

## Part P of the Building Regulations and the Radio Amateur

### Introduction

Part P of the Building Regulations for England and Wales came into force in 2005. It regulates domestic electrical installations. Most amateur radio activities are unaffected by Part P but where a more ambitious project involving electrical installation work is contemplated, a knowledge of Part P is essential. This leaflet gives some background and indicates where more information can be found.

Part P is the latest in a long line of legislation aimed at ensuring good building practice. Part P covers domestic electrical installation and not only regulates the areas of major work as intended, but may also be interpreted (or perhaps misinterpreted) to impinge on minor work such as might be carried out by radio amateurs.

One of the problems from the amateur radio point of view is that, as a result of commercial pressures, restrictions are likely to get tighter rather than more reasonable. The self-training aspect of amateur radio is enshrined in international regulations and it would be unfortunate if this was curtailed by the unnecessary application of safety legislation intended to address larger issues.

This leaflet is concerned with the relevance of Part P to activities carried out by radio amateurs. The object is to give some background and indicate where further information can be obtained.

### Getting things in perspective

The aim of Part P, as stated in various documents, is to make domestic electrical installations safer, and to avoid unsatisfactory work by "cowboy" installers. At the present time the risk of electrocution from faulty installations is quite small. The Communities and Local Government Impact Assessment [1] quotes "*Overall, the latest accident statistical data show that for the period 1990 to 1999 there were about 5 electric shock fatalities and 575 reported non-fatal electric shock injuries reported per year in dwellings in England & Wales arising from fixed electrical installations.*" There is some evidence that the number of non-fatal shocks is increasing and will increase in the future.

The other risk from faulty installations is fire. This area is more problematic, but [1] quotes "*.....these reports for 1993 to 1997 indicate that, on average, there are at least 24 deaths and 587 reported non-fatal injuries per year due to electrical fires reported in dwellings in England & Wales. Between 25% and 30% of the casualties are directly associated with the fixed installation.*" The same source goes on to say "*For comparison purposes it should be noted that there are on average about 12,500 fires per year reported as having an electrical source of ignition, excluding those fires started by equipment such as cookers and electric fires left on unattended either deliberately or accidentally.*" This seems to indicate that the majority of electrical fires are due to non-fixed (plugged-in) equipment. This is outside Part P but is nevertheless a reminder to make sure that all plugs, leads, extension leads as well as the equipment itself is in order and is checked regularly.

Other sources give somewhat different figures but the above gives a good general picture from an unbiased source.

No assessment has been found on any official web site, of the possible effect on electrical safety, of a reduction of awareness of technical/safety issues which comes from discouraging DIY activities or from the possible increase in "temporary" extension leads and similar bodes.

Part P differs from other recent safety legislation in that it has a clear technical base and, in practice, will be interpreted by local authority officers experienced in dealing with building regulations. In effect they will have a degree of discretion in grey areas.

### **Does the job I want to do come under Part P ?**

Where electrical work is planned, the first thing to do is to consult *Approved Document P*. This can be downloaded free from [2]. It is a fairly lengthy document but should be easily understood by someone with an amateur radio background. Check the list "*What Work Need Not be Notified to Building Control Bodies*". This is on page 8 of the April 2006 edition. Make sure that you are looking at the latest edition. Part P is relatively new and is likely to be updated frequently. For less technical householders a simpler document and flow chart "*New rules for electrical safety in the home*" is available [3].

In general Part P does not apply to anything which is non-fixed (plugged into a 13 Amp socket) but there are restrictions on using this method to make a permanent (fixed) connection into certain places such as bathrooms, kitchens or gardens. See Additional Notes to Tables 1 and 2 in *Approved Document P* [2].

If the proposed work is not notifiable (as will usually be the case) go ahead; the only requirement is, as always, to use common sense and good practice.

### **Amateur radio stations**

The following observations are for guidance only. Always check the latest edition of the *Approved Document P* for definitive information.

According to *Approved Document P* (April 2006) upgrading main and auxiliary equipotential bonding does not require notification. This means that the bonding of RF earths (where required) should not be a problem. Information on earth bonding, with particular reference to premises wired on the PME (TN-C-S) system, can be found in Leaflet EMC 07)

A simple antenna installation involving only RF voltages is outside the scope of Part P. Where there are control signals or rotator supplies the installation should not be "notifiable" if voltages are less than 50V ac or 120V dc, and are derived from a control unit, plugged into the "shack" supply (with the usual 13 Amp plug).

If for some reason, a mains supply is required at the antenna, or if the station is to be operated outside the house - from a summer-house or garden shed perhaps - the problem is more complex. This is an area which will affect many people other than radio amateurs - those who want to use electric heating in a greenhouse for instance. A number of prefabricated modular kits have appeared on the market which are intended to be Part P compliant. It is probable that such units could be pressed into service for amateur radio use. Whether this is a good idea is open to question. If mains is required, it might be better to talk over the situation with the Building Control Officer, who may be

prepared to use his/her discretionary powers and permit an installation which is good practice but not explicitly permitted by Part P, rather than encourage an installation made from a prefabricated kit which, though compliant, is not really appropriate.

Avoid the use of a temporary extension lead unless it really is for temporary experimental work, not only because of the inconvenience, but also because of the attitude it engenders. Human nature being what it is, cables will get left out semi-permanently, which from the safety point of view, is probably the worst possible scenario.

It is always good practice to protect the "shack" supply with an RCD (Residual-current Device). It could be considered a necessity in the situations being considered here. An awareness of good practice and safety issues will be an advantage in discussions with Building Control.

### **Your local Council**

If the work you wish to do is "notifiable" you must notify the Building Control Officer of the Local Council before starting. In unusual situations, such as might arise in amateur radio, the best person to ask for advice is the Building Control Officer. He will be able to give an unbiased interpretation and in the end, it is his opinion that matters. As might be expected Building Control Officers have a degree of discretion in deciding whether a minor work, such as might arise as part of small DIY activity, is "notifiable", and if it is, what action needs to be taken.

Where work is notifiable the Council will make a single charge for their services, including the inspection itself (see Section 1.Paragraphs 24 to 26 of the *Approved Document P* [2]). Be sure to find out the full cost before committing yourself. The charges for work which is small but notifiable is a grey area. Councils usually charge a fee according to a locally-decided published scale. If the charge is disproportionate for the work contemplated, it may be worth re-thinking the situation and looking for a non-notifiable solution.

### **Moving house**

Antenna erection and similar work carried out by radio amateurs as part of their "self training" activities, is not really permanent in the sense usually meant in building practice. The installation will almost certainly be dismantled when the property is sold if not before. Problems related to any form of "sellers pack" should not arise as the requirement for an official "Sellers Pack" was suspended in the UK in 2010.

### **References**

[1] The Communities and Local Government (CLG) Impact Assessment  
<http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/publications/planningandbuilding/regulatoryimpactassessment>

[2] Approved document P (The definitive Part P source)  
<http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partp/approved>

[3] New rules for electrical safety in the home

[http://www.planningportal.gov.uk/uploads/br/BR\\_PDF\\_PTP\\_NEWRULESenglish.pdf](http://www.planningportal.gov.uk/uploads/br/BR_PDF_PTP_NEWRULESenglish.pdf)

Note: BS 7671 which is referred to in Part P and related documents is what used to be called the IEE Wiring Regulations. The best place to find the BS Standards is through the public library service. In an increasing number of counties the Standards are available on-line at local libraries. They cannot be printed out but it is permissible to print a small number of pages.

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