations and services of the licensee and to the extent to which the conditions of the licences are followed.

All FM radio stations are also required to provide information on the following quarterly: -

(i) Programme Line ups,

(ii) Programming Registers/Programme Logs,

(iii) Complaints Register (Complaints received, handled and pending), and

(iv) Advertising Register containing adverts log and clearance of adverts

9. INSPECTION OF A LICENSED FM RADIO STATION

9.1 Inspection prior to activation and operating a newly licensed and installed FM radio station

i) Before commencing operations (being going on air), a licensed FM radio station shall invite UCC to inspect the established station to confirm that all the requirements are in place. The FM radio station can use the self-inspection checklist to establish readiness for and prepare for such inspection. A copy of the checklist is provided in ***Annex 3***.

ii) If some of the requirements are found not to be in place during the first inspection, the station shall be notified in writing. UCC shall then carry out a subsequent inspection upon receiving confirmation of rectification of any anomalies and an invitation to re-inspect.

iii) On meeting all the requirements, UCC shall issue a clearance to the licensed FM radio station to commence operations.

iv) In the event that the station's facilities do not meet the technical requirements after the second inspection, UCC shall commence with the process of withdrawal of the spectrum authorisation as provided for under the spectrum withdrawal guidelines.

9.2 Routine & Unscheduled Inspections of a Licensed FM Radio Station

UCC carries out routine and unscheduled inspections to ascertain that the licensed FM radio stations are compliant with: -

(a) Frequency authorisation terms and conditions highlighted in section 7.1;

(b) Technical requirements outlined in section 7.2, 7.3 and 7.5;

(c) Administrative requirements described in section 7.4;

(d) Broadcasting standards and codes listed in section 7.6; and

(e) License terms and conditions contained in the radio broadcasting license.

An FM radio station may use the self-inspection check list in ***Annex 3*** for a self-assessment**.**

In the event that the licensed FM radio station does not meet any one of the mentioned requirements after inspection, UCC shall commence enforcement proceedings. The enforcement undertaken shall depend on the gravity of the violations and whether this is a repeat violation. A Notice of Violation shall typically be issued listing the violations and due dates in which the violations should be rectified.

10. RENEWAL OF RADIO BROADCASTING LICENSE

Renewal of license is considered and done where an FM station has complied with the license terms and conditions including but not limited to the following: -

a) Has expressed interest to renew in writing in accordance to section 8 (1) of the telecommunication (Radio) regulation 2005,
b) compliance with the requirements, standards and measures highlighted in Section 7, and
c) clearance of all outstanding fees/dues to UCC.

This is subject to there being no change in Government Policy, the National Table of Frequency Allocation or the respective frequency band plan in respect of the broadcasting services/operations.

11. RENEWAL OF SPECTRUM AUTHORISATION

Spectrum authorisation is renewed where an FM station satisfies all the following: -

a) Has a valid broadcasting license issued by UCC;
b) Has been compliant with the frequency authorisation terms and conditions; and
c) Has expressed interest to renew in writing in accordance to section 8 (1) of the telecommunication (Radio) regulation 2005.

This is subject to there being no change to the National Table of Frequency Allocation or the respective frequency band plan in respect of the broadcasting services/operations.

12. MERGERS & ACQUISITIONS

A transfer of control of a licensed FM station as a result of a merger or acquisition shall be considered as a transfer of license in accordance to Section 42 of the Uganda Communications Act of 2013.

Accordingly, no person shall transfer holding of a license or relinquish any rights thereunder to another without prior approval of UCC.

Before requesting for permission for a transfer of license, the licensed FM radio station being transferred should be: -

- operational i.e. should not have ceased operations or suspended operations; and
- compliant with all UCC compliance requirements (legal, technical and financial).

Where the applications are satisfactory, UCC shall grant its consent to transfer a licence within forty-five days from the date of application.

Where consent is not granted, UCC shall within fourteen days provide a written explanation, giving reasons for the refusal.

13. INTERFERENCE MANAGEMENT

If a licensed FM station operator experiences signal interference, the station shall lodge a complaint to UCC using the procedure outlined in the *Radio Interference Procedures* included in ***Annex 4***.

14. REVOCATION OF A BROADCASTING LICENSE

UCC shall revoke a license: -

i) for any false statement knowingly made in an application;

ii) for circumstances coming to the attention of UCC which warrant revocation of the license;

iii) for wilful or repeated violation of, or wilful or repeated failure to observe any provision of the Uganda Communications Act 2013, license agreement, respective regulations, the associated spectrum authorisation terms and conditions, UCC directive or of the provisions of the UCC guidelines; and

iv) for violation of or failure to observe any cease and desist order issued by UCC.

15. SPECTRUM WITHDRAWAL

Without prejudice to any other measures that may be taken by UCC for non-compliance with the terms and conditions of spectrum authorization, UCC may withdraw at any time the spectrum authorization under the following circumstances: -

a) Spectrum assignee enters into liquidation or is otherwise declared insolvent or bankrupt;

b) The broadcasting licence is revoked or cancelled by the Commission;

c) Assignee has repeatedly breached the terms and conditions of the radio frequency authorization or the provisions of the radio regulations;

d) Upon non-utilisation of the assigned frequency as determined by UCC including failure by the assignee to initially commence the use of the assigned frequency within 1 year of the grant of the authorization;

e) If for three (3) consecutive months, the assignee does not provide FM broadcasting services;

f) If the assignee, without due authorisation from the Commission, uses the assigned frequency for operations or the provision of any service

other than that for which it was assigned;

g) Upon the cessation of the need for use of the frequency spectrum;

h) For non-payment or late payment of the annual fees for usage of the assigned frequency; and

i) Change in National Table of Frequency Allocation or subsidiary frequency band plan.

16. CHANGE OF OPERATIONAL PARAMETERS

Prior authorisation shall be sought from UCC before any entering or executing any arrangements (commercial, administrative, legal and/or technical) that may result in a change to any of the technical or operational parameters that are specified in the spectrum authorisation letter including those listed below.

a) FM Broadcast frequency

b) Make or model of Broadcast transmitter equipment,

c) Make or model of STL transmitter and/or receiver,

d) Make or model of Band pass filter,

e) STL frequency,

f) STL transmission power,

g) Physical location of the Broadcast transmitter,

h) Make or model of Broadcast antennae,

i) Broadcast transmitter power, and

j) Physical location of the Studio.

k) Call sign of the FM radio station

UCC shall not be liable for any consequences or costs incurred by the licensee due to changes made to the above-mentioned operational parameters with or without prior authorisation of UCC.

ANNEX 1: FM SPECTRUM BROADCASTING PLANNING REGIONS AND SPECTRUM AVAILABILITY

1) Spectrum Planning Regions for FM broadcasting Services

To prevent interference in FM broadcasting, the same or close frequency can only be used in areas that are sufficiently distant from each other in terms of coverage area. Additionally:

- the minimum separation in bandwidth defined by International Telecommunications Union (ITU) that must be honoured between consecutive frequency assignments and
- the "guard bands" left to minimize interaction with the adjacent frequency band,

These limit the number of available frequencies in a location. Furthermore, since radio waves do not acknowledge borders, the use of frequencies must also be coordinated with neighbouring countries.

The possible frequencies in a region is thus limited by the geographical location, number of existing broadcasters in that particular region and adjacent regions.

In Uganda, the country has been divided into fourteen (14) spectrum regions. The possible set of frequencies for each of these region is allocated based on the above broadcast planning requirements.

Details of the districts in each broadcasting region are provided in ***Figure 1***.

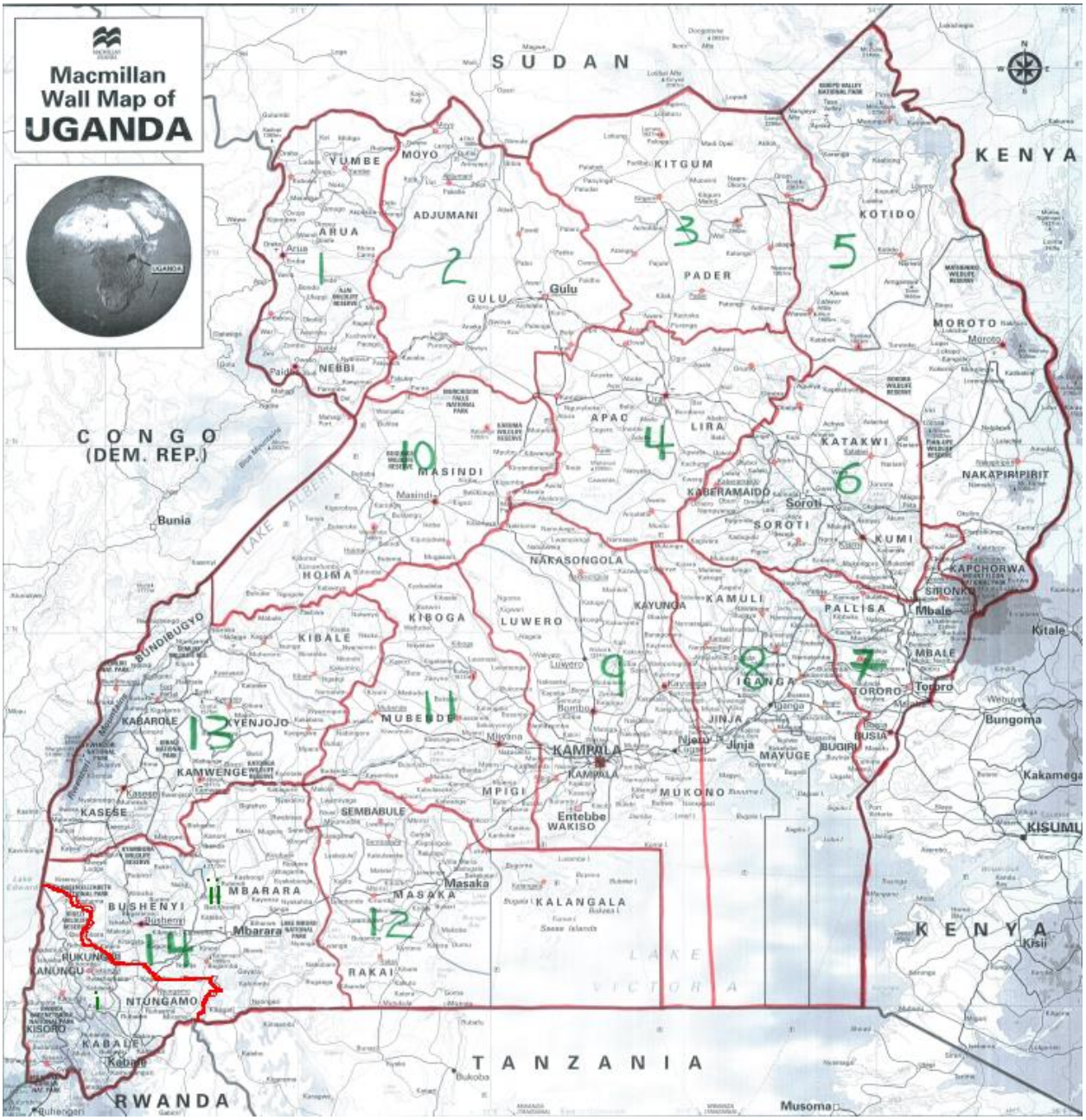

Figure 1: FM Broadcasting Planning Regions

2) Availability of spectrum for assignment

Radio frequencies for FM broadcasting in each of these regions are assigned on a first come first served basis subject to fulfilment of the respective radio frequency applications.

ANNEX 2: TECHNICAL REQUIREMENTS FOR AN FM RADIO BROADCASTING LICENSE

No.	MANDATORY Technical Requirements			
1.	Filled out technical form (*Attached*)	UCC-FMR-ADM-01		
		UCC-FIX- FMR-01		
		UCC-FIX-FMR-02 (if applicable)		
		UCC4002-SMT-SAT-04 (if applicable)		
		Type approval form for each equipment	Broadcast transmitter	
			STL TX &RX (if applicable)	
			Band pass filter	
2.	A schematic diagram of the network that shows how signals are to be relayed from the Studio to the broadcast antenna.			
3.	Copy of Technical specification sheet from the manufacturers of the following equipment	Broadcast transmitter		
		Broadcast antenna		
		Band pass filter		
		STL Transmitter (if applicable)		
		STL Receiver (if applicable)		
		STL antenna (if applicable)		
		VSAT (if applicable)		
4.	Copy of Test reports verifying the electromagnetic conformity , RF conformity ,health & safety conformity and operational functions of equipment from an accredited test laboratory provided by the equipment manufacturers	Broadcast transmitter		
		Band pass filter		
		STL Transmitter and Receiver (if applicable)		
5.	Copy of Manufacturer's Declaration of conformity (signed & stamped) to the following international standards	(a)	IEC 60215 on safety requirements	Broadcast transmitter
				Band pass filter
				STL Transmitter and Receiver (If applicable)

		(b)	ETSI EN 301 489 on Electromagnetic compatibility and Radio Spectrum Matters (ERM);	Broadcast transmitter
				Band pass filter
				STL Transmitter and Receiver (if applicable)
		(c)	ETSI EN 302 018 on Transmitting equipment for the Frequency Modulated (FM) sound broadcasting service	Broadcast transmitter
6.	Disaster Recovery plan that will describe how the station can ensure continuation of the radio broadcasting service in the event that a natural or man-made disaster occurs.			
7.	Redundancy plan that will provide measures of redundancy that will be put in place to ensure the radio station can seamlessly continue offering a service in the event of equipment failure.			
8.	Planned electromechanical safety measures and public safety measures that will be put in place at the studio and transmission facilities.			
9.	Demonstration of technical experience and capability that includes providing proof of experience and expert knowledge of similar operations and/or proof of partnership with technical experts for installations and day to day operations			

APPLICATION FORM FOR FM BROADCASTING SERVICES
UCC-FMR-ADM-01

ADMINISTRATIVE INFORMATION		
SECTION A: DETAILS OF PERSONS*		
Name of Person		
Company / NGO Registration Number (*Where applicable*)		
Call Sign		
Postal Address		
Physical Address		
Town, District		
Telephone Number		
Mobile Number		
Email address		
SECTION B: TECHNICAL CONTACTS		
	Lead Technical person for establishment of the station (*Only Applicable for a new station*)	Lead Technical person for operations of the station
Name		
Postal Address		
Physical Address		
Telephone Number		
Mobile Number		
Email address		

Name :	
Date :	**Signature:**

Persons: According to the Uganda Communications Act 2013, a person includes any individual, company, association, or body of persons corporate or unincorporated

APPLICATION FORM FOR FM RADIO BROADCASTING
FIXED STATION –BROADCASTING
UCC-FIX- FMR-01

TECHNICAL INFORMATION OF THE BROADCAST TRANSMITTER, ANTENNA & BANDPASS FILTER								
1. Details of the Broadcast Transmitter Site								
Geographical Coordinates Site: Latitude:	Deg.	Min.	Sec.	Hem.	N ☐	S ☐		
Longitude:	Deg.	Min.	Sec.	Hem.	E ☐	W ☐		
Physical Location								
Town, District								
2. Broadcast transmitter								
Type approval No.:								
Make:								
Model:								
Frequency Range (MHz):	Minimum:					Maximum:		
Maximum Transmitter Power (Watts)								
3. Antenna								
Make:								
Model:								
Frequency Range	Minimum:					Maximum:		
Antenna Type								
Antenna Gain								
No. of Antenna Bays								
Main lobe azimuth (deg.)								
Polarization	H:		V:			C:		
Directivity	Yes:				No:			
4. Band Pass Filter								
Make:								
Model:								

Name :	
Date :	**Signature:**

APPLICATION FORM FOR FM RADIO BROADCASTING
FIXED STATION
UCC-FIX- FMR-02

TECHNICAL INFORMATION OF STL TRANSMITTER & RECEIVER				
1. Details of STL Transmit & Receive Sites				
Transmit Site	Geographical Coordinates		Physical Location	Town ,District
	Latitude	Deg. Min. Sec. Hem N ☐ S ☐		
	Longitude	Deg. Min. Sec. Hem E ☐ W ☐		
Receive Site	Geographical Coordinates		Physical Location	Town ,District
	Latitude	Deg. Min. Sec. Hem N ☐ S ☐		
	Longitude	Deg. Min. Sec. Hem E ☐ W ☐		
2. STL Transmitter & Receiver				
Type approval No:				
a) STL Transmitter				
Make:				
Model:				
Frequency Range (MHz)	Minimum:		Maximum:	
Maximum Transmitter Power (Watts)				
b) STL Receiver				
Make:				
Model:				
Frequency Range (MHz)	Minimum:		Maximum:	
3. STL Antenna				
Make:				
Model:				
Frequency Range	Minimum:		Maximum:	
Antenna Gain (dB)				
Main lobe azimuth (deg.)				

Name :	
Date :	**Signature:**

APPLICATION FORM FOR SATELLITE SERVICES

UCC4002-SM-ADM-01

Physical Address of Satellite Service Station							
Site location:							
Township							
City/Town							
District							
Latitude							
Longitude							
Site Altitude							
Technical Specifications – Radio Equipment							
Make							
Model							
Equipment Serial No.							
Uplink Frequency (MHz)							
Downlink Frequency (MHz)							
Bandwidth (KHz)							
Output Power	Watts : dBm:						
Emission Class							
Preferred Call sign							
Technical Specifications - Antenna							
Site Category:	Transmit: Receive: Host: Repeater:						
Type of Service							
Antenna Make							
Antenna Model							
Antenna Diameter (m)							
Antenna Gain (dB)							
EIRP (W)							
Polarization							
Beam Width V (deg)	H: V:						
Antenna Height(m)							
Antenna Tilt Angle (deg)							
Main Lobe Azimuth (deg)							
Orbital Location							
Capacity of Links							
Frequency Band							
Required Frequencies / Range							
Satellite Site Type/ Satellite Provider	Inmarsat A	Inmarsat B Land	Inmarsat C	Inmarsat M Land	VSAT	SNG	Satellite Link

UGANDA COMMUNICATIONS COMMISSION

APPLICATION FORM FOR TYPE APPROVAL OF COMMUNICATION EQUIPMENT

APPLICANTS DETAILS			
Company Name:			
Company Address	Postal:	Physical:	
	Email:	Tel:	
TIN /Tax No.			
Contact Person	Name:	Email:	Tel:

TECHNICAL DETAILS OF EQUIPMENT		
Name of Equipment:		
Brand Name:	Model:	
Manufacturer Details	Name:	Address:
Product Description:		
Intended Use:		
Frequency Details	Range:	Operating Frequency:
RF Output Power radiated/E.I.R.P:	ITU Emission Designator:	
Type of Modulation:	Antenna Gain:	
Technical Variants (where applicable):		

DETAILS OF CONFORMANCE CERTIFICATE
Issuing Body:
Issuing Date:

APPLICABLE STANDARDS			
Test	Test Standard Compliance	Name of Testing laboratory	Finding/Test Report No:
EMC			
RF (Radio Frequency) Compatibility			
Health and Safety			

Technology Specific			

DETAILS OF SUBMITED SAMPLE (*where applicable*)	
Equipment Type:	Brand Name:
Model:	Serial Number:

UNDERTAKING

I _____ hereby certify that the information supplied in this application form is true in all respects and I hereby give undertaking upon grant of the Certificate. I accept that the Certificate, may be revoked and the appropriate penalty applied if it is established that I have been granted the same based on incorrect information or have acted in contravention to the Uganda Type Approval regulations.

By signing this letter, I give Uganda Communications Commission the authority to request and access any information associated with this application from test laboratories and other stakeholders. I agree to comply with any terms, conditions or restrictions which the Uganda Communications Commission may impose and to be bound by the laws and regulations in force.

Signature:_____ **Date**:_____

Disclaimer by UCC
It is the sole responsibility of the certificate holder to ensure compliance with the applicable standard(s).

ANNEX 3: SELF-INSPECTION CHECKLIST FOR AN FM BROADCASTING STATION

The check list provided below shall be used by the following categories of Licensed FM stations: -

(a) A new licensed FM station, preparing to commence operation shall complete the attached self-inspection checklist before inviting UCC to conduct an inspection at its premises.

(b) A licensed FM station that has been operational, conducting self-checks on compliance to the administrative, technical and safety requirements specified by UCC.

This checklist provides an opportunity for the FM station to review and correct any anomalies associated with its installation for the operation of the FM station prior to the inspection visit by UCC.

COMPLETE = This indicates compliance with the technical/ administrative/safety requirement

INCOMPLETE = This indicates non-compliance to the technical/administrative/safety requirement

	FM SELF-INSPECTION		**Status (Tick as Applicable)**	
Date of review:				
No.	**Items**		**COMPLETE**	**INCOMPLETE**
	Administrative Requirements			
1.	Copy of the valid License certificate			
2.	Copy of Type approval certificates	FM broadcast transmitter		
		STL Transmitter & Receiver		
		Band pass filter		
3.	Copy of electrical installation clearance certificate from UMEME or other distribution companies licensed by ERA	Studio facilities		
		Broadcast transmission facilities		
4.	Operational and maintenance log book that includes operational performance, maintenance works and changes made to the transmission equipment during maintenance or re-installations			
5.	Instruction service manuals to enable technical personnel carry out the necessary installation, operation and maintenance of transmitter and other equipment.			

Transmission Requirements			
No.	**Items**	**COMPLETE**	**INCOMPLETE**
1.	Make and Model of the FM broadcast transmitter		
2.	Transmitter power of the FM broadcast transmitter		
3.	Location of broadcast transmitter		
4.	Broadcast Frequency		
5.	Make and model of STL transmitter		
6.	Transmitter power of the STL transmitter		
7.	STL frequency		
8.	Location of the STL transmitter and broadcast transmitter		
9.	Modulation level of +/- 75KHz		
10.	Installation of an external band pass filter		
Business Continuity Measures			
No.	**Items**	**COMPLETE**	**INCOMPLETE**
1.	Disaster recovery measures are in place to ensure continuation of the radio broadcasting service in the event that a natural or man-made disaster occurs.		
2.	Redundancy measures are in place to ensure the radio station can seamlessly continue offering a service in the event of equipment failure.		
3.	Backup measures are in place, to ensure continuity in case of data/ information losses		
Installations at the Studio Facilities			
No.	**Items**	**COMPLETE**	**INCOMPLETE**
1.	Access Control for studio and production facilities		
2.	Installation of Firefighting equipment		
3.	Structured Cabling and Trunking in accordance to IEC 61084-1:2017		
4.	Installation of Lightening protection equipment		
5.	Sound proofing and professional studio acoustic treatment		
6.	Installation of surge protective devices		
7.	Installation of air conditioning		
8.	Connection to main power grid and availability of power backup equipment for the studio facility		
9.	Grounding/earthing		
10.	No exposed electrical wires and loose electrical sockets		
11.	Isolation and switching mechanisms		

Installations at the Transmission facilities				
1.	In relation to the radio mast or tower for the STL equipment & broadcast transmitter, the following items are in place: -	Red And White Markings		
		Aircraft /Aviation Warning Lights		
	Tower climbing equipment and Safety gear for the technical personnel are available			
	Site ventilation and site cooling mechanisms such as air conditioning to control temperature and humidity levels to protect the transmission equipment and other operational peripherals.			
	Connection to main power grid and availability of power backup equipment			
	Installation of power monitoring and surge control / suppression systems.			
	Installation of firefighting equipment			
	Installation of earthing system: feeder earthing, transmitter equipment earthing, electrical earthing and tower earthing.			
	Installation of lightening protection equipment			
	Access control for transmission facilities			
	Installation of surge protective devices			
	Structured Cabling and Trunking in accordance to IEC 61084-1:2017			
	No exposed electrical wires and loose electrical sockets			
	Isolation and switching mechanisms			

ANNEX 4: RADIO INTERFERENCE HANDLING PROCEDURES

1. Interference resolution Procedures

i. Interference Reporting

1. Investigations shall commence once all information required in **Form A** (See attached) is submitted.

2. **Form A** should be completed by only person/entities who have been duly assigned radio-frequency spectrum by Uganda Communications Commission.

3. The complainant must ensure that the spectrum authorisation associated with affected radio communication station or service is valid.

4. Before completing and submitting the form, the complainant should **firstly**:

    a. Ensure that their affected radio communication system is operating in accordance with the respective licence conditions and frequency authorisation conditions.

    b. Check that the affected radio communication equipment is not faulty.

    c. Check that the interference is external to their radio communication equipment set-up. It is advisable to contact the equipment supplier to verify this.

5. All submitted forms must be signed by authorised personnel and dated in order for the interference complaint to be processed.

6. Licensees may be requested to submit additional information to facilitate investigation or analysis of the compliant.

7. Completed forms should be submitted to:

    Uganda Communications Commission,
    Plot 42-44 Spring Road Bugolobi.
    P.O. Box 7376,
    KAMPALA.
    Email: registry@ucc.co.ug

ii. Interference Investigation & Evaluation

1. UCC shall investigate the complaint based on the information provided in Form A. The investigations shall include interaction with the complainant, field measurements, and interrogation of equipment or communication apparatus among others.

2. Any field measurements shall include record of location, time and parameters recorded during the different investigation scenarios.

3. UCC reserves the right to switch off or direct the switch off of any apparatus during the course of investigations.

iii. Rejecting a Complaint

UCC shall reject a complaint:

- If it does not fulfil the interference reporting requirements specified 7(i) above.
- If it is found that the authorisation conditions for the use of the radio frequency were not complied with.
- If the technical specifications of the of the equipment are violated.
- If the radio communication apparatus is faulty.

Where it is established that the interference is a result of the complainant, the operator will meet the costs of the investigation. If the interference is external to the complainant, the violator will be penalised in accordance with section 5(b) of this guideline.

iv. Closure of a case

Closure shall be through a formal letter and report from UCC to the complainant within 10 working days.

FORM A

RADIO COMMUNICATION INTERFERENCE COMPLAINT FORM

The complainant must read the guide by the Uganda Communications Commission on radio interference handling procedures prior to completing this form.

SECTION 1: COMPLAINANT CONTACT DETAILS

Full Name of the Company/Person who is the licensee:	
License No:	
Licence Category:	
Date of Award of the License:	
Date of Expiry of the License:	
Contact person for this Complaint:	
Address:	
Telephone No:	
Mobile No:	
Telefax:	
E-Mail:	

SECTION 2: DETAILS OF RADIO COMMUNICATION INTERFERENCE

Type of radio communication service of which the interference is being experienced (tick appropriate)

a) AM Radio ☐
b) FM radio ☐
c) Cellar mobile ☐
d) Land Mobile ☐
e) Television broadcasting ☐
f) Aeronautical ☐
g) Fixed ☐
h) Satellite Fixed ☐
i) Broadband Wireless Access Service ☐
j) Maritime Mobile ☐
k) Others ☐

If you select 'Others' above, please provide details .....

.....

1	**Please provide all frequencies and bandwidths on which interference is being experienced:**	
2	**Frequency of interference signal if known or suspected:**	
3	**Station/Site Name (s):**	
4	**Location (s) of station (s) that is/are experiencing the interference.** **If available, please provide the geographical coordinates of the location (s) of station (s) in WGS84 format, in terms of degrees, minutes and seconds.**	
5	**Symptoms of interference and nature of degradation of signal (If necessary you may attach further details of your interference complaint on a separate sheet of paper):**	
6	**When did the interference start? Approximate time and Date:**	
7	**Is the interference continuous or intermittent (irregular)?**	
8	**If intermittent please specify when it occurs, how often and for how long does it last?**	
9	**Can the interference be heard on both the transmit (e.g base) and/or receive units? (e.g. mobiles)**	
10.	**What sound does the interference signal make on your equipment? (i.e. voices, buzzing, tones etc)**	
11	**If conversations can be overheard, please provide any information on the company, i.e. name or the nature of business in which they are involved?**	
12	**If conversations can be heard - can both sides i.e. the base and the mobile be heard?**	
13	**Has your equipment been checked by your equipment supplier? If Yes - What is the name of the company and when was this done?**	
14	**Is a repeater or fixed base in use? If so provide location of each:**	
15	**Direction of interference if known:**	
16	**Suspected source of interference:**	
17	**Any additional information:**	

Please attach <u>copies</u> of any interference monitoring data if available (*e.g. spectrum analyser plots and audio file of interference*).

Signature: _____ **Date: _____**