



Questions from RSGB for Ofcom S54 Regulations.

Notwithstanding the clarification provided in the notes accompanying the new Regulations the RSGB still believes that a number of issues need resolution and would appreciate answers to the following questions.

1. DEFINITION OF APPARATUS

Section 4.18 *et seq* of Ofcom's statement gives some explanation of the definition of "apparatus" for the purposes of the Regulations and which is contained at Regulation 3. The definition in Regulation 3 appears to be based on that in the EMC Regulations, but this is considerably narrower than that permitted by WTA. S54 defines apparatus as any "apparatus which generates, or is designed to generate, or is liable to generate fortuitously, electromagnetic energy at frequencies not exceeding 3,000 gigahertz." which gives considerable latitude.

We can understand that in order to be able to have an equivalence to the state of certain defined apparatus that has to go through a compliance procedure and be CE marked, that the Regulations need to also define that kind of apparatus. However, there is a wide range of "apparatus", using the normal usage of the term, which is not covered by the Regulations.

Why has Ofcom decided to exclude these?

[Ofcom published a statement on 24 March 2016 'Decision to make the Wireless Telegraphy \(Control of Interference from Apparatus\) Regulations 2016' in which we address this issue at 4.4.2 'Definition of "apparatus" in the regulations.](#)

Ofcom has said, para 4.19 of their Statement, that cables used for xDSL and PLT are not included as they do not generate electromagnetic emissions. However, when coupled to other apparatus and charged with signals at radio frequencies unbalanced cables will generate emissions fortuitously. One of our members has posed the question that if the cables increase the levels of emissions emanating from modems (apparatus) then they must be at fault, so why have they been excluded? Emissions from VDSL at HF and at higher frequencies are becoming a major interference concern. There is a clear precedent for such cables being included in s54 Regulations as the MPT1570 standard was approved for such incorporation by UK Government Ministers and the EU Commission in 2002.

Why has Ofcom ignored this precedent?

[Ofcom published a statement on 24 March 2016 'Decision to make the Wireless Telegraphy \(Control of Interference from Apparatus\) Regulations 2016' in which we address this issue at 4.1.9](#)

in which we say: Widening the definition of “apparatus” to include cables, wires and other passive components would therefore go beyond apparatus which generates, or is designed to generate or is liable to generate electromagnetic energy. We consider that the definition of “apparatus” is adequate and should not be widened.

Domestic solar PV installations made up of several types of apparatus that may be CE marked or not plus associated cabling and switching. There is presently ambiguity over their status as Fixed Installations under EMCD (despite the EU Commission’s earlier clear statement that they were so and that they fulfil every condition to be so). Nevertheless RSGB is aware of several cases of severe interference to its members caused by such installations. Even where they are treated as collections of discrete “apparatus” under EMCD, Ofcom has simply walked away from cases saying they can do nothing as the “apparatus” is CE marked.

Will Ofcom use the new Regulations to take action against such solar PV installations as being “improperly installed” even when some of the apparatus is CE marked but the installation is causing severe/harmful interference?

Ofcom published a statement on 24 March 2016 ‘Decision to make the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016’ in which we address this issue at section 3 ‘The legislative setting’.

In summary our power to enforce is normally contingent on two factors, firstly evidence that the use of particular apparatus is causing undue interference (‘harmful interference’) to wireless telegraphy and secondly that we (Ofcom) consider that the affected party has taken reasonable steps to minimise the interference.

Our duty is to provide advice and assistance. We do not have a duty to enforce and we do not guarantee that interference will not occur.

When deciding whether to investigate or to take enforcement action we are required act reasonably and responsibly and maximise the use of resources and do so in a proportionate, accountable, transparent and consistent way. We treat each case on its merits.

Regarding Fixed Installations, in para 4.11 of their statement Ofcom says that such installations are not included in the Regulations as

“ for as long as a fixed installation is in operation, the responsible person is under an obligation to demonstrate its compliance with the essential requirements by having available appropriate documentation”

The implication being that compliance in these cases continues for the life of the installation. However, neither the Directive nor the UK Regulations do say that. They simply say that the appropriate person must keep the documentation showing compliance available. That documentation has to be drawn up when the Fixed Installation is first taken into service. It is simply the equivalent to the DoC and compliance documentation of “apparatus” having to be retained for 10 years. Some commentators assert that as New Approach Directives are concerned only to facilitate the internal market that they cannot go beyond the point of first placing on the market and/or taking into service; to do so would breach the governing treaties. That of course is why s54

Regulations can no longer control the sale of apparatus (in its wider sense) but can control undue interference from apparatus in service.

Furthermore, the enforcement sections of the EMC Regulations SI 2006/3418 apply to Fixed Installations as they do to apparatus and it is very clear that these are concerned only with the state of compliance at the point of first taking into service and not beyond.

However, for the sake of argument, if the alternative, that of continuing compliance, were correct then why hasn't Ofcom taken action against Fixed Installations such as commercial wind farms which do not meet the emissions Essential Requirement?

Further, Ofcom says

“ The application of the Regulations to fixed installations could be reviewed in light of future evidence regarding undue interference caused by fixed installations.”

This indicates that Ofcom themselves are unsure of the position. This seems to arise again because of Ofcom's narrow interpretation of the term “apparatus”.

Will Ofcom reconsider the position of “Fixed Installations” generally immediately?

We do not have any plan to reconsider our position on ‘fixed installations’.

As a particular issue, ISM machines may be part of a Fixed Installation. As such if they cause undue interference they would appear to be outside the scope of the Regulations. However, ISM machines are the subject of existing s54 Regulations which have not been repealed and are thus within scope.

Will Ofcom clarify which Regulations will apply to ISM machines?

Primary legislation made under section 55 of the Wireless Telegraphy Act 2006 is not affected by the decision to make the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016.

We treat each case on its merits, should we be in a position where it is considered necessary to serve a notice under provisions contained in section 55 we will determine the appropriate legislative mechanism.

A wide range of domestic household and other electrical apparatus is covered by existing s54 Regulations which have not been repealed. The new Regulations appear to include much of the same apparatus.

Which set of Regulations will Ofcom apply to electrical household and other apparatus where they are in scope of both?

Primary legislation made under section 55 of the Wireless Telegraphy Act 2006 is not affected by the decision to make the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016.

We treat each case on its merits, should we be in a position where it is considered necessary to serve a notice under provisions contained in section 55 we will determine the appropriate legislative mechanism.

The Ofcom definition of apparatus contains the term

“or the performance of which is liable to be affected by such Disturbance”

This Requirement relates to immunity from interference, not to emissions created by apparatus. Section 54 and Regulations made under it can only apply to emissions. **The term is thus irrelevant and has led to a defective definition.**

No question.

2. EXCLUSION OF APPARATUS UNDER RTTED.

The exclusion of non-radio telecommunications terminal equipment appears to mean that any such apparatus, including modems for xDSL and PLT services will continue to be excluded if they were approved under the RTTED. This would appear to be the case even when the UK Regulations transposing RTTED are repealed and replaced with those implementing RED in due course.

What will the position be regarding such non-radio TTE?

Ofcom published a statement on 24 March 2016 ‘Decision to make the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016’ in which we address this issue at section 4.4.2 ‘Definition of apparatus’ and at 4.4.4 ‘Exclusion of Radio and Telecommunications Terminal Equipment (RTTE) apparatus’.

The exclusion of radio equipment under the current RTTED and, we understand, the forthcoming replacement RED is illogical. Ofcom says at 4.23

Radio equipment “may only be operated under the terms, provisions or limitations of a licence or licence exemption granted or made by Ofcom. Radio apparatus is therefore already regulated and accordingly has not been included in the Regulations”.

Under 4.33 it also says

“Radio equipment is expressly excluded from the Regulations and therefore we do not anticipate the New Radio Equipment Directive and implementing legislation to necessitate amendments to the Regulations” .

However, electromagnetic emissions that are nothing to do with the communications side of the radio equipment may occur due to faults in the equipment. These may radiate from the case, non-antenna ports or power and other cables. It would be incorrect to treat these emissions, which are not wireless telegraphy, as though they were breaches of the licensing/exemption applying to the

equipment. Ofcom must surely know that RTTED compliance for radio equipment includes the same tests for electromagnetic compatibility as non-radio apparatus. This is entirely separate to the spectrum requirements under RTTED and separate licensing/exemption requirements for wireless telegraphy under WTA.

RSGB notes that there is a precedent in the existing s54 Regulations which apply to CB equipment and which remain in force.

In the same vein an increasing range of household electrical appliances that are now subject to EMCD will in future be subject to RTTED and then to RED because they incorporate Wi-Fi or Bluetooth radio links that enable remote control by a user, or they will be linked by radio to the Internet of Things. They will be excluded from scope of the new Regulations, yet the same fault, for example failure of motor suppression components in a fridge, or of thermostat suppression in a boiler could occur in either a radio linked appliance or a stand alone one and cause broadband interference. It would clearly be wrong for Ofcom to say they could not deal with the case of the radio linked one under s54 simply because it incorporated a wireless card that is operating perfectly correctly. The WTA licensing/exemption controls would be inappropriate to deal with it.

Likewise, an xDSL modem may have Wi-Fi capability. In the event of emissions from the wired side it should be the EMCD requirement that is corrected rather than action taken under the licensing exemption rules.

For the future, domestic broadcast, including TV, receivers will come into the scope of the new RED when it is transposed into UK law and thus be excluded from the s54 Regulations in due course. Radiating plasma screen TVs are a major source of interference to our members. Ofcom is reluctant to use the powers under s166 of the Communications Act 2002 to enforce the TV licence non-interference condition, even though it was written in specifically for them to use in such cases. We had hoped that the new Regulations would give clear powers to Ofcom in these cases and remove whatever perceived ambiguity there might be about powers, but it appears they have left themselves with only a limited time to act until the RED implementing Regulations are made.

There are compelling reasons why RTTED and in future RED apparatus should be within scope of the Regulations. Will Ofcom reconsider this urgently?

We do not have any plan to reconsider our position on the clauses in the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016 referring to the Radio Equipment and Telecommunications Terminal Equipment Directive.

3. BOUNDARY OF EMC REGULATIONS AND WTA REGULATIONS

Ofcom says that that the s54 Regulations come into play when the EMCD/UK EMC Regulations no longer apply. In particular para.3.10 of the Ofcom statement says that

“EMC regime (applies) until the point apparatus is placed on the market or put into service in the EU. At that time (once it has reached the end user) it is no longer subject to the undue interference requirement of this regulatory regime “.

There are several difficulties with this position. First, it cannot be that the EMC regime ends “once it has reached the end user” as the statement itself says that it applies until apparatus is put into service (the Directive and UK Regulations do not treat placing on the market and taking into service as mutually exclusive). Apparatus must meet the Essential Requirements when installed in accordance with the manufacturers’ instructions and other requirements when first taken into service. A footnote quotes the EU Blue Guide : “Putting into service takes place at the moment of first use...by the end user”. This confirms that the regime does not end simply at the point that apparatus has reached the end user.

Furthermore, it is not clear to us that the EMC regime does in fact end simply at the point of reaching the end user (or indeed first taking into service). The EMC Regulations, Regulation 54, allow prosecution for a non-compliance offence up to three years beyond the point of placing on the market or first taking into service. Other Regulations permit the court to require remedial action to be taken and for suspension notices (against manufacture, placing on the market, taking into service or use of apparatus or Fixed installations) for up to six months. This appears to indicate an overlap with the s54 Regulations. There cannot be two sets of legal processes dealing with the same issue.

Second, the s54 Regulations apply to apparatus that has been “improperly installed”. While this might apply to second hand apparatus, it surely cannot apply to new apparatus, since correct installation at the time of first taking into service is clearly within the territory of the EMC Directive and UK Regulations. Again it appears there are two sets of legal processes covering the same issue, which cannot be the case.

Finally, we would note that there is no test for “undue interference” under the EMC regime. The test is that other apparatus, including radio apparatus, cannot operate as intended. While this document is about the s54 Regulations we have to say that we trust that Ofcom have not been and will not apply the undue interference test to complaints of non-compliance under the EMC regime.

Will Ofcom clarify the boundary between the two sets of Regulations.

[Ofcom published a statement on 24 March 2016 ‘Decision to make the Wireless Telegraphy \(Control of Interference from Apparatus\) Regulations 2016’ in which we address this issue at section 4.24 et seq. ‘Apparatus which can be withdrawn from the EU market’.](#)

4. UNDUE INTERFERENCE

The term “undue interference” and its dependent term “harmful interference” are both defined in WTA. There is no discrimination in the Act between services as to the meaning of these terms. The only distinction in s54 is the reasonable one of time priority given to safety of life services. Nevertheless, even before the new Regulations came into force our members have frequently told us that Ofcom have made arbitrary decisions about what constitutes undue interference. For example, our members are sometimes told that “weak signal services” cannot be protected. Some have also been told that there cannot be undue interference as there is a choice of other unaffected bands or even sometimes that other frequencies in a particular band may be unaffected. However, our licence gives us legal permission to use a range of bands which may be suitable for particular types of propagation. To suggest using another band is the equivalent to a

TV watcher being told that as BBC TV is unwatchable they should watch ITV channels. Further to suggest that we may not pursue our legal right appears to us to be a breach of common law rights to go about one's lawful business unhindered by the illegal actions of others.

While we accept that completely noise free spectrum is not a realistic expectation for any user **We ask that Ofcom confirm that “undue interference” is not interpreted in any way differently for radio amateurs than to other services.**

No, the definition of the term undue interference is contained in the Wireless Telegraphy Act 2006.

5. WHAT ARE REASONABLE STEPS?

There may be some cases where the victim can take reasonable steps to alleviate the interference but in many amateur cases this may not be possible. The re-siting of wire antennas in small gardens may be quite unrealistic as may be the advice not to use a particular beam heading. We should also like Ofcom to confirm that there is no obligation on amateurs to supply or pay for filtering or replacement of offending apparatus.

We would like to engage with Ofcom technical staff to discuss realistic scenarios of what are “reasonable steps”.

There is no definition of the term ‘reasonable steps’ contained in the Wireless Telegraphy Act 2006. Ofcom’s policy in this is that we treat each case on its merits. There is no group within Ofcom that constitutes ‘technical staff’. Policy on spectrum enforcement matters is normally determined with Spectrum Technology, Engineering and Enforcement group. The Director is Mark Walls.

6. WHAT IS NEEDED TO GET OFCOM TO ENFORCE AGAINST SERIOUS INTERFERENCE TO AMATEUR RADIO.

Ofcom published a statement on 24 March 2016 ‘Decision to make the Wireless Telegraphy (Control of Interference from Apparatus) Regulations 2016’ in which we address this issue at section 3 ‘The legislative setting’.

For your convenience I have copied the following extract:

Ofcom has enforcement powers in relation to undue interference. These are set out in primary legislation. In particular, section 55 of the Act provides for the giving of notices by Ofcom prohibiting the use of apparatus (“enforcement notice”). However in order to avail of this existing power to serve these notices, regulations must first be made under section 54 setting requirements to be complied with.

3.2 Enforcement notices may be given in the limited circumstances set out in the Act. These circumstances are where, in the opinion of Ofcom: 3.2.1 apparatus does not comply with the requirements applicable to it under regulations made under section 54(1); and

3.2.2 either the first or the second condition below is satisfied.

3.3 The first condition is that the use of the apparatus is likely to cause undue interference with wireless telegraphy used – 3.3.1 for the purposes of a safety of life service; or

3.3.2 for a purpose on which the safety of a person, or of a ship, aircraft or vehicle may depend.

3.4 The second condition is that- 3.4.1 the use of the apparatus is likely to cause undue interference with wireless telegraphy other than wireless telegraphy falling within the first condition;

3.4.2 the use of the apparatus in fact has caused, or is causing, such interference; and

3.4.3 the case is one where Ofcom consider that all reasonable steps to minimise interference have been taken in relation to the wireless telegraphy station or wireless telegraphy apparatus receiving the interference.

The principles of enforcement

Ofcom strives to ensure our interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome. These principles apply both to enforcement cases and to how we manage enforcement activities as a whole.

Targeting

Targeting involves relating enforcement action to the risks. Our resources are not infinite, and we are therefore more likely to focus on more serious circumstances. It is neither possible, nor necessary for the purposes of the protecting and managing the radio spectrum, to investigate all issues of interference or non-compliance.

In selecting which complaints, or reports of, to investigate and in deciding the level of resources to be used, Ofcom will take into account the following:

- The severity and scale of any potential or actual harm;
- The seriousness of any potential breach of the law;
- The practicality of achieving results;
- The wider implications of the event, including whether there is serious public concern.

Consistency

Consistency of approach does not mean uniformity. It means taking a similar approach in similar circumstances to achieve similar ends.

Transparency

Transparency includes helping stakeholders to understand what is expected of them and what they should expect from Ofcom.

Accountability

Ofcom is accountable for our actions. We report annually to Parliament and we publish information about our enforcement activities.

Ofcom will exercise discretion in deciding whether incidents or complaints should be investigated.

Duties and functions

The Communications Act 2003 requires that Ofcom secures the optimal use for wireless telegraphy of the electro-magnetic spectrum. In performing its duties, Ofcom must have regard to the different needs and interests of all persons who may wish to make use of the electro-magnetic spectrum. Ofcom must also have regard in performing its duties to the desirability of preventing crime and disorder.

The Wireless Telegraphy Act 2006 makes it a general function of Ofcom to give advice, provide services and maintain records as we consider appropriate for facilitating or managing the use of the spectrum. Ofcom may also carry out research. Ofcom has a function of providing advice and assistance to persons complaining of interference.

In summary - Our duty is to provide advice and assistance. We do not have a duty to enforce and we do not guarantee that interference will not occur. When deciding whether to investigate or to take enforcement action we are required act reasonably and responsibly and maximise the use of resources and do so in a proportionate, accountable, transparent and consistent way. We treat each case on its merits.

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