

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

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DRAFT CONSULTATION DOCUMENT

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## 1. BACKGROUND

- 1.1. Broadcasting is pivotal in Uganda's media landscape; it remains the preferred medium for mass media dissemination platform. Radio broadcasting is a vital source of information, entertainment, and cultural preservation. With over 300 radio stations distributed nationwide, FM broadcasting is widely accessible and affordable, reaching a large portion of the population, including those in rural areas who may not have access to other forms of media.
- 1.2. To ensure that FM broadcasting serves the needs of the public while maintaining technical and legal standards, the Uganda Communications Commission (the Commission) developed Guidelines for the establishment and operation of FM broadcasting radio stations in 2019.
- 1.3. Since the inception of the Guidelines in 2019 highlighted in 1.2 above there have been changes in the national laws and regulatory frameworks concerning broadcasting, necessitating a revision of the existing guidelines to ensure their continued relevance to the sector.
- 1.4. The authority to develop these Guidelines is derived from among others, Sections 5(1)(b)(c)(i), 25, and 26 of the Uganda Communications Act, 2013 (the "Act 2013"), as well as the Uganda Communications (Licensing) Regulations 2019.
- 1.5. The Commission has thus revised and updated the current Guidelines to align with the latest sectoral developments.

#### 2. OBJECTIVE

The objective of this guide is to improve compliance in the radio broadcasting industry in Uganda by enhancing regulatory clarity, promoting industry best practices, and ensuring alignment with international standards for the establishment and operation of FM radio stations in Uganda.

#### 3. AMENDMENT

This guide shall be reviewed periodically to align with any changes in the industry, the national Information and Communication Technology (ICT)

policies and national development objectives, regulatory decisions, and emerging regional and international best practices.

#### 4. SCOPE OF THE GUIDELINES

This guide presents regulatory provisions with respect to the following;

- a) Application processing for a radio broadcasting license and radio frequency spectrum,
- b) Administrative and technical operational requirements of a licensed FM radio station,
- c) Terms and conditions governing the authorization for radio frequency spectrum usage,
- d) Inspection of a licensed FM radio station,
- e) Interference management for a licensed FM radio station,
- f) Radio Frequency Spectrum Authorisation variation and withdrawal,
- g) Radio Frequency Spectrum Authorisation renewal.

## 5. APPLICABLE LEGISLATION, REGULATIONS AND GUIDELINES

The following legal and regulatory provisions shall apply in the implementation of this guide;

- a) The Uganda Communications Act 2013.
- b) The Uganda Communications (Licensing) Regulations, 2019.
- c) The Uganda Communications (Equipment Type-Approval) Regulations 2019.
- *d)* The Framework on Type-Approval of Communications Equipment in Uganda 2022.
- e) The Radio Station Inspection Framework of Uganda (as amended).
- f) The UCC Spectrum Management Guidelines (as amended).
- g) The UCC Guidelines on variation and withdrawal of radio spectrum authorisation 2022.
- h) The UCC terms and conditions for radio frequency authorisation in Uganda (as amended).

#### 6. INTERPRETATIONS

In this guide, unless defined hereunder, the terms used herein shall have the same interpretation as in the Act and the regulations issued thereunder.

- *a)* **FM** broadcast transmitter: A transmitter that operates in the frequency band 87.5 -108 MHz.
- *Person:* Any individual, company, association, or body of persons corporate or unincorporated.
- c) Radio communications apparatus or radio communications station: Any apparatus or station, as the case may be, used for transmitting or receiving radio communication other than a domestic radio set and where;
  - (i) that radio communications apparatus or station cannot lawfully be used without a radio communications licence or without an exemption under section 23,
  - (ii) radio communication in the form of messages, audio or visual images is received or transmitted by that apparatus or station, and
  - (iii) 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.
- d) **Radio Mast:** A structure designed or used to provide elevation, stabilized support, or position control communications apparatus or radio communications station.
- e) **STL** (Studio Transmitter Link) equipment: Equipment used to establish a point-to-point transmission path to send audio and/or visual signals from the broadcasting base or studio to a transmitter in another location.
- f) **Type approval:** The process by which communications equipment that meets the minimum technical requirements specified by UCC, is authorized by the Commission to be sold, distributed, imported, or used in Uganda.
- g) **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.

*h)* **Tower:** 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.

#### 7. INTERPRETATIONS APPLICABILITY AND EXCEPTIONS

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

## 8. REQUIREMENTS FOR ESTABLISHING AN FM RADIO BROADCASTING SERVICES

#### 8.1. Permission To Operate a Radio Station

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

- a) establish or use any radio station or provide radio communication services;
- b) possess, install, connect, or operate any radio communications apparatus or interference-causing apparatus.

## 8.2. Application For a Licence and a Frequency

A person interested in offering FM radio broadcasting services in Uganda shall submit a formal expression of interest through the online portal via <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a>. (All first-time users shall be required to register an account and acquire login credentials).

- 8.2.1. The 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 the desired geographical area(s) of coverage.
- 8.2.2. Upon receiving this expression of interest, the Commission will assess the radio spectrum availability in the specified geographical area and provide feedback to the applicant via their registered email address. *Annex 1* attached hereto provides details on considerations taken in determining the availability of spectrum in a particular geographical area.
- 8.2.3. Where radio spectrum is available, a reservation shall be made and communicated to the application, advising them to proceed with the submission of a broadcasting license application via <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a>.

- 8.2.4. However, the reservation shall be subject to:
  - a) The applicant completing the radio broadcasting license application and the spectrum application process within the stipulated time; and
  - b) The applicant formally accepting the permissible technical parameters associated with the reservation.
- 8.2.5. The applicant shall then pay the license application fees and submit the required documents through the online portal at <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a>. The required documents include:
  - a) Certificate of incorporation
  - b) Memorandum and Articles of Association
  - c) Business plan
  - d) Financial Statements
  - e) Tax Clearance Certificates
  - f) Technical information as highlighted in **Annex 2**
- 8.2.6. The successful completion of the application process is dependent on ensuring the submission of a complete application, containing all the relevant documents as highlighted above.
- 8.2.7. If the Commission deems an application satisfactory, the respective successful applicant will be notified and required to settle the relevant regulatory fees including license fees, spectrum fees, and type approval fees. This obligation must be fulfilled before the issuance of a radio broadcasting license agreement, operating certificate, radio frequency spectrum authorization (including frequency assignment), type approval certificates for the equipment to be deployed, and the commencement of business.

## 8.3. Radio Frequency Spectrum Authorization

- 8.3.1. A Radio Frequency Spectrum Authorisation granting the right to access and use the assigned radio frequency shall be issued to an FM radio station that possesses a valid radio broadcasting license issued by the Commission.
- 8.3.2. A licensed FM radio station shall meet the following requirements before a radio frequency spectrum authorisation is granted;

- a) Submission of the required technical information through the online portal accessible via <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a> including:
  - (i) duly completing all the administrative and technical forms on the portal
  - (ii) A schematic network diagram showing how signals are to be relayed from the Studio to the broadcast antenna.
- b) Type Approving all radio communication equipment to be deployed including;
  - (i) Broadcast Transmitter,
  - (ii) Studio to Transmitter and Receiver link equipment (as applicable), and
  - (iii) External Bandpass Filter
- c) Payment of spectrum fees and VSAT (Very Small Aperture Terminal) authorization fees (as applicable).
- 8.3.3. Upon satisfactorily addressing the requirements in 8.3.2 above, the Commission will issue a Radio Frequency Spectrum Authorisation that grants the licensed broadcaster the right to access and use the assigned radio frequency/frequencies subject to the terms and conditions stipulated therein to ensure;
  - a) Avoidance of harmful interference
  - b) Protection of public health
  - c) Ensuring quality of service
  - d) Promoting effective and efficient use of spectrum
  - e) Preventing spectrum hoarding
- 8.3.4. A Radio Frequency Spectrum Authorisation shall highlight the assigned radio broadcasting frequency and the STL frequency (as applicable).
- 8.3.5. It should be noted that a Radio Frequency Spectrum Authorisation **does not** confer ownership of the associated frequencies. The transfer of the assigned radio frequency spectrum is solely under the purview of the Commission. Any other arrangements regarding a change of ownership are considered null and void.

- 8.3.6. Due to the limited availability to supply a growing spectrum demand, a person's maximum FM spectrum holding shall not exceed three (3) frequencies or broadcasting channels in all the broadcasting regions. This includes channels that may be obtained through acquisition;
- 8.3.7. At its discretion, the Commission may waive provision 8.3.6 above on a case-by-case basis to religious institutions and government-owned broadcasters.

## 8.4. Equipment Type Approval

- 8.4.1. Before procuring radio communications equipment, whether for installations or backup/redundancy, from a dealer/manufacturer, another radio station, or a donor/sponsor, all broadcasters or prospective broadcasters must ensure that such equipment as highlighted under 8.3.2 (a) and (b) has duly been type-approved by the Commission.
- 8.4.2. All equipment type approval shall be done in accordance with the framework on type approval and strictly online via <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a>.
- 8.4.3. It should be noted that the Commission will not authorize the operation of broadcast transmitter equipment whose maximum transmit power rating exceeds the maximum permissible power limit specified in the Radio Frequency Spectrum Authorisation or communicated to an applicant following a spectrum reservation. That is to say, if a station is allowed to operate at 1000 watts, then only a transmitter whose maximum power is 1000 watts is recommended for type approval and subsequently authorization.

#### 9. SETTING UP OF AN FM RADIO STATION

#### 9.1. Technical Specifications of Spectrum Authorisation

- 9.1.1. The radio station shall be established and operated in conformity with the terms and conditions stipulated in the Radio Frequency Spectrum Authorisation (RFSA).
- 9.1.2. The technical specifications shall include, but not be limited to the following:
  - a) Installation of type-approved FM broadcast transmitter and STL transmitter equipment whose output transmit power

limits do not exceed the transmit power stipulated in the RFSA;

- b) Installation of communication equipment, including broadcast transmitters, STL transmitters, and receivers, at the locations specified in the RFSA;
- c) Maintaining the broadcast Signal bandwidth with a channel bandwidth not exceeding 150 kHz, thus signals shall not be beyond +/- 75 kHz;
- d) Installation of the FM broadcast antennae at the heights stipulated in the RFSA;
- *e)* Installation of the type approved external bandpass filter to prevent harmonics spillovers and out-of-band emissions.

#### 9.2. Specifications for the Studio & Transmission Facilities

These requirements comprise the minimum operational standards that shall be observed at both studio and transmission facilities, as described below. Their objective is to ensure uninterrupted service delivery and safety in providing high-quality radio broadcasting services.

## 9.2.1. Requirements at the Studio Facility include:

- a) Access Control: Electronic access control shall be installed on the 'on-air' studio. This shall include among others biometrics/ magnetic strips systems/ Smartcard Systems.
- b) Acoustic treatment: The on-air studio room shall be acoustically treated to deal with echoes, reverberations, and noise.
- c) Air conditioning: The on-air studio shall have air conditioning for cooling studio equipment.
- *d)* 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.
- *e)* Fire safety measures: There shall be firefighting equipment such as fire extinguishers.

## 9.2.2. Requirements at the Transmission Facility include:

- *a)* Access Control: There shall be electronic or mechanical access controls to the transmission facility.
- b) Air conditioning: The transmission room/facility shall be well ventilated, and temperature controlled for cooling of transmission equipment and peripherals.
- c) 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.
- d) 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.
- e) Fire safety measures: There shall be firefighting equipment such as fire extinguishers.
- f) Design and Construction of Radio Mast/ Tower: The mast shall have the following items in place;
  - (i) Red and white coloured markings,
  - (ii) Aircraft warning lights/Aviation warning lights, and
  - (iii) Earthing and Lightning protection.

#### 9.3. Electrical Safety Requirements

#### 9.3.1. 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.

#### 9.3.2. 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.

#### 9.3.3. 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.

#### 9.3.4. Grounding:

There shall be grounding/earthing of masts and electrical installations that include transmission equipment, feeders, and studio equipment to prevent fire risks and damage to installations.

## 9.3.5. Surge protective devices:

Surge protective devices shall be installed to protect electrical equipment from voltage spikes from power surges and lightning strikes.

### 9.3.6. Cable trunking:

The cable trunking shall conform to IEC 61084-1:2017<sup>1</sup>.

## 9.4. Administrative Requirements

- 9.4.1. The following documents shall be maintained and made readily available and accessible at the station's premises for inspection and verification by the Commission.
  - a) A Copy of a valid license certificate issued by the Commission.
  - b) Instruction service manuals to enable technical personnel to carry out the necessary installation, operation, and maintenance of transmitter, and other equipment.
  - c) Operational and maintenance logbook that includes operational performance, maintenance works, and changes made to the transmission equipment during maintenance or re-installation.
  - d) A Copy of Type approval certificates issued by the Commission for the FM broadcast transmitter, STL equipment (as applicable) and external bandpass filter.
  - e) A Copy of an electrical installation clearance certificate from UMEME Ltd/ other electricity distribution licensed by

<sup>&</sup>lt;sup>1</sup> This standard specifies requirements for cable trunking and ducting systems intended for wall or ceiling mounts

the Electricity Regulatory Authority (ERA) for the station premises and transmission facility.

## 9.5. Business Continuity Measures

## 9.5.1. 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.

## 9.6. Broadcasting Standards and Codes

The Commission developed standards and codes aimed at promoting responsible broadcasting, protecting listeners from undue offense, and promoting impartiality and accuracy.

- 9.6.1. All FM stations shall abide by and comply with the following standards:
  - a) Minimum Broadcasting Standards,
  - b) Code of Practise for Broadcasting,
  - c) General Programming standards,
  - d) Religious Programming,
  - e) Advertising Standards, and
  - f) Guidelines for Live coverage of events.

## 9.7. Reporting Requirements

- 9.7.1. Section 44 of the Uganda Communications Act 2013 requires all licensees to submit to the Commission, in the prescribed format, a report on the operations and services of the licensee and to the extent to which the conditions of the licenses are followed.
- 9.7.2. All FM radio stations are also required to provide information on the following quarterly basis:
  - (1) Programme Line ups,
  - (2) Programming Registers/Programme Logs,

- (3) Complaints Register (Complaints received, handled, and pending), and
- (4) Advertising Register containing adverts log and clearance of adverts.

#### 10. INSPECTION OF A LICENSED FM RADIO STATION

## 10.1. Inspection Prior to Activation and Operation of the Station

- 10.1.1. Prior to commencing operations, a licensed FM radio station shall invite the Commission to inspect the established station to ensure that all requirements are met. The FM radio station may utilize the self-inspection checklist to assess readiness and prepare for such inspection. A copy of the checklist is provided **in Annex 3**.
- 10.1.2. In the event that some of the requirements are lacking during the initial inspection, the station will receive a written notification from the Commission. Upon confirmation of rectification of the highlighted anomalies and receipt of an invitation to re-inspect the station, the Commission will conduct a subsequent inspection.
- 10.1.3. Upon meeting all requirements, the Commission will issue a clearance to the licensed FM radio station to commence on-air operations.
- 10.1.4. If the station's facilities fail to meet the technical requirements after the second inspection, the Commission will initiate the process of withdrawing the Radio Frequency Spectrum Authorisation, as outlined in the spectrum withdrawal guidelines.

## 10.2. Routine & Unscheduled Inspections of a Licensed FM Station

- 10.2.1. The Commission shall conduct routine and unscheduled inspections to ensure that the licensed FM radio stations comply with the following:
  - a) Technical Specifications highlighted in section 9.1.2.
  - b) Specifications for the Studio & Transmission Facilities outlined in section 9.2.1, 9.2.2, and 9.3.2.
  - c) Administrative requirements described in section 9.4.1.
  - d) Business Continuity Measures outlined in section 9.5.1.

- e) Broadcasting standards and codes listed in section 9.6.1.
- f) License terms and conditions contained in the Radio Frequency Spectrum Authorisation.
- 10.2.2. A licensed FM station can conduct a self-assessment using the checklist in *Annex 3* to prepare for both routine and unscheduled inspections by the Commission.
- 10.2.3. If a licensed FM radio station fails to meet any of the specified requirements during an inspection, the Commission shall initiate enforcement proceedings. The type of enforcement action taken will depend on the severity of the violations and whether they are repeat violations. Typically, a Notice of Violation will be issued, outlining the violations and specifying deadlines for rectification.

#### 11. RENEWAL OF RADIO BROADCASTING LICENSE

- 11.1. Renewal of license is considered and processed for an FM station that demonstrated compliance with the license terms and conditions, including but not limited to the following criteria:
  - a) Submission of a written expression of interest for renewal upon expiry of the license (FM broadcasting license is valid for a period of 5 years).
  - b) Compliance with the requirements, standards, and measures highlighted in Section 9 above.
  - c) Settlement of all outstanding fees and dues owed to the Commission.
- 11.2. Renewal of a broadcast license 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.

## 12. RENEWAL OF RADIO FREQUENCY SPECTRUM AUTHORISATION

- 12.1. A Radio Frequency Spectrum Authorisation is renewed when an FM station meets all the following criteria:
  - a) Holds a valid broadcasting license issued by the Commission.
  - b) Has been compliant with the expired Radio Frequency Spectrum Authorisation terms and conditions.

- c) Has submitted a written expression of interest for renewal upon the expiration of its RFSA.
- 12.2. This is subject to there being no change to the National Table of Frequency Allocation or the respective frequency band plan pertaining to broadcasting services/operations.

## 13. MERGERS AND ACQUISITIONS

- 13.1. 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 with Section 42 of the Uganda Communications Act of 2013.
- 13.1.1. Accordingly, no person shall transfer the holding of a license or relinquish any rights thereunder to another without prior approval of the Commission.
- 13.1.2. Before requesting permission for a transfer of license, the licensed FM radio station undergoing transfer must fulfil the following conditions:
  - a) Must be operational, meaning it should not have ceased operations or suspended operations.
  - b) Must be compliant with all the Commission's compliance requirements (legal, technical, and financial).
- 13.1.3. Where the applications are satisfactory, the Commission shall grant its consent to transfer a license within forty-five (45) days from the date of application.
- 13.1.4. If consent is not granted, the Commission will provide a written explanation within fourteen (14) days, detailing the reasons for the refusal.

## 14. INTERFERENCE MANAGEMENT

If a licensed FM station operator experiences signal interference, the station shall file a formal complaint and provide details of the radio communications interference to the Commission via the online portal at <a href="https://eservices.ucc.co.ug/">https://eservices.ucc.co.ug/</a>

#### 15. REVOCATION OF A BROADCASTING LICENCE

- 15.1. The Commission shall revoke an FM radio station's licence under the following circumstances;
  - a) If any false statement is knowingly made in an application.
  - b) If circumstances come to the attention of the Commission that warrant revocation of the licence.
  - c) For wilful or repeated violation of, or failure to observe any provision of the Uganda Communications Act 2013, licence agreement, respective regulations, the associated radio frequency spectrum authorisation terms and conditions, UCC directives, or provisions of the UCC guidelines.
  - d) For violation of or failure to observe any cease-and-desist order issued by the Commission.
  - e) Any other reason as shall be deemed necessary in the interest of public or national security.

#### 16. SPECTRUM AUTHORISATION VARIATION AND WITHDRAWAL

- 16.1. Without prejudice to any other measures that may be taken by the Commission for non-compliance with the terms and conditions of spectrum authorisation, the Commission may vary or withdraw at any time the radio frequency spectrum authorisation. The variation or withdrawal of a spectrum authorisation shall be in accordance with 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 spectrum authorisation or the provisions of the radio regulations.
  - d) Upon non-utilisation of the assigned frequency as determined by the Commission, including failure by the assignee to initially commence the use of the assigned frequency within 1 year of the grant of the authorisation.

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

#### 17. CHANGE OF OPERATIONAL PARAMETERS

- 17.1. Prior authorisation shall be sought from the Commission before entering into 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 Radio Frequency Spectrum Authorisation 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 Bandpass 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
- 17.2. The Commission 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 from UCC.

#### 18. STAKEHOLDER RESPONSIBILITY

## 18.1. The regulator (the Commission) shall:

- 18.1.1. Regularly review and update the provisions of this guide to ensure its continued relevance and effectiveness.
- 18.1.2. Respond to inquiries related to the provisions herein and the implementation of these guidelines.

## 18.2. Stakeholders (Importers, Vendors, and Operators) shall:

- 18.2.1. Comply with the operational requirement herein.
- 18.2.2. Acquaint themselves with the laws, regulations, and frameworks referenced herein.

## ANNEX 1: FM Spectrum Broadcasting Planning Regions and Spectrum Availability

## 1. Spectrum Planning Regions for FM Broadcasting Services

- 1.1. To prevent interference in FM broadcasting:
  - a) the same or adjacent frequency can only be used in areas that are sufficiently distant from each other in terms of coverage area.
  - b) the minimum separation in bandwidth defined by the International Telecommunications Union (ITU) must be adhered to between consecutive frequency assignments, and
  - c) "Guard bands" should be utilized between frequency bands to minimize unwanted interaction with adjacent frequency bands.
- 1.2. The above conditions in (1, 2, and 3) limit the number of available frequencies in a geographical location.
- 1.3. Because radio waves do not respect borders, the use of radio spectrum frequencies must be coordinated with neighbouring countries.
- 1.4. The availability of a frequency in a region is limited by the geographical location, number of existing FM broadcasters in that particular region, and adjacent regions.
- 1.5. In Uganda, the country has been divided into fourteen (14) spectrum regions. The possible set of frequencies for each of these regions is allocated based on the above broadcast planning requirements.
- 1.6. Details of the districts in each broadcasting region are provided in **Figure 1**.

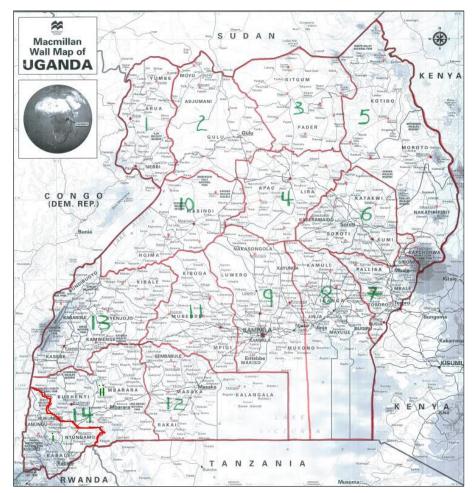


Figure 1: FM Broadcasting Planning Regions

#### 2. Availability of Spectrum for Assignment

- 2.1. With the growing demand for FM broadcasting services in Uganda and noting the already existing large number of FM radio stations, there is a scarcity of spectrum for FM broadcasting services.
- 2.2. The Commission adopted the issuance of Invitations To Apply (ITA) informing potential applicants of the availability of spectrum in specific areas and hence inviting formal expressions of interest to access the identified spectrum for the establishment of radio broadcasting services in such areas.
- 2.3. The ITA approach provides a structure for better management of the application process, ensuring that new entrants or existing operators seeking additional frequencies go through a competitive process. The focus is ensuring successful applicants will utilize the spectrum to derive the utmost public utility. The ITA approach prioritizes underserved areas for more inclusive service access.

## ANNEX 2: Self-Inspection Checklist for An FM Broadcasting Station

## 3. Self-inspection checklist for a licensed FM radio station.

- 3.1. The checklist provided below shall be used by the following categories of Licensed FM stations:
  - a) A newly licensed FM station, preparing to commence operation, must complete the self-inspection checklist before inviting the Commission to conduct an inspection at its premises.
  - b) An operational licensed FM station must conduct self-checks to ensure compliance with the administrative, technical, and safety requirements specified by the Commission.
- 3.2. This checklist allows the FM station to thoroughly review and address any anomalies pertaining to its installations and operational procedures before the inspection by the Commission.
  - *a)* Complete: This indicates compliance with the technical, administrative, and safety requirements.
  - b) Incomplete: This indicates non-compliance with the technical, administrative, and safety requirements.

	FM SELF-INSPECTION	Status (Tick as Applicable)				
Date	Date of review:					
No.	Items		COMPLETE	INCOMPLETE		
		lministrative Requiren	nents	ı		
1.	Copy of the valid License certificate					
2.	Copy of Type approval certificates	FM broadcast transmitter  STL Transmitter &				
		Receiver G				
		Band pass filter				
3.	Copy of electrical installation clearance certificate from	Studio facilities				
	UMEME or other distribution companies licensed by ERA	Broadcast transmission facilities				

4.	Operational and maintenance logbook that includes operational performance, maintenance works and changes made to the transmission equipment during maintenance or reinstallations	
5.	Instruction service manuals to enable technical personnel carry out the necessary installation, operation and maintenance of transmitter and other equipment.	

	Transmission Requiren	<u>nents</u>	
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		
Busi	ness Continuity Measures		<u>I</u>
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		
Insta	ullations at the Studio Facilities		
No.	Items	COMPLETE	INCOMPLETE
1.	Access Control for studio and production facilities		
2.	Installation of Firefighting equipment		

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4.	Installation of Lightening protection equipment			
5.	Sound proofing and acoustic treatment	professional studio		
6.	Installation of surge prot	ective devices		
7.	Installation of air conditi	oning		
8.	Connection to main power of power backup equipments			
9.	Grounding/earthing			
10.	No exposed electrical wire sockets	res and loose electrical		
11.	Isolation and switching r	nechanisms		
	Installatio	ns at the Transmissio	n 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		
2.	Tower climbing equipment the technical personnel			
3.	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.			
4.	Connection to main power grid and availability of power backup equipment.			
5.	Installation of power monitoring and surge control / suppression systems.			
6.	Installation of firefighting equipment			
7.	Installation of earthing system: feeder earthing transmitter equipment earthing, electrical earthing, and tower earthing.			
8.	Installation of lightening protection equipment			
9.	Access control for transmission facilities			
10.	Installation of surge protective devices			
11.	Structured Cabling and Trunking ir accordance with IEC 61084-1:2017			
12.	No exposed electrical wires and loose electrical sockets			
13.	Isolation and switching	mechanisms		