

13 April 2010

Mr Donald F Beattie  
Radio Society of Great Britain  
3 Abbey Road  
Fraser Road  
Priory Business Park  
BEDFORD  
MK44 2WH

Dear Mr Beattie,

**Re: EMC COMPLIANCE – COMTREND PLT APPARATUS**

Thank you for your letter dated 14 March 2010 concerning the compliance of Power Line Telecommunications ('PLT') apparatus manufactured by Comtrend UK Limited, distributed by BT, with the Electromagnetic Compatibility ('EMC') Regulations.

I have considered the matters you raise and believe that the general and particular questions are answered in the statement published by Ofcom on 3 September 2009 available at the following link:

<http://www.ofcom.org.uk/radiocomms/ifi/enforcement/plt/>

Since our statement was published the Prime Minister has published on his website a response to an e-petition in relation to PLT. This is available at <http://www.number10.gov.uk/Page21654>.

You may also be interested in the response to a question raised in the European Parliament. This is available at: <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2009-3813&language=EN>

I would add that the independent report which we commissioned into PLT equipment, 'The likelihood and extent of Radio Frequency Interference from in-Home PLT Devices,' will be available shortly, and we look forward to receiving the RSGB's views on the issues this raises.

You ask specific questions:

- a) *Has the Comtrend device in question been assessed by Ofcom for compliance with CISPR22/EN55022? What was the result? In this regard I draw your attention to the report in the EMC Journal which clearly shows that the device does not meet that standard*

Yes we commissioned independent tests on a Comtrend product as part of our investigation into whether a criminal offence has been committed under the EMC legislative regime. The contents of the resulting report are evidence that Ofcom obtained as part of this criminal investigation. As such, it is inappropriate that this be released.

b) *What other investigations have been carried out on the Comtrend device ? For example, has compliance documentation been requested and examined? Has Ofcom required Comtrend to provide a valid certificate of conformance one that does not rely on nonexistent standards (I/89/CD) ?*

Yes Ofcom requested a 'Declaration of Conformity' as part of the investigation.

c) *Will you please confirm what gives rise to your claim that you will not be taking further enforcement action ? What enforcement action as defined in the relevant legislation has Ofcom already taken, in order to be able to justify this statement ?*

Ofcom has exercised its enforcement functions under the EMC Regulations by (inter alia) commissioning independent tests, requiring the production of technical documentation, the 'Declaration of Conformity', coming to a view on whether the EMC essential requirements were met and considering whether criminal prosecution or suspension notices were appropriate. Ofcom considered they were not appropriate.

d) *Will Ofcom please confirm that it intends to introduce Interference Regulations covering PLT under the Wireless Telegraphy Act and say what the timetable is for this?*

Ofcom is exploring the possibility of implementing provisions contained in the Wireless Telegraphy Act 2006 to introduce legislation to address interference issues associated with the use of electrical apparatus (which does not transmit using radio waves). It is too early in the project to say whether such legislation would be appropriate or what its impact would be (if any) in relation to PLT equipment. We also need to consider carefully whether it would be possible to enact such legislation in the light of the UK's obligations under EU law. This is because the EMC rules apply across the EU and aim to support the internal market. We will certainly keep the RSGB informed as the project progresses and would look forward to receiving your views if concrete proposals emerge. (I would add though that the Prime Minister's response referred to above stated "On the available evidence, we do not believe an outright ban of all powerline equipment is justified.")

e) *In view of the Society's past expressed concerns, why has PA Consultants not seen fit to include in its research input from the RSGB's technical team, who themselves are expert in this field.*

PA Consulting are conducting the project independently, Ofcom has not sought to influence their approach

Finally, I would add that we do value the RSGB's engagement in relation to this issue and we note the concern you express that *"the radio spectrum is being progressively sacrificed to*

*allow a polluting technology to flourish".* While we understand your concerns in that regard, I wish to make clear that Ofcom does not have a policy favouring or promoting PLT apparatus to the detriment of amateur radio use of the spectrum.

The position is that Ofcom must always act under and in accordance with the legal powers which we have been given by legislation. In this case, because PLT is not a wireless communications technology, it does not require a wireless telegraphy licence. Like other electronic apparatus it is governed by EU wide rules on electromagnetic compatibility. As such, Ofcom's relevant legal powers relate to enforcement the EMC legal regime which is grounded in criminal law. This is different from other areas such as spectrum or broadcasting licensing where we have wider policy discretion. For PLT we need to consider whether there is a breach of the criminal law. As set out in our statement to date we have not so far found that there is such a breach and we do not consider prosecution to be in the public interest.

We look forward to the RSGB's feedback to the independent study and as you know we are supporting the EU Commission's drive towards achieving an appropriate harmonised standard for PLT equipment which we believe would be enormously helpful to everyone with an interest in matter.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Jill Ainscough', written in a cursive style.

Jill P Ainscough  
Chief Operating Officer

Updated September 2009

### **What does PLT equipment do?**

Power line telecommunications (PLT) apparatus uses a technology that can carry data on mains wiring around the house and is used to connect computers or other digital devices.

It reduces the need for additional wiring in the home, offers high data rates and is easy to install. As a result it is proving useful and popular, with around 750,000 Pairs of equipment estimated to be in use in the UK today.

### **Is PLT equipment new to market?**

Yes. Although PLT technology has been in existence for some years, its proliferation as a mass market product is a relatively recent development.

### **How many brands of PLT apparatus are there on the UK market?**

There are about 25 brands of PLT apparatus on the market in the UK. The largest supplier is British Telecommunications plc (BT). BT includes Comtrend UK Limited's PLT apparatus as part of its BT Vision package. This apparatus is required to comply with the EMC regulations.

### **What is electromagnetic compatibility (EMC)?**

Electromagnetic compatibility is the engineering process which limits the natural electromagnetic fields produced by electrical appliances. This ensures that household products (for example, television, video or kettle) can all work within the home without disrupting each other.

Most electrical equipment produces an electromagnetic field as a natural by-product of its operation; an "electromagnetic disturbance". That disturbance can in turn affect the operation of other nearby equipment. For that reason, manufacturers aim to keep this disturbance to an acceptable level so that different products, particularly household products, can all operate in the home.

There are legal requirements about acceptable levels of electromagnetic disturbance.

### **What are the EMC legal requirements?**

In common with other electronic products sold in the UK, PLT apparatus is required to comply with the Electromagnetic Compatibility Regulations 2006 (the "EMC Regulations") which are based on a European Directive.

These regulations aim to ensure that the electromagnetic disturbance generated by electronic equipment does not exceed a level above which other equipment (including radio and telecoms equipment) cannot operate as intended (and that the equipment itself has an adequate level of immunity to electromagnetic disturbance).

These requirements are described in the legislation, and are referred to as the 'essential requirements'.

In short therefore, the EMC regime provides a set of rules across the EU to ensure the levels of electromagnetic disturbance are regulated.

### **Who does the law on EMC apply to?**

The person who places products on the market (usually the manufacturer or the importer) is responsible for compliance and must ensure that equipment meets the essential requirements and does not produce an excessive level of electromagnetic disturbance.

Failure to meet this core obligation can result in a criminal offence.

### **How does a manufacturer demonstrate compliance?**

Evaluation of electromagnetic disturbance is carried out by conducting engineering tests. Compliance can be demonstrated through self assessment or by involving an accredited organisation known as a “notified body”.

As an alternative to carrying out an assessment, the equipment can be manufactured and tested against reference standards (called harmonised standards because they are harmonised across the European Union). If that is done, then there is a legal presumption of compliance.

### **What is Ofcom’s role under the EMC legislation?**

The UK Government department for Business Innovation and Skill (BIS) is responsible for overseeing the EMC Regulations.

Enforcement powers are delegated to Ofcom where there is a radio spectrum protection or management issue. Ofcom can bring criminal prosecutions and can suspend sales if it believes an offence is taking place.

In connection with our functions we engage with BIS, the EU Commission DG Enterprise and other Member States through Administration and Cooperation Groups (ADCO).

### **What enquiries and complaints has Ofcom received about PLT?**

Over the past 12 months Ofcom has received 143 individual PLT interference complaints; all from radio enthusiasts. Of these 121 have been investigated and referred to the apparatus supplier who has resolved 104. The solutions employed include replacing the apparatus, hard wiring and conventional wireless alternatives.

All of the complaints relate to the inability to receive radio transmissions in the High Frequency (HF) band (3 to 30MHz).

There are many other users of the HF Band including long range aeronautical and oceanic communications, the Ministry of Defence and international broadcasters. Ofcom has not received complaints of interference to these services.

### **Has Ofcom investigated PLT equipment?**

Yes. Ofcom has exercised its enforcement functions under the EMC Regulations. Ofcom has investigated alleged breaches of the EMC regulations resulting from the supply of Comtrend PLT apparatus by BT.

#### **What has Ofcom found?**

On the evidence, Ofcom has not so far found that there is a breach of the EMC essential requirements. Ofcom has therefore decided against taking further enforcement action at this time. Ofcom is working together with Comtrend and BT to reduce any negative effects in individual cases and we support them in doing so.

It is recognised that EMC compliant equipment may still, in certain circumstances, have the capacity to cause interference to other radio communications equipment. This may happen due to the manner in which it is installed or operated.

Evaluating the complaints received and the evidence so far obtained, Ofcom has concluded that there does not at present appear to be significant public harm arising from this situation.

#### **Is there an EU harmonised standard for PLT?**

No. The EU has not yet published a suitable harmonised standard for this type of apparatus. The mass marketing of PLT equipment is a recent development.

#### **Are existing EU harmonised standards for other products helpful?**

Existing harmonised standards are helpful only to a limited extent because they are not specifically intended for this type of equipment. Ofcom believes the electromagnetic disturbance produced by this technology is an inevitable by-product of its operation and not attributed to poor design or manufacturing.

#### **Would the development of an EU standard for PLT help?**

Yes. At present, testing and assessment takes place against a backdrop of wider technical uncertainty than is normally the case and there is an increase in the take-up of this apparatus across Europe.

The development of such a standard would be an important step. The standard could be used by manufacturers and Notified Bodies to assess performance against recognised benchmarked values.

If the apparatus complied with the harmonised standard under the Regulations, there would be a legal presumption that the apparatus met the essential requirements.

It is clear that the public interest (and the interests of manufacturers and suppliers) across Europe would be best served by the publication of a suitable standard. This is an aspiration of the EU Commission which Ofcom supports.

#### **Is the EU taking action?**

Yes. The EU Commission is aware of concerns resulting from the proliferation of PLT in the EU and in response, issued a mandate (M/313) to the European Committee for Electrotechnical Standardisation (CENELEC) to produce a PLT harmonised standard. Work on this is currently taking place.

(Also, in 2005 the EU Commission issued a 'recommendation' 2005/292/EC giving guidance to Member States on enforcement issues related to PLT.)

#### **Is Ofcom studying the issue further?**

In view of the concern expressed by stakeholders Ofcom commissioned an independent study into the likelihood and extent of interference caused by PLT apparatus. This study is due to be completed in November 2009 and will involve consultation with the Radio Society of Great Britain and other stakeholders. We will be publishing the results. It is hoped that the results will increase knowledge about the effects of PLT equipment and contribute to the development of manufacturing techniques and product design.

#### **What else can Ofcom do?**

Ofcom can provide advice and assistance to those who complain of interference with radiocommunications equipment. Any individuals who wish to report specific cases that may be caused by PLT apparatus, or any other source, should contact Ofcom's advisory team on 0300 123 3333 for further assistance.

We continue to liaise with BIS and other interested stakeholders in respect of PLT interference and will provide further updates on any significant developments.

