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FOREWORD

It is the Commission's pleasure to introduce to you this National Broadcasting Code, a road map on our collective journey to free and responsible broadcasting. Freedom is as exciting as Responsibility is exacting, but one without the other is unthinkable, either professionally or in our historic-cultural circumstances.

From 34 years of an ambiguous love-hate relationship with public broadcasting media, it is necessary for the operators, owners, and the audience to have a general guide to enhance the profession.

Public Service broadcasting was relevant, is relevant and will remain relevant; indeed indispensable in one form or the other, for the protection of our common patrimony.

But the feeling was strong that its potentials were never fully realized because of ownership control; poor financing; aged and obsolete equipment; excessive caution and self censorship. Added to these are inadequate candour about government business; civil service structure and some say, civil service mentality; poor recognition and remuneration of production talents and professionals, urban-centredness and a myriad of other ailments.

Indeed, given the various constraints under which they have operated, our public service broadcasting organizations deserve commendation and continued support for carving out for themselves a place of respect in the international broadcasting industry.

It will either be a patently ignorant or biased not to acknowledge the immense contributions of the Federal Radio Corporation of Nigeria (FRCN), the Nigerian Television Authority (NTA), the Voice of Nigeria (VON), their predecessors, and their state government-owned competitors for demonstrated ingenuity. They have been flying Nigerian's flag high, and creditably too, in the broadcasting world, in spite of daunting odds and isolated flaws.

Nevertheless, a national clamour for private broadcasting is based on our expectations that it will escape the long-standing afflictions of public service

broadcasting. It may even help release public service broadcasting from the stranglehold of its ailments.

We therefore expect that deregulation of broadcast media will

- Enable broadcasting play a greater role in ensuring the accountability of government media to the citizens of Nigeria
- Promote plurality of opinions across age, sex, socio-economic and geo-political barriers; and sustain the country's democratic structures,
- Inject massive life-giving capital into the industry
- Provide a market place for goods, service and ideas
- Be an honest vehicle for social engineering and the realisation of a strong united nation
- Increase and improve career opportunities and job satisfaction for talents and professionals in the broadcasting industry.

Similarly, the NBC will do all that is necessary to protect the interest of entrepreneurs who invest rare human resources and capital in broadcasting.

Without them too, the national dream of free and responsible broadcasting may never be realised.

Our resolve is to ensure that this dream becomes a living reality.

A. TOM ADABA

DIRECTOR-GENERAL

November 16, 1993

1.1 CITATION AND APPLICATION

1.1.1 CITATION

This document shall be known as the National Broadcasting Code, hereafter referred to as “The Code”.

1.1.2 APPLICATION

The Code shall be applied in the spirit as well as in the letter and shall be taken as the minimum standard to be observed by all operators of radio and television stations as well as satellite/cable redistribution services in the Federal Republic of Nigeria.

CHAPTER ONE

INTRODUCTION

1. INTRODUCTION

Broadcasting in Nigeria entered a new era with the decision of the Federal Government to allow private ownership of radio and television stations after 50 years of its advent in Nigeria. On August 24, 1992, the Federal Military Government promulgated Decree No. 38, establishing the National Broadcasting Commission.

1.2 COMMISSION'S MAIN FUNCTIONS

Unlike other media of mass communication, radio and television utilise the public airwaves; hence, radio and television broadcasting everywhere is controlled, in the public interest, by some regulatory agency of Government. As the Government's agency set up to regulate and control broadcasting in Nigeria, the NBC has the following as its main functions:

- (a) the allocation of broadcast frequencies;
- (b) the issuance, renewal, and revocation of broadcast licenses; and,
- (c) the setting and enforcement of standards with regard to the content and quality of programme and non-programme materials broadcast by stations.

1.3 COMMISSION'S BROAD OBJECTIVES

1.3.1 PREAMBLE

1. Broadcasting is a medium of communication through which the individual shares in the world around and beyond his immediate environment. By means of broadcasting, every Nigerian should partake of ideas, ideals and experiences that will enrich his life and help him live in a complex and dynamic, yet humane society. Broadcasting in Nigeria should be made to influence societal values positively, and, in so doing, improve and strengthen the social, cultural, economic, political and technological fabric of the nation. The major responsibility of broadcasting to inform, educate and entertain, shall not be at the expense of national interest, unity and cohesion of Nigeria's diverse social economic, political and religious configuration. No broadcast shall encourage, or incite to crime, or lead to disorder, or be offensive to public feeling, or contain an offensive reference to any person, alive or dead, or generally, be disrespectful to human dignity.

1.3.2 THE OBJECTIVES OF BROADCASTING IN NIGERIA

In the performance of its functions, the NBC will be guided by the following broad objectives:

1.3.3 SOCIAL OBJECTIVES

- (a) It is essential to provide, through broadcasting, a level of general education for people, irrespective of their educational background. Specifically, broadcasting is to:
- (i) promote generally accepted social values and norms as well as civic and social responsibilities;
 - (ii) promote the acquisition or pursuit of knowledge;
 - (iii) disseminate, impartially and objectively, news and opinions, in a manner encouraging meaningful and articulate dialogue and discussion of issues of public interest;
 - (iv) promote the physical, mental and social well-being of the people;
 - (v) foster the spirit of self-discipline, self-sacrifice and self-reliance;
 - (vi) encourage respect for the dignity of Man.
- (b) Broadcasting Organisations shall recognise that they exercise freedom of expression as agents of society, not for any special personal or sectional rights, privileges and needs of their own, or of their proprietors, relatives, friends or supporters.
- (c) Broadcasting should promote values and norms which foster the well-being and co-operation of the various groups of the Nigerian society

1.3.4. **CULTURAL OBJECTIVES**

- (a) The cultural objectives of broadcasting should cover various aspects of community life including aesthetics, religion, ethics, philosophy, language, history and the arts.
- (b) Broadcasting shall therefore be designed to:-
 - (i) seek, identify, and preserve Nigeria's diverse cultures, and promote the study of Nigerian history and languages;
 - (ii) select, critically, positive aspects of foreign cultures for the purpose of enriching the Nigerian culture;
 - (iii) develop and promote the application of indigenous aesthetic values;
 - (iv) promote the development of a high level of intellectual and artistic creativity; and,
 - (v) foster generally acceptable moral and spiritual values.

1.3.5 **ECONOMIC OBJECTIVES**

- (a) The economic objectives of broadcasting should be consistent with the nation's economic goals which include the building of:-
 - (i) a united, strong and self-reliant nation;
 - (ii) a just and egalitarian society
 - (iii) a great and dynamic economy; and,
 - (iv) a land of bright and full opportunities for all citizens.
- (b) Broadcasting should therefore:-
 - (i) monitor trends and developments in production processes;
Promote knowledge of available products and services through Programmes and advertisements;
 - (ii) foster the spirit of hardwork and productivity to improve the quality of life of the people;

- (iii) encourage the production and consumption of local products to achieve self-sufficiency and self-reliance.

1.3.6 **POLITICAL OBJECTIVES**

- (a) Broadcasting shall contribute to the development of national unity and participatory democracy.
- (b) The political objectives of Broadcasting shall be to:-
 - (i) create and promote political awareness amongst the people to achieve a democratic society;
 - (ii) inculcate in the people the spirit of tolerance of differing (various) shades of opinion; and
 - (iii) promote social justice based on the responsibilities and rights of the individual in society.

1.3.7 **TECHNOLOGICAL OBJECTIVES**

- (a) The nation's abundant natural and human resources should be exploited to the advantage of the people.
- (b) Broadcasting shall therefore:
 - (i) keep the people abreast of technological developments;
 - (ii) promote and encourage the study of science and technology;
 - (iii) promote the spirit self-reliance and engender the development of indigenous technology; and
 - (iv) promote a scientific and national attitude to life by encouraging research.

CHAPTER TWO

PROGRAMMING

2. PROGRAMMING

2.1 PREAMBLE

In furtherance of its responsibility of ensuring that radio and television stations produce and broadcast programmes that serves the interest of the nation and its constituent groups, the Commission establishes these guidelines.

2.2 GENERAL PROGRAMME STANDARDS

2.2.1 LAWS

All those involved in making and broadcasting programmes shall acquaint themselves with the following:-

- (i) laws of libel and sedition;
- (ii) laws relating to matters before law courts or judicial bodies;
- (iii) the Official Secrets Act;
- (iv) the Copyright Laws
- (v) Decree No. 27 of 989;
- (vi) any other relevant Laws or Regulations; and,
- (vii) international treaties/obligations of Nigeria relating to broadcasting.

2.2.2 GOOD TASTE AND DECENCY

- (a) Obscene or vulgar languages, expressions, presentations and representations that are pornographic are forbidden.
- (c) The sanctity of marriage and family life shall be promoted and strictly upheld.
- (d) Physical and mental disability shall not be exploited, or presented in a manner embarrassing to the disabled or members of their family.
- (e) The use of lewd or profane expressions, except in a specifically relevant

situation, shall be avoided.

2.2.3 ACCURACY, OBJECTIVITY AND FAIRNESS

- (a) Any information given in any programme, in whatever form shall be presented accurately.
- (c) All sides to any issue of public interest shall be adequately presented to ensure fairness.
- (d) The Right of Reply shall be guaranteed to any person(s) or body with a genuine claim to misrepresentation.

2.2.4 INTEGRITY

The inclusion of elements within any programme dictated by factors other than the professional requirements is forbidden.

In particular, quiz and similar programmes that are presented as contests of knowledge, information, skill or luck, must, in fact, be genuine contests and the results must not be controlled by collusion with, or amongst, contestants, or any other action which will favour one contestant against any other.

2.2.5 AUTHENTICITY

- (a) Fictional events or non-factual materials shall not be presented as real
- (b) Presentations that are deceptive or misleading are forbidden.

2.2.6 MORALITY AND SOCIAL VALUES

- (a) Cruelty, greed, selfishness, and revenge shall not be portrayed as desirable human values.

- (b) Drunkenness, drug addiction, and robbery shall not be presented, except as destructive habits to be avoided or denounced.
- (c) Sex-related crimes, such as adultery, prostitution, rape, bestiality, incest, etc, shall not be presented, except as destructive practices to be avoided or denounced.
- (d) Liquor consumption and smoking shall be shown only when consistent with plot and character development.
- (e) Suicide shall not be treated as an acceptable solution to human problems.
- (f) The portrayal of sexual behavior, and or nudity, shall be justifiable only in context; even then, it shall be presented with tact and discretion.
- (g) Ostentatious life-style shall not be extolled.

2.2.7 CRIME, LAW AND ORDER

- (a) Language or scene likely to encourage or incite to crime, or to lead to disorder is forbidden.
- (b) Criminal tendencies shall be presented as undesirable.
- (c) The treatment of the commission of crime in a frivolous manner, or in a manner condoning it, is forbidden.
- (d) The presentation of techniques of crimes, in such detail as to invite imitation, is forbidden.
- (e) Law enforcement shall be upheld at all times in a manner depicting that law and order is socially superior to, or more desirable than, crime.

2.2.8 VIOLENCE, CRUELTY AND HORROR

- (a) The portrayal of violence for its own sake shall be avoided.
- (b) Violence, in all its forms, shall not be portrayed as a desirable trait or preferred means to an end.
- (c) Excessive or detailed portrayal of physical suffering and pain, or of dead bodies, shall be avoided.

CHAPTER THREE

SPONSORSHIP

3. SPONSORSHIP

3.1 GENERAL

Sponsored programmes shall comply, in all respects, with the Code, and the general principle that shall govern them is that they shall be legal, decent, and truthful.

3.2 DEFINITION

A sponsored programme is one whose production or transmission costs, or both, are paid in part, or whole, by any person or organisation, other than a licensee, in order to promote himself, or itself, or any other person(s) or organisation(s) or their products, views, public image, activities, etc.; for profit or public service.

3.3 IDENTIFICATION

Sponsored programme shall be clearly identified as being sponsored, and the sponsor clearly named in the opening and closing credits of the programme.

3.4 RESTRICTIONS

3.4.1 The station shall not abdicate responsibility for either the content or the scheduling of a programme to the sponsor.

3.4.2 Reference to the sponsor, his message, product or service is forbidden within the programme being sponsored, except in respect of prices donated for game shows

3.4.3 Newscasts shall not be sponsored.

CHAPTER FOUR

ADVERTISING

4. **ADVERTISEMENT**

4.1 **INTERPRETATION**

4.1.1 The word “advertisement” throughout this Code shall mean any item of publicity or sales promotion inserted in the programme broadcast by any station, whether paid for or not, or whether by a client or by the license itself.

4.1.2 For the purpose of this Code, a product is a good or service.

4.1.3 Any illustration included in any advertisement is subject to this Code.

4.2 **ADVERTISING AND BROADCASTING STANDARD**

4.2.1 The general principle that shall govern all advertisements for broadcasting is that they shall be legal, honest, decent and truthful.

4.2.2 All advertisements shall conform to the Code, especially the programme guidelines.

4.2.3 All advertisements shall comply in every respect with advertising ethics and also with the law, whether common or statutory.

4.2.4 No advertisement material shall bring advertising into contempt or erode confidence in advertising as a service to industry and to the public.

4.2.5 No advertisement shall contain any item likely to encourage, incite to crime, lead to disorder, be offensive to public feeling, or to contain an offensive reference to any person alive or dead, or, generally, be disrespectful to human dignity.

4.2.6 There shall be no broadcast of advertisements that offend the generality of the community.

4.3 **GENERAL**

4.3.1 **THE ADVERTISER**

The advertiser shall be clearly identified in all advertisements.

4.3.2 **RESPONSIBILITY**

Responsibility for the observance of the regulations in this Code rests with the licensee.

4.3.3 **SEPARATION FROM PROGRAMMES**

Advertisements shall be clearly identifiable, and separate, from the programmes. Advertisements shall not, direct or indirectly, be presented as “programmes”.

4.3.4 **TIME ALLOWED FOR ADVERTISEMENTS**

The amount of time for non-programme materials, especially advertisement, shall not exceed fifteen percent (15%) of total programme duration/slot. Thus, there is a 4½ minute limitation on advert time for a 30 minute programme and a 9 minute limitation for a one-hour programme.

4.3.5 **ADVERTISEMENT IN NEWS FORM**

The expression “News Flash” or similar expressions generally used to denote important news and public service announcements, shall not be used in advertisements.

4.3.6 **CONFUSING STYLES**

Situations, performances and styles based on specific programmes shall not be used in such a way as to confuse listeners/viewers as to whether they are hearing or watching a programme or an advertisement. Advertisements parodying programmes may be accepted provided:

- (i) different performers are used from those who appear in the programme itself; and
- (ii) it is readily apparent that the advertisement is no more than a parody.

4.3.7 **VERIFICATIONS OF CLAIMS**

Descriptions, claims or illustrations relating to verifiable facts shall be such as to be easily substantiated.

4.3.8 Statistics shall not be presented as to imply a greater validity than they really have. For example, scientific jargons and irrelevancies shall not be used to make claims appear to have a scientific basis or universality they not possess.

4.3.9 A person who regularly presents news or current affairs programmes or similar factual programmes in Nigeria shall not feature visually or participate vocally in any advertisement.

4.3.10 **CONFUSING ROLES**

Advertisements featuring a leading performer (such as an actor or musician) in a programme shall not be scheduled in breaks within, or airtime adjacent to that programme.

4.3.11 **TESTIMONIALS**

Testimonials must be genuine and provable.

4.3.12 **PRICES**

The price of every advertised product shall be clearly indicated.

4.3.13 Visual and verbal presentations of prices must be accurate for each product or each of a range of products.

4.3.14 Visual and verbal presentations of actual and comparative prices and costs should be specific and not designed to mislead or gain undue advantage.

4.3.15 **CAPTIONS**

Any information in the form of captions, whether standing alone or superimposed, must be in a clearly readable text and held long enough for an average viewer to read it all on a regular domestic television set.

4.3.16 **POISONOUS PRODUCTS**

Advertisements for potentially poisonous products but which may not be easily recognized as such by consumers must carry the necessary word of caution

4.3.17 **ADVERT/PROGRAMME HARMONY**

Every effort shall be made to keep the advertising message in harmony with the content and general tone of the programme in which it appears.

4.3.18 **FAIR PLAY**

Advertisements shall offer a product or service on its positive merit and refrain from unduly discrediting, disparaging or unfairly attacking competitors, competing products, other industries, professions or institutions.

4.3.19 No advertisement shall be accepted if there is good reason to doubt its integrity or the truth of its representation or its compliance with all applicable legal requirements.

- 4.3.20 No advertisement shall be framed in such a manner as to exploit superstition.
- 4.3.21 No advertisement shall be calculated to play on fear to induce people to purchase the article or service advertised.
- 4.3.22 No advertisement shall contain any misleading descriptions, claims or illustrations, directly or by implication, about the product or service being advertised.
- 4.3.23 A Direct Sales Advertisement shall not be accepted without adequate assurance from the advertiser that there is sufficient stock of the advertised article (or service) advertised to meet reasonable demand.
- 4.3.24 The advertising of fireworks and firearms is acceptable provided it promotes the product only as sporting equipment and conforms to recognised standards of safety.
- 4.3.25 No advertisement of a product or service shall be accepted which purports to increase sexual virility or correct sexual weakness.
- 4.3.26 the advertising of fortune-telling or astrology is not permitted.
- 4.3.27 The lawful advertising of organisations which conduct award-winning competitions or legalised lotteries is acceptable, provided such advertising does not extort the public or unduly extorts them to engage in betting.
- 4.3.28 The advertiser who markets more than one product shall not be permitted to use advertising copy devoted to an acceptable product for the purposes of publicizing the brand name or other identification of a product which is not acceptable.
- 4.3.29 The use of an advertising device such as copy, slogan, labeling or packaging of goods that is likely to mislead the listener or viewer is unacceptable.

- 4.3.30 The word “guarantee” should be used with due regard to its legal meaning. The limits and terms of the guarantee being offered shall be stated clearly or information given as to where the full terms of the guarantee can be obtained.
- 4.3.31 No advertisement shall be inserted into special broadcast or any other Grade A broadcast, such as a National Day broadcast by the President.
- 4.3.32 Advertisement of regulated professions shall be allowed only with the approval of the relevant professional body.
- 4.3.33 Any advertisement that makes reference to Nigerian or African characteristics in derogatory terms or ridicules them shall not be accepted.

4.4 **CHILDREN AND ADVERTISING**

- 4.4.1 Special caution shall be exercised with the content and presentation of advertisements placed in or near programmes designed for children. Exploitation of children shall be avoided and advertisement directed at children shall in no way mislead as to the product’s performance and usefulness.
- 4.4.2 Particular care shall be taken to ensure that an advertisement addressed to children contains nothing, whether by way of illustration or otherwise, which might result in physical, mental or moral harm, or which exploits their natural credulity.
- 4.4.3 To guarantee safety, children shall not be used for demonstrating a product recognized as potentially dangerous to them, except under proper adult supervision.
- 4.4.4 Advertisement shall not encourage children to enter strange places or to converse with strangers.
- 4.4.5 Direct sales appeals or exhortation shall not be made to children unless the products advertised are such that children can reasonably afford themselves.

4.4.6 Advertisement for a commercial product or service shall not contain any appeal which suggests in any way that unless the children buy the products, they will be failing in some duty or lacking in loyalty towards some persons or organizations.

4.4.7 Advertisement shall not lead children to feel inferior to other children because they or their parents do not own the product advertised, or that they are liable to be held in contempt or ridicule for not owning it.

4.4.8 In offering a free gift, a premium or a competition for children, the emphasis of the advertisement shall be on the product with which the offer is associated.

4.4.9 If there is to be a reference to competition for children in an advertisement, the rules shall be published and the value of prizes and the chances of winning shall not be exaggerated.

4.5 **CONTESTS**

4.5.1 Contests shall be conducted with fairness to all entrants and shall comply with all pertinent laws and regulations.

4.5.2 All contest details, including the rules, eligibility requirements, opening and termination dates etc.; shall be adequately announced, and the winners' names shall be released as soon as possible.

4.5.3 There shall be no misleading descriptions, or visual misrepresentations, of any promises or gifts which would distort or enlarge their value in the minds of the viewers/listeners

4.5.4 Assurances shall be obtained from the advertiser that premiums or gifts offered are available and not harmful to persons or property.

4.5.5 Premiums shall not be accepted, which appeal to superstitions such as "luck-bearing" powers.

4.6 **MEDICAL**

- 4.6.1 In the advertising of medical products, claims that a product will effect a cure and the indiscriminate use of such words as “safe” “without risks”, “harmless” or terms with similar meaning shall not be accepted unless so certified by the appropriate authority.
- 4.6.2 An advertising material which describes or dramatises distress or a morbid situation in an offensive manner shall not be accepted.
- 4.6.3 An advertisement shall not be broadcast if it contains an offer of a medicine or product, or an advice relating to the treatment of serious disease, complaints, conditions, indications or symptoms which should rightly receive the attention of a registered medical practitioner.
- 4.6.4 An advertisement of products, medicines or treatment for disorders or irregularities peculiar to women shall not contain expressions such as “inducing abortion”, “relieving period pains”, “Not to be used in case of pregnancy”, “Never known to fail”, etc.
- 4.6.5 An advertisement shall not contain a copy which is exaggerated by reason of the improper use of words, phrases or expressions, such as “magic”, “magical”, “miracle”, “miraculous”, etc.
- 4.6.6 An advertisement shall not be broadcast if it offers any product or treatment for beauty, slimming, weight reduction or figure control, if the taking, or usage, of the product, or the course of treatment, is likely to produce other harmful effects.
- 4.6.7 An advertisement shall not be broadcast if it contains any offer to diagnose or treat complaints or conditions by hypnosis.
- 4.6.8 An advertisement shall not be broadcast if it is calculated to induce fear in the viewer/listener that he is suffering, or may, without treatment, suffer, or suffer more severely, from any ailment, illness or disease.

- 4.6.9 An advertisement which offers to diagnosis and/or treat, by correspondence, any ailment, illness, disease or symptom shall not be accepted.
- 4.6.10 An advertisement which offers to refund money to dissatisfied users shall not be accepted.
- 4.6.11 An advertisement shall not be broadcast if it contains the words “clinic”, “institute”, “laboratory” or similar terms, unless an establishment corresponding to the description used does , in fact, exist.
- 4.6.12 An advertisement shall not be broadcast if it contains any reference to “doctor”, “hospital test”, unless such reference can be substantiated by independent evidence.
- 4.6.13 An advertisement shall not be broadcast, if it contains, in the name of the product, the title, “Doctor” or “Dr.”.
- 4.6.14 An advertisement shall not be broadcast if it contains any material offering to treat any person for cancer, AIDS, venereal disease or any other ailment which requires the attention of a medical doctor.
- 4.7 **ALCOHOL AND TOBACCO**
- 4.7.1 An advertisement shall not be broadcast for an alcohol beverage in a children’s programme.
- 4.7.2 Children, sportsmen/women and expectant mothers shall not be used as models in alcohol advertisements.
- 4.7.3 An advertisement for an alcohol beverages shall be aired only during adult listening/viewing periods.
- 4.8 **TOBACCO**
- 4.8.1 An advertisement for a tobacco product shall not be aired on a children’s programme.
- 4.8.2 Children, sportsmen/women and expectant mothers shall not be used as models in a tobacco-related advertisement.

4.9 **POLITICS**

4.9.1 A political advertisement shall be guided by this Broadcasting Code and other relevant regulations.

4.9.2 No political advertisement in the form of commercial news shall be accepted.

4.9.3 No advertisement shall contain anything which amounts to subversion of constituted authority or which compromises the unity, sovereignty and corporate existence of Nigeria as a secular state.

CHAPTER FIVE

TECHNICAL

5. TECHNICAL

5.1 TELEVISION SYSTEM

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5.1.0.2 VIDEO PATH PERFORMANCE REQUIREMENTS

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5.3.1.7 Monitor Equipment

5.3.1.8 Installation and Safety

5.3.1.9 Tools and Test Gear

5.3.1.10 Modification

5.3.1.11 Operations Log Book

5.3.1.12 Call Sign

5.3.1.13 Logging of Transmitted Programme

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- 5.7.8 PICTURE ZONES

5.8 TELEVISION SYSTEM

This section establishes the technical standards for television broadcasting in Nigeria. The video signals must be one volt peak to peak and zero dBm for audio. The approved colour television system is the PHASE ALTERNATING BY LINE – (P.A.L) System Operation shall be on PAL system B for V.H.F. transmission and PAL system G for U.H.F. transmission. The basic characteristics of this system are as follows:-

5.1.0.1 CHARACTERISTICS OF THE PAL SYSTEM			
ITEM	PARAMETER	SYSTEM	
		PAL - 8	PAL – G
5.1.0.1.1	LINES PER PICTURES	625	625
5.1.0.1.2	FIELD FREQUENCY (Hz)	50	50
5.1.0.1.3	LINE DURATION H	64 micro sec.	64 micro sec.
5.1.0.1.4	LINE FREQUENCY (Hz)	15,625	15,625
5.1.0.1.5	FIELD DURATION	20 ms	20 ms
5.1.0.1.6	VIDEO BANDWIDTH (MHz)	5	5
5.1.0.1.7	CHANNEL BANDWIDTH	7	8

5.1.0.1.8	NEAREST EDGE OF CHANNEL RELATIVE TO VISION CARRIER MHz	-1.25	-1.25
5.1.0.1.9	SOUND CARRIER FREQUENCY RELATIVE TO VISION CARRIER MHz)	5.5	5.5
5.1.0.1.10	WIDTH OF VESTIGIAL SIDEBAND MHz)	0.75	0.75
5.1.0.1.11	VISION MODULATION POLARITY	NEGATIVE	NEGATIVE
5.1.0.1.12	SOUND MODULATION	FM	FM
5.1.0.1.13	FM DEVIATION (KGz)	50	50
5.1.0.1.14	VISION I.F. (MHz)	38.9	38.9
5.1.0.1.15	VISION/SOUND RATIO	10.1	10.1

5.1.0.1.2 VIDEO PATH PERFORMANCE REQUIREMENTS					
5.1.0.1.2.1 SIGNAL LEVELS					
	Direct Path	Worst Path	Studio Path	O.B Path	O.B Link Path
(a) Video signal	IV P-P	IV P-P	IV P-P	IV P-P	IV P-P
(b) Picture Level	0.7v	0.7v	0.7v	0.7v	0.7v
(c) Adjustment Error	+0.2Db	+0.2Db	+0.2Db	+0.2Db	+0.2Db
(d) Sync	0.3V	0.3V	0.3V	0.3V	0.3V
(e) Signal Level					
(f) Gain Stability	+0.2dB	+0.2dB	+0.2dB	+0.2dB	+0.2dB

5.1.0.2.2 LINEAR WAVEFORM DISTORTION

(a)	2T Pulse-to-Bar	1/2%K	1/2%K	1/2%K	1/2/5k	2%k
(b)	2T Pulse Response	1/2%K	1/2%K	1/2%K	1/2/5k	2%k
(c)	2T Bar Response	1/2%K	1/2%K	1/2%K	1/2/5k	2%k
(d)	50Hz Square Wave Response	1/2%K	1/2%K	1/2%K	1/2/5k	2%k
(e)	Chrominance/Luminance Gain Inequality	+3%	+4%	+8%	+3%	+4%
(f)	Chrominance/Luminance Delay	+20ns	+40ns	+20ns	+20ns	+20ns

5.1.0.2.3 NON LINEAR DISTORTION

(a)	Luminance Line Time Non Linearity	3%	5%	3%	3%	5%
(b)	Differential Phase	+2°	+2°	+2°	+2°	+5°
(c)	Differential Gain	+3%	+5%	+3%	+3%	+5%
(d)	Transient Gain Change Luminance	2%	5%	2%	2%	5%
(e)	Transient Gain Change Chrominance	2%	5%	2%	2%	5%
(f)	Transient Gain change Crosstalk	2%	5%	2%	2%	5%
(g)	Chrominance/Luminance Crosstalk	-	-	-	-	+3%

5.1.0.2.4 INPUT/OUTPUT IMPEDANCE RETURN LOSS

(a)	Luminance	30dB	-30dB	-30dB	-30dB	-30dB
(b)	Chrominance	-30dB	-30dB	-30dB	-30dB	-30dB
(c)	Low Frequency	-30dB	-30dB	-30dB	-30dB	-30dB

5.1.0.2.5 VLF RESPONSE

(a)	First Overshoot	20%	20%	-	20%	20%
(b)	Second Overshoot	8%	8%	-	8%	8%

5.1.0.2.6 Noise

(a)	Weighted Luminance (RSM)	-58dB	-58dB	-64dB	-64dB	-55dB
(b)	Weighted Chrominance (RSM)	-58dB	-52dB	-58dB	-55dB	-52dB
(c)	Total Low Frequency Random and Periodic (P-P)	-45dB	-45dB	-45dB	-45dB	-40dB
(d)	Low Frequency Random (P-P)	-52dB	-52dB	-52dB	-52dB	-52dB
(e)	Interchannel Crosstalk	-52dB	-45dB	-52dB	-52dB	

5.1.0.2.7 MODULATION DERIVED DISTORTION

(Sound to Vision Crosstalk)

(a)	Sound Subcarrier Modulated	-	-	-	-	-52dB
(b)	Sound Subcarrier Unmodulated of Intermodulated (Level of Intermodulation products between sound and chrominance subcarriers)	-	-	-	-	57dB

5.1.0.3 AUDIO PATH PERFORMANCE REQUIREMENTS

		Director Path	Worst Path	Studio Path	O.B Path	O.B Link
5.1.0.3.1 SIGNAL LEVEL						
(a)	Output signal Level at	0dBm	0dBm	0dBm	0dBm	0dBm
	Agreed interface after line-up	±0.25dB	± 0.5dB	±0.25dB	±0.25dB	±0.25dB
(b)	Gain Stability variation one hour	±0.25dB	± 0.5dB	±0.25dB	±0.25dB	±0.25dB

5.1.0.3.2 AMPLITUDE/FREQUENCY RESPONSE

(a)	40Hz – 15KHz	±1dB	±1dB	±1dB	±1dB	±1dB
	W.R.T. 1KHz	-2	-3	-2	-2	-3.0
(b)	125Hz – 10KHz	±1dB	±1dB	±1dB	±1dB	±0.5
	W.R.T. 1KHz	-1	-2	-1	-1	-2.0

5.1.0.3.3 TOTAL HARMONIC DISTORTION

(a)	1KHz at -10dB μ	0.5%	0.5%	0.5%	0.5%	1.0%
(b)	1KHz at +8dB μ	0.5%	1.0%	0.5%	0.5%	1.0%
(c)	80Hz at -10dB μ	0.5%	0.5%	0.5%	0.5%	1.0%
(d)	80Hz at +8dB μ	55%	2.0%	1.0%	1.0%	1.0%
(e)	Input Overload	-	-	17dB	17dB	-

5.1.0.3.4 SIGNAL/NOISE RATIO

(a) 0dBu Input						
(i)	Weighted, Random, Peak	60dB	56dB	60dB	60dB	42dB
(ii)	Unweighted Random, Peak	-	-	63dB	63dB	47dB
(b) -50dBu Input						
(i)	Weighted, Random, Peak	-	53dB	56dB	56dB	56dB
(ii)	Unweighted, Random, Peak	-	-	60dB	60dB	-
(c) Interchannel Crosstalk						
	Weighted, Peak	53dB	53dB	53dB	53dB	53dB

5.1.0.3.5 MODULATION DERIVED DISTORTION

Vision to sound Crosstalk Weighted	-	-	-	-	45dB
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5.1.1 GENERAL CODE OF PRACTICE ON TRANSMITTERS

5.1.1.0 EFFECTIVE RADIATED POWER ERP

Not more than 100kw for private broadcasting based on the usable field strength. This value equals 48dB for Band 1, 55dB for Band II, 65dB for Band IV and 70dB for Band V.

5.1.1.1. COVERAGE AREA

Federal Government-owned stations are allowed nationwide coverage and also transmission outside the national borders. State Government-owned stations are only allowed transmission within their immediate state boundaries. Private Stations are only allowed to operate within a 50 kilometre radius of the transmitting station . Transmission from their stations must not spill into neighbourin countries, even when they are close to the national borders.

5.1.1.2 LOCATION OF THE STATIONS

A station shall be located such that the Primary Service Area is effectively covered without causing co-channel/adjacent channel interference.

5.1.1.3 MAST HEIGHT

The height of the mast shall be such as to meet the maximum ERP of 100kw and coverage area of not more than 50km radius as stated above. Evidence of clearance for mast erection from the Civil Aviation Authority must be submitted to the Commission before the commencement of mast erection.

5.1.1.4 MAINTENANCE OF MAST/TOWER

There must be periodic inspection and maintenance of mast/tower. See Appendix A attached for details.

5.1.1.5 TELEVISION RECEIVERS

All television sets imported into or manufactured in Nigeria shall incorporate both VHF/UHF facilities.

5.1.1.6 COMMISSIONING OF STATION

Before any station can commence operation, the Commission will ascertain compliance with the specifications in the Code.

5.1.1.7 **OPERATIONS**

Engineering log book must be kept and be made available to the Commission on demand. Such log book among other information shall contain the followings:-

- a. Input level for video and audio signals
- b. Frequency Deviation
- c. Depth of Modulation
- d. Output Frequency
- e. Output Power
- f. Reflected Power

5.1.1.8 **CALL SIGN**

- a. The station identification/call sign must be registered with the Commission.
- b. Such call sign/station identification must be displayed at least once every 30 minutes.

5.1.1.9 **DECODER**

For all scrambled transmissions, decoders must be made available to the Commission for the purpose of monitoring such transmissions.

5.1.1.10 **MODIFICATION**

Modification/changes of equipment and Antenna system shall be made only after prior notification and approval by the Commission.

5.1.1.11 **LOGGIG OF TRANSMITTED PROGRAMMES**

All transmitted programmes (total output) shall be recorded and by the station for at least 3 months from date of airing. These must be submitted to the Commission on demand.

5.1.1.12 **INSTALLATION AND SAFETY**

- a. Earth resistance shall not exceed one ohm.

- b. Lightning arrestor system shall be installed on the Mast/Tower.
- c. Surge arrestor shall be provided to protect equipment.
- d. Mast/Tower markings shall be orange/white in colour.
- e. Aviation warning lights must be installed at appropriate intervals on the Tower/Mast.
- f. Structural/Civil Engineers shall be involved in the construction of mast/tower bases in accordance with the designed specifications.
- g. Adequate firefighting equipment must be provided and maintained regularly. Monthly fire drill shall be encouraged.
- h. Rubber mats shall be provided in operational areas.
- i. First aid kits shall be provided in all technical areas, they should contain drugs and dressings for treating burns, cuts and shock.

5.1.1.13 TECHNICAL STAFF

There shall be evidence of availability of trained and trainable manpower to operate and maintain the station equipment. To this end, training shall be organized for the technical personnel in factories, stations and broadcast training institutions.

5.1.1.14 TOOLS AND TEST GEARS

Adequate test gear and tool kit (Electrical/Mechanical) shall be provided in the station.

5.1.1.15 MAINS POWER SUPPLY

The recommended power supply voltages are as follows:

- a. Single phase 230v ±10%, 50Hz
- b. Three phase 415v ±10% 50Hz

The power supply installation shall conform with the prevailing wiring regulations in Nigeria.

TRANSMITTERS

5.1.2.0	TRANSMITTER SPECIFICATIONS	MAIN STATION	TRANSPOSSER
5.1.2.1	VIDEO PERFORMANCE		
5.1.2.1.1	TRANSMITTER MODULATION		
(a)	DEPTH LEVEL		
(i)	White level	20% + 2%	20% + 2%
(ii)	Blanking level	76% + 2%	76% - 2%
5.1.2.1.2	GAIN STABILITY		
	Variation of modulation depth on white level and at Blanking level during 24 hours	+1%	+1%
5.1.2.1.3	NON LINEARITY DISTORTION		
(a)	LUMINANCE SIGNAL		
(i)	Line time non-linearity	5%	5%
(ii)	Chrominance to Luminance	±1.5%	±1.5%
(b)	CHROMINANCE SIGNAL		
(i)	Differential phase	+5%	+7%
(ii)	Differential gain	+9%	+8%
(e)	DYNAMIC GAIN		
(i)	Luminance	±2%	±20%
(ii)	Chrominance	±2%	±2%

(iii)	Sync	±2%	±2%
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(f) **TRANSIENT CRUSHING**

(i)	Luminance	±5%	±5%
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(ii)	Chrominance	±5%	±5%
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(iii)	Sync	±3%	±3%
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5.1.2.1.4 **LINEAR DISTORTION**

5.1.2.1.4.1 **WAVEFORM DISTORTION**

(a) **2T PULSE AND BAR**

(i)	Pulse to Bar response	1.5%	2%
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(ii)	2T Pulse response	2%k	3%k
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(iii)	2T Bar Pulse	1.5%	2%
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(b) **SYNC**

(i)	Overshoot	6%	6%
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(ii)	Tilt	3%	4%
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5.1.2.1.5 **LUMINANCE/CHROMINANCE INEQUALITY**

(a)	Gain	±4%	±8%
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(b)	Delay	±20 Ons	±30 ons
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5.1.2.2 **INPUT AND OUT IMPEDANCE**

(a)	Return Loss	-30dB	-30dB
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5.1.2.3 **NOISE**

(a)	CONTINUOUS RANDOM NOISE		
(i)	Weighted Luminance	-57dB	-51dB
(ii)	Weighted Chrominance	-52dB	-48dB
(b)	Periodic Noise	-49dB	-45dB
(c)	LF Noise	-49dB	-45dB

5.1.2.4 **MODULATION DERIVED DISTORTION**

(a)	Intermodulation Products	-	-35dB
(b)	Incidental Phase Modulation	-48dB	-46dB

5.1.2.5 **SIGNAL PARAMETERS**

(a)	Carrier Frequency Stability	± 1 (parts in 10^6) ± 4 (part in 10^6)
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5.1.2.6 **PROGRAMME INPUT**

The Programme Input Equipment shall incorporate such equipment for processing and measuring the signal levels at specific points.

5.1.2.7 **MONITORING EQUIPMENT**

Each station shall have full run of equipment to ensure compliance with the standards.

- (a) Frequency Counts
- (b) Power Meter
- (c) Sideband/Spectrum Analyser
- (d) 100MHz Oscilloscope (Double Beam)
- (e) Multimeter
- (f) Field strength Bridge
- (g) Impedance Bridge
- (h) Earth resistance meter

5.1.2.8 TRANSLATORS AND TRANSPOERS

It might be necessary to use translators or transposers to effectively cover an allocated coverage area. For this purpose, approval must be obtained from the Commission for allocation of frequency and specifications for the translator/transposer.

5.1.2.9 VISION/AURAL RATIO

10:1 ratio shall be maintained in the TV transmitter system.

5.1.2.10 INSERTION TEST SIGNAL

The Insertion Test Signal shall be inserted on lines 17 and 18.

5.1.3 STUDIO EQUIPMENT

5.1.3.1 TELEVISION CAMERAS

5.1.3.1.1 GENERAL

CAMERAS ARE GROUPED INTO THREE CATEGORIES

GROUP 1

Studio Camera System with highest picture quality. These are either used on a tripod or as hand-held cameras.

GROUP 2

Electronic News Gathering/Electronic Field Production Cameras (ENG/EFP) with high picture quality for field production and News coverage.

GROUP 3

ENG Cameras with a reduction of picture quality and ease of operation, for news coverage.

5.1.3.1.2 CAMERA HEAD REQUIREMENTS

Depending on the intended use of the camera; i.e. whether in the studio, field production or on-the-spot news gathering; consideration shall be made with regards to mechanical and environmental stress during transport and operation. Carrying handles for transport and arrangements of operating controls shall be ergonomically designed and implemented. Coverings for mechanically and optically sensitive elements shall be made available for transport purposes. All inaccessible surfaces of optical systems shall be protected against dust and moisture condensation. Circuit boards and modules whose removal during operations will cause damage shall be clearly marked.

All necessary adaptors, cables and tools, including test charts or test slides needed for alignment and repairs, shall be available as accessories.

Group 1 Cameras shall incorporate a script holder with an adjustable and switchable light.

5.1.3.1.3 TRIPOD MOUNTING

The term "Tripod" shall refer to both tripods and pedestals. Cameras of Group 1 shall be equipped with Vinten Debiele wedge plates. Provisions for mechanical balancing of the cameras shall be made through appropriate adjustment controls on the tripod head. For hand-held cameras of Group 1, an appropriate adaptor for the wedge plate must be available, especially if large objective lenses are to be used. Hand-held cameras of Groups 2 and 3 intended for use on small tripods are to be equipped with quick-change wedge plates (SATCHLER/VINTEN). The positioning of the centre of gravity of camera and lens must be able to properly accommodate both tripod and shoulder mount operations by adjusting the wedge plate.

5.1.3.1.4. CABLE CONNECTION

The following connections shall be available for the different groups:

ITEM	CABLE TYPE	CAMERA GROUP		
		1 STUDIO	2 ENG/EFP	3 ENG
a.	Camera Cable	1	1	1
b.	Inter-Communication	2	1	1
c.	Programme (CUE) Sound	1	1	1
d.	Monochrome Video (for Dolly/Reporter Monitor)	2	1	-
e.	Tally Connection (for Dolly)	2	-	-
f.	V.T.R. Connection	-	1	1
g.	Composite Video Out	1	1	1
h.	Sync (Black & Burst) Input	1	1	1
i.	Power Output (for Spotlight/Dolly Monitor)	1	-	-
j.	Audio Playback to Camera	1	1	-

*Note: Power outputs must be fed into the camera cable over isolation transformers, fused and separately switchable at the camera control unit. The cable connections must be non-reversible and secure against damage and loosening due to movement.

5.1.3.1.5 ENVIRONMENTAL STABILITY

Cameras and accessories shall maintain the conditions of standard specifications under continuous operations in the following ambient temperature range and relative humidity:

<u>ENVIRONMENTAL CONDITION</u>	<u>CAMERA GROUP 1</u>	
	1 & 2	3
a. Temperature Range	-5°C to +40°C	-5°C to +55°C
b. Relative Humidity	90%	95%

Turn on and operation of cameras in an ambient temperature range of -10°C to +60°C shall not lead to any camera failure. Cameras shall be made splash-proof by means of rain covers. A rain-proof version is especially desirable for cameras in Groups 2 and 3. The camera, in a turned-off condition, must be able to withstand an ambient temperature range of -20°C to +70°C and a relative humidity of 95% without sustaining any damages.

5.1.3.1.6 OPTICAL SYSTEM

a. For cameras of Group 1 and 2, zoom lenses with a focal length of about 10:1 and a horizontal angular field range of about 5 to 50° are standard: the lenses must be capable of operating with an open aperture over the 10:1 zoom range. An ON/OFF switchable zoom range-stop, independent of the iris, is required. Zoom lenses with focal length range of up 45:1 are to be provided for tripod-mounted cameras. The lenses shall be capable of achieving sharp focus at

distances of at least 0.8m to infinite. (A minimum focal distance of 2 meters is acceptable for special telephone zoom lenses). In place of the above lenses, Groups 1 and 2 cameras must be capable of accepting special (zoom or 2°) or wide (about 65°) angles of view or extremely large aperture as long as this is compatible with the optical colour splitter.

b. LENS QUALITY

The quality of lenses to be used with respect to contrast, vignetting, flare, light transmittance and geometric distortion of the given characteristics of the total camera system occur when an operationally optimum iris setting (1 or 2 f-stops down from open aperture) is used. In extreme settings – open aperture and extreme focal length – certain reductions in quality are allowed. 2% geometric distortion is allowable for wide-angle lenses. However the lenses must not cause polarization effects.

c. LENS MOUNTING, FOCUS & FOCAL LENGTH CONTROLS

Lens mount flanges must ensure that the focal plane and optical axis do not shift when lenses are changed. There should be no sharp vignetting in the corners of the image over the full focus and zoom range. The mounting must allow for quick lens change. Extremely large lenses with lens support bridge are to be mountable on cameras of Group 1. It is therefore required that the camera wedge plate be fastened in a definite position in relation to the optical axis, so that a shifting of the optical image centre, measured at the shortest focal length in relation to the longest focal length, must not be more than 5% of the image height over the full focal length and shall not shift erratically.

Lenses of cameras of Group 1 must allow the setting of focus and focal length by means of servo-control and provide a high degree of operational comfort: choice of setting speed, separate pre-setting, jolt-free transfer from pre-set to manual control: easy replacement of the servo control's electrical and mechanical assemblies and simple adjustments. Lenses for hand-held cameras of Group 2 shall also be servo-controllable, particularly, for tripod mount operations.

A direct manual control of the lens setting ring after turning off the servo-control, shall be possible without any damage to the servo gears. The macro setting shall be attained manually over a separate setting ring or in combination with focal length control, by transversing past and end mark. The macro-setting of a lens shall be made inoperative by means of a locking device or pin. For Group 3 cameras automatic focus must allow for manual intervention by the camera person as needed and must be disconnected.

d. **COLOUR AND NETURAL DENSITY FILTERS**

Cameras of all groups must be capable of continuously covering a colour temperature range of 250°K to 10,000°K by means of conversion filters in conjunction with electronic colour balance. The electronic colour balance shall be capable of covering a range of 2500°K to 6000°K without optical filters. Provision shall be made for placing a colour conversion filter together with either a neutral density filter or a "STAR BURST" filter or a simple combined filter in the optical path. An indication of the selected filter setting must be available.

5.1.3.1.7 **ELECTRONIC VIEWFINDER**

For tripod mount operation, viewer finders shall be located at the camera head and have adjustable tilt and rotation. Viewfinders for hand-held cameras must have enough position adjustment capability in order to optically adapt to the right eye of the camera person. The only connections to the viewfinder shall be the composite (colour) video, the tally and power source.

The picture dialogue shall be 17cm for cameras of Group 1; 13cm for hand-held cameras operated on tripod and at least 3.8cm for cameras with a monocular (eye-piece). The 2.5x magnifier in front of the 3.8cm screen for monocular operation shall provide a large field of view and must be adjustable for people wearing glasses (assuming the eye is corrected to > 1m). Controls for contrast and brightness must be provided in addition to a switchable aperture correction (peaker) with maximum emphasis between 3 and 4MH. The amount

of video peaking shall be internally adjustable. The picture area must have an Aspect Ratio of 4:3.

5.1.3.1.8 **CAMERA CONTROL UNIT REQUIREMENTS**

a. **GENERAL**

Various control units, appropriately co-ordinated, and with possibility of transferring controls, shall be provided for cameras of Groups 1 and 2 such as set-up and control consoles, unicontrol-knob and matching unit. The set up controls, as far as possible, shall have detent positions and/or scales that allow the nominal settings to be located quickly. Hand-held cameras of Group 2 shall be equipped such that, in addition to being controlled by the camera person, the important operating functions can be remote-controlled by an appropriate control unit.

b. **BASIC SET-UP CONTROLS**

For studio cameras of Group 1, all remote controllable functions for adjusting of the camera system shall be contained in the main control unit and arranged in an ergonomically suitable manner. The controls shall include:-

- (i) Registration (for 3 – Tube cameras)
- (ii) Beam current (for Tube cameras if not automatically regulated)
- (iii) Flare Correction
- (iv) Contour correction
- (v) Shading correction
- (vi) Gamma correction of individual channels
- (vii) Black Level pre-set
- (viii) A selector switch for Test positions
- (ix) Colour Bars ON/OFF
- (x) Picture size
- (xi) Colour ON/OFF

In addition, controls intended for the operational control unit, shall also be included at the main Camera Control Unit.

Hand-held cameras of Group 2 and 3 should be adjustable directly without remote control. Registration controls, for tube-type cameras, shall be available without opening the cameras but should be kept covered.

5.1.3.1.9 **OPERATIONAL CONTROLS (REMOTE UNITS)**

- a. the operational controls for studio cameras of Groups 1 and 2, in addition to the controls for focal length and focus (and, if necessary, for filter wheel) at the camera head, shall comprise the following elements:-
 - (i) Iris
 - (ii) Common Black Level
 - (iii) White Level (Gain Switch)
 - (iv) Black and White levels for the individual chroma channels
(Green optional)
 - (v) Common Gamma
 - (vi) Colour saturation
 - (vii) Black Stretch
 - (viii) Lens Cap/Beam switch
 - (ix) Colour temperature (electrical)
 - (x) Colour filter wheel
 - (xi) Selection switch for picture monitor and waveform monitor
 - (xii) Additional Controls for the following: Contours, Level settings, Flare, Colour ON/OFF and Colour Bars ON/OFF.

b. For hand-held cameras of Group 2, remote control unit with the following functions shall also be provided:

- (i) Power ON/OFF
- (ii) Intercommunications
- (iii) On-Air Tally
- (iv) Common Black Level/Iris
- (v) Separate Black/White Level Controls for Red and Blue Channels
- (vi) Colour Bars
- (vii) Horizontal Phase
- (viii) Subcarrier Phase
- (ix) Selector Switch for Monitoring.

A transfer of the control functions to the operational control unit shall not affect other settings on the main control unit. The controls for the IRIS and COMMON BLACK LEVEL shall be incorporated into the unicontrol knob.

c. Hand-held cameras of Groups 2 and 3 are to be operatable with the following functions at the camera-head.

- (i) Focal length
- (ii) Focus
- (iii) Iris (Automatic or manual)
- (iv) Filter Wheel
- (v) Colours Bars
- (vi) Gain Switch
- (vii) Auto Black/White balance

- (viii) Auto Registration (tube cameras)
- (ix) Black Stretch
- (x) Registration & Signal Selection Switch – for alignment purposes for tube cameras (concealed under a covering)
- (xi) Power Off/Stand-By/Camera-On Switch
- (xii) VTR Start/Stop
- (xiii) Viewfinder signal selector switch

d. AUTO FUNCTIONS

For studio cameras of Group 1, automotive functions that will encompass a full camera system alignment under microprocessor control, are desirable. The adjustment settings stored in the memory shall be maintained without change for at least 8 days, even when the camera has been powered down.

The electronic memory circuit shall be located in the camera head. The accompanying control unit shall be capable of being connected, in turn, to a number of cameras and the adjustment procedures for routine operation shall not be appreciably delayed. Operational displays of automatic functions are desirable and it should be possible to store pre-determined camera settings (different “Moods”). Microprocessor-supported diagnostics are to be provided.

5..3.1.10 CABLE COMPENSATION

Provisions shall be made for compensation – preferably, automatic self-compensation of transmission errors up to 800 meters of camera cable. The compensation shall not affect, in any way, the internal level adjustments of the camera head via amplifiers.

5.1.3.1.11 **ELECTRICAL-PERFORMANCE REQUIREMENT**

The cameras shall be set up for the following tests according to the normal procedures of the programme contractor. Controls should be re-adjusted subsequently only as required to perform.

- (a) Iris:- same as needed to produce 100% output from a 60% reflectance neutral surface under normal studio lighting.
- (b) Zoom angle:- the test shall be carried out at a non-extreme setting.
- (c) Aperture correction and contours:- adjusted as for normal studio use.
- (d) Gamma correction:- 0.45 (nominal)

5.1.3.1.12 **WARM-UP TIME, STABILITY AND POWER SUPPLY DEPENDENCY**

The camera shall be capable of producing acceptable pictures after a one minute warm-up. After a warm-up time of 10 minutes for cameras of Group 2 and 3; and 30 minutes for Group 1, the operational settings of the video signal levels must be stable enough such that subsequent adjustments for continuous operation will not be necessary. After a one-hour period, the specified conditions must be maintained. This stability shall be maintained when the camera system is repeatedly turned off and on during successive days. The ambient temperature may vary by 0° to +15° around nominal 20°C. In addition the power operational value of a battery-powered camera shall not change within a range of 10 to 14 volts. Variations in power line frequencies should not cause any noticeable ripple or hum effects (in picture geometry or signal levels).

5.1.3.1.13 **SCANNING SYSTEM**

2.1 INTERLACED

625 LINES

50 FIELDS/25 FRAMES PER SECOND

5.1.3.1.14 SYNC SYSTEM

INTERNAL SYNC OPERATION WITH BUILT – IN SYNC
GENERATOR AND EXTERNAL
SYNCHRONISATION
(GENLOCK) AUTO OR MANUAL LOCKING

5.1.3.1.15 GENLOCK SIGNAL

VBS 1.0V P-P/75 ohms

OR

BBS 0.45V P-P/75 ohms

5.1.3.1.16 ASPECT RATIO

H 4: V 3

5.1.3.1.17 HORIZONTAL RESOLUTION

600 LINES MINIMUM IN CENTRE

5.1.3.1.18 REGISTRATION

0.05% ALL ZONES EXCLUDING LENS DISTORTION

5.1.3.1.19 INTERCOM

4 – WIRE FOR GROUPS 1 & 2

SIMPLIFIED FOR GROUP 3

5.1.3.1.20 OUTPUTS

- (a) COMPOSITE VIDEO 1.0V P-P
- (b) SYNC LEVEL 0.3V
- (c) TERMINATION 75 OHMS
- (d) RETURN LOSS 30 Db

OUTPUT	CAMERA GROUP		
	1 STUDIO	2 E.N.G/E.F.P	3 ENG
COMPOSITE	4	2 1 X BNC 1 X IN CAMERA CABLE	1
RGB LINEAR RGB FOR CHROMA KEY	1 1	1 1	

For composite colour and RGB video output, changing the termination of one of the outputs from open-circuit to short-circuit shall not cause the luminance signal voltage of the other (75 OHMS TERMINATED) outputs to change by more than 2%.

5.1.3.1.23 **CROSS-TALK ATTENUATION**

Cross-talk attenuation between individual channels and from added external signals (video and audio) must be greater than 50dB within the transmitted frequency range. This shall be valid for camera cables up to 400 meters; at 800m, no appreciable interference shall occur in the picture.

5.1.3.1.24 **PERIODIC NOISE**

At optimal gamma correction, periodically occurring noise in the blanking interval shall not be larger than 1%. In the active video interval this shall not be larger than 0.3% of white level.

5.1.3.1.25 **BLACK SHADING**

(a)	Inner zone – Luminance	2%
(b)	Inner zone colour – separation difference	1%
(c)	Overall (whole field) – Luminance	4%
(d)	Overall colour-separation difference	2%

5.1.3.1.26 **WHITE SHADING**

(a)	Inner zone – Luminance	5%
(b)	Overall (whole field) – Luminance	10%
(c)	Overall colour – separation signals	Green 5%
		Red 7%
		Blue 7%

Not more than half of these tolerances shall occur in any 10% of picture width or height.

5.1.3.1.27 GEOMETRICAL ERRORS: REGISTRATION

Deviation from the ideal geometric shall not be more than 0.5% of image height for Group 1 cameras and not more than 1% for Groups 2 and 3. The difference in geometric errors of neighbouring circles shall not be more than 0.3% of the image height. Focal length of lens shall be set for minimal distortion (in accordance with the lens manufacturers' instructions). Geometric errors caused by the earth's magnetic field shall not exceed 0.5% of the image height. Time variable deviations of the geometry (Hum and Ripple) shall not exceed 0.1% of the image height. 25Hz intensity modulation caused by line pairing shall not cause any noticeable interference.

5.1.3.1.28 HIGH FREQUENCY ELECTROMEGNETIC INTERFERENCE

R.F. Radiation of any frequency and with a maximum field strength of 500 mv/m shall not cause disturbances longer than 0.3% of the white level or any interference with synchronization. Camera systems with camera cables utilising frequency multiplexing (e.g. Traix cable) shall not exceed a mutual interference of 0.3% when camera head and camera control unit are adjacent and connected by at least 800 meters of parallel – laid camera cable. (Less than 0.6% for 1600 meters cable).

5.1.3.1.29 MAGNETIC INTERFERENCE

For a field strength of 20A/m at 50Hz, the additional geometric errors must be less than 0.2% of image height. Registration errors must be less than 50ns for zone 1 and 70ns for zone 2. The depth of modulation in the luminance signal at 5MHz may not diminish by more than 5%.

5.1.3.1.30 SHOCK, ACOUSTICAL AND MICROPHONIC INTERFERENCE

As far as possible, microphonic effects in the imaging devices, excited by inherent acoustical noise, vibrations from normal use and external noise up to 110 dB should not occur.

5.1.3.1.31 CAMERA CABLE

Approved Multicore, Triax and Optical Fibre cables and cable fittings shall be used. The cables shall be impact-resistant and flexible, with an allowable curvature radius of less than 20cm. The cable shall be cold-resistant down to -20°C. Cable fittings shall be equipped with appropriate strain reliefs (bending & pulling). The cable connectors shall be splash – proof. In addition, the cable fittings shall have undetachable protective covers.

5.1.3.1.32 CAMERA TALLY

For studio cameras of Groups 1 and 2, several red tally lights shall be attached to the camera head. The red tally lights on the camera head must be clearly visible – even when using extremely large objective lenses – and if possible, should be attached to the lens housing (either as ring light at the front of the lens or as two lights symmetrical to the optical axis). A separate ON/OFF switch for the front tally light must be provided. For Groups 2 and 3 cameras, the Red tally light must be coupled with the VTR record mode.

5.1.3.1.33 INTERCOMMUNICATIONS

A four-wire intercommunication system shall be incorporated for cameras of Groups 1 and 2. The camera head shall have two separate connections for plugging in headsets; the main camera control and operational control units each requiring only one head set connector. A volume control shall be provided. Lightweight,

noise – compensated headsets with dynamic microphones shall be used. For Group 1 cameras, a separate communications link between camera person and dolly grip is desirable. It should be possible to switch off the microphone at the camera head. A Signal-to-Noise Ratio greater than 40dB shall be attainable at normal levels of speech. The volume setting range must be large enough that an understandable conversation is possible even when several head set stations are connected in the system and with an external noise of 90dB (A) (100 db 'A' with a 20dB sound insulated head-set). For cameras of Group 2 and 3 used for ENG work, the head-sets shall allow monitoring of playback audio from the VTR, in addition to being used for intercommunication.

5.1.3.2 **VIDEO TAPE RECORDING**

Video Tape Recorders (V.T.Rs) are categorised into two groups.

5.1.3.2.1 **GROUP 1**

Professional Studio Video Tape Recorders: These must be of the highest quality picture recording and reproduction capacity. These are for use in recording full-length programmes and programmes involving multiple generation editing. These must permit the processing of the Vertical Blanking Interval so that Vertical Insertion Test Signals are not lost.

5.1.3.2.2 **GROUP 2**

Professional Video Tape Recorders: These must be of high quality and shall be for use in News Coverage; and programme inserts of not more than five minutes continuous duration in a full length programme.

Tolerance listed for the video recorders refer to a single recording and replay, not necessarily on the same machine. For purpose of playback alignment, it is recommended that the first sixty seconds of

the tape should carry an appropriate test signal (video and audio tone) which shall be the station's standard on all tapes.

There shall be at least 5 second of Black (Black & Burst with no audio) between the test signals and the programme recorded on the tape. All video tapes must meet the following technical specifications:

<u>PERFORMANCE TOLERANCE LIMITS FOR VIDEO TAPE RECORDERS</u>			
5.1.3.2.3 VIDEO TOLERANCE			
ITEM	DESCRIPTION	TOLERANCE	
		GROUP 1	GROUP 2
5.1.3.2.4	OUTPUT SIGNAL LEVEL		
(I)	ADJUSTMENT ERROR	±02dB	±0.3dB
(II)	GAIN STABILITY (OVER 1 HOUR)	±02dB	±0.3dB
5.1.3.2.5	BANDWIDTH		
(I)	LUMINANCE	25Hz TO 55 MHz ±0.5dB 3.0dB	

5.1.3.2.6 RESOLUTION 340 LINE

5.1.3.2.7 SIGNAL TO NOISE RATIO

(i) LUMINANCE 48dB 46dB

(ii) CHROMINANCE 48dB 46dB

5.1.3.2.8 DISTORTION

(a) LINEAR DISTORTION

(i) 2T PULSE TO BAR RATIO	2%K	3%K
(II) 2T PULSE RESPONSE	2%K	3%K
(iii) 2T BAR RESPONSE	2%K	3%K
(iv) 50Hz SQUARE WAVE RESPONSE	2%K	3%K
(v) CHROMINANCE/LUMINANCE	+3%	
(vi) CHROMINANCE/LUMINANCE DELAY INEQUALITY	+20 ns	

(b) NON-LINEAR DISTORTION

(i) LUMINANCE LINE TIME NON-LINEARITY	2%	10%
(ii) DIFFERENTIAL PHASE	<3%	4%
(iii) DIFFERENTIAL GAIN	<3%	4%
(iv) TRANSIENT GAIN-CHANE LUMINANCE	2%	-
(v) CHROMINANCE	2%	-
(vi) SYNC	2%	-

5.1.3.2.9 NOISE

(i) WEIGHTED LUMINANCE (RMS)	-52dB	-
(ii) WEIHTED CHROMINANCE (RMS)	-46dB	-
(iii) TOTAL LOW FREQUENCY RANDOM & PERIODIC (P – P)	-46dB	-
(iv) LOW FREUQNECY	-52dB	-

(v) NOISE AND CHROMINANCE MODULATION

NOISE -25dB -

5.1.3.2.10 AUDIO TOLERANCE

(a) OUTPUT

(i)	SIGNAL LEVEL AT OUTPUT	0dB ± 0.25dB	±0.3db
(ii)	GAIN STABILITY	±0.5dB	±0.3db
(iii)	AMPLITUDE/FREQUENCY RESPONSE	40Hz TO 15KHz	50Hz TO 15KHz
	REF. 1KHz	±3dB w.r.t 1KHz	
(iv)	SIGNAL TO NOISE RATIO (WEIGHTED)	68dB	52dB
(v)	TOTAL HARMONIC DISTORTION (AT 1KHz REF. LEVEL)	1%	3%
(vi)	CROSS-TALK (1KHz)	< -71dB	< -50dB
(vii)	PHASE DIFFERENTIAL (AT 15KHz)	±20°	
(viii)	DEPTH OF ERAURE (AT KHz)	> -65dB	-60dB
(ix)	WOW AND FLUTTER WEIGHTED – PEAK	0.15%	0.20%

5.1.3.4 AUDIO RECORDERS

5.1.3.4.1 SPECIFICATIONS ON AUDIO RECORDERS

a. OUTPUT SIGNAL LEVEL

(i)	Insertion Gain Adjustment Error	+1.0dB
(ii)	Gain Stability	+0.5dB

b.	AMPLITUDE/FREQUENCY RESPONSES	
	(i) 40Hz to 15KHz	+1.5dB
	w.r.t 1KHz	-2.5dB
	(ii) 125Hz to 10KHz	
	w.r.t 1KHz	1.0dB
c.	SIGNAL/NOISE RATIO	
	Weighed, Random, Peak	40dB
	Unweighted, Random, Peak	50dB
d.	INTERCHANNEL CROSSTALK	
	(i) Related tracks, unweighted, peak 40Hz to 15KHz	40dB
	(ii) Unrelated tracks, unweighted, peak	50dB
e.	TOTAL HARMONIC DISTORTION	
	(i) 1KHz at 8dBu	2%
	(ii) 80Hz at +8dBu	2%
	(iii) 1KHz at -10dBu	2%
	(iv) 1KHz at -10dBu	2%
f.	WOW AND FLUTTER	
	Weighted, peak	0.12%

5.2 CABLE TELEVISION

5.2.1 GENERAL

There should be no direct transmission to the subscribers. However, the modern concept allows the use of Multipoint Microwave Distribution System (MMDS). Once the MMDS channels are used up, the distribution by

cable becomes an option. The licensees shall restrict their transmission to the channels and mode specified in their licences only. The maximum power per channel shall not be more than 20 watts at each approved location/site. The entirety of the technical tolerances numerated for Television operation shall apply to Cable Television service.

5.2.2 MICROWAVE MULTIPOINT DISTRIBUTION (MMDS) SYSTEM

The MMDS transmitter shall be an all solid state system included among other features are the following specifications.

5.2.2.1 VISUAL

(a) Output Power	maximum of 20 watts peak
(b) Colour Transmission	PAL
(c) Output frequency	2500MHz – 2700MHz
(d) Frequency Stability	0005%
(e) Spurious Products	60dB
(f) Harmonics	63dB
(g) Differential Phase	±30
(h) Differential Gain	5%
(i) Low Frequency linearity	5%
(j) Output power stability	±0.3dB
(k) K-Factor (2T)	2%
(l) Signal to Noise	50dB

5.2.2.2 **AURAL**

(a) Output	2 watts
(b) Emission	F3
(c) Audio Distortion	Less than 0.5%
(d) FM Noise	60dB
(e) AM Noise	60dB
(f) Pre-emphasis	75 micro seconds
(g) Deviation	25 KHz

5.3 **SOUND BROADCASTING**

5.3.1 **GENERAL**

This section establishes the technical standards for Radio Sound Broadcasting in Nigeria.

5.3.1.1 **MODES OF TRANSMISSION**

Sound broadcasting may operate on Short Wave (SW), Medium Wave (MW) and Frequency Modulated (FM) Systems. The Commission allows Federal Station to operate on all these modes. The state stations can operate on Medium Wave (MW) and Frequency Modulated (FM), while local government and private stations shall operate on FM mode.

5.3.1.2 **LOCATION OF STATION**

The Location of Transmitting Stations shall be such that the Primary Service Area is covered without causing co-channel interference.

5.3.1.3 HEIGHT OF MAST

The Radiator for Medium Wave transmitter, Short Wave and FM Masts shall not exceed the requirement of the Civil Aviation Authority.

5.3.1.4 COVERAGE AREA

The power of the transmitter shall be such that the field strength at the border of the coverage area would not exceed one millivolt per metre.

The Federal Government-owned stations are allowed nationwide coverage and also transmission outside the national borders. State Government-owned stations are only allowed transmission within their immediate state boundaries. Private Stations are only allowed to operate within a 50 Kilometre radius from the transmitting station. Transmission from their stations must not spill into neighbouring countries, even when they are close to the national borders.

5.3.1.5 RADIO RECEIVERS

All radio receivers imported or manufactured in Nigeria shall include AM and FM facilities.

5.3.1.6 PROGRAMME INPUT EQUIPMENT

The Programme Input equipment shall incorporate equipment for processing and measuring signal levels at specific points.

5.3.1.7 MONITORING EQUIPMENT

Each station must have a full range of test and monitoring equipment to ensure compliance with the standards.

These should include:

(a) Frequency Counter

- (b) Power Meter
- (c) Modulation Meter
- (d) Spectrum Analyser
- (e) Oscilloscope
- (f) Multimeter
- (g) Distortion and noise meter
- (h) Audio Signal generator
- (i) Vu meter
- (j) Earth Resistance meter

5.3.1.8 INSTALLATION AND SAFETY

- (a) Structural/Civil Engineers shall be involved in the construction of the Mast/Tower bases in accordance with design specifications.
- (b) Earth resistance shall not exceed one ohm
- (c) Lightning arrestor system shall be installed on the Mast/Tower
- (d) Surge Arrestors shall be provided to protect equipment
- (e) Mast/Tower marking shall be in orange and white colours
- (f) Aviation warning lights must be installed at appropriate intervals of Mast/Tower
- (g) Adequate fire fighting equipment must be provided and maintained regularly. Monthly fire drill should be encourage
- (h) Rubber mats must be provided in the operational areas

5.3.1.9 TOOLS & TEST GEAR

Adequate test gear and tool-kits (Electrical/Mechanical) shall be provided in the station.

5.3.1.10 MODIFICATIONS

Modifications/Changes of equipment and Antenna systems shall be made only after prior notification of and approval by the Commission.

5.3.1.11 OPERATIONS

Engineering Log must be kept and made available to the Commission on demand. Such Log books shall, among other information, contain the following:

- (a) Input level for Audio Signals
- (b) Frequency Deviation
- (c) Depth of Modulation
- (d) Output Frequency
- (e) Output Power
- (f) Reflected Power

5.3.1.12 CALL SIGNS

- (a) The Station Identification/Call Sign must be registered with the Commission
- (b) Such Call Sign/Station Identification must be aired at least once every 30 Minutes.

5.3.1.13 LOGGING OF TRANSMITTED PROGRAMME

All transmitted programmes (total outputs) shall be recorded and retained by the station for at least 3 months from the day of airing. They must be submitted to the Commission on demand.

5.3.1.14 TRANSLATOR & TRANSPOER

It might be necessary to use more than one Transmitter to effectively cover an allocated area. For the purpose, a prior application shall be made to the Commission for allocation of other frequencies.

In this case, the operator shall take all necessary precautions to keep within approved coverage areas.

5.3.1.15 MAINS POWER SUPPLY

The recommended power supply voltages are as follows:-

(a) Single phase: 230V + 10% 50Hz

(b) Three phase: 415V + 10% 59Hz

The power supply installation shall conform with the prevailing wiring regulation in Nigeria.

5.3.2 SOUND TRANSMITTER SYSTEM

5.3.2.1 MEDIUM WAVE TRANSMITTER

The medium wave transmitter shall be solid state transmitter and shall, among other features have the following:

*Parallel modular configuration which provides true active reserve without need for Engineering intervention.

*On-air serviceability which allows module removal without interruption in broadcasting.

*Built-in duplicate exciter to offer complete back-up of critical low level control circuitry.

The Specification must include:

(a)	RF Frequency Range	-	531 to 1710 KHz
(b)	RF Terminating		
(c)	Impedance	-	50 ohms
(d)	Audio Frequency Response		± 0.5 dB (30 – 10KHz)
(e)	Square wave Overshoot		2% at 400 Hz
(f)	Square Wave Tilt		3% or less at 40Hz
(g)	Audio Harmonic Distortion		Better than 1% at 95% Modulation (30Hz – 10KHz)
(h)	Audio Intermodulation		Modulation
(i)	Modulation Capability		125% positive peak modulation Capability
(j)	Carrier Shift		Not exceeding 1%
(k)	RF Harmonics		-80dB
(l)	Spurious Outputs		-80dB
(m)	Frequency Stability		+5HZ or + 5pm (10°C to ± 50 °C)
(n)	Overall efficiency		Better than 75%
(o)	Ambient Temperature		10°C to 50°C
(p)	Humidity Range		0 – 95%

5.3.2.2 FM SOUND TRANSMITTER

The NBC recommends that the frequency modulation sound broadcasting in band 87.5 to 108 MHz must comply with the following:-

- (a) The maximum frequency deviation should be ± 75 KHz.
- (b) The pre-emphasis should be 50 to 75 micro seconds.
- (c) In the absence of interference from industrial and domestic equipment a field strength at the border of the allocated coverage area shall not exceed 50 micro volt/meter for monophonic service and 250 micro volt/meter for stereophonic service.

5.3.2.3 FM TRANSMITTER SPECIFICATIONS

5.3.2.3.1	Frequency Range	875 to 108 MHz
5.3.2.3.2	Modulation Capability	± 200 KHz

5.3.2.3.3	RF Load Impedance	50 ohms
5.3.2.3.4	Ambient Temperature	0°C to 50°C
5.3.2.3.5	Maximum Humidity	Up 95% non condensing
5.3.2.3.6	Input Level	1.0 Volt RMS normal for ±75KHz deviation
5.3.2.3.7	Amplitude Response	±0.1dB 20Hz to 53KHz -0.2dB at 100KHz
5.3.2.3.8	FM Signal to Noise	80dB below 100% modulation (400 Hz at 75 microsecond de-emphasis 20Hz to 200 KHz bandwidth).
5.3.2.3.9	Harmonic Distortion	0.08%
5.3.2.3.10	Intermodulation Distortion	0.02% (60Hz/70KHz 1.1 tone pair)
5.3.2.3.11	Asynchronous AM Signal to Noise	5.5dB below equivalent 100% Amplitude Modulation
5.3.2.3.12	Phase Response	+0.5/-1.0 degree from Linear phase, 20 Hz to 53 KHz
5.3.2.3.13	Transient Intermodulation	0.05%, 2.96 KHz Square wave/14 KHz sine wave modulation
5.3.2.3.14	Audio Input Impedance	600 ohms, balanced, resistive, transformerless
5.3.2.3.15	Audio Input Level	±10dB, ±1dB for ±75KHz deviation at 400Hz
5.3.2.3.16	Audio Frequency Response	75 Micro second pre-emphasis
5.3.2.3.17	Harmonic Distortion	0.08% 30Hz to 15KHz

5.3.2.3.18	Transient Intermodulation distortion	0.05% (2.96KHz Square wave/ 14KHz sine wave modulation)
5.3.2.3.19	FM Signal to Noise	At least 60dB below 100% Modulation

5.3.3 **STUDIO EQUIPMENT**

5.3.3.1 **CASSETTE RECORDER/REPRODUCERS**

The cassette Recorder/Reproducers must be fully professional in the design of its transport, control and memory systems. The quality features should include:

- (a) 3 Heads (Erase, Record, Play)
- (b) Dual Input/Output with +4dBm balanced
- (c) Adjustable Bias and Equalizer select
- (d) Dolly extension circuits and Dolly B/C
- (e) Adjustable Bias and Equalizer select
- (f) Front panel Line Inputs
- (g) Memory Rewind and Replay
- (h) Speed: 17/8 and 33/4 ips.
- (i) Total Harmonic Distortion 1% at O.V.U

- (j) Signal To Noise Ratio 59dB at 1 ips.

5.3.3.2 **COMPACT DISC PLAYER**

It must be broadcast quality with adjustable headphone output and two audio outputs.

The specifications are:-

- (a) **FREQUENCY RESPONSE:-**
10Hz to 20KHz +0/-0.1dB linear
- (b) **HARMONIC DISTORTION:-**
- (c) **CHANNEL SEPARATION**
Greater than 90dB (20Hz to 20KHz)
- (d) **WOW AND FLUTTER**
Quartz crystal precision
- (e) **SEARCH TIME FOR ANY LOCATION**
Less than 4 seconds (over 15,000 tracks per second)
- (f) Signal to Noise from pause >100dB (20Hz – 20KHz)
- (g) Start Delay from pause: 0.6secs.

5.3.3.3 **REEL TO REEL REPRODUCERS**

It must be of broadcast standard; and special features must include:

- (a) Close loop drive offering substantially improved Wow and Flutter.
- (b) Linear actuated pressure rollers for a fast smooth start.
- (c) Solid state logic control circuitry
- (d) Cue mode for easy loading and service
- (e) Fault detecting for early signaling of a potential malfunction.

SPECIFICATIONS

- (i) **FREQUENCY RESPONSE** +2dB (50Hz to 75KHz) at 3.75 ips
+2dB (50Hz to 75KHz) at 7.5 ips

- (ii) **FLUTTER AND WOW** 3.75 ips: less than 0.12% RMS
NAB 17 DIN
7 1/2 ips: less than 0.087% RMS
NAB 17 DIN

- (iii) **REEL BIAS** Up to 14 inches

- (iv) **SIGNAL TO NOISE RATIO** 68dB

- (v) **TOTAL HARMONIC
DISTORTION** 0.2%

5.3.3.4 TAPE CARTRIDGE EQUIPMENT

It must have capacity for mono or stereo Record/Playbacks. The special features should include the following specifications:

- (a) **WOW AND FLUTTER**
Playback maximum 0.15% at 7.5 ips

Record/Playback maximum 0.15% at 7.5 ips.

- (b) **AUDIO OUTPUT CONFIGURATION**

Transformer coupled, selected: 600 ohms or 1500 ohms
Impedance.

Additional features shall include the following specifications:-

(a) **PROGRAMME CHANNELS**

(i) **INPUT/IMPEDANCE/LEVELS**

LOW MODE 150 ohms, BALANCED

- 65dBv nominal
- 38dBv maximum

HIGH MODE 54K ohms BALANCE BRIDGING

- 20dBv nominal
- 20dBv maximum

(ii) **FREQUENCY RESPONSE**

+0, -1dB, 30hz to 20KHz

(iii) **OUTPUT IMPEDANCE LEVEL**

- (a) 600 ohms balanced +8dBm to 0 vu deflection
+18dBm capability

(b) **MONITOR CHANNELS**

(i) **INPUT**

Push button select programme output channels and an external source.

(ii) **FREQUENCY RESPONSE**

0, 1dB, 50Hz to 20KHz

(iii) **OUTPUT POWER LOAD**

8 watts RMS per channel, 8 ohm load

(c) **CUE/INTERCOM AMPLIFIER**

One watt RMS mono output to built-in-speaker-input mono (or L & R).

(d) **MUTING**

The relays standards.

Relays 1 mute monitor/cue speakers with mixer 1 operation.

Mixer 2 controls Relay 2. Other combination assignable,

5.4 **STUDIO TRANSMITTER LINKS**

No studio transmitter link should operate on a Broadcasting frequency.

5.4.1 **SPECIFICATIONS FOR RADIO STUDIO TRANSMITTER LINKSS SYSTEM**

5.4.1.1	Audio Response	+1.5dB, 50Hz – 15KHz
5.4.1.2	Audio Distortion	Less than 1%, 50Hz to 15KHz (less than 2% with optional I.F. Crystal filter).
5.4.1.3	Signal-to-Noise Radio	Better than 60dB below 100% Modulation

5.4.2 **TRANSMITTER**

5.4.2.1	Type	Direct FM of voltage-control crystal Oscillator (VCXO)
5.4.2.2	RF Output	15 watts maximum, 10 watts nominal Into 50 ohms load. Type N Female connector.
5.4.2.3	RF Frequency Range	148 – 174MHz, 215 -240MHz, 300 – 330MHz, or 450 – 470MHz; other frequencies in the 148 – 470Hz spectrum on special order.

5.4.2.4	Emission	45F3 (+7.5KHz for 100% modulation, 148 – 240MHz). ±12KHz for 100% modulation, 300 – 330MHz and 450 – 470MHz)
5.4.2.5	Frequency Stability	±0.0005% (-20°C to 50°C)
5.4.2.6	Harmonic Suppression	60dB below carrier reference
5.4.2.7	Spurious Emission	More than 60dB below carrier
5.4.2.8	AM Noise	Better than 70dB below carrier reference.
5.4.2.9	Temperature Range	-20°C to 50°C
5.4.2.10	Audio Input Multiple Input	+10dBm, 600 ohms, balanced 1.5 volts p-p nominal, recommended subcarrier frequency 26KHz
5.4.2.11	Power Requirements	240V/AC, +10%, 50Hz, single phase Optional 12 to 15V DC 2.5A maximum.

5.4.3 **RECEIVER**

5.4.3.1	Type	Superheterodyne
5.4.3.2	RF Frequency Range	148 – 174MHz, 25 – 240MHz 300 – 330MHz or 450 – 470MHz spectrum on special order.
5.4.3.3	RF Input	50 Ohm Type N Female connector
5.4.3.4	Sensitivity	Less than 1.5 micro volt for 20dB quieting.

- 5.4.3.5 Temperature Range -2°C to 5°C
- 5.4.3.6 Audio output ±10dBm, 600p, balanced
- 5.4.3.7 Power requirements 240 V/AC, ±10%, 50Hz, single phase.

5.5 **DIRECT BROADCAST SATELLITE**

This service is in effect international broadcasting, and is therefore, restricted for now, to Federal Government-owned organs.

CHAPTER SIX

SANCTIONS PROCEDURE

6.1 GENERAL

- i. The responsibilities of a station, in relation to the regulatory powers of the Commission, are contained in items to 7 of the Third Schedule of the National Broadcasting Commission Decree 1992.
- ii. The penalties for infringement of the responsibilities in i. above are contained in items 8 and 9 of the Third Schedule.
- iii. A listener or viewer may participate in the sanctioning process by complaining and/or by insisting on rectification of a deviation from the Code.
- iv. The Commission may, from time to time, institute other regulatory measures.

6.2 FORMAT

- 6.2.1 Stations shall be made to adhere to the letter and spirit of the Code through:
- (a) monitoring by the National Broadcasting Commission; and
 - (b) observations and complaints by the listening and viewing publics.

6.2.2 All complaints and observations of lapses or breaches of the Code, either by the Commission, an individual, a body or station, shall be in a written form and shall contain, among others, the following:-

- (a) The name of the station.
- (b) The title of the programme
- (c) The day of the broadcast.

- (d) The time of the broadcast.
- (e) The essence of the complaint or observation, such as the objectionable absence of fairness or the objectionable presence of bias, obscenity, or technical short-coming, etc.

6.2.3 RANGE OF SANCTIONS

A station stands the risk of an immediate closure if, in the opinion of the Commission, it commits a breach against either the technical or non-technical aspects of the Code which warrants such an action. Such a breach would include a broadcast which offends the political, social, economic and/or cultural sensitivities of the federal structure of Nigeria. The shut-down of a station implies the revocation of its licence which may be re-issued only upon fresh application, after the station has cleared itself of the outstanding offending issue.

Any other sanction imposed by the Commission, after due deliberation, shall range from a reprimand to a warning, or a light to a heavy fine; this shall be determined by the gravity of the offence.

APPENDIX

&

NBC DECREE

APPENDIX A

MASTS AND TOWERS INSPECTION AND MAINTENANCE

A standard inspection and maintenance routine must be adopted nationally by all Broadcast Transmitting Stations.

These include:

1. Vertically of masts/towers
2. Deterioration of concrete bases and guy anchor blocks
3. Soil erosion around foundations
4. Corrosion of steel members, structural members, guys, antennas, antenna supports, nuts and bolts.
5. Condition of painting and lighting to meet Aviation Standards
6. Condition of antennas, waveguides, feeder etc. and their mountings
7. Condition of insulators.

Periodic Inspection Reports are to be made available to the NBC at the end of every week periodic inspection and must be produced on demand. The approved periodic inspection and maintenance details are as follows:

A. MAST/TOWERS INSPECTION

FREQUENCY OF MAINTENANCE INSPECTION

**ATMOSPHERIC CLASSIFICATION FREQUENCY OF INSPECTION
(MAXIMUM)**

1.	MILD	1.1	RURAL/ARID	5 YEARS
		1.2	RURAL/MILD	5 YEARS
2.	MODERATE	2.1	URBAN/LIGHT INDUSTRIAL	3 YEARS
		2.2	SEVERE/INDUSTRIAL	2 YEARS
3.	VERY SEVERE	3.1	COASTAL/MARINE	1 YEAR
		3.2	TROPICAL	1 YEAR

DEFINITIONS

1. MILD

1.1 RURAL/ARID

Areas of generally low rainfall of about 200mm per annum or less average humidity of 24% or less throughout the year; low population, no industrial pollution and not within 60 km.

1.2 RURAL MILD

Areas of rainfall of up to 500mm per annum; average humidity of 25% to 55%; rural/local communities; not within 50km off any coastline. No industrial pollution. Corrosive attacks due only to climatic conditions.

2. MODERATE

2.1 URBAN/LIGHT INDUSTRIAL

Areas of generally moderate rainfall of up to 100m per annum; average humidity of 50% to 80%; some industrial pollution; up to 20km from the coastline; low industrial activity; no significant attack by sulphur-dioxide and other toxic industrial wastes.

2.2 SEVERE/INDUSTRIAL

Areas of generally high rainfall, greater than 1000mm per annum, average humidity over 50% with periods in excess of 80%; high level of industrial activity with significant attacks by sulphur-dioxide and other industrial chemical wastes, and some level of marine influence.

3. VERY SEVERE

3.1 COASTAL/MARINE

Areas generally subjected to 'marine' coastal fallout (salt deposits); within 20km of the sea coast; humidity varying from moderate (50%) to severe (90%), and near coastal areas where chloride ions are present.

3.2 **TROPICAL**

Areas subject to high rainfall-greater than 1200mm per annum; average humidity high all your round typically above 65% and up to 100%, and, no industrial pollution.

MAST AND TOWER INSPECTION REPORT

SITE NAME:..... DATE INSPECTED:.....

.....

ITEM	REMARKS
Tower Foundations
Mast Foundations
Mast Guys
Guy Anchors
Tower Body
Mast Body
Guy Tensions
Earths System
Coaxial Cable Feeder Line
Wave Guide Feeder Line
Obstruction Lighting
Wiring & Conduit
Equipment Building
Warning signs and Fencing
Lighting production System
Safety Cage
Structural Members
Dipole Aerial TX

Parabolic Aerial	.....
Yagi Aerial	.....
Stacked yagi	.....
Aerial Support System	.....
Feeder Support System	.....
Gas Pressure System	.....
Obstruction Painting	.....
Transmitter Site	.....
Space and Equipment	.....
Order Wire Aerial System	.....
Mast Top Loading	.....

ROUTINE MAINTENANCE INSPECTION REPORT

MAINTENANCE

FILE NO: RE/.....

STATION.....

TYPE OF STRUCTURE..... HEIGHT..... (METERS

MANUFACTURER.....

DATE ERECTED.....

DATE INSPECTED.....

TYPE OF INSPECTION.....

GROUND LEVEL

1. PAINTWORK

Check state of all paintwork at this level

2. FOUNDATIONS

Inspect main foundations, winch anchors for cracks
Crumblings, subsidence, etc

3. CORROSION

Generally examine surface of all members at
this level.

4. **ANCHOR BOLTS & NUTS AT FOUNDATIONS**

Check for tightness and evidence of fatigue at
base.

5. **EARTH CONTINUITY**

(a) Measure tower earth resistance and check bonds

(b) Measure earth radial resistance and examine

bond at mast base.

6. **OBSTRUCTION LIGHT CONDUIT**

(a) Remove bottom drain from conduit and inspect
for water.

7. **FEEDER CABLE, TUBES & TRANSMISSION LIDE**

(a) Check couplings and clamps for rust

Check tightness of connecting nuts

(b) Inspect transmission lines, crossaums ,
Spindles, insulators, poles and collars

Check to ensure poles are properly earthed

(c) Where underground cables are used inspect pits, manholes, lids and covers, cable entry exit and mounting

8. WINCH

Check state of winding rope, lubricate, move handle to free winch. Inspect state of frame and bolts.

9. AERIAL COUNTERWEIGHT

Grease counterweight guides. Example halyard Connection, state of cable. Tighten rope clips.

10. GUY ANCHOR FOUNDATION

(a) Inspect foundations for cracks, crumbling subsidence and lifting of rendering.

(b) Generally inspect entry of anchor rods or flats into concrete anchors.

Examine carefully for evidence of fatigue

(c) Check for corrosion at this point Inspect temporary anchors and attachments

(d) Examine guy anchor rods or flats for abrasion of moving parts. Lubricate anchor pins and shackles.

11. **GUYS**

- (a) Inspect guys ropes, thimbles, rope & shackles
- (b) Tighten nuts on rope clips where used
- (c) Inspect guy sockets in heads for sign of withdrawing corrosion.

12. **GUY INSULATORS**

- (a) Clean Insulator surface, and examine for cracks
- (b) For comprehension type with overlapping cages, check nuts on cages for tightness.
- (c) Inspect guy sockets in cage for signs of withdrawing
- (d) Inspect cement joint in cage
- (e) Inspect inaccessible guy insulators with binoculars

13. **GUY TIGHTENING SCREWS**

- (a) For threaded rod types, inspect threads for damage and dogging. Check state of galvanising.
- (b) Ensure guy head is perpendicular and check for twisting. Check lock and nuts for tightness and security of split pins.
- (c) For chain, operated type, remove canvas cover and inspect screw. Wash with kerosene if needed and apply thick grease. Replace cover.

(d) Remove metal cover plate, inspect worm wheel and thrust rod, and grease if required. Connect chain wheel drive and rotate slightly to maintain freedom of movement.

14. **BASE INSULATORS**

(a) Examine base insulator for cracks using 'Dyckek' or similar product

(b) Examine all cement joints in end-fittings.

15. **BALL AND SOCKET**

Remove plug in mast base, inside legs and inject oil. For greasable type; clean nipple or cap, and apply fresh grease.

16. **HORN CAP**

Check connections and measure gap.

17. **MAST BODY**

(a) Check for alignment by viewing from bottom vertically, noting any winding, bellowing or twists.

(b) In calm conditions, by means of a theodolite, check that the mast is vertical from two observation points at 90 degrees

18. **GUY TENSIONS**

In calm weather conditions check tension on the guys using gauges provided. Adjust, if required. Report measurements.

DURING CLIMBING

19. **PAINTWORK**

Check state of paintwork at all levels

20. **CORROSION**

Examine all members, particularly nuts and bolts, etc. in sheltered positions.

21. **NUTS**

Throughout climb, check tightness of nuts including those of bracing, legs, ladder and electrical bonding nuts

22. **ELECTRICAL BONDS**

(a) Examine copper bonding for continuity fraying of strands, fatigue and connections to the tower.

(b) Examine earth kits and feeder earth straps

23. **OBSTRUCTION LIGHT CONDUITS**

(ensure all power is off)

(a) Check coupling and clamps for corrosion. Test nuts, etc.

(b) Remove junction box covers and inspect moisture, corrosion. Check state of wires.

(c) Inspect lamp base, mountings and internal fittings. Replace lamps where necessary.

24. **FEEDER CABLES AND TUBES**
- (a) Check condition of coupling clamps for corrosion and security. Test nuts for tightness
 - (b) Check condition of nylon buffers in clamps.
25. **TUBE CONNECTIONS**
- (a) Inspect abutting ends of tubes or screwed sockets at junction of sections for corrosion.
26. **LEG MEMBERS**
- Examine leg members for evidence of fatigue (surface cracks or puckering of galvanising).
27. **AERIAL AND HALYARDS**
- Examine cable to detect fraying grease pulleys, tighten rope clips and check for corrosion.
28. **AERIAL SUPPORTING INSULATORS**
- (a) Clean insulators and examine for cracks
 - (b) Examine cemented joints for signs of cracking
 - (c) Check tightness of insulator mounting bolts.
29. **COIL**
- (a) Remove cover where applicable. Check mounting for corrosion and security
 - (b) Check insulators for crazing and clean surface.

(c) Check coil for condensation, burnmarks, loose connections and fractions
.....

(d) Report any abnormal conditions.
.....

30. **SAFETY CAGE**

Check state of wires and tension in safety cage.
.....

31. **LADDERS AND PLATFORMS**

Check handrails, platforms treads and decking for tightness. Check ladder rungs during climbing.
.....

32. **GUYS (and associated steelwork)**

(a) Inspect guy ropes, thimbles. Tighten rope clips.
.....

(b) Inspect guy attachment points on the mast body and examine carefully, where they divide around a leg member for evidence of fatigue.
.....

(c) Examine and grease all guy anchor pins.
.....

(d) Check split for abrasion.
.....

(e) Inspect all link plates and guy pull-offs where they abutt the guy anchor pins.
.....

(f) Inspect welds in Rolled Steel Joists (RSJ) under rest platforms where the guy pull-offs connect.
.....

33. **GUY INSULATORS**

(a) Clean insulators' surface. Examine for cracks.
.....

(b) Check nuts on cages for tightness.

(c) Check guy sockets in cages for signs of withdrawing
.....

(d) Check cement joints in cages
.....

(e) Inspect inaccessible insulators with binoculars
.....

34. INDUCTION CABIN

Inspect general state of cabin. Check tension of
nuts in walls
.....

35. LEG MEMBERS

Examine leg members for evidence of fatigue
(surface cracks, puckering of galvanising)
.....

36. ARMATURE SUPPORTING INSULATIONS

(a) Clean insulators and examine for cracks
.....

(b) Examine cement joints for signs of cracking.
.....

(c) Check tightness of insulator bolts.
.....

37. CENTRE CAGE OF ARMATURE

(a) Check tightness of bolts and examine extent
of corrosion of nuts.
.....

(b) Clean and examine lead-in insulators on top of cabin. Check nuts and connection of armature.

38. **ARMATURE STRUCTURE**

(a) Check bolts for tightness and corrosion.
Examine infilling bottom flats between trusses.

(b) Examine state of wire mesh infilling panels.

(c) Examine electrical bonding.

(d) Check that the armature pulleys are free and lubricated.

39. **PAINTWORK**

Inspect state of paintwork on armature.

TOP OF STRUCTURE

40. **PAINTWORK**

Check state of paintwork at this level.

41. **TOP STRUCTURE LIGHTS**

Examine conduit and fixing to mast/Tower
Remove junction box cover and inspect for corrosion,
state of wires and moisture. Replace lamps,
where required.

WARNING

ENSURE POWER IS DISCONNECTED BEFORE CHECKING JUNCTIION BOX

42. ANTENNA ARRAY

- (a) Check mountings for corrosion and security.
- (b) Inspect arrays for corrosion and state of elements
- (c) Check arrays for direction of orientator.
- (d) Inspect exterior off feeder cable connections for signs of corrosion.
- (e) Report any abnormal conditions.

43. CORROSION

Generally examine surface of all mast/tower members at this level for corrosion and defects.

44. LEG MEMBERS

Examine leg members for evidence of fatigue (i.e. surface cracks or puckering of galvanising) section or extension section.

45. NUTS

Check nuts and bolts at this level for corrosion and tightness.

46. LADDERS AND HANDRAILS

(a) Check handrail supports at this level for corrosion and security.

(b) Check nuts for tightness.

47. LIGHTNING ARRSTOR INSTALLATION

Check fittings for security and continuity of connecting cable.

48. FEEDER CLAMPS

(a) Check feeder clamps, coaxial cable and waveguide connections.

49. BONDING

Examine earth kits and feeder earth straps.

GENEAL REPORT OF MAST AND TOWER INSPECTION

Attached additional reports to this inspection form for incidental replacements, damage, significant meteorological conditions, unsafe conditions and other general comments.

INSPECTION OFFICER

DESIGNATION

DATE

SITE.....

E.S.A (Manufacture & Size).....

LAST INSPECTED.....

CHECK

- ITEM 1.** Inspect foundation footing for cracks, subsidence and crumbling
 - 2. Examine base plate, nuts and bolts for corrosion.
 - 3. (a) Inspect feeder cables.
(b) Inspect feeder conduits
(c) Inspect power cable.
(d) Ensure a good earth connection.
 - 4. Ensure that feeder are pressurized to 50Kpa.
 - 5. (a) Inspect dish and feed horn for damage and security
(b) Report general condition of dish, e.g. dust build-up, etc.
 - 6. (a) Inspect mounting frame
(b) Check nuts and bolts for tightness.
(c) Check adjustment screws for trust, damage, etc.

- 7. Check general soil condition around foundations (cracking, erosion, etc.)

Attention: For any items that need repairs/maintenance modification, please show exact position, and all particulars needed to carry out work on E.S.A. (attach to inspection report).

INSPECTION OFFICER

DESIGNATION

SIGNATURE

DATE

AERIAL INSPECTION REPORT

SITE..... CHECK

ITEM 1. Feeder correctly supported and clamped

2. Feeders correctly bonded

3. Feeders checked for straightness and twists

4. Feeders pressurised toKpa.

5. Gas flow meter reading: Top.....

Bottom.....

IS FLOW METER FITTED?

6. Window entry flangs is fitted and sealed.

- 7. Feeders protected over complete length.
- 8. Check re-broadcast repeater aerial condition
(physical/mechanical)
- 9. All aerial panels are tightly attached and square.
- 10. Check direction of aerials, where applicable.
- 11. All nuts and bolts are tight and rust free.
- 12. All baluns are tight and rust-free
- 13. All 'U' links and power dividers are tight and
free from corrosion.
- 14. Check entire system for air leaks.
- 15. Check lightning arrestor for tightness, effectiveness
and freedom from rust.

(Attention: For any items that need repairs, maintenance or modification, please show exact location and all particulars needed to carry out the work on the aerial system. (Attach to this report).

INSPECTION OFFICER

DESIGNATION

SIGNATURE

DATE

APPENDIX B

DEFINITIONS ON VIDEO CRICUIT PERFORMANCE MEASUREMENTS

A. DIRECT PATH

For purposes of measurement the Direct Path is assumed to comprise the circuit from equipment, through the presentation and Master-Control Switching and processing equipment, back to the equipment.

B. WORST PATH

For the purpose of measurement, the Worst Path is assumed to comprise the following, with all inter-connections carried out using the normal equipment routes.

- (i) The source studio mixer
- (ii) A.V.T.R. path
- (iii) A second V.T.R. path
- (iv) The Presentation and Master Control path.

The tolerance limits do not include degradations due to signal sources such as cameras, or video tape.

A measurement of the Worst Path Parameters is normally only necessary after the completion of a new installation.

C. STUDIO PATH

For the purpose of measurement the Studio path will comprise that path of the system that starts at the output of any source and is routed through the normal assignment path, one studio, the normal studio output assignment path and ends at the interface with a V.T.R. or M.C.R.

D. O. B. PATH

OB vision tolerances relate to circuits from the colour encoder output to the agreed interface with the OB link including all mixing, switching and processing equipment normally in use in programme operation.

E. O.B. LINK PATH

OB Link tolerances are related to an unspecified number of point-to-point SHF links. Measurement is made at the final output of the link at which point connection to a permanent circuit would be made.

APPENDIX C

DEFINITIONS ON AUDIO RECORDERS PERFORMANCE REQUIREMENTS

High quality tolerance apply to equipment, including multi-track recorders, used for the recording and replaying of signification speech and music.

Tolerance listed refer to a single recording and not necessarily played back on the same machine.

Related tracks are defined as those which normally carry specific contributions to a composite sound, such as the orchestral components of a musical balance.

Unrelated tracks are defined as those carrying information which is acoustically dissimilar, such as Time-Code or other synchronizing signals, effects and foreign language tracks

TABLE 5.8.1-
2T PULSE-AND-BAR TEST SIGNAL

- .A. 2T Pulse
 - B. 2T bar
- T = 100ns

Note: For the design of the shaping network, see:

Macdiarmid and Philips (1958) Proc IEE, Vol. 105b, 400

TABLE 5.8.2-
STAIRCASE TEST SIGNAL
(CCIR REC. 451 – 2)

- A. Optical colour burst
- B. Superimposed sub-carrier (4.43MHz)
- C. 3 lines at black level or 3 lines at white level

TABLE 5.8.3 –
TYPICAL K-RATING GRATICULE

**TABLE 5.8.4 –
50 Hz SQUARE – WAVE TEST SIGNAL
(CCIR REC. 451 – 2)**

**TABLE 5.8.5-
2TC COMPOSITE PULSE-AND-BAR TEST SIGNAL**

2Tc Composite Pulse – and – Bar Test Signal

TABLE 5.8.6
2T NON-COMPOSITE PULSE-AND-BAR
TEST SIGNAL

2Tc Composite Pulse – and – bar Test Signal

TABLE 5.8.7 – LINE WAVEFORM OF 75% EBU COLOUR BAR

TABLE 5.8.8
PICTURE ZONE

Dimensions	Percentage
A Height of whole field	100
B Height of inner zone	80
C Verticle position of inner zone	10 Relative to the scanned image Height
D Corner radius of inner zone	21
E Width of whole field	100
F Width of inner zone	80 Relative to the scanned image width
G Horizontal position of inner zone	10

The aspect ratio of the scanned image and the inner zone shall be 4:3

Note: The zones defined in this diagram are equivalent to those defined in BS5115

THE FEDERAL REPUBLIC OF NIGERIA

NATIONAL BROADCASTING

DECREE NO. 38

DECREE NO. 38

THE FEDERAL MILITARY GOVERNMENT Hereby Decrees as follows:

Establishment, etc. of the National Broadcasting Commission

Establishment of the National Broadcasting Commission

1. There is hereby established a Commission to be known as National Broadcasting Commission. (in this Decree referred to as “the Commission”) which shall be a body corporate with perpetual succession and a common seal and may sue and be sued in its corporate name.

Power of the Commission

2. (1) The Commission shall have responsibilities of:
 - (a) advising the Federal Military Government generally on the implementation of the National Mass Communication Policy with particular reference to broadcasting;
 - (b) receiving, processing and considering applications for the ownership of radio and television stations including cable television services, direct satellite broadcast and any other medium of broadcasting;
 - (c) recommending applications through the Minister to the President, Commander-in-Chief of the Armed Forces for the grant of radio and television licences;
 - (d) regulating and controlling the broadcast industry;

- (e) undertaking research and development in the broadcast industry;
- (f) receiving, considering and investigating complaints from individuals and bodies corporate regarding the contents of a broadcast and the conduct of a broadcasting station;
- (g) upholding the principles of equity and fairness in broadcasting;
- (h) establishing and disseminating a national broadcasting code and setting standards with regard to the contents and quality of materials for broadcast;
- (i) promoting Nigerian indigenous cultures, moral and community life through broadcasting;
- (j) promoting authenticated radio and television audience measurements and penetration;
- (k) initiating and harmonizing Government policies on transborder direct transmission and reception in Nigeria;
- (l) regulating ethical standards and technical excellence in public, private and commercial broadcast stations in Nigeria;

(m) monitoring broadcasting for harmful emission, interference and illegal broadcasting;

(n) determining and applying sanctions including revocation of licences of defaulting stations which do not operate in accordance with the broadcast code and in the public interest;

(o) approving the transmitter power, the location of stations, areas of coverage as well as regulate types of broadcast equipment to be used; and,

(p) Carrying out such other activities as are necessary or expedient for the full discharge of all or any of the functions conferred on it under, or pursuant to this Decree;

(2) No person shall operate or use any apparatus or premises for the transmission of sound or vision by cable, television, radio, satellite or any other medium of broadcast from anywhere in Nigeria except under and in accordance with the provisions of this Decree

3. (1) The Commission shall consist of-

(a) A Chairman

(b) Nine other members as may be appointed to represent the following interests, that is:-

(i) law,

(ii) business,

- (x) performing arts,
- (xi) education
- (xii) social science,
- (xiii) media
- (xiv) public affairs, and

(c) the Director General of the Commission.

(2) The Chairman and other members of the Commission shall be persons of proven integrity, experience and specialised knowledge in the broadcasting industry or who by reason of their professional or business attainment are in the opinion of the Minister capable of making useful contribution to the work of the Commission.

(3) The Chairman and other members of the Commission shall be appointed by the President, Commander-in-Chief of the Armed Forces on the recommendation of the Minister.

(4) The Chairman and other members of the Commission shall be part-time members.

(5) The supplementary provisions contained in the First Schedule to this Decree shall have effect with respect to the proceedings of the Commission and the other matters contained therein

Tenure

4. (1) The Chairman and other members of the Commission shall hold office for three years renewable for on further period of three years only.

(2) The Chairman or a member of the Commission may resign his appointment any time by notice in writing under his hand addressed to the President, Commander-in-Chief of the Armed Forces.

(3) If a member of the Commission dies or resigns or otherwise vacates his office before the expiry of the term for which he is appointed, a fit and proper person shall be appointed for the remainder of the term of office of the predecessor, so however that the successor shall represent the same interest and shall be appointed by the President, Commander-in-Chief of the Armed Forces.

(4) A member of the Commission may be removed from office by the President, Commander-in-Chief of the Armed Forces, if he is satisfied that it is not in the interest of the Commission or the interest of the public that the member should continue in office.

STAFF OF THE COMMISSION

- 5 (1) There shall be appointed for the Commission, a Director-General who shall be the chief executive of the Commission.

(2) The Director-General shall be appointed by the President, Commander-in-Chief of the Armed Forces on the recommendation of the Minister.

(3) The Director-General shall be a person with wide knowledge and experience in broadcasting.

Director-General and other staff of the Commission

(4) The Director-General shall be responsible for the execution of the policies of the Commission and its day-to-day administration.

(5) The Director-General shall hold office in the first instance for a period of five years and shall be eligible for re-appointment for such further periods as the President, Commander-in-Chief of the Armed Forces may, from time to time, determine.

(6) Subject to this section, the Director-General shall hold office on such terms as to emolument and otherwise as may from time to time, be approved by the President, Commander-in-Chief of the Armed Forces.

(7) The Commission shall appoint a Secretary to the Commission who shall keep records, conduct correspondence of the Commission and carry out and perform such other duties as the Commission or the Director-General may, from time to time, direct.

(8) The Commission may appoint such other employees to assist the Director-General in the exercise of his functions under this Decree.

**Power of Minister 6.
To give directives**

Subject to the provisions of this Decree, the Minister may give the Commission directives of a general character relating generally to particular matters with regard to the exercise by the Commission of its functions under this Decree and it shall be the duty of the Commission to comply with such directives.

**Conditions of
Service.**

7. The Commission shall develop and submit to the President, Commander-in-Chief of the Armed Forces appropriate conditions of service concerning

remunerations, fringe benefits, pension scheme and other benefits for its employees.

**Service in the
Commission to
be pensionable**

Cap. 346 LFN

8. (1) Notwithstanding the provision of the Pensions Act, service in the Commission shall be approved service for the purpose of that Act and accordingly, officers and other persons employed in the Commission shall be entitled to pensions, gratuities and other retirement benefits as are enjoyed by persons holding equivalent grades in the civil service of the Federation, so however that nothing in this Decree shall prevent the appointment of a person to any office on terms which preclude the grant of pension and gratuity in respect of that office.

(2) For the purpose of the application of the provisions of the Pensions Act, any power exercisable thereunder by a Minister or other authority of the Government of the Federation, other than the power to make regulation under section 23 thereof, is hereby vested in and shall be exercisable by the Commission and not by any other person or authority.

**Power of the
Commission to
Grant licences**
Cap. 59. LFN

9. (1) The Commission shall, in the consideration of an application or a licence under this Decree, be satisfied that the applicant:
- (a) is a body corporate registered under the Companies and Allied Matters Act and whose majority shares are owned by citizens of Nigeria
 - (b) can demonstrate to the satisfaction of the Commission that he is not applying on behalf of any foreign interest;

(c) can comply with the provisions of the Second Schedule to the Transition to Civil Rule (Political Parties Registration and Activities) Act;

(d) can comply with the objectives of the National Mass Communication policy as is applicable to the electronic media, that is, radio and television.

(e) can give an undertaking that the licensed station shall be used to promote national interest, unity and cohesion and that it shall not be used to offend the religious sensibilities or promote ethnicity, sectionalism, hatred and disaffection among the people of Nigeria.

(2) The grant of a license by the Commission under this Decree shall be subject to availability of broadcast frequencies.

(3) Compliance with the requirements specified in subsection (1) of this section shall not entitle an applicant to the grant of a licence, but the grant of a licence, by the Commission shall not be unreasonably withheld.

(1) In determining the grant of a licence the Commission shall consider the following, that is:-

(a) The structure of shareholding in the broadcasting organisations;

(b) The number of shareholding in other media establishments;

(c) The distribution of those stations and establishments; as between urban, rural, commercial or other categorisation.

- (5) It shall be illegal for any person to have controlling shares in more than two television stations.
- Person disqualified from the grant of a licence**
10. The Commission shall not grant a licence to:-
- (a) A religious organisation; or
 - (b) A political party
- Method of application for a licence**
11. A request by a person for authority to own, establish or operate a radio, sound, television, cable or satellite station shall be by way of an application for a licence addressed to the Director-General of the Commission and in the form prescribed in the Second Schedule to this Decree.
12. The grant of license shall be subject to the terms and conditions set out in the Third Schedule of this Decree.
- Terms and conditions of for a licence**
13. (1) The Commission shall have power with respect to any licence granted under section 9 of this Decree:-
- (a) to allocate broadcast frequencies generally (FM/MW for radio and UHF for television) to a licensed station;
 - (b) to approve the location of a station;
 - (c) to regulate the technical specifications of equipment and standard of transmission;
 - (d) to approve the call signal of a station;
 - (e) to approve the area to be served by a station;
 - (f) to impose sanctions in accordance with paragraph 8 of the Third Schedule to this Decree; and
- Power of the Commission with respect to licences**

(g) to prescribe an appropriate fee payable.

(2) The Commission shall have the power to enter into the premises of any station and inspect or examine any apparatus of operation in the station in order to ascertain their conformity with the provisions of this Decree.

(3) The Commission may exercise its power under this section of this Decree through its agents.

FINANCIAL PROVISION

Fund of the Commission

14. (1) The Commission shall establish and maintain a fund from which shall be defrayed all expenditure incurred by the Commission.

(2) There shall be paid and credited to the fund established pursuant to subsection (1) of this section:-

(a) such percentage of fees and levy to be charged by the Commission on the annual income of licensed broadcasting stations;

(b) such money as may, from time to time, be lent or granted to the Commission by the Government of the Federation or of a State.

(c) all moneys raised for the purposes of the Commission by way of gifts, loans, grants-in-aid, testamentary disposition or otherwise;

(d) all other assets that may, from time to time, accrue to the Commission.

(3) The fund shall be managed in accordance with rules made by the Commission and without prejudice to the generality of the power to make rules under this subsection, the rules shall in particular contain provisions:-

(a) specifying the manner in which the assets or the fund of the Commission are to be held and regulating the making of payments into and out of the fund; and

(b) requiring the keeping of proper accounts and records for the purpose of the fund in such forms as may be specified in the rules.

Expenditure of the Commission

(1) The Commission may, from time to time, apply the proceeds of the fund established pursuant to section 14 of this Decree to:-

(a) the cost of administration of the Commission;

(b) the payments of salaries, fees and other remuneration, allowances, pensions, and gratuities payable to members or employees of the Commission.

Power to accept gifts 16.

(1) The commission may accept gifts of money or other property and upon such terms and conditions, if any, as may be specified by the person or organisation making the gifts, provided that such gifts are not inconsistent with the objectives and functions of the Commission under this Decree.

Borrowing power 17.

(1) The Commission may with the consent of the Minister borrow, on such terms and conditions as the Commission may determine, such sums money as the Commission may require in the exercise of the functions conferred on it under this Decree.

**Annual estimates,
accounts and
audit**

18.

(1) The Commission shall not later than 31st October in each year, submit to the National Council of Ministers an estimate of its expenditure and income during the next succeeding financial year.

(2) The Commission shall cause to be kept proper accounts of the Commission in respect of each year and proper records in relation thereto and shall cause its accounts to be audited not less than 6 months after the end of each year by auditors appointed from the list and in accordance with the guidelines supplied by the Auditor-General of the Federation.

MISCELLANEOUS AND SUPPLEMENTARY

- | | | |
|---|-----|---|
| Annual
report | 19. | (1) The Commission shall prepare and submit to the Minister not later than 30 th June in each year, a report in such form as he may direct on the activities of the Commission during the immediately preceding year, and shall include in such report a copy of the audited accounts of the Commission that year and Auditor-General's report thereon. |
| Regulation | 20. | (1) The Commission may, with the approval of the Minister, make regulations generally of the purpose of giving effect to provisions of this Decree. |
| Savings | 21. | Pursuant to the provisions of section 9 of this Decree, the power hitherto exercised by the Minister in so far as they relate to the grant of licences in respect of cable television services shall be deemed to have been performed by the Commission established by this Decree. |
| Repeal to
certain
sections of
Certain
Enactment
Cap. 329
LFN
Cap.469
LFN | 22. | (1) Section 7 (1) of the Nigerian Television Authority Act and section 6 (1) of the Federal Radio Corporation of Nigeria Act are hereby consequentially repealed.

(2) The power under the Wireless Telegraph Act and regulations made thereunder in so far as they relate to broadcasting shall, as from the commencement of the Decree, vest in the Commission without further assurance than by this Decree. |

- Interpretation 23.** In this Decree, unless the context otherwise require –
“Chairman” means the Chairman of the Commission;
“Commission” means the National Broadcasting Commission established by section 1 of this Decree;
“member” means a member of the Commission and includes the Chairman; “Minister” means the Minister charged with the responsibility for information and
“Ministry” shall be construed accordingly; “Secretary” means the Secretary to the Commission; “Station” means a place or organisation established for the purpose of distribution of radio or television programmes to the public through wireless or cable means.
24. This Decree may be cited as the National Broadcasting Commission Decree 1992.

**The National Broadcasting Commission
Commission Decree 1992**

SCHEDULES

FIRST SCHEDULES Section 3 (5)

SUPPLEMENTARY PROVISIONS RELATING TO THE COMMISSION

Proceedings of the Commission

1. The Commission shall meet the conduct of its business at such times as the Chairman may determine.
2. The Commission shall have power to regulate its proceedings and may make standing orders for that purpose and subject to any standing orders and to paragraph 3 of this Schedule, may function notwithstanding:
 - (a) any vacancy in its membership or the absence of any member;
 - (b) any defect in the appointment of a member; or
 - (c) that a person not entitled to do so took part in its proceedings.

3. The quorum at any meeting of the Commission shall be a simple majority of the members
4. Where standing orders made under paragraph 2 of this Schedule provide for the Commission to co-opt persons who are not members of the Commission such persons may attend meetings of the Commission and advise it on any matter referred to them by the Commission but shall not count towards a quorum and shall not be entitled to vote at any meeting of the Commission.

COMMITTEES

5. The Commission may appoint one or more committees to advise it on the exercise and performance of its functions under this Decree and shall have power to regulate the proceedings of its committees.

MISCELLANEOUS

6. (1) Any contract or instrument which if entered into or executed by a person not being a body corporate would not be required to be made under seal may be entered into or executed on behalf of the Commission by any person generally or specifically authorized in that behalf by the Commission.

(2) Any member of the Commission or of a committee thereof, who has a personal interest in any contract or arrangement entered into or proposed to be considered by the Committee, as the case may be, shall not vote on any question relating to such contract or arrangement.
7. (1) The common seal of the Commission shall not be used or affixed to any document except in pursuance of a resolution duly passed at a properly constituted meeting of the Commission and recorded in the minutes of the meeting.

(2) The fixing of the seal of the Commission shall be authenticated by the signature of the Chairman or some other members authorised generally or specifically by the Commission to act for the purpose.

(3) Any document purporting to be a document duly executed under the seal of the Commission shall be received in evidence and shall, unless the contrary is proved, be deemed to be so executed.

SECOND SCHEDULE

Section 11

FORM FOR APPLICATION FOR A GRANT OF LICENCE

1. Name of Applicant.....
2. Address.....
3. Names and Nationalities of Directors.....
4. Names and Nationalities of Shareholders and Shareholding.....
.....
5. Equity Structure.....
6. Types of Broadcast Licence required (Radio/TV, Cable TV, etc.....
7. Purpose of Licence.....
8. Duration for which Licence is required.....
9. Location.....
10. Coverage area.....
11. Target audience/Programme Profile.....
12. Applicant's interest in any other media organisation.....

13. Type and make of transmitters.....
14. Effective radiating power.....
15. Type of antenna and its characteristics.....
16. Distance between studio and transmitter station.....
17. Type of link system to be used.....
18. Method of reception (scrambled or open broadcast).....
19. Type, range and standard of programmes.....
20. Proportion of Nigerian content to the foreign content.....
21. Proposal for increase of local content over licensed period.....
22. Any special effort to promote indigenous talents.....
23. Evidence of financial and technical capabilities of applicant.....

UNDERTAKING

24. I/We..... hereby give an undertaking that upon a grant of a licence
I/We shall abide by the terms and conditions upon which the licence is granted.

.....

Signed

25. An application shall be accompanied by the following:
 - (a) Certificate of Incorporation,

- (b) Certificate Copy of Articles and Memorandum of Association,
- (c) Project Study including engineering design of system,
- (d) Evidence of the undertaking required under section 9 (e) of the Decree.

THIRD SCHEDULE

Section 12

TERMS OF A LICENCE

1. A licence shall be valid for a period of five years in the first instance.
2. An application for the renewal of a licence shall be made to the Commission within a period of six months before the expiration of the licence.
3. A licence shall not be transferable and the licensed station shall not be changed without notifying the Commission of the intention and reasons for such change.
4. The holder of a licence shall be entitled to operate only one station in respect of a licence.
5. A licence shall:-
 - (a) contain a schedule of proposed programmes over a given period of time e.g. quarterly.

- (b) a local programme content which shall not be less than 40%, and
 - (c) a schedule shall be accompanied by a synopsis of each of the programme plans.

- 6. Each station shall keep a daily log of its transmitted programmes and the station log book shall include a transmitter output power and radiating frequencies.

- 7. Each station shall make available for inspection by the inspectorate staff of the Commission its broadcast facilities including equipments and station log books.

- 8. A licence may be revoked by the Commission in the following cases, that is:-
 - (a) where the prescribed fee has not been paid on the due date,

 - (b) where the licence has not been put to use within a period of one year after issuance,

 - (c) where it is found that the licence was obtained in breach of the provisions of section 13 of this Decree or where it is found that the provisions of the said section are not being complied with, and

 - (d) Where in the opinion of the Commission the

station has been used in a manner detrimental to national interest or where a complaint from the public has been upheld after a hearing instituted by the Commission and whose decision is upheld by a majority of members of the Commission.

9. The Commission may impose a lesser sanction such as a warning or the suspension of a licence as it may deem it.

MADE at Abuja this 24th day of August 1992.

GENERAL I. B. BABANGIDA,
President, Commander-in-Chief
of the Armed Forces,
Federal Republic of Nigeria

EXPLANATORY NOTE

(This note does not form part of the above decree but is intended to explain its purpose).

The Decree establishes the National Broadcasting Commission to, among other things, receive, process and consider application for the ownership of radio and television stations including cable

television services, direct satellite broadcast and other medium of broadcasting.

- * In the case of cable satellite redistribution organisations, the regulations as spelt out in item 5 (b) of the Third Schedule, is that the local programme content shall not be less than 20% (NBC), on any Channel.

- ** The minimum standard of operation in any broadcast station other than cable/satellite shall be 60% local and 40% foreign (NBC).