# Wireless Telegraphy Act 2006

# Licence for the transmission of restricted sound broadcasting services

Licensee
Address of Licensee
Licence number
Name of broadcast service
Commencement Date
Termination Date
Relevant Broadcasting Act Licence reference
Fee payment date

## SIGNED FOR AND ON BEHALF OF OFCOM BY

# **Paul Mercer**

Director of Broadcast Licensing & Programme Operations

Issue date: [DATE]

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#### **CONDITION**

#### 1. General

This Licence is granted under section 8 of the Wireless Telegraphy Act 2006 (the "Act") by the Office of Communications ("Ofcom") and authorises the Licensee to establish, install and use radio transmitting stations and/or radio apparatus described in the Schedule (hereinafter together called the "Radio Equipment") subject to the terms set out below and in the Schedule.

This Licence is issued to the Licensee for the transmission of the restricted sound broadcasting service described in the Broadcasting Act Licence referred to above.

#### 2. Licence term

This Licence shall enter into force on the Commencement Date and, subject to earlier revocation by Ofcom in accordance with condition 3 below, shall continue in force only until the Termination Date.

#### 3. Licence variation and revocation

Pursuant to schedule 1, paragraph 8 of the Act, Ofcom may not revoke this Licence before the Termination Date under schedule 1, paragraph 6 of the Act except:

- (a) at the request of, or with the consent of, the Licensee;
- (b) in accordance with Condition 5;
- (c) if there has been a breach of any of the conditions of this Licence;
- (d) in accordance with Schedule 1, paragraph 8(5) of the Act;
- (e) if it appears to Ofcom to be necessary or expedient to revoke this Licence for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act; or
- (f) if the Broadcasting Act Licence ceases to remain in force.

Where Ofcom exercise their power to revoke or vary the Licence, in accordance with Schedule 1 paragraph 6 of the Act, the Licensee shall be notified in writing or by a general notice.

### 4. Changes

This Licence may not be transferred.

The Licensee must give prior or immediate notice to Ofcom in writing of any proposed change to the Licensee's name or address.

#### 5. Licence Fees

The Licensee shall pay to Ofcom the relevant sums as provided in section 12 of the Act and the regulations made thereunder:

- (a) on or before the date of issue of the Licence; and
- (b) on or before the payment dated indicated in the table on the first page of this Licence for subsequent payments or such other date or dates as shall be notified in writing to the Licensee

in accordance with those regulations and any relevant terms, provisions and limitations of the Licence, failing which Ofcom may revoke this Licence.

#### 6. Radio equipment use

The Licensee must ensure that the Radio Equipment is constructed, established, installed and used only in accordance with the provisions specified in the Schedule to this Licence. Any proposal to amend any detail specified in that Schedule must be agreed with Ofcom in advance and implemented only after the Licence has been varied or reissued accordingly.

The Licensee must ensure that the Radio Equipment is used only by persons who have been authorised by the Licensee to do so, and that such persons are made aware of, and of the requirement to comply with, the terms of the Licence.

#### 7. Access and inspection

The Licensee shall permit any person authorised by Ofcom:

- (a) to have access to the Radio Equipment; and
- (b) to inspect the Radio Equipment at any and all reasonable times or, when in the opinion of that person an urgent situation exists, at any time, to ensure the Radio Equipment is being used in accordance with the terms of this Licence; and

## 8. Modification, restriction and closedown

A person authorised by Ofcom may require the Radio Equipment, or any part thereof, to be modified or restricted in use, or temporarily or permanently closed down immediately if in the opinion of the person authorised by Ofcom:

- (a) a breach of the term of the Licence has occurred; and/or
- (b) the use of the Radio Equipment is causing or contributing to Undue Interference to the authorised use of other radio equipment.

Ofcom may also require the Radio Equipment to be modified or restricted in use, or temporarily closed down either immediately or on the expiry of such period as may be specified in the event of a national or local state

of emergency being declared. Ofcom may only exercise this power after a written notice is served on the Licensee or a general notice applicable to holders of a named class of Licence is published.

## 9. Interpretation

In this Licence (including the Schedule);

- (a) the establishment, installation and use of the Radio Equipment shall be interpreted as establishment and use of stations and installation and use of apparatus for wireless telegraphy as specified in section 8(1) of the Wireless Telegraphy Act 2006;
- (b) "Broadcasting Act Licence" means the licence granted by Ofcom under Part III of the Broadcasting Act 1990 to the Licensee with the reference number indicated in the table on page 1 of this Licence;
- (c) "Commencement Date" means the date indicated in the table on page 1 of this Licence;
- (d) "inspect" includes examine and test;
- (e) "restricted sound broadcasting service" means a service of the type defined in section 245(4)(c) of the Communications Act 2003.
- (f) "Termination Date" means the date indicated in the table on page 1 of this Licence;
- (g) "Undue Interference" shall have the meaning given by Section 115 of the Wireless Telegraphy Act 2006;

The Schedule to this Licence shall form part of this Licence together with any subsequent variations to this Licence and the Schedule(s).

The Interpretation Act 1978 shall apply to the Licence as it applies to an Act of Parliament.

# Wireless Telegraphy Act licence number [x]

#### **SCHEDULE**

#### 1. The Radio Equipment

The transmitting radio apparatus which is authorised by this Licence is the radio station at the site described in Box A at the location indicated in Box B, of the table below (the "Radio Equipment").

#### 2. Purpose of Use

The Licensee shall use the Radio Equipment and the frequencies for emitting wireless telegraphy messages for the purpose of providing the sound broadcasting service.

### 3. Technical Requirements

The Licensee shall comply with the following technical requirements

- (a) The Radio Equipment may only be used for wireless telegraphy on the frequency set out in Box G of the table below.
- (b) The radiating elements of the aerial used in connection with the Radio Equipment shall be at the height specified in Box C in the table below.
- (c) The class of emissions shall be as specified in Box D of the table below. This is the symbol used to designate the permitted class of emission, having the meaning assigned to it in the international Telecommunication Convention and Radio Regulations.
- (d) The maximum permitted radiated power in the azimuthal direction of greatest strength shall not exceed that specified in Box E of the table below. More detailed limits and directional constraints may be contained in Part II of the Annex to the Broadcasting Act Licence.
- (e) For VHF transmissions the polarisation shall be within that specified in Box F. More detailed limits for the radiated power in each plane of polarisation may be contained in Part II of the Annex to the Broadcasting Act Licence.
- (f) All VHF transmissions are required to meet minimum suppression levels in the aeronautical bands, as specified in the Radio Regulations of the International Telecommunication Union (Appendix 8-2). Further to this, the Licensee shall ensure that the output of the licensed transmitter complies with any additional suppression levels set out in Box H, at the aeronautical frequencies specified there. Also shown in Box H are any other broadcast frequencies at the site that may contribute towards the subject interference mechanism and also require to meet the additional suppression requirements. The Licensee must liaise with the operators of those frequencies at the start of transmissions, or following any modifications to their equipment that might affect the radiated output on the aeronautical frequency(s) concerned.

The Licensee is also required to comply in full with its Broadcasting Act Licence, which may contain at Part II of the Annex, specific parameters for each transmitting site. That licence also requires compliance with

the Ofcom Site Engineering Code for Analogue Radio Broadcast Transmission Systems, which contains general rules on site engineering, to be applied in the installation, testing and measurement of radio broadcast transmission system.

#### NOTES TO SCHEDULE

- (A) Is the recognised site name from which the assignment is to be radiated. There may be more than one site name describing the same location, also one site name may describe more than one mast.
- (B) Is the permitted location, given in Ordnance Survey coordinates, containing the mast from which the assignment is to be radiated.
- (C) Is the permitted height of the radiating elements of the antenna above local ground level and ignores the height of any buildings upon which masts may be mounted.
- (E) Radiated power is specified here as the effective monopole radiated power (emrp) in respect of MF transmissions, and the effective radiated power (erp), as the sum of the maxima permitted in each plane of polarisation, in respect of VHF transmissions.

# WT ACT SCHEDULE

# LICENCE [number]

А	В	С	D	E Maximum Power (W) (Total) HP VP		F	G	Н		
Site Name	Location	Ae Ht (m - agl)	Class of Emission			Polarisation		Suppression On Involving Added (dB) (MHz) (MHz)		_

#### **EMF LICENCE CONDITION**

## Definitions applicable to Licence Condition

"dBi" means the ratio in dB (decibel) when comparing the gain of the antenna to the gain of an isotropic antenna. An isotropic antenna is a theoretical antenna which radiates power uniformly in all directions.

"EIRP" means equivalent isotropically radiated power which is the product of the power supplied to an antenna and the absolute or isotropic antenna gain in a given direction relative to an isotropic antenna.

"ERP" means effective radiated power which is the product of the power supplied to an antenna and its gain in a given direction relative to a half-wave dipole.

"general public" means any person who is not: (a) the Licensee, owner, operator or installer of the Relevant Radio Equipment; or (b) acting under a contract of employment or otherwise acting for purposes connected with their trade, business or profession or the performance by them of a public function.<sup>1</sup>

"ICNIRP Guidelines" means the version of the Guidelines published by the International Commission on Non-Ionizing Radiation Protection for limiting exposure to electromagnetic fields which are identified in Ofcom's "Guidance on EMF Compliance and Enforcement" that is in force

Work Regulations (Northern Ireland) 2016 <a href="https://www.legislation.gov.uk/nisr/2016/266/contents/made">https://www.legislation.gov.uk/nisr/2016/266/contents/made</a> and Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Electromagnetic Fields) Regulations 2016 <a href="https://www.legislation.gov.uk/uksi/2016/1026/contents/made">https://www.legislation.gov.uk/uksi/2016/1026/contents/made</a>.

<sup>&</sup>lt;sup>1</sup> There is pre-existing health and safety legislation which already requires employers to protect workers from exposure to electromagnetic fields ("EMF") including the following legislation specifically relating to EMF (as amended from time to time): The Control of Electromagnetic Fields at Work Regulations 2016 <a href="https://www.legislation.gov.uk/uksi/2016/588/pdfs/uksi\_20160588\_en.pdf">https://www.legislation.gov.uk/uksi/2016/588/pdfs/uksi\_20160588\_en.pdf</a>, The Control of Electromagnetic Fields at Work Regulations (Northern Ireland) 2016 <a href="https://www.legislation.gov.uk/nisr/2016/266/contents/made">https://www.legislation.gov.uk/nisr/2016/266/contents/made</a> and The

at the relevant time.<sup>2</sup>

"Licensee's On-Site Radio Equipment" means the Relevant Radio Equipment and any other wireless telegraphy station(s) and wireless telegraphy apparatus on the same site which transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP.<sup>3</sup>

"Relevant Radio Equipment" means all the Radio Equipment that is authorised by this Licence to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP.

"Shared Site Exemption" means any of the following three situations apply on a shared site in relation to the Licensee or another licensee's wireless telegraphy station(s) or wireless telegraphy apparatus that is authorised to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP.

• The first situation is that all of the licensee's wireless telegraphy station(s) or wireless telegraphy apparatus on a shared site do not transmit at a combined total radiated power in any

<sup>&</sup>lt;sup>2</sup> Ofcom's "Guidance on EMF Compliance and Enforcement" will initially require the Licensee to comply with the ICNIRP Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz), published in: Health Physics 74(4):494-522, dated April 1998 and available at: <a href="https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf">https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf</a> ("1998 Guidelines") or the ICNIRP Guidelines for limiting exposure to electromagnetic fields (100 KHz to 300 GHz), published in: Health Physics 118(5): 483-524; 2020 and available at: <a href="https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf">https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf</a> ("2020 Guidelines"). However, once work on the relevant standards explaining the methodology for assessing compliance with the 2020 Guidelines has progressed sufficiently, Ofcom will publish a public consultation updating its "Guidance on EMF Compliance and Enforcement" to explain that going forward Ofcom will be requiring the Licensee to comply with the 2020 Guidelines only. Following this public consultation, Ofcom will publish an updated version of Ofcom's "Guidance on EMF Compliance and Enforcement" on its website. Ofcom will follow the same process for any subsequent versions of the ICNIRP Guidelines.

<sup>&</sup>lt;sup>3</sup> 10 Watts EIRP is equivalent to 6.1 Watts ERP. In linear units EIRP (W) = 1.64 x ERP (W); in decibels EIRP (dB) = ERP (dB) + 2.15. Ofcom's "Guidance on EMF Compliance and Enforcement" explains how the Licensee can determine if wireless telegraphy station(s) or wireless telegraphy apparatus "transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP".

particular direction<sup>4</sup> that is higher than 100 Watts EIRP or 61 Watts ERP.<sup>5</sup>

- The second situation is that the total electromagnetic field exposure levels produced by the licensee's wireless telegraphy station(s) or wireless telegraphy apparatus in any area where a member of the general public is or can be expected to be present when transmissions are taking place is no more than 5% of the basic restrictions or 5% of the reference levels in the relevant tables for general public exposure identified in the ICNIRP Guidelines.<sup>6</sup>
- The third situation is where the licensee's wireless telegraphy station or wireless telegraphy apparatus has an antenna gain that is equal to or higher than 29 dBi and has a fixed beam.

"shared site" means a site that is shared by the Licensee and at least one other licensee for the purposes of establishing, installing, modifying or using wireless telegraphy stations or wireless telegraphy apparatus.

"site" means a physical structure, building, vehicle or moving platform.

"wireless telegraphy apparatus" has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006.

"wireless telegraphy station" has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006.

<sup>&</sup>lt;sup>4</sup> For the purpose of this situation, the combined total radiated power is a simple sum of the radiated powers (in EIRP or ERP) of all of the licensee's wireless telegraphy station(s) or wireless telegraphy apparatus on the shared site that transmits signals covering the same or overlapping areas.

<sup>&</sup>lt;sup>5</sup> 100 Watts EIRP is equivalent to 61 Watts ERP.

<sup>&</sup>lt;sup>6</sup> The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

#### Licence Condition

#### Sites which are not shared with another licensee

1. The Licensee shall only establish, install, modify or use Relevant Radio Equipment if the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment do not exceed the basic restrictions<sup>7</sup> in the relevant tables for general public exposure identified in the ICNIRP Guidelines<sup>8</sup> in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

#### Sites which are shared with another licensee

- 2. In the case of a shared site where the Shared Site Exemption applies to the Licensee, the Licensee shall comply with paragraph 1 above.
- 3. In the case of a shared site where the Shared Site Exemption does not apply to the Licensee, the Licensee shall only establish, install, modify or use the Relevant Radio Equipment if:
  - a) the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment, together with
  - b) the total electromagnetic field exposure levels produced by all other wireless telegraphy stations and wireless telegraphy apparatus operated by another licensee on the same site for which the Licensee can reasonably assume that a Shared Site Exemption does not apply,

do not exceed the basic restrictions<sup>9</sup> in the relevant tables for general public exposure identified in

<sup>&</sup>lt;sup>7</sup> Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

<sup>&</sup>lt;sup>8</sup> The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

<sup>&</sup>lt;sup>9</sup> Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

the ICNIRP Guidelines<sup>10</sup> in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

## **Emergency Situations**

4. The obligations in paragraphs 1, 2 and 3 above will not apply if the Relevant Radio Equipment is being used for the purpose of seeking emergency assistance or reporting and responding to an emergency situation (in the vicinity of that situation) including for search and rescue activities and maritime emergency communications.<sup>11</sup>

## Relationship with authorised transmission levels

5. The Licensee shall comply with paragraphs 1, 2 and 3 above notwithstanding the maximum transmission levels authorised in the Licence.

#### Records

6. The Licensee shall keep, or shall procure that a third party shall keep, and shall make available to Ofcom on request, records (including the type of records identified in Ofcom's "Guidance on EMF Compliance and Enforcement") that demonstrate how it has complied with paragraphs 1, 2 and 3 above when Relevant Radio Equipment is established, installed, modified or used.

# Ofcom's "Guidance on EMF Compliance and Enforcement"

7. When evaluating its compliance with paragraphs 1, 2 and 3 above, the Licensee shall take into account Ofcom's "Guidance on EMF Compliance and Enforcement" that is in force at the relevant time.

 $<sup>^{10}</sup>$  The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

<sup>&</sup>lt;sup>11</sup> Further information on emergency situations in set out in Ofcom's "Guidance on EMF Compliance and Enforcement".