Mandate of the Authority

The NCA Act 769 mandates the Authority to regulate Electronic Communication Services in Ghana. For the purpose of achieving its mandate, the Act provided the Authority the power to establish and monitor the implementation of national communications standards and ensure compliance accordingly.

Furthermore, the Authority is mandated under same Act to certify and ensure the testing of communications equipment for compliance with international standards bothering on the issues of environmental, health and safety standards including electromagnetic radiation and emissions.

Subsequent legislations such as the Electronic Communications Act, 2008 (Act 775) empowered the Authority to determine whether terminal equipment or any other equipment fulfils the criteria to be determined in regulations in order to certify or approve such terminal equipment or other equipment to be installed or used for the network or service of:

(a) a public electronic communications network,

(b) a public electronic communications service, or

(c) a broadcasting service.

For the Authority to make such determinations, it had to develop the necessary specification based on which such equipment must be tested. There was therefore the need for the establishment of a regime to ensure that the requirements of the law are strictly adhered to. Hence the Electronic Communications Regulations, 2011 (L.I. 1991) required the Authority to establish an approval mechanism.

Going through the enabling and the operational acts and regulations, much authority has been vested in NCA to establish standards, monitor and certify communications equipment whether for the telecommunication or broadcasting sector.

What Was Done Before This Regime

Although the Type Approval Regime, which sought to realize the various aspects of the laws governing the use of equipment in the electronic industry, was in place prior to 2011, the Authority established guidelines in 2013 and operationalized it in 2014 through series of workshops and public consultations as well as public awareness and education.

Challenges/Gaps

The guidelines went through major revisions and consultations, and was finally gazetted in 2015 as a result of questions and challenges that came with the then Type Approval Guidelines, 2014.

Some of the challenges include very short lead time that the Authority set for itself in processing type approval applications. We realized that they were unattainable considering the volume of applications.

The regime also lacked technical specifications for specific devices such as mobile cellular terminals and short-range radio devices.

We also noticed that most of the international standards that were needed for the regime were not in place.

The Type Approval Guidelines 2015 has been the main regulatory framework for issues of type approval and standardization for electronic communication equipment.

As mentioned in the preceding paragraphs, the type approval regime had been in place since 2009 there was however no guiding documents until 2014 when procedures were clearly defined including the leadtime for type approval, revision of associated fees and implementation of the electronic application system known as the Type Approval Management System (TAMSys).

The implementation of the TAMSys permitted the public to have access to the list of devices approved by the Authority and the relating technical standards as applicable to the devices.

The Authority therefore teamed up with the Ghana Standards Authority to develop, adopt and adapt identified critical standards for the regime through the National ICT Standardization Committee known as the TC24.

The certification of communication devices were made on the judgement of documents submitted by application from accredited laboratories. There was no way as a regulator, the NCA could verify the correctness of the documents submitted. This served as a bigger hindrance to the whole process.

Another bottleneck to ensuring the effectiveness of the regime was lack of marking for the devices certified by the Authority and parallel importation of same devices. Therefore, it became necessary to design market surveillance procedure to tie in to the type approval regime.

What Is Being Done Now

The Type approval regime was purely administrative. Although it will continue to be, the Authority has set up equipment test lab to support the market surveillance procedures.

This means that the Authority can independently verify devices to ensure that they comply with the set of regulatory objectives known as the essential requirement which was introduced into the 2015 Type Approval Guidelines.

Further, the Authority is now in the process of converting the Guidelines into Regulations to give a higher legal overtone to the process.

Regulatory tools being used

Over the years, the NCA as a matter of necessity implemented various regulatory measures, which in essence laid the foundations for a structured and sustainable telecommunication standardization ecosystem. These regulatory tools include:

National Technical Committee TC 24

The NCA has adopted a Collaboratory approach to standardization in the telecommunication sector. This has largely been through an Inter-Agency National Committee to develop, review and adapt standards for the Telecommunications/ICT equipment and services in Ghana. The committee consist of representation from the NCA, Ghana Standards Authority (GSA), Academia (Research Institutes), Operators and Consumers. Standards developed by the National Committee on Technical Standards Develeopoment (TC 24)are gazette by the GSA and enforced by the NCA through collaboration with relevant stakeholders including customs.

Equipment Authorization (Type Approval)

Type Approval is an official confirmation by a government or a regulatory body that a manufactured product meets required minimum specifications. By this, the NCA grants Type Approval Certificates (TAC) to Electronic Communication Equipment (ECE) before they can be imported, sold and/or distributed in Ghana. The Type Approval process ensure the conformance of ECE to adopted national and international standards. To give clarity to the Type Approval process, the NCA developed the Type Approval Guidelines in 2015 to guide brand owners and other Type Approval Applicants.

The Type Approval Guidelines

The Type Approval Guidelines was developed to among other things provide a reference and guide to the Type Approval process and to set the basic framework for future equipment standardization.

The Type Approval Regulations

The NCA has developed draft Type Approval Regulations to enshrine the aforementioned guidelines into law as well as streamline the Type Approval framework in accordance with Sections 66 and 67 of the EC Act and Regulations 78 and 79 of L.I. 1991.

The Type Approval Management System

The Type Approval Management System was developed to provide for electronic submission and processing of Type Approval Applications. It also has a database component for brand owners, the general public and the Customs Exercise and Preventive Service (CEPS) to check for already approved devices by the NCA.

The NCA Type Approval Laboratories

The NCA Type Approval Testing Laboratory is to aid our market surveillance in the country. The testing laboratory consists of a Specific Absorption Rate (SAR), Electromagnetic Field (EMF) measurements, Digital Terrestrial Television (DTT) and Radio Frequency and Signalling (RF & Sig) Laboratories.

Scope of the NCA Type Approval Testing Labs

The NCA Type Approval testing Laboratory have capabilities to perform conformance and functional testing to the following specific standards/specifications:

A.   Specific Absorption Rate, SAR Lab

The lab has the capacity to measure head and body SAR levels in accordance to limits recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), and FCC. The NCA SAR lab can conduct measurements for different mobile cellular access frequency bands.

B.   Radio Frequency (RF) and Signalling Testing Lab

RF & Signaling Lab ensures interoperability of different user devices to the various networks in Ghana and conformance to GSM, WCDMA, LTE, WLAN & Bluetooth technical specifications. This lab aids in quality of service delivery to the user

C.   Electromagnetic Field (EMF) Testing

EMF measurement are performed to monitor the emission levels from radiating sources within the 100 kHz to 6GHz frequency band. The lab also simulates the impact of radiating sources to their immediate environment such as Schools, Hospitals, etc. given the parameters of the radiating sources. This allows us to compare the calculated and measured emission values.

Port Inspections

Once Telecom equipment dealers import ICT devices into the country, they are required to declare the details of the shipment to the NCA through Customs' system. The NCA subsequently conducts physical inspection at the ports of entry to ensure that the devices are Type Approved.

Devices, which are not type approved, are cleared into the NCA's custody and dealers are then required to show proof of conformance by going through the Type Approval Certification before the equipment are released.

Market Surveillance

The NCA undertakes market surveillance activities from time to time to ensure that only type approved ICT devices are sold in Ghana. Such surveillance activities normally result from a complaint, a report of interference, visual inspection of ICT devices in a retail outlet, inappropriate advertising or simply random selection. This is aimed at ensuring the protection of users from hazards of unapproved and counterfeit ICT devices.

4. Benefit/impact: consumers, industry

For consumers:
- Increasing consumer access to safe and quality ICT devices
- Enhance consumer quality of experience on networks
- Guarantee environmental safety and health of users of ECE

For Industry:
- Reduces the circulation of counterfeit ICT devices
- decreasing time-to-market for companies manufacturing telecommunication equipment with shorter and shorter product life cycles, thus maximizing export opportunities and allowing for rapid reinvestment in research and development for next-generation technologies
- Prevent damage/interruption to interconnected networks
- Ensure effective use of the frequency spectrum
- Avoid interference to other communications systems
- Facilitate the availability of quality equipment to operators
- Promote interoperability between communications networks
- Promote the development of communications networks including the supply of Electronic Communications Equipment by qualified suppliers

- Ensure conformance to national and international standards