Information & Communication Technologies Authority

Document Ref: ICTA/STD/2020/01

Deployment of Radiocommunication Infrastructure Technical and Administrative Standard for Electromagnetic Field (EMF) Safety

(EMF Safety Standard)

01 December 2020

EXPLANATORY MEMORANDUM

Allowing the ICT sector to thrive today is a matter of finding the balance between creating the right incentives and enforcing necessary rules.

Considering that:

1) The Information and Communication Technologies Authority (ICTA) has as function under section 18(1) (n) of the ICT Act 2001 "to ensure the safety and quality of every information and communication services including telecommunication services, and for that purpose, determine technical standards for telecommunication network, the connection of customer equipment to telecommunication networks";

2) The ICTA issued a *Deployment of Radiocommunication Infrastructure Technical and Administrative Standard for Electromagnetic Field (EMF) Safety*, hereinafter referred to as 'the Standard', on 23 March 2011;

3) The ICTA has the mandate to revise the Standard as and when required, on the basis of contributions received through public consultation exercises;

4) Licensees have in the past expressed their concerns regarding the current authorisation process, which were essentially in relation to:-
   (a) the lengthy process with respect to fast deployment of new installations; and
   (b) the obligation to conduct a public consultation for each new site being set up prior to filing an application with the ICTA.

The ICTA has made changes to the Standard with the objective of adopting a more flexible approach regarding authorisations issued in the context of deployment/modification of Radiocommunications Infrastructure by shifting from a regulator-led authorisation process to a regime of self-declaration by Licensees and registration with the ICTA. Licensees, thus empowered, will be required to apply the provisions of this revised Standard with a view to ensuring that public exposure to EMF is minimised.

The ICTA resolves to:

1) make available for public consultation the Revised Standard – **ICTA/STD/2020/01**;
2) invite views, contributions, and comments on the said Revised Standard.

GUIDELINES ON RESPONDING TO THIS CONSULTATION

1) All comments are welcomed; however, it would make the task of analyzing responses easier if comments were referenced to the relevant sections of this document.

2) You are invited to send your written views and comments to the **Executive Director, ICT Authority, 12th Floor, The Celicourt, Celicourt Antelme Street, Port Louis**, or by email to **info@icta.mu**, at latest by **16h00 on 21 December 2020**.

3) Should you be including confidential information as part of your responses, you are requested to clearly identify the said confidential materials and to place same in a separate annex to your response.

REVISIONS

Revision No.	Date	Nature of Revision
V1	23 March 2011	Creation of document
V2	29 October 2020	Changes to:- a. Section 4 - **DEFINITIONS AND ABBREVIATIONS** b. Section 6.3 - Registration and Modification of Radiocommunications ***Infrastructure*** c. Section 6.4 - ***Application of Precautionary Approach to Site Operation*** d. Section 6.5 - ***Documentary Evidence of Compliance with Procedures*** e. Section 6.6 - ***Auditing of Radiocommunications Infrastructure*** f. Appendix C - **ON-SITE SIGNAGE** Other relevant general amendments to the Standard

TECHNICAL STANDARDS FOR TELECOMMUNICATION NETWORK

made under sections 18(1)(n) and 26(e) of the Information and Communication Technologies Act 2001 (as amended)

1. ACKNOWLEDGEMENT

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2. SCOPE AND OBJECTIVES

This Technical Standard for Telecommunication Network shall be known as the **Deployment of Radiocommunication Infrastructure Technical and Administrative Standard for Electromagnetic Field (EMF) Safety**, hereinafter referred to as the Standard.

2.1 Scope

2.1.1 The Standard applies to all licensees holding a valid licence to operate a fixed radiocommunications infrastructure (e.g. Base Stations in a Public Land Mobile Network).

2.1.2 The licensees shall be solely responsible for the compliance of the Standard by any contractor, agent or person working on behalf of the licensees for the purpose of:

(a) installing;
(b) intending to install;
(c) operating; or
(d) contracting or arranging

for the installation of fixed radiocommunications infrastructure which is used, intended to be used, or capable of being used to supply Information and Communication Services including Telecommunication Services.

2.2 Objectives

The objectives of this Standard are:

(a) to apply a Precautionary Principle to the deployment of radiocommunications infrastructure;

(b) to provide best practice processes for demonstrating compliance with relevant exposure limits and the protection of the public;

(c) to ensure relevant stakeholders are informed and consulted before the radiocommunications infrastructure is constructed;

(d) to specify standards for consultation, information availability and presentation;

(e) to consider the impact on the wellbeing of the community, physical or otherwise, of radiocommunications infrastructure; and

(f) to ensure the views of Local Authorities and the community are considered and incorporated, if need be, into the radiocommunications infrastructure site selection.

2.3 Commencement and Application of Standard

2.3.1 This revised Standard shall come into effect on **xx xxx xxx** and shall apply to all new and existing radiocommunications infrastructures.

2.3.2 This Standard shall not apply to inherently compliant installations.

2.4 Transitional Provisions

2.4.1 The Licensee shall submit a Declaration of Compliance and register all existing and operational sites on the ICTA Online Portal by 05 April 2021.

2.4.2 Any authorization previously issued shall remain valid until 05 April 2021.

2.4.3 The Authority may reconsider the set deadline, should there be valid reasons to do so, in consultation with the relevant stakeholders.

2.5 Interpretation

2.5.1 The provisions of the Interpretation and General Clauses Act (IGCA) shall be applicable for the interpretation of the Standard, where the need arises.

2.5.2 This Standard shall be read so as to be consistent with the Information and Communication Technologies Act 2001 (as amended).

2.5.3 A record is deemed to include an electronic document such as an e-mail or facsimile.

3. REVISIONS

Revisions to this document shall be made, as and when required, on the basis of contributions received through public consultation exercises.

4. DEFINITIONS AND ABBREVIATIONS

For the purposes of this Standard, the following definitions and abbreviations shall apply:

(a) ***Base station*** means a radiocommunications transmitter and its associated infrastructure including any antennas, housings and other equipment.

(b) ***Co-located site*** means a site where two or more licensees share the same ground-based, rooftop or other infrastructure.

(c) ***Consultation*** means a process whereby Licensees seek to inform other parties about a proposed project at particular premises with the intention of giving those parties an opportunity to respond to the proposal and to have their responses considered.

(d) ***Declaration of Compliance*** means a declaration made by a Licensee to the effect that its radiocommunications infrastructure complies with requirements of the radio frequency public exposure guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) with a view to minimizing electromagnetic fields (0 Hz to 300 GHz) exposure to the general public.

(e) ***EMF*** in this Standard refers to the radiofrequency portion of the electromagnetic spectrum.

(f) ***Exclusion zones*** are described by the compliance boundaries around an antenna in which the electromagnetic fields exceed the safety limits. General public cannot access those areas.

(g) ***Exposure limits*** means the values of the reference levels acknowledged as the limits for the permissible maximum levels of human exposure to the electromagnetic fields. In this Standard it refers to the Reference levels for general public exposure to time-

varying electric and magnetic fields as established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), recommended by the World Health Organisation and adopted by the ICTA.

(h) ***Host operator*** refers to a licensee who has given access to its infrastructure to another licensee, the tenant operator, for the purpose of operating a base station.

(i) ***ICTA*** means Information and Communication Technologies Authority.

(j) ***ICTA Online Portal*** means the portal available on the website of the ICTA for the purpose, inter alia, of registering radiocommunication infrastructure.

(k) ***Inherently compliant installation*** means an installation operating at a total maximum power into the antenna of no greater than 2 Watts.

(l) ***Installation*** in relation to radiocommunications infrastructure, includes:

- the construction of the infrastructure, on, over or under any land;
- the attachment of the infrastructure to any building or other structure; and
- any activity that is ancillary or incidental to the installation of the infrastructure (for this purpose, installation includes an activity covered by paragraphs (a) or (b) above).

(m) ***Interested and Affected Parties*** include persons who reside within the immediate vicinity of the facility and should have a direct interest, economic, physical or social in the proposed facility.

(n) ***Local Authority*** has the same meaning as in the Local Government Act 2011.

(o) ***Precautionary Principle*** means the principle discussed in APPENDIX A.

(p) ***Public Land Mobile Network*** has the same meaning as in the PLMN licence document.

(q) ***Radiocommunications infrastructure*** means a base station used for communications. (Also referred to in the Standard as facility or infrastructure)

(r) ***RF*** means radiofrequency.

(s) ***RF Hazard Area*** means an area where the emission level exceeds the reference levels adopted by the ICTA for general public exposure to RF EMF.

(t) ***Shared site*** means a site where multiple operators are present and each Licensee independently has agreement with the site owner to install the infrastructure

(u) ***Tenant operator*** means a licensee to whom access has been granted to the installation of the host operator for the purpose of installing and operating a base station.

5. GENERAL OBLIGATIONS ON LICENSEES

5.1 Telecommunications Network Forward Planning

A Licensee shall provide assistance, where is not unreasonable to do so, to the Local Authority in the Local Authority's forward planning for the deployment of radiocommunications infrastructure, where so requested by a Local Authority, including the following:

(a) responding to reasonable requests for information that is to assist the Local Authority to develop forward plans;

(b) providing the Local Authority with the Licensee's plans concerning the deployment of radiocommunications infrastructure;

(c) providing the Local Authority with the Licensee's plans concerning service level targets for planned radiocommunications infrastructure;

(d) providing the Local Authority with an assessment of the opportunities for co-location of radiocommunications infrastructure with the facilities of other Licensees; and

(e) engaging in discussions with other Licensees to explore opportunities for co-location and to investigate opportunities for the coordinated, strategic and efficient deployment of radiocommunications infrastructure.

6. SITE SPECIFIC OBLIGATIONS ON LICENSEES

6.1 Application of the Precautionary Approach to Site Selection

This section applies where a Licensee proposes to select a site for the deployment of radiocommunications infrastructure.

6.1.1 A Licensee shall have written procedures for site selection for radiocommunications infrastructure in relation to factors contained in clause 6.1.3 and make them available to the public on request.

6.1.2 The Licensee shall comply with those written procedures.

6.1.3 The procedures shall require, as a minimum that for each site the Licensee have regard to:

(a) the reasonable service objectives of the Licensee including:

(i) the area the planned service shall cover;
(ii) power levels needed to provide quality of service;
(iii) the amount of usage the planned service shall handle;

(b) minimization of EMF exposure to the public;

(c) the possibility to co-locate on existing telecommunications infrastructure. Where co-location is not possible, the Licensee shall give the reasons thereof, which may include considerations such as: cumulative emissions, visual obtrusiveness, physical or technical limitations, coverage and potential for interference;

(d) the likelihood of an area being a community sensitive location. (Examples of sites which sometimes have been considered to be sensitive include residential areas, childcare centres, schools, aged care centres, hospitals and regional icons);

(e) the objective of avoiding, as far as is technically possible, community sensitive locations and to give preference to industrial or built-up commercial areas;

(f) relevant local government telecommunications planning policies;

(g) the outcomes of consultation processes with Local Authorities and communities;

(h) the heritage significance (built, cultural and natural);

(i) the physical characteristics of the locality including elevation and terrain;

(j) the availability of land and public utilities;

(k) the availability of transmission to connect the radiocommunications infrastructure with the rest of the network, e.g. line of sight for microwave transmission;

(l) the radiofrequency interference the planned service should cause to other services;

(m) the radiofrequency interference the planned service could experience at that location from other services or sources of radio emissions; and

(n) cost factors.

6.2 Application of Precautionary Approach to Infrastructure Design

This section applies if a Licensee proposes to design radiocommunications infrastructure.

6.2.1 A Licensee shall have written procedures for designing radiocommunications infrastructure.

6.2.2 The Licensee shall comply with those written procedures.

6.2.3 With the objective of minimising unnecessary or incidental RF emissions and exposure, the procedures shall require that in designing infrastructure the Licensee have regard to:

(a) the reason for the installation of the infrastructure considering – coverage, capacity and quality;

(b) the positioning of antennas to minimise obstruction of radio signals;

(c) the objective of restricting access to areas where RF exposure should exceed limits of the EMF exposure limits adopted by the ICTA and to notify same with relevant RF warning signs;

(d) the type and features of the infrastructure that are required to meet service needs including:

(i) the need for macro, micro or pico cells; and
(ii) the need for directional or non-directional antennas.

(e) the objective of minimising power whilst meeting service objectives;

(f) the height of installations in view of minimizing exposure to the general public; and

(g) whether the costs of achieving this objective are reasonable.

6.2.4 Site EMF assessments shall be made by in accordance with the relevant ITU-T Recommendations, including ITU-T Rec K.52, ITU-T Rec K.61, and ITU-T Rec K.100 prediction methodology, as appropriate.

6.2.5 The ICTA may request a copy of the site EMF estimate, and the Licensee shall provide the estimate to the ICTA within two weeks of the request being made.

6.3 Registration and Modification of Radiocommunications Infrastructure

6.3.1 The Licensee shall electronically register a radiocommunications infrastructure using the ICTA Online Portal, as detailed in the **Guidelines for the Registration of Base Station**.

6.3.2 Prior to registering a radiocommunications infrastructure with the ICTA, a Licensee should have followed procedures related to notification, where applicable, as detailed in the guidelines set out by the Local Authority.

6.3.3 The Licensee shall also undertake consultations with the neighbourhood of a proposed site in accordance with a consultation plan drawn in conformity to the guidelines set out under APPENDIX B of this document

6.3.4 A Licensee shall submit, on the ICTA Online Portal, a Declaration of Compliance in respect of the radiocommunications infrastructure which it intends to set up or modify once it has:

(a) completed its consultations with the neighbourhood for new installations;

(b) ascertained that the site complies with all sections of this Standard;

(c) evaluated the installation to comply with the adopted exposure limits; and

(d) determined that the installation complies with all the terms and conditions of its licence.

6.3.5 The installation shall be registered based on the Declaration of Compliance submitted by the Licensee.

6.3.6 The Licensee shall not operate the radiocommunications infrastructure unless it has registered same with the ICTA and received the clearance of other relevant Authorities.

6.3.7 The Licensee shall update and modify any parameter with regard to a registered installation using the ICTA Online Portal.

6.3.8 Any registration obtained through the ICTA Online Portal shall remain valid unless:

(a) cancelled by the Licensee,

(b) superseded by a new registration, or

(c) suspended or revoked by the Authority.

6.3.9 The ICTA shall publish on its website a list of registered radiocommunications infrastructure.

6.4 Application of Precautionary Approach to Site Operation

6.4.1 Licensees shall operate their infrastructure in a manner consistent with the objectives in clause 6.2.3.

6.4.2 Licensees shall be able to demonstrate compliance with the maximum human exposure limits for radiofrequency fields adopted by the ICTA.

6.4.3 Licensees located at a shared site should have processes in place to enable them to coordinate amongst themselves for the sole purpose of ensuring the site remains compliant with exposure limits. The operator making the last change to a site shall, by carrying out measurements in line with the in-situ measurement protocol, ensure that the total EMF emissions from the site continue to comply with the exposure limits.

6.4.4 Licensees shall take appropriate measures to restrict access to RF hazard areas by the general public.

6.4.5 In assessing whether measures are appropriate, the Licensee shall have regard to:

(a) the category of persons who shall have access to the area;

(b) the need for physical barriers;

(c) relevant occupational health and safety requirements;

(d) the views of the property owner;

(e) any site changes that have been made; and

(f) any other matter which should be relevant to ensure site safety with regards to EMF.

6.4.6 For each RF hazard area, a Licensee shall ensure warning signs are detailed in an appropriate manner and affixed in conspicuous locations, as specified in APPENDIX C.

6.4.7 In cases of non-compliance, where public access cannot be restricted to exclusion zones (like adjacent building with over exposure) as per clause 6.4.3, the rectification of non-compliance shall be the responsibility of the operator(s) at the said site.

6.4.8 Licensees shall ensure that technical staff of the Licensee, who should be involved in activities on or adjacent to radiocommunications infrastructure are sufficiently trained in radio frequency exposure safety.

6.4.9 Licensees shall ensure that RF transmission equipment no longer in service does not transmit and is removed.

6.4.10 The Licensee shall forthwith notify the ICTA of any installation which has ceased operation.

6.5 Documentary Evidence of Compliance with Procedures

6.5.1 Documentary evidence for the purpose of establishing compliance by a Licensee with the Standard, for each installation, shall comprise of:

(a) the Compliance Report prepared by the Licensee; and

(b) such clearances obtained from relevant authorities.

6.5.2 All compliance reports shall be dated, stamped and signed by a responsible officer duly authorised by the Licensee.

6.5.3 A Licensee shall keep the documentary evidence for a minimum period of three years as from the date of operation of each installation, unless an inquiry, verification or action has been initiated within that period.

6.5.4 The Compliance Report shall demonstrate the Licensee's application of the precautionary approach with respect to the following:

(a) site selection including the consultation methodology and a summary of comments received during any consultation undertaken, as well as the Licensee's consideration of same;

(b) infrastructure design including all safety measures which the Licensee will implement;

(c) results of the site EMF assessment in terms of installation compliance by means of calculations, in accordance with all relevant ITU-T Recommendations;

(d) results of the site EMF level exposure, as determined from on-site measurements performed in accordance with the In-Situ measurement protocol.

6.5.5 A copy of the Compliance Report shall be made available to any person, upon written request.

6.6 Auditing of Radiocommunications Infrastructure

6.6.1 The ICTA shall carry out an audit of the installations registered on its online portal. Auditing of a radiocommunications infrastructure shall be based on the following considerations:

(a) technical data provided in the Declaration of Compliance;
(b) calculations of EMF exposure for the particular site;
(c) on-site exposure level measurements;
(d) implementation of adequate safety measures on site (exclusion zones & safety signs);
(e) compliance with provisions of this Standard; and
(f) whether the Licensee has a history of similar breaches or a poor record of compliance.

6.6.2 For the purpose of this audit, the Licensee shall:

(a) ensure that each radiocommunications infrastructure in operation has been duly registered, and that the details of same are kept up to date;
(b) facilitate access to any selected radiocommunications infrastructure without undue delay;
(c) provide the Compliance Report, and any such other relevant information, for any selected radiocommunications infrastructure within a time frame of fifteen days from the time of the request made by the ICTA;
(d) upon request, submit to the ICTA a copy of its written procedures, as specified in sections 6.1.1 and 6.2.1, and thereafter, any amendments made to same.

6.6.3 The ICTA shall mandatorily carry out further assessments of shared sites as per Clause 6.6.1.

6.6.4 Audit Outcome:

(a) Where it has come to the notice of the ICTA that the registration has been granted on the basis of a false declaration of compliance or any other fraudulent documents submitted by the applicant, the ICTA may:

(i) where the base station is not yet in operation, suspend the registration and request the licensee to take corrective measures within a specified timeframe;

(ii) where the base station is already in operation and exposure measurements carried out in accordance with the in-situ measurement protocol demonstrate compliance, request the licensee to take corrective measures within a specified timeframe;

(iii) where the base station is already in operation and exposure measurements carried out in accordance with the in-situ measurement protocol demonstrate non-compliance, revoke the registration and direct the licensee to switch off the base station and to take corrective measures as appropriate.

(b) Where it has come to the notice of the ICTA that an installation no more satisfies the requirements specified in this Standard due to unauthorised changes made by the operator, and/or where it has been assessed as being non-compliant, the ICTA shall suspend a registration and give appropriate instructions to Licensee(s) to remedy to the situation, within a determined timeframe.

(c) Where shared site has been assessed as non-compliant, all parties shall find a solution after due consultation.

(d) The Licensee shall forthwith implement mitigation measures, as specified by the ICTA.

(e) The ICTA may require the Licensee to cease operation of the radiocommunications infrastructure and revoke the registration, to ensure the safety of the General Public

(i) in case of continuous non-compliance with the EMF exposure limits; and/or

(ii) where the Licensee has failed to take timely action to bring the installation into compliance.

(f) The ICTA may publish on its website the EMF emission levels measured at audited sites.

7. RADIO EMISSIONS AND HEALTH AND SAFETY INFORMATION

7.1 Requirement for Licensees to keep informed about EMF Research

Licensees should be informed and updated of the significance of the results of scientific investigations or studies on EMF via relevant scientific bodies.

7.2 RF EMR Health and Safety Information

7.2.1 A Licensee shall make available to the public, freely upon request, provided it not unreasonable to do so, any:

(a) information regarding how they address RF EMF health and safety issues in relation to their networks; and

(b) information about where research reports on the health and safety impacts of radiofrequency infrastructure may be obtained, by referring members of the public to the World Health Organisation (WHO) or to a relevant industry body or Government agency.

7.2.2 For a specific site, a Licensee shall provide, as soon as practicable and at no charge, the following information to members of the public on request:

(a) a description of their radiocommunications infrastructure on the site;

(b) the frequency bands in which the base station transmits;

(c) a declaration that their infrastructure complies with the ICTA adopted limits for general public exposure to RF EMF;

(d) details of any RF hazard areas associated with their infrastructure and management practices to restrict access to RF hazard areas;

(e) the levels of exposure to EMF emissions, determined in accordance with the In-Situ Measurement Protocol; and

(f) coverage information of the area.

7.2.3 This section does not apply where in the reasonable opinion of the Licensee the information is being sought for commercial purposes.

7.3 Additional Information Supplied by Licensee

7.3.1 A Licensee shall provide information about the health and safety aspects of RF transmitters in addition to that set out in Section 7.2.

7.3.2 The Licensee shall not assert anything to the effect that the absence of scientific proof means that there is no possibility of risk arising from the operation of radiocommunications infrastructure.

7.3.3 Where a Licensee provides or quotes summaries of scientific information, the Licensee shall reference the source of information.

8. COMPLAINT HANDLING

8.1 Meaning of Complaint

8.1.1 For the purpose of this Standard, a complaint means any expression of dissatisfaction or grievance made in writing to a Licensee in relation to its performance of any mandatory obligation in this Standard.

8.1.2 However, a complaint does not include:
(a) a request for information; or
(b) any comment on proposed work received by a Licensee during the consultation process under section 6.3.

8.1.3 If it appears to a Licensee that a person making a complaint requires assistance to express the complaint in writing, it is the duty of the Licensee to take reasonable steps to provide appropriate assistance to the person.

8.2 Licensee to Develop Complaints Handling Procedure

8.2.1 A Licensee shall establish a formal procedure for dealing with complaints, a copy of which may be communicated to the ICTA.

8.2.2 The Licensee shall disseminate information about the established procedure to the public including the means which a person should make a complaint to the Licensee.

8.2.3 The Licensee shall ensure that its staff is sufficiently trained in entertaining and dealing with complaints from the public or any other person.

8.3 Complaint Handling Procedure

8.3.1 A Licensee shall acknowledge complaints, in writing, within ten working days of the receipt of the complaint.

8.3.2 The Licensee shall investigate the matters raised in a complaint unless the Licensee believes that the complaint is frivolous or vexatious, or is not made in good faith.

8.3.3 Where a Licensee decides not to investigate a matter, the Licensee shall give the complainant written notice of the decision, and of the reasons for the decision.

8.3.4 The Licensee shall advise the complainant of the outcome of the investigation of their Complaint in writing and any action to be taken.

8.3.5 Where a complainant is dissatisfied with the Licensee's response, the Licensee shall inform the complainant of the availability of alternative complaint mechanisms, for example, the one existing at the ICTA.

8.3.6 Licensees shall keep a written record, for a minimum of three years, of all complaints received and dealt by it as well as the outcome of each complaint.

8.3.7 Where the Licensee considers a complaint to be frivolous or vexatious the Licensee shall:

(a) record its decision not to proceed further with the complaint;

(b) inform the complainant of the availability of alternative complaint mechanisms, for example, the one existing at the ICTA.

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APPENDIX A THE PRECAUTIONARY PRINCIPLE

Terms used in the context of risk assessment are the Precautionary Principle, the Precautionary Approach, Prudent Avoidance and ALARA (As Low As Reasonably Achievable).

For the purpose of this document the Precautionary Principle may be seen as the fundamental precepts upon which a practical precautionary approach could be based.

The issue of risk assessment can be summarised as the weighing up of likely harm based on all available scientific evidence, with the cost of commercial adjustment by the Licensee.

The fundamental concept of the Precautionary Principle was summed up in 1992 at the UN Conference on Environment and Development (UNCED) in Rio de Janeiro. Here, the Precautionary Principle was explicitly recognised and included in the Rio Declaration. It is listed as Principle 15 among the principle of general rights and obligations of national authorities.

"In order to protect the environment, the precautionary approach should be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The application of the Precautionary Principle requires commitment to the idea that scientific proof of a causal link between human activities and its effect is not required.

The application of the Precautionary Principle to the siting of radiocommunications infrastructure should include a consideration of the uncertainty of the science on a-thermal effects.

There is a need to balance the requirement for the telecommunications industry to provide adequate service with the need of the community to be ensured of living in an environment that will not be a potential threat to health.

Information pertaining to the effects of electromagnetic fields on health and actions being undertaken in relation to same are documented by the World Health Organisation and may be accessed via the link: http://www.who.int/topics/electromagnetic_fields/en/.

APPENDIX B CONSULTATION GUIDELINES

This guideline is designed to assist Licensees in developing and implementing appropriate consultation plans for individual infrastructure.

B.1 *Desired Outcomes*

In the design and installation of radiocommunications infrastructure the objectives of Local Authority and community consultations are to:

(a) inform and receive input from Interested and Affected Parties of the proposed project;

(b) provide adequate time for Interested and Affected Parties to consider and engage in meaningful dialogue on the project;

(c) maximize the level of accurate and accessible information about the project to affected communities;

(d) identify and attempt to resolve potential issues early in the planning process; and

(e) obtain mutually acceptable outcomes on individual projects.

When considering the desired outcomes it is to be recognised that a consultation program will not always:

(a) satisfy all participants; or

(b) resolve all differences of opinion or values.

B.2 *Determining Size and Scope of Consultation Plan*

A Licensee's consultation plan for each site should be open and transparent. The size and scope of the consultation plan should be weighted against the likely impact the proposal will have on directly affected parties, relevant stakeholders and community sensitive locations.

B.3 *Stakeholder Analysis*

At an early stage in the planning process, a stakeholder analysis should be undertaken to identify who the interested parties may be and the potential for concerns to be raised about a particular proposed facility.

The greater the likelihood for concern, the greater the extent and nature of the consultation with stakeholders that is required.

Factors that should be considered in the stakeholder analysis include:

(a) Clear identification of the proposal including consideration of the nature and siting of the facility.
Some examples of facilities which previously have been shown to be sensitive are large visually prominent facilities located very close to where people live.

(b) Adjacent land uses and any sensitive land uses nearby.
Some examples of sites which previously have been shown to be sensitive are residential areas, child care centres, schools, aged care centres and hospitals.

(c) Identification of potentially Interested and Affected Parties at or near the proposed facility.
It is critical that a thorough search is undertaken to identify both individuals, organisations or stakeholder groups in a locality who are potentially affected. Progress Associations, Parent Groups, Sporting Groups, tenants, Occupational Health & Safety Committees and residents in adjacent Local Authority areas but living in proximity to a proposal have previously identified themselves as affected parties. Local Authority is a good source of information about potentially affected parties in a locality.

(d) Possible concerns of those individuals or groups.
Some examples of concerns that have peen previously raised include health, visual amenity, potential noise and property values.

(e) The community history of the locality.
Examples of sites which have previously shown to be sensitive include localities where inadequate community consultation was undertaken in the past or where the community may have been required to deal with previous trauma, loss and controversial development such as a road proposal.

(f) Any regulatory controls at the locality.
Examples of sites which previously have been shown to be sensitive include heritage areas, scenic protection areas and national parks. The Licensee should make every effort to integrate the consultation strategy with the requirements of local planning

controls and Country Planning and Environmental legislation. Engagement in seeking views of Local Authority and engaging in meaningful dialogue will facilitate the development of an appropriately scoped consultation strategy.

B.4*Consultation Tools*

The following table summarises a number of consultation tools that can be selected to appropriately communicate with identified individuals and stakeholder(s). The number and type of tools to be used for any one proposal is dependent on the nature of the proposal and the potential level of concern and the stakeholders identified.

In all instances it is important that both verbal and written communications are clear, easy to understand and that opportunities for input and feedback are clearly stated. Further these communications should include ways the community can get additional information from a variety of sources.

Consultation Tools
Notify immediate residential neighbours
Advertising in local paper
Community newsletters
Door knock
Posted letters to individual residents/landowners
Consult Local Authorities
Consult Tenant stakeholders
Notify community representatives
Consult with community representatives
Notify representatives of sensitive activities
Local Authority presentations
Consult precinct committees
Open House
Consult with Members of Parliament
Forming Community Representative
Committee
Public Meeting

B.5 ***The Consultation Plan***

Once the stakeholder analysis has been completed, the proposed consultation plan can be developed. Key areas that need to be addressed in the plan that is to be submitted to Local Authority include:

(a) Background to the proposal including description of the current preferred proposal and the history and evaluation of alternative sites so far investigated.

(b) Informal consultations so far undertaken (if any).

(c) Consultation Plan Outline including who will be consulted, what consultation tools/methods will be used, stakeholder feedback opportunities and timeframe of consultation.

(d) Licensee response to community feedback i.e. how the Licensee proposes to address concerns, evaluate the community response.

(e) How the Licensee will report to Local Authority on consultation.

APPENDIX C ON-SITE SIGNAGE

The Licensee shall place relevant and adequate signage (A4 format) about a radiocommunications infrastructure at a given site in a manner that ensures that it is

(a) clearly visible and legible at all material times;
(b) complies with the format specified below; and
(c) durable and weatherproof (if installed externally);

The following are typical examples of signs used to inform and warn of RF radiation hazards at transmitter sites.

C.1 *Site Identification*

The Licensee shall ensure provision of proper signage at the entrance of site.

The following sign is to be used to identify the Site ID and to provide basic information regarding radio infrastructure installation.

Figure 1: Example of Identification Sign

C.2 *RF EMF Warning Signs*

RF EMF warning signs are used to identify areas that should exceed the general public exposure limits.

The Licensee shall ensure provision of proper signage on the boundary of exclusion zones by way of fencing/yellow coloured lines and the proper sign at point of access restriction.

Figure 2: Example of EMF Warning Sign