UNISON OPEN COLLEGE

BLOCK HCPM.102
Repairs and Maintenance

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Preface

This is the second block in the Housing Construction and Property Management Unit. In it you will study the factors that go into effective management of repairs and maintenance of housing stock.

Objectives

When you have completed this block, you will be able to:

- explain statutory rights and obligations of landlord and tenant relating to housing maintenance;
- compare a number of maintenance record keeping systems;
- describe a basic property database;
- categorise work under the headings of programmed, cyclical, and responsive maintenance;
- explain the cost benefits of a planned maintenance programme;
- describe the main roles in the maintenance function of housing organisations, including your own organisation;
- summarise the arguments for an estate-based approach to housing maintenance;
- demonstrate an understanding of the durability of elements of a building, with their relative replacement costs;
- explain how a stock condition survey is undertaken, and its role in a maintenance programme;
- explain the criteria for prioritising maintenance work;
- explain how tender documents are compiled;
- describe the contents of a good tenants' handbook;
- outline the information which should be contained in the repair receipt;
- describe how a maintenance system can be monitored.

Contents

A. Introduction

Housing is a very durable item. Look at the homes in the area where you live and you will soon see that some buildings have been around for many years from the Tudor cottages, to Victorian and Edwardian homes to properties only recently constructed.

Housing can last for a long time, but only if adequately repaired and maintained throughout its life. The materials used to construct houses are not indestructible: they deteriorate over time. Furthermore, they impact on one another: a neglected repair today can quickly become tomorrow's major refurbishment. For example, a failure to keep wooden window frames properly coated with paint can result in the wood rotting, and the entire window having to be replaced.

As you discovered in the previous Block, *Construction Methods and Materials*, different construction technologies have different maintenance needs. This, of course, increases the difficulties of planning the repairs service. If all dwellings were built using the same methods and materials, maintenance needs would be much easier to define!

In this block, we shall attempt to define the requirements of an efficient repairs service, and to examine ways in which we can try to ensure that the housing stock is well maintained, whatever its method of construction, or the materials used. This benefits both provider and customer. Everyone gains from a good repairs service!

1. The Importance of Repairs and Maintenance

It is only relatively recently that the repair and maintenance of the housing stock has become a central issue for housing managers. For many years, it remained a very minor management problem. There are a number of reasons for why it is now becoming more important for housing providers.

1.1 The stock of most social housing providers is ageing

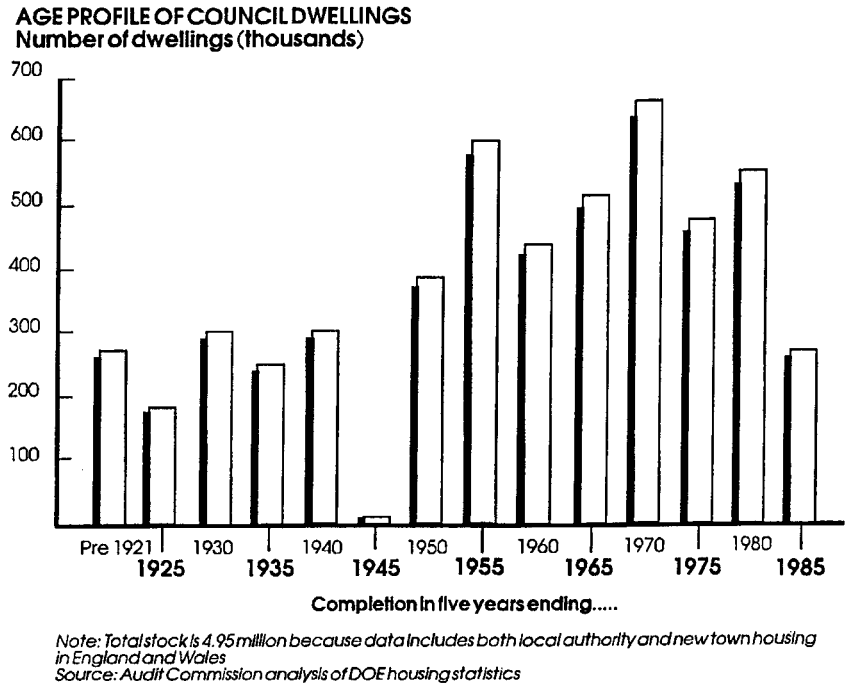
This is due to two factors:

(a) Declining levels of new build, particularly in the local authority sector. The existing stock is growing older, and since there is little new stock, the age profile is rising. You know that building materials deteriorate over time. The older the stock, the greater the need for the replacement and repair of components. This explains why all surveys have shown that the age of a dwelling has major implications for its condition.

(b) Right-to-buy sales of stock. Under the Right to Buy (introduced in 1980) local authorities could sell their housing stock at a discount to existing tenants. This was a very popular initiative but it was predominantly the best stock which was bought; the oldest stock, in poorest repair, is not so desirable. Nor have sales of properties of non- traditional construction been high. As you discovered in the previous block, these often need more repair and maintenance. This means that many Councils have seen their more popular stock sold off, leaving them with older stock or stock in the worst condition to maintain.

Activity 1

Examine the chart below, showing the age profile of council dwellings in England and Wales.



Note: Total stock is 4.95 million because data includes both local authority and new town housing in England and Wales
Source: Audit Commission analysis of DOE housing statistics

This Chart is taken from the report by the Audit Commission, Improving Council House Maintenance, published in 1986.

1. *The chart stops in 1985. If you were to add columns for 1995, and project to 2000, what size will they be, relative to earlier columns?*

2. *If you allow for Right-to-buy sales, how might this affect the columns shown? (Remember that it is the youngest stock which has sold best.)*

3. *In view of your answers to 1 & 2, describe how the age profile of council stock in England and Wales is changing.*

Time allocation 10 minutes

For this activity, you were not expected to look up actual figures - though if you have, well done! Rather, you were expected to demonstrate an understanding that local authority new build has remained at very low levels since 1985. Hence, the next two columns will be very small; certainly smaller even than the 1985 figure.

Right-to-buy sales will have reduced the recent stock; their effects for older stock will be less marked. Hence, this will reduce the size of the columns to the right - the younger properties - much more than the columns to the left.

So, what is the overall effect of this on the age profile? Very small columns added to the right, with the size of most right hand columns reduced, means that the relative importance of the properties represented by the left hand columns is increasing. The profile is ageing.

1.2 There has been a policy shift away from slum clearance

The number of properties demolished has become very small. Indeed, the *Inquiry into British Housing supplementary report*, in 1990, pointed out that only 8,401 unfit homes were demolished in 1987/88, compared to over 45,000 a decade earlier. According to the report, at this level of clearance, we must expect all dwellings in the UK to last for 2,668 years! It seems, then, that the problems of repairing and maintaining this rapidly ageing stock can only worsen.

1.3 Resources have been placed under increasing constraint

There is, therefore, increasing pressure on social housing providers to become more efficient. Since repairs and maintenance account for a large part of total *revenue* expenditure as well as being significant in capital expenditure, it has become the object of growing concern.

The *Inquiry into British Housing* identified a growing problem of poor house condition in local authority stock. The Audit Commission subsequently identified inadequate resources as one of the factors in this situation (*Managing the Crisis in Council Housing*, 1986). Expenditure on this service has actually been rising, despite the resource constraints, but with little impact on conditions: increasing expenditure is insufficient to deal with the growing backlog. And things seem likely to get worse: as the Audit Commission reported in 1986 in *Improving Council House Maintenance*:

> *".... almost every authority faces a growing maintenance bill in the next 15 years, as roofs and windows and other elements of houses built since the Second World War need to be renewed." (p5)*

In other words, even the newer properties are now reaching an age when we can expect that major items will need to be replaced. As the backlog of repairs has grown, so also has tenant dissatisfaction with the repairs function. It is this which has caused many social housing providers to reappraise their repairs service.

Summary

1. **Housing is highly durable, but requires repair and maintenance throughout its life.**
2. **Different types of materials and construction technologies have different maintenance requirements. This makes the task of planning for maintenance more difficult.**
3. **Repair and maintenance issues have come to the forefront of management concerns over recent years.**
4. **This is because most local authority stock is ageing, there is less slum clearance, and there are increasing resource constraints on social housing providers.**

Now, let's move on to examine what the repairs function actually does: what do we mean by *repairs* and *maintenance*?

2. Types of Repairs and Maintenance

It is important to define the terms. The distinction between repairs and maintenance is not at all obvious. Surely, *maintaining* a home necessarily involves *repairing* it? And, if you repair a defect in the property, isn't this keeping it well maintained? Is there any meaningful distinction to be made?

The Audit Commission, in its report *Improving Council House Maintenance* (1986), assumes that the entire repairs function provides "housing maintenance". However, it offers a useful distinction between *planned, programmed and responsive* maintenance.

Let's examine these terms in more details.

2.1 Planned Maintenance

This refers to the types of repair work which can be foreseen, and hence can be planned for.

(a) Programmed repairs

You know, from *Construction Methods and Materials*, that different materials and construction technologies have varying natural "life spans". Because we know a great deal about the rate of deterioration of many materials, we can forecast when they are likely to fail. We know, for example, roughly how long a tiled roof will last. We know how often a property will have to be re-wired. These are fairly long lasting items, the replacement of which can be planned well in advance. The Audit Commission refers to these as *programmed repairs*.

(b) Cyclical maintenance

Some other sorts of repairs which can be planned are much more frequent. They are the result, not of the need to replace worn out elements, but to provide the regular attention which some components need to keep them in good condition.

Some materials have very specific requirements for regular maintenance, if they are not to fail early; our earlier example of painting exterior woodwork is one. Another might be the regular servicing required for heating appliances.

The Audit Commission calls these planned activities *cyclical maintenance*. The work can be planned, like the first category, but it must be on a regular or cyclical basis.

Activity 2

Look again at the distinction which is made between programmed repairs and cyclical maintenance.

Why do you think that one type is called a "repair" and the other "maintenance"? What qualitative distinction is there between the two?

Time allocation 5 minutes

The distinction which the Audit Commission seems to be making involves doing something to *prolong the life* of a component, or to *replace* it. Cyclical *maintenance* is an activity which makes some materials last longer, like painting the windows. Programmed *repairs* involve replacing worn out items, such as old electrical wiring.

Now, let's go on to examine the second type of "maintenance" identified by the Audit Commission.

2.2 Responsive maintenance

As the name implies, this covers work which, by its nature, cannot be planned and is normally in response to a building failure or a request by a tenant. This includes individual failures, such as lost roof tiles and broken panes of glass, and more extensive repairs, caused by vandalism and fire damage. It is sometimes also referred to as reactive maintenance.

Repairs to vacated property, to be relet, will also be included. Clearly, the organisation cannot plan when a property will become available, nor the amount of work required on it. Increasingly, empty properties are subject to vandalism, often extensive, so a first requirement might be to board the property up.

Summary

1. **The Audit Commission distinguishes between *planned* maintenance and *responsive* maintenance.**
2. **There is no clear distinction between maintenance and repair: however, the Audit Commission views repairs as replacement, while maintenance extends the life of an item.**
3. **Planned maintenance and repair include all activities which can reasonably be foreseen and planned for.**
4. **There are two types of planned maintenance:**
   - **long term programmed repairs, to renew major items;**
   - **cyclical maintenance, to provide for more regular maintenance needs.**
5. **Responsive maintenance covers all work which cannot reasonably be foreseen and planned for, including emergency repairs and work on relets.**

This is a useful point to stop, and test whether you can relate the knowledge you have acquired in earlier blocks to the different sorts of maintenance activity which we have been examining.

Activity 3

Under each of the headings below, try to identify at least four different types of work, which would be covered by these activities.

Start with the examples in the text, then try to add more of your own.

1. *Programmed repairs*

2. *Planned, cyclical maintenance*

3. *Responsive maintenance*

Time allocation 15 minutes

You will be able to check your answers to that activity later in the block, when we go on to examine the organisation of these different types of maintenance, and what might be involved. For now, we want you to think about how these different sorts of maintenance interact with one another. Very clearly, failure to undertake major programmed repairs could have serious long term consequences, as the stock would gradually fall into great disrepair and become uninhabitable. However, it would be some time before it impacted on responsive maintenance, since this often focuses more on equipment, such as heating systems, than on the structure of the house.

Failure to undertake the more routine maintenance, the cyclical work, will, however, have a large impact on responsive demand. We'll examine why next.

3. The Relationship Between Planned Cyclical Maintenance and Responsive Maintenance

3.1 Short term

There is considerable evidence of a direct and inverse relationship between expenditure on planned cyclical maintenance, and expenditure on responsive maintenance. The more effective the cyclical maintenance, the less likely it becomes that more immediate repairs will be required. For example spending money every 5 years on repainting exterior woodwork is less likely to lead to problems with rotten windows in the interim period.

Unfortunately, the *immediate* effect of increased cyclical maintenance provision is often to stimulate *extra* demand for responsive maintenance. Thus, organisations may feel, for a time, that cyclical maintenance is not worthwhile, if it simply increases demand, and hence costs! Why should this happen?

There may be a number of different factors at work.

(a) The fact that the organisation starts to provide regular maintenance might lead to a change in customers' perceptions: at last, it may seem that the organisation is willing to "do something". So, customers will report more repairs than before.

(b) Improvements carried out as part of cyclical maintenance may, in themselves, create initial demands for responsive maintenance, with "teething problems" of operation or completion.

(c) In local authorities, the introduction of cyclical maintenance has often coincided with other major innovations, such as decentralisation of the service. This may also generate extra initial demand, as perceptions change.

(d) Cyclical maintenance may uncover other work that needs to be done. For example servicing heating systems may lead to work being undertaken to replace heating controls or radiators.

3.2 Long term

Despite the risk of extra demand initially, organisations which have operated cyclical maintenance programmes for some time report a fall in the demand for responsive maintenance. So, whilst programmed costs will rise, responsive costs will eventually fall.

Is this any advantage to the organisation? Is it not simply replacing one type of cost with another?

Activity 4

There are a number of reasons why we might expect that work undertaken on a planned, cyclical basis might be cheaper than responsive work.

Think about what is required for the two types of repair, both from the organisation's point of view, and the contractor who undertakes the repair.

Note your ideas here:

Time allocation 10 minutes

We have identified a number of reasons why work carried out on a planned basis should be cheaper than responsive work. They arise mainly from the fact that a number of similar jobs may be completed at the same time. See how many of these suggestions you made.

(a) There will be reduced travel time/reduced numbers of journeys.

(b) The costs of inspection, before and after the work is done, will be reduced.

(c) More jobs can be completed in each trip.

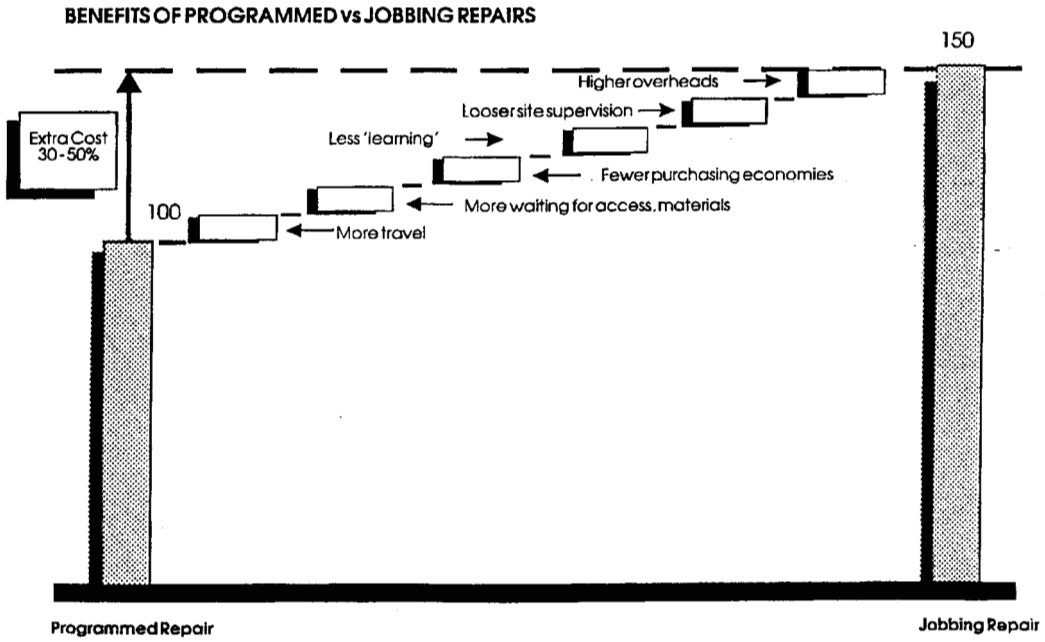
(d) It may be possible to economise on materials, if many similar repairs are being undertaken at once.

(e) As a result of the above, a lower price per unit should be available from the contractors.

(f) Overheads will be lower; only one contract, one invoice, one telephone call, etc.

(g) Access to properties should be more reliable, since ample notice can be given to tenants.

These benefits are summarised in the diagram below, produced by the Audit Commission:



This implies that the extra cost of undertaking responsive work (sometimes also called jobbing repairs) over programmed repairs is in the order of 30 to 50%. A significant amount!

Summary

1. **There is evidence that an effective planned cyclical programme of maintenance reduces the demands for responsive work in the medium term.**
2. **In the short term, responsive demands may not fall, or may even rise, due in part to improved expectations by customers.**
3. **Cyclical maintenance should be cheaper than responsive maintenance, due to the fact that more jobs can be completed in one trip.**
4. **This reduces labour costs (less time), travel costs, materials costs, and overheads.**
5. **The Audit Commission estimated that responsive maintenance costs 30-50% more than planned work.**

Now, we will move on to examine the organisation of the repairs and maintenance function. We begin with general organisational issues, then go on to consider the specific needs of the different types of maintenance programmes.

B. The Organisation of Repairs and Maintenance

1. General Issues

Landlords deliver repairs and maintenance in very many different ways. In some local authorities, the housing department may have no role at all in this service - though this is hardly desirable: repairs impinge on estate management more generally, and certainly form a large part of housing expenditure. In housing associations, there are likely to be far fewer staff, so it is more likely that housing managers will also be involved in repairs.

Whatever the precise nature of the arrangements, we can distinguish a number of important and quite different roles. It may not matter too much just who, or which section, fulfils these roles, so long as someone has a clear responsibility for each.

1.1 Roles in the repairs function

(a) Client

The client orders the work, setting maintenance standards, determining priorities and monitoring the performance of the service.

As a minimum, the Audit Commission argues that in local authorities, this role should lie within the housing department. They have overall responsibility to customers for service provision, so their ability to deliver an effective service will be compromised if they have no control over this aspect of service.

(b) Consultant

This is the expert role, for the people with knowledge about maintenance and repair methods and materials. They should check the content of the work, and operate quality control, rather like the role of the consultant on a development project. The consultant role could be undertaken by people employed directly by the housing organisation, such as Architects or Surveyors or external practices might be engaged.

(c) Contractor

The contractor undertakes the repair work, and so provides the skills and materials needed. The contractor role may be undertaken in- house, particularly in local authorities with DLOs (Direct Labour Organisations), but should still be subject to the same performance standards which would apply to an outside contractor.

(d) Customer

This important role is often overlooked.

(i) The customer is the end-user of the repairs function. If the customer is not satisfied with the repair, then neither should the client be. Dissatisfied customers are less likely to care for their properties, and their involvement can greatly improve the effectiveness of repair work.

(ii) Customers have a vital role to play in reporting the need for repairs. We shall be looking at arrangements to report problems shortly.

(iii) However, they also should be consulted about major renovation or modernisation, because it is they who will have to cope with any disruption. Unlike new build projects, it is clear in renovation work who the customer is, so their views should be incorporated from the design stage.

Activity 5

Find out how your organisation arranges its repairs and maintenance function.

Identify who, or what section or department, undertakes each of the three organisational roles we have just identified.

Describe the arrangements here:

Time allocation 30 minutes

As we stated at the beginning, there are many ways that the repairs function might be organised, so each of you may have found a quite different approach. If you are in contact with another course member, you should swap this information, so that you can see for yourself how much arrangements differ.

At one extreme, you may have found that the local authority DLO undertakes all of the roles. At the other, in a small housing association, one person may have responsibility for everything except the contractor role. This is similar to the situation for an owner occupier, who has to rely, very often, on advice from contractors.

In the context of increasing *decentralisation* of the housing management function, there are strong arguments for a decentralised approach to repairs. One successful model has been developed by the *Priority Estates Project* (P.E.P.). This involves the use of estate based repair teams.

1.2 The advantages of a decentralised approach

(a) The Audit Commission, in *Improving Council House Maintenance* (1986), makes a number of arguments for estate based repair teams.

(i) Tenants prefer them, because they can identify with particular workers, and hold them more readily accountable for their performance.

(ii) The workers are better motivated, because they know the tenants.

(iii) This improves the productivity of the repairs function: workers do more tasks, and look after repair materials better.

(iv) They reduce vandalism and improve security, which improves the desirability of the estate for new tenants.

(v) They permit experimentation and innovation in delivery methods, often to beneficial effect.

(b) Anne Power, in the PEP publication, *Housing Management* (1990), argues for an estate based, integrated approach, as follows:

> *"It is common practice to separate day-to-day repairs from planned maintenance and major improvements, with different council departments or sections of the housing department controlling different aspects of the work. However, all are part of the overall repair and maintenance of the estate.* ***The physical needs of the***

estate should be viewed as a whole. *Information obtained from the day to day repairs operation should feed directly into the planned maintenance programme and the capital programme, and vice versa. Artificial divisions lead to duplication and mistakes .....Most mistakes are due to poor co-ordination between different sections that control different pots of money. Local co-ordination and control of all aspects of the repair and maintenance of an estate is the best way to ensure that such mistakes do not happen. It is also the best way of ensuring that all repair and maintenance work reflects the needs of the estate, and the priorities of the people who live and work there. There is evidence that it reflects the best value for money." (pp125-6)*

Activity 6

Anne Power argues that the estate-based approach improves the service.

Try to summarise in the space below the ways she claims it improves the service, for both customers and organisation.

1. For customers

2. For the organisation.

Time allocation 10 minutes

The main improvements which she identifies are as follows:

(i) For customers

- Less duplication means less disturbance and disruption.
- Repair priorities reflect tenant concerns.
- The needs of the particular estate and its dwellings are better met.

(ii) For the organisation

- Less duplication and fewer mistakes should reduce costs.
- Information flows are improved, resulting in more efficient planning for repairs.
- Maintenance is tailored to the particular needs of the dwellings, so should be more effective.
- It offers "best value for money".

How does the PEP model structure its repairs service?

2. The PEP Model for the Repairs Function

We will analyse this model using the key roles in repairs and maintenance, which we identified at the beginning of this section.

2.1 The client

This is the estate (or neighbourhood) office, controlled by the Estate Manager. *All* staff must be able to order and pay for repairs, and maintain accurate records about repair work. We shall be examining the ways that records can be kept later in the block. The estate staff are also responsible for consulting with, and informing tenants about repair work.

2.2 The consultant

Ideally, the estate office should include a member of staff with technical expertise. For small or modern estates, it is sufficient that the estate office has ready access to necessary expertise.

Technical staff can be expected to:

(a) Undertake pre- and post-inspection, of difficult or expensive work.

(b) Draw up the specification for jobs not covered by the *schedule of rates*. We shall be examining this shortly.

(c) Monitor quality standards.

(d) Undertake inspections, for programmed work. We will be looking at this in more detail in the next section.

(e) Provide costings for major repairs.

2.3 The contractor

(a) Tendering

In local authorities, contracts for repair work are let by competitive tender.

(b) Estate-based

Ideally, the contractor appointed will have a base on the estate, and will employ estate-based tradesmen. In this way, they will become known to the tenants, with the benefits already identified.

(c) Costing

Usually, work will be costed using the schedule of rates, which we will be examining shortly. However, it may be possible to agree a *flat rate contract* - i.e. so much per unit per annum - which greatly simplifies payments.

2.4 The customers

The possibilities for involving customers are much greater when repairs are estate based. They should be consulted about all planned maintenance programmes, and be involved in drawing up priorities for repairs on the estate.

On some PEP estates, customers have undertaken some of the maintenance work themselves. They have set up co-operatives or businesses, to tender for maintenance contracts. Hence, local employment can be a valuable by-product. On estates with high levels of unemployment and deprivation, usually with problems of vandalism, the involvement of local residents in repairs can considerably reduce problems.

Activity 7

Compare this PEP model with the approach adopted by your own organisation (identified in Activity 5). Are the roles located in different parts of the organisation?

Try to identify any advantages that you think one approach has over the other.

Time allocation 10 minutes

2.4 Conclusion

(a) Co-ordination, co-operation, consultation

As you have discovered, one of the most important requirements is that all parts of the repair service are co-ordinated. This involves, not simply the co-ordination of different types of maintenance - planned and responsive - but also co-operation and consultation with customers. If this occurs effectively, it is more likely that the repair service will be a good one.

(b) Room for improvement?

The last activity will have encouraged you to question the way that the repairs service is organised within your own organisation. Even where you feel it is well organised, there may be some room for improvement, so that all parties are able to communicate and co- ordinate effectively. At the very least, it may be that customer involvement could be improved, to the benefit of customer satisfaction.

(c) Good service in small organisations

It is recognised that, in small and medium sized housing associations, there may be no estates large enough to warrant an estate-based service. Decentralisation of management may simply be impossible. Nevertheless, it is important that there is an attempt to co-ordinate activities. Ironically, this is likely to be easier in the smallest associations, where one person may carry the responsibility for all maintenance. They should be able to acquire detailed knowledge of both the properties and the tenants, and so have the potential to offer a service which ranks with the best.

Summary

1. **There is no universal model for the organisation of the repairs and maintenance service. However, some person/ section/department must assume the key roles.**
2. **The key roles are that of client, consultant, contractor and, of course, customer.**
3. **A decentralised approach has many advantages, and has been recommended by the Audit Commission.**
4. **This may be estate-based, as with the PEP model. In this approach, the estate-based housing staff assume the client role. The consultant should preferably be estate-based, as well as the contractor.**
5. **It is vital that there is effective co-ordination of all maintenance activities, so that work is not duplicated.**
6. **Customer involvement is essential to efforts to improve customer satisfaction.**

We will now go on to examine the detailed requirements for the effective provision of the two different types of maintenance, planned and responsive.

Self Test 1

1. *Briefly identify the reasons why the repairs and maintenance function has become more important for housing providers.*

2. *Define:*

   (i) programmed repairs

   (ii) planned cyclical maintenance

   (iii) responsive maintenance

3. *How is planned cyclical maintenance related to responsive maintenance?*

4. *Identify the key roles in the repairs function.*

5. *What are the (claimed) advantages of a decentralised repairs system?*

Now turn to the Answers at the end of the Block.

C. The Organisation of Repairs and Maintenance: Detailed Requirements

1. Introduction

The requirements for the effective management of planned maintenance programmes, compared to responsive maintenance, are rather different and we shall examine them separately. However, as you discovered in the previous section, it is vital that the two approaches are undertaken in a co-ordinated fashion. They must not be viewed as self-contained activities, unrelated to each other.

We will begin with planned maintenance; how should the organisation approach the task of drawing up a programme?

2. Planned Maintenance Programmes

2.1 The need for planned maintenance

The Audit Commission has argued that local authorities need to undertake much more planned maintenance than at present. Spending constraints over many years in the past have resulted in concentration on more urgent, responsive maintenance activities, at the expense of longer term maintenance. This has contributed to the deteriorating condition of much local authority stock.

The Audit Commission has argued that "the not so hidden cost of low rents is accommodation in poor condition" (*Improving Council House Maintenance,* 1986). Local authorities should identify, through a planned programme of maintenance, what repairs are needed to bring their stock back to good condition. Rents should then be set, which allow the necessary level of maintenance. So, the planned maintenance programme should be placed at the*front* of the expenditure planning process, rather than at the end, as a residual activity.

It is the Audit Commission's belief that planned maintenance should, in an "average" local authority, account for 65-70% of all maintenance expenditure. The proportion is likely to be much lower for most housing associations, who have, in general, a much younger housing stock, with less need (as yet) for the major repairs of programmed work. They do, however, still have cyclical maintenance requirements, so should be undertaking some programmed work. As housing association stock ages of course they will need to do more programmed work and this issue is now rising up the agenda of housing associations.

2.2 Design to reduce planned maintenance requirements

Effective planned maintenance begins at the design stage, whether the project is new build or rehabilitation. The design adopted should attempt to minimise the future cost implications for the organisation, as well as concerning itself with current total costs.

Methods and materials with heavy maintenance implications should be avoided; this is one of the main reasons for the decline in the use of non-traditional construction technologies, many of which have proved expensive to maintain.

The maintenance manager, or the estate staff responsible for maintenance, should *always* be involved at the design stage. Development cannot be planned without regard for maintenance. It is for this reason that the Housing Corporation is encouraging housing associations to take a *life cycle costing* approach to new developments to identify the likely future maintenance costs, as well as current costs, to see what the lifetime costs will be.

2.3 Developing planned maintenance programmes

We shall assume, in this section, that the housing organisation does not undertake planned maintenance at present. It needs to set up a system, from "scratch". So how should it go about this? You have already discovered that planned maintenance takes two forms: programmed repairs, and cyclical maintenance. In many respects, the approach to setting up both programmes is similar; essentially, it is the timescales which differ.

However, because programmed repairs are much less frequent, but much more complex and costly, there is rather more work involved in setting up the programme. We will, therefore begin with programmed major repairs, and then go on to consider cyclical maintenance.

2.4 Programmed major repairs

(a) The need for major repairs

The expected life span of major structural elements will depend, to some extent, on the construction technologies and materials used. However, it will also depend on variable factors, such as how well the house was constructed. This means that, for any particular age and type of dwelling, there will be variation in failure dates for different items. Nevertheless, it is useful to know what the "average" life span is, because, with a large number of properties, this will give some indication of the replacement dates.

The Audit Commission, in *Improving Council House Maintenance* (1986), produced an estimate of replacement dates for major elements. This was based on technical data about the life expectancy for many different types of building components. They found that:

> *"the estimated replacement costs of the building elements per dwelling unit, aggregated over 100 years, are not greatly different for different types." p.62*

However, this specifically excluded the defects problems of some post-war, system-built stock, which need to be viewed separately. For each of 23 building elements, the Audit Commission produced an estimate of replacement dates, and costs. This is reproduced below.

ELEMENT REPLACEMENT YEARS AND COSTS

Building element	Replacement year	Replacement cost (£)
STRUCTURE		
Foundations, damp course	45, 90	500, 500
Walls	50, 75, 100	1250, 450, 450
Roof, chimneys	50, 100	3500, 3500
Rainwater goods, fascias	50, 100	300, 300
Openings	60, 120	1500, 1500
Windows	40, 80	1500, 1500
External doors	25, 50, 75, 100	300, 300, 300, 300
Porch, canopy	30, 60, 90	300, 300, 300
INTERNAL		
Walls	80	750
Doors	50, 100	600, 600
Floors, ceilings	60, 120	500, 500
Wall finishes	60, 120	250, 250
Floor coverings	20, 40, 60, 80, 100	250, 250, 250, 250, 250
Kitchen fittings	30, 60, 90	800, 800, 800
SERVICES		
Plumbing, sanitary	40, 80	1400, 1400
Heating	40, 80	1500, 1500
Electrical supply	30, 60, 90	600, 600, 600
EXTERNAL WORKS		
Drainage	25, 50, 75, 100	250, 250, 250, 250
External services	40, 80	350, 350
Paths, steps	30, 60, 90	350, 350, 350
Walls, fences	40, 80	300, 300, 300
OUTBUILDINGS		
Garages	45, 90	750, 750
Stores, sheds	20, 40, 60, 80, 100	250, 500, 250, 500, 250

This table gives you some indication of what major repairs involve - the types of building elements which are repaired in a planned repairs programme. You should use this information to check your answers to Activity 3.

Take time to examine the table, then complete the next activity.

Activity 8

The table shows that, over a period of 100 years, there is a wide variation in the number of times that different building components need to be replaced.

1. *Which elements have to be replaced most frequently?*

2. *Which elements need replacement least frequently?*

3. *Which elements are cheapest to replace?*

4. *Which elements are most expensive?*

Time allocation 10 minutes

This activity was a fairly straightforward exercise, to test that you could extract data from the table.

(i) *The items which need most frequent replacement are floor coverings and stores/sheds.* Why do you think that this is the case?

Floor coverings have a limited life. They wear out relatively quickly. Sheds are usually made of wood. Wood is often subject to fungal attack, which causes deterioration.

(ii) Walls are the item requiring least replacement

- only once, after 80 years.

(iii) The cheapest items are wall finishes, floor coverings, and drainage;

these cost only £250 per replacement (at 1986 prices). Most expensive is the roof, at £3,500. However, remember that these are costs per replacement, so all replacements have to be added to give total costs.

Much more detailed information about life expectancy is available for professional technical staff, who actually have to cost planned programmes. This would not be a function for housing managers. You could use this information to produce a schedule of programmed repairs for the home that you currently live in.

Now that you have some idea about the sorts of major repairs involved in programmed repairs, we can turn to examine what is involved in developing a planned programme.

(b) Where to begin?

Planned maintenance requires that the replacement of major items is *planned*. This suggests two needs:

- detailed knowledge of the numbers of each type of repair required each year;
- detailed knowledge of the costs of their replacement, so that expenditure can be properly planned and budgeted.

How can the organisation find out about the major repairs which will be needed over a period of years?

- It needs to acquire detailed knowledge of its housing stock. This should cover:
  - the *age* of the properties, so that an age profile (such as you examined at the beginning of this block) can be developed;
  - the construction *methods* and *materials* of the properties, since this will affect the normal life span of different elements.

Where does an organisation acquire this detailed knowledge? This will involve undertaking a *stock survey*.

(c) Survey of the housing stock

Ideally, every property would be subject to a full survey, so that precise details could be established. In practice, of course, this is unrealistic: it would be extremely expensive and time consuming.

A more realistic approach is to "sample" properties of similar age and construction, to determine the average needs for that type of property.

In general, surveys of stock condition will need to adopt the following approach:

(i) Determine the age and construction methods of all properties. Some of this information might be available from past plans, repair data, etc., but the housing managers are likely to be valuable sources of knowledge. An initial, estate-based survey might also be necessary.

(ii) Divide the stock into *survey groups*, with similar characteristics - age, construction type, etc.

(iii) Determine the necessary sample size, related to the numbers of properties in each group. The sample size must be sufficient to ensure that the survey results are reliable. Hence, the larger the group, the smaller can be the proportions sampled, because this should still generate reliable data.

(iv) Undertake the survey.

This will have to be conducted by technical experts, with detailed knowledge of construction methods and materials such as building surveyors. They should record details about the construction methods and materials of each sample group, and identify the present condition of a range of different elements of their structure. For items which will require replacement in the near future, they should also provide an assessment of the date when the work will become necessary.

An example of a Stock Condition Assessment form, devised by the Audit Commission, is shown below:

STOCK CONDITION ASSESSMENT
Record Card

Key	1	=	Emergency
	2	=	Early (0-2 years)
	3	=	Medium term (3-5 years)
	4	=	Long term (6+ years)
	5	=	Monitor
	6	=	No access for survey

ELEMENT	ACTION KEY	LAST RENEWAL (YEAR)	FORECAST FAILURE (YEAR)	NOTES
EXTERNAL				
Foundations				
DPC				
Walls				
Rendering/cladding				
Doors				
Windows				
•				
•				
•				
Garage				
External Store				
INTERNAL				
Entrance hall				
Kitchen				
•				
•				
•				
Partitions/plaster				
Internal decorations				
AMENITIES/SERVICES				
Space heating				
Water heating				
Electric light				
Electric power				
•				
•				
•				
Roof insulation				
Handicapped facilities				
POSSIBLE NOTEABLE DEFECTS				
Bad internal arrangement				
Condensation/mould growth				
Rising damp				
Dry rot				
Wet rot				
Wood infestation				
COMMUNAL AREAS/FACILITIES				
Entrance Hall				
Lifts				
Lighting				
Fire fighting				
•				
•				
•				
Store rooms/enclosures				

You will notice that:

- the condition is assessed by an "action key", an indication of *when* this item will need repair. This allows the information to be easily used to produce a programme of planned maintenance. Long verbal descriptions of the condition would require further interpretation.
- there is space to identify when the item was last replaced. This should be available from repair records. With knowledge of the average life of the item, the next replacement date can be forecast. This appears in the next column.

This survey data will enable the organisation to:

- identify outstanding repairs (what needs to be done now);
- forecast future major repair requirements, and the date at which these will occur.

Stock condition surveys are usually undertaken by technically qualified staff and the results stored either in a paper format or on a computer file. The benefit of using a computerised stock condition survey is that the database can be updated. As work is carried out the property attributes of individual properties or groups of properties can be updated. If a survey is a sample and not all of the stock the surveyor will need to extrapolate the results of the survey to build up a picture of the current condition of the stock and what needs to be done.

(d) Records of house condition

The data collected in the survey should be merely the beginning of a database of stock condition. Individual property records should be maintained, in which all repair work is subsequently recorded. This will provide the basis for an ongoing record of stock condition, automatically updated as work is completed.

This is, of course, much easier to maintain if a computerised record system is used.

One of the key issues which organisations undertaking surveys face is the amount of data to collect. Whilst collecting a lot of data will provide comprehensive information two problems arise. If too much data is collected the costs of both doing the survey and keeping records up to data increase. Many organisations therefore aim to collect a more limited range of information about the key property attributes which will form the basis of a planned repairs programme.

Activity 9

Find out whether the housing organisation for which you work has undergone a stock condition survey.

Examine the data collected, and compare this to the approach suggested above.

Note here any **major** *differences in the approach adopted.*

Time allocation 30 minutes

Now that we have assembled the survey data, we can move on to plan the programme.

A simple property database

The box below sets out what is likely to be included in a simple property database.

Property Address
Property type (house/flat/bungalow)
Bedrooms
Living rooms
Kitchens
Bathrooms
Separate WCs
Age constructed
Construction type (brick/block, timber frame etc)
Heating (Gas/Electric/oil)
Central heating?
Windows (timber/upvc)
Date last repainted?

(e) Planning the programme

The programme should be planned in the following way:

(i) The survey data will have identified all outstanding work. This will have to be *prioritised*.

Priorities might take into account:

- safety and health risks;
- the costs of delay;
- political pressures for action.

(ii) The cost of the work will have to be calculated.

(iii) This outstanding work should then be programmed - put into a timetable - taking into account the resources available for the work.

(iv) Predicted future work should then be prioritised and costed, in date order. It is usual for planned maintenance programmes to cover a period of about 5 years.

(v) The customers should then be consulted about the draft programme. They should be in agreement with the planned timescales and activities, before the plan is finalised.

A sample programme, for an imaginary local authority called Norford, was produced in the Audit Commission's report on maintenance. This is reproduced here, to give you some indication of what a planned repairs programme might look like:

PROGRAMME CARRIED FORWARD £000, at November 1986 prices

Ref	Area	Estate	Work/element	1986-7	1987-8	1988-9	1989-90	1990-1
				£				
1	1	Blossoms	drainage	35				
2	1	Dudley House	chimney stacks	59				
3	1	Eastholm	brickwork	68				
4	1	Francome	re-wiring	15				
5	1	Green Street	damp-proof courses	110				
6	1	Hallinson Park	pitched roofs	50	50	50		
7	1	Nelson	pitched roofs	75	75	50		
8	1	Pinewood	damp-proof courses	90				
9	1	Slade Crescent	pitched roofs	240			200	
10	1	Wentworth	central heating	405				
11	2	Barrhead	cold water tanks		142	142		
12	2	Farnham	back boilers	343				
13	2	Grove Road	drainage	60				
14	2	Judd	re-wiring	20				
15	2	Maud Aynsley	pitched roofs	58	70	60		
16	2	Park Estate	internal joinery	100	200	110		
17	2	Valley Court	cladding	55				
18	3	Attlee Street	flat roofs	50				
19	3	Attlee Street	cladding	59				
20	3	Damble	re-wiring	27				
21	3	Greendale	warm air units	89				
22	3	Hailsham Road	windows		100	100		
23	3	Oriel	windows		240	240		
24	3	St John's	pitched roofs	102	80	30	27	
25	3	West Lea	balconies		30			
26	4	Bankside	central heating	300	500	605		
27	4	Green Gate	re-wiring	13				
28	4	Peterkin	flat roofs	40				
29	4	Prospect Way	external works	132	118			
30	4	Queen's Drive	walls		132			
31	4	West Moor	enveloping			270		
32	5	Barn Cross	back boilers		163	160		
33	5	Black Street	concrete floors	40	40			
34	5	Brendon Way	external doors	12				
35	5	Concorde	central heating		350	354		
36	5	Crocus Drive	drainage	105				
37	5	Fenner Road	windows	28				
38	5	Larch Way	balconies			45		
39	5	Mitchell Avenue	re-wiring	8				
40	5	Sedley Street	external doors		166			
41	6	Danethorpe	re-wiring	17				
42	6	James Lane	flat roofs	38				
43	6	Milford Avenue	chimney stacks	4				
44	6	Parsons Court	pitched roofs	31				
45	6	Parsons Court	walls	37				
46	6	Parsons Court	windows			40		
47	6	Pearson Way	lintels	52				
48	6	Southwell	warm air units		208	208		
49	6	Sweet Street	central heatingss		192	191		
TOTAL (including commissioning costs)				2,967	2,856	2,655	227	0

Of course, the programme will have to be co-ordinated with the programme of cyclical maintenance, so that there is no duplication, and works can progress concurrently wherever possible. We will now turn to the cyclical programme.

2.5 Cyclical maintenance

Cyclical maintenance, you will recall, is concerned with the regular maintenance needs of some components. You have already identified some cyclical maintenance requirements, in Activity 3, and can check your answers now.

Some of the main items likely to require regular programmed maintenance are:

- external painting and pre-painting repairs;
- internal decoration of communal areas;
- servicing of equipment;
- heating and hot water systems,
- entry door systems,
- TV aerial systems,
- lifts.

You might also have included items such as gutter clearance, especially for estates with many large trees. Blocked gutters will cause rainwater to follow channels other than those planned, and so can lead to problems of damp penetration. You have examined the potential problems arising from this is *Construction Methods and Materials*.

Since some of these cyclical maintenance requirements affect the safety of customers, most housing organisations will have evolved some sort of programme for this type of work. If not, the requirements for a cyclical programme are not unlike the major repairs programme. The condition of the stock must first be assessed, to determine what needs to be done, and which is most urgent. When were the dwellings on each estate last painted? When were the gas boilers serviced?

Some of this information may be collected in the stock condition survey - for example, the condition of exterior paintwork. However, it is likely that a lot of information will be obtained from servicing records, and the records kept of past repairs.

(a) Programme timescales

The optimum timescale for cyclical repairs will depend on:

(i) the nature of the work; Commonly, external repainting is programmed on a five year cycle: gas appliances should be serviced annually.

(ii) the availability of resources; Cyclical work must be programmed along with all other maintenance work. Its share of the budget will depend, to some extent, on other priorities.

(iii) other planned maintenance; As we have already established, cyclical repairs should be co- ordinated with major repair work. If a scheme is about to undergo major refurbishment, it may make sense to defer some cyclical work. It is not unknown for dwellings to be externally painted, shortly before the windows are replaced as part of a major repairs programme!

(iv) customers' views; Customers must be consulted about the timing of planned maintenance work, so that plans can take account of their views. There must also be effective procedures for informing tenants about the date when work will start.

(b) Planned maintenance tenders

Once the client organisation has drawn up programmes for planned maintenance, it needs to consider its approach to getting the work done. Tender documents generally comprise:

- information about the site
- the detailed design drawings
- detailed specifications
- information about the type of contract
- a form to enter the tender price.

Which of these will be needed for planned maintenance work?

To some extent, this will depend on the nature of the work.

(i) All contracts will need detailed specifications. These should identify exactly what has to be done, and to what standards. They should be very detailed, to ensure that the work is completed *exactly* as required. For example, they should specify not just the quality of the paint to be used for external decoration work, but also the colour.

(ii) Some planned maintenance work may need detailed design drawings, e.g. for the replacement of roofs. The drawings should show clearly the design of the new roof, and how it is to be constructed.

(iii) Instead of information about the site, information about the dwellings will be required; their location, construction details, etc., as appropriate to the particular task.

(iv) Information about the contract, and a form for the tender price, should be provided for all contracts.

Clearly, then, the next task is to produce detailed specifications for the work. For much of the work we have called *programmed repairs*, the organisation will need the services of consultants, whether in- house or external, to produce the drawings and specifications. For some more minor cyclical activities, such as external decoration, the organisation will probably have a standard specification which it can adapt. This is, of course, a task for technical officers, not housing managers.

(c) Types of contract

The organisation will need to determine how it will "assemble" the work to be put out to tender: does it require one contractor to tender for all work over a particular time period, or will it let much smaller contracts, for specific pieces of work?

(i) Programmed repairs are usually organised in major contracts, let by competitive tender, on a fixed price contract.

(ii) Cyclical contracts can also be let on much smaller, fixed price contracts; but as an alternative, some organisations may include some of this work in the *term contracts* (for a fixed period of time) normally used for responsive maintenance work. These contracts are based on a *schedule* of *rates* which is a list of different maintenance tasks and the price for each one. We will be examining this type of contract in more detail in the next section, when we examine responsive maintenance.

This emphasises the importance of co-ordinating all maintenance work; consideration of tenders and contracts should occur in an integrated fashion, to ensure that there is no duplication, and opportunities to reduce costs maximised.

(d) Selecting the contractor

Procedures should be the same as those for major development work.

(i) The organisation must ensure that all firms invited to tender are suitable, by proper prior vetting.

(ii) The competitive tendering procedure will also be the same, with sealed bids to be placed by a set tender date.

(iii) Contracts must be drawn up, which specify the contract duration, price, etc., and the work must be properly supervised in progress. This must, of course, be in accordance with the planned programme.

Summary

1. **Some planned maintenance is essential for all types of dwellings, if they are to be maintained in good condition.**
2. **The need for planned maintenance should be limited by good initial design.**
3. **Major repairs' programmes are necessary, because some major elements require replacement during a building's lifetime.**
4. **Plans for major repair programmes must begin with an assessment of the condition of the stock, usually with the aid of a condition survey.**
5. **Outstanding repairs can then be prioritised, and future repair needs identified.**
6. **Once these are costed, they can be put into a planned programme of work, usually over 5 years.**
7. **A cyclical programme is necessary to ensure that some elements are maintained satisfactorily.**
8. **Cyclical programme timescales will depend on the nature of the work, and the availability of resources, as well as other planned maintenance and customers' views.**
9. **The major repairs programme must be fully co-ordinated with the cyclical programme.**
10. **Tender documentation must be drawn up, appropriate to the type of work involved.**
11. **Contracts may be fixed price for major works, but some cyclical maintenance work may be let as part of a term contract, using a schedule of rates for pricing.**
12. **The normal procedures for letting competitive tenders should be observed.**
13. **Contractors must be properly vetted, and supervised during the construction period.**

3. Responsive Maintenance

Responsive maintenance is day-to-day repairs, usually in response to requests from customers. It is this aspect of the maintenance service with which customers are most familiar - and about which they most complain!

Let's begin by defining the requirements of an effective, responsive repairs system.

3.1 Requirements of the system

(a) It should be understood which repairs are the responsibility of the housing organisation, and which are the responsibility of the tenant. This can save considerable staff time, dealing with inappropriate requests.

(b) Customers need to know the method for reporting repairs - where, to whom, when, etc.

(c) There must be clear requirements and procedures for the processing and prioritising of repairs.

(d) The repairs staff must be well organised and effective.

(e) There should be explicit repair standards, and response times.

(f) Customers need to know how to make a complaint in the event of dissatisfaction.

(g) There must be adequate monitoring of the repair service and close budget control.

We will now examine these requirements in some detail.

3.2 Who is responsible for repairs?

This section will look at who is responsible for certain repairs.

Landlord's obligations

When a landlord rent a property to a tenant the landlord has certain repairing obligations for the property. These are classified under three headings:

- Statutory obligations
- Contractual obligations
- Common law or implied obligations

Statutory obligations in England and Wales

These are legal obligations relating to repairs which Parliament has imposed on landlords through Acts of Parliament. There are a number of key Acts of Parliament which cover repairing obligations;

1985 Landlord and Tenant Act (England and Wales).

1987 Housing (Scotland) Act

The Act says that landlords offering tenancies for a term of seven years or less after 24 October 1961 have an implied covenant in the tenancy agreement which requires them to be responsible for:

- keep in repair the structure and exterior of the dwelling (including drains, gutters and external pipes)
- keep in repair and good working order installations in the dwelling for the supply of water, gas , electricity and sanitation (including basins, sinks, baths and sanitary conveniences but not other fixtures, fittings and appliances for making use of the supply of water, gas electricity)
- keep in repair and proper working order the installations in the dwelling for space heating and heating water.

In addition landlords now have to maintain the common parts of buildings (for tenancies let on or after 15 January 1989 in England and Wales, 2 January 1989 in Scotland)) and communal heating systems.

As you can see this does impose significant repairing obligations on landlords and they cannot contract out of this requirement without a specific order of the County Court in England and Wales or the Sheriff's Court in Scotland.

This repairing obligation applies to the overwhelming majority of Council, housing association and private tenants.

However the landlord is not responsible for these categories of repairs if they have come about because of the tenants neglect or deliberate damage.

You should note that landlords have a right under this legislation to enter their dwelling or a any reasonable time to view its condition as long as they have given at least 24 hours written notice. In addition landlords have a right to enter a property to carry out repairs (1977 Rent Act for protected and statutory tenants, Housing Act 1988 for assured tenants. In Scotland the relevant provisions are found in the 1984 Rent (Scotland) Act and Housing (Scotland) Act 1988.

Enforcing statutory obligations

If a landlord fails to carry out the statutory obligations a tenant can seek an order from the County Court or Sheriff's Court in Scotland requiring the landlord to do the repairs.

In addition tenants do have a common law right to have repairs carried out and to charge the landlord for the costs of that work or to deduct it from future rent.

Compensation for failure to carry out repairs

In addition to the legal redress in the Courts tenants of Councils and housing associations have the right to be compensated when a landlord fails to carry out a repair at the second time of asking within its published response times. This is fixed at a minimum of £10 and £ 2 a day for every day overdue up to a maximum of £50.

This is a statutory right for Council tenants and the Housing Corporation has introduced a similar requirement for tenants of housing associations in England. Similar procedures also apply in Scotland, although Scottish housing association tenants have their compensation capped out a flat rate of £10 for emergency or urgent repairs not carried out in the response time.

Occupiers Liability Act 1957

This Act applies in England and Wales and places a duty of care on occupiers of a dwelling in relation to visitors to the dwelling. This applies to landlords when they control parts of the building, such as communal entrances and lifts. This means that landlords have to make sure the premises they control are safe for visitors.

In Scotland the equivalent requirements are found in the Occupiers' Liability (Scotland) Act 1960.

Defective Premises Act 1972

Under this Act landlords and their agents in England and Wales have a duty of care when they carry out building works. This duty of care requires landlords to carry out works in a professional manner, use proper materials and to ensure the property is left in a state fit for human habitation.

Gas Safety Regulations

Under the Gas Safety regulations landlords have obligations regarding the safety of gas fittings and appliances in their dwellings. In particular landlords have to keep records of annual inspections and servicing, ensuring tenants are given a copy of the inspection record. They are also required to annually service appliances and to ensure that workers carrying out the servicing are properly qualified.

Fitness for human habitation

Under the Housing Act 1985 as amended by the Local Government and Housing Act 1989 a dwelling is unfit for human habitation if it fails to meet one or more of nine conditions:

- structurally stable
- free from serious disrepair
- free from dampness prejudicial to health of occupants
- adequate provision for lighting, heating and ventilation
- adequate supply of piped wholesome water
- satisfactory facilities for the preparation and cooking of food, including a sink *with a supply of hot and cold water
- suitably located WC for the exclusive use of the occupants
- a suitably located fixed bath or shower and wash hand basin with a supply ofhot and cold water
- An effective system for draining of foul and surface water

In Scotland dwellings are expected to meet what is known as a tolerable standard defined in the Housing (Scotland) Act 1987 as:

- structurally stable
- substantially free from rising or penetrating damp
- satisfactory provision for natural and artificial lighting, ventilation and heating
- adequate supply of piped wholesome water
- a sink with a supply of hot and cold water
- a WC for the exclusive use of the occupants and suitably located
- An effective system for draining and disposal of foul and surface water
- satisfactory facilities for the cooking of food
- satisfactory access to all external doors and outbuildings

If a property is unfit then the local authority can service a repair notice under Section 189 of the 1985 Housing Act requiring works to be carried out in a certain timescale. In Scotland the local authority can serve an improvement order under the 1987 Housing (Scotland) Act.

If the work is not done the local authority van do the works itself.

Contractual obligations

As we have seen above the statutory obligations are fairly limited and in many cases landlords take on additional repairing obligations for their properties.

Activity 10

Why do landlords do this? Make a note of any possible reasons you can think of in the box below.

Time allocation 5 minutes

The main reason is that landlords recognise that they have an interest in maintaining the property as it protect the asset value and if they failed to do these repairs then there is a danger hey would not get done which would in the long term reduce the value of the home.

Landlord's will set down in their tenancy agreements the extent of the repairing obligations that they will take on. These will normally include the repairing obligations as set out in the legislation as well as additional items they are prepared to do.

You should be aware that landlords cannot contract out of the statutory repairing obligations . For example if a landlord was to say in the tenancy agreement that they would not repair the structure and exterior his would not be lawful and the tenant could require the landlord to carry out the repair through the courts

Tenancy agreements

A tenancy agreement is a contractual agreement between a landlord and tenant and will set out the rights and responsibilities of each. As we saw above it is an implied condition of all tenancy agreements that the statutory obligations for repair fall upon the landlord. However the tenancy agreement will normally place additional repairing obligations on the landlords above and beyond the statutory minimum.

A typical Council tenancy agreement will show that the Council has responsibilities to:

- repair the structure and exterior;
- repair and maintain installations;
- repairs fixtures and fittings (such as doors and kitchen units)
- maintain common parts;
- provide adequate notification and consultation about major works (i.e. programmed repairs).

In addition the agreement will normally give tenants' responsibilities to:

- look after the property;
- leave it in good condition at the end of the tenancy;
- get permission before making any improvements;
- give council staff access to inspect and repair.

It should be apparent to you that these responsibilities are very general, and difficult to pin down in the event of dispute. How is "tenant's neglect" to be proved? For this reason, many landlords define the tenants' repairing obligations very precisely. In a survey of 50 local authorities the Audit Commission found that the following elements were commonly defined as tenants' maintenance responsibilities:

- chimney/flue sweeping
- external door furniture
- internal door furniture
- drain/waste blockages
- electric fuses
- glass in doors and windows
- internal decoration
- plugs, chains, etc. for sinks.

However, practices do vary enormously between different organisations. This is the list of repair obligations for tenants of a major metropolitan City Council. You will see that only some elements are common to both lists.

1. Internal door handles.
2. Letter plates.
3. Easing internal doors.
4. Plugs and chains to sinks, basins and baths.
5. WC seats and lids.
6. Minor plaster cracks.
7. Floor tiles.
8. Fireplace tiles.
9. Wall tiles.
10. Minor repairs to kitchen unit cupboards and drawers.

Your own organisation may have a different list.

3.3 Reporting and processing repairs

There are two dimensions to procedures for reporting and processing repairs: from the tenant's viewpoint, and for the landlord

(a) For tenants

The tenants handbook - or, if there is none, repairs leaflets and posters - should set out the procedure for tenants wishing to report repairs. This should include:

(i) *Where* to report

- The main central office, the neighbourhood office, the customer call centre?

(ii) *When* to report

- Office opening times, addresses and telephone numbers, and an "out of hours" telephone number for emergencies.

(iii) The *procedure* for reporting

- Is there a form, on which to record the defect?
- Will staff make an entry on the computer?
- Is a receipt issued, confirming the report has been received?

(iv) The *procedure* for being informed about the date for repair

- How soon is a date given for the repair?
- Is there an appointments system?
- How is the appointment made?

Tenants need to know exactly what will happen when they report a repair requirement, and should always be informed of the progress of their repair. To some extent, this may depend on the priority it attracts; this is examined shortly.

(iv) *Receipt*

The receipt is the tenant's acknowledgement that they have reported the need for the repair. It should include the following information:

- the date of notification
- the repair number or reference
- the address of the property
- the nature of the work (in brief)
- the target response time
- when the tenant will be informed about the repair date or appointment
- what to do if the tenant is out when the repairer calls.

(vi) *An appointment*

An appointments system - rather than just a date for repair - can be very useful in reducing the numbers of abortive visits. It is also much more likely to generate increased levels of tenant satisfaction in the repairs service. We have probably all had experience of waiting at home all day, only to find that the worker we are expecting doesn't arrive until after 5 pm! (Or, even worse, doesn't arrive at all). It is frustrating and time consuming.

(b) For the landlord

(i) *The procedure*

Housing organisations must have clear and simple procedures for recording, checking, and prioritising repairs. This can be a computerised or manual system; if the computer is linked to the contracting organisation, then this will reduce the delay in authorising repair work.

(ii) *The staff*

The staff taking the report must have sufficient training to enable them to describe the requirement fairly precisely, so that it is clear exactly what repair has been authorised. They should be familiar with, and be able to use, the schedule of rates, which will permit them to price the work. We shall be looking at schedules of rates in the next section on contracts.

(iii) *Technical inspection*

Many repairs are simple, and will not require pre-inspection.

More complex problems may require technical inspection, and there should be clear and simple mechanisms to achieve this quickly.

An effective procedure should:

- enable accurate and detailed recording of repairs, with a repair reference or number;
- give tenants a receipt, as described above;
- keep a record of all repairs requested, and include these in the stock condition records (for planned maintenance purposes);
- define target times and priorities;
- authorise the repair promptly, by means of a *job authorisation* or *job ticket;*
- define the cost and performance deadline for the contractor;
- keep a check on jobs completed and outstanding, so that work which goes beyond its target date is quickly followed up. Jobs must *never* be forgotten.

(c) Prioritising jobs

Jobs must be prioritised according to how urgent and essential they are. There must be a systematic and open approach to determining which repairs are tackled first. Repairs are normally categorised according to whether they are:

(i) *Emergency repairs*

There are repairs which are necessary to prevent a risk of injury or damage to health, or to prevent serious damage to the dwelling (or other dwellings). They will normally be dealt with in 24 hours.

(ii) *Urgent repairs*

These are repairs which *seriously* affect the convenience and/or comfort of the occupier. They do not present a safety risk, but may cause major disruption for the tenant. These will normally be dealt with within 3 to 7 days.

(iii) *Routine repairs*

These do not seriously interfere with the customers comfort or convenience. They can wait without causing any major detrimental effects. These will normally be completed within 14 to 28 days.

Activity 11

Classify the following examples as emergency, urgent, or routine repairs:

1. *Burst cold water tank*

2. *Leaking guttering*

3. *Damaged window cill*

4. *Leaking radiator*

5. *Heating system breakdown in winter*

6. *Blocked drain*

7. *Missing chimney pot*

Time allocation 10 minutes

The important questions to ask for that activity were whether there was any major safety or health risk, or whether the comfort or convenience of the occupier was seriously disrupted.
We would classify the jobs as follows.

(i) **Emergency:**

- burst water tank (danger to property);
- heating breakdown (if vulnerable household such as old person or young child).

(ii) **Urgent:**

- leaking radiator (can damage carpets);
- blocked drain (cannot use the system);
- heating breakdown (adult households).

(iii) **Routine:**

- leaking gutter;
- damaged window cill;
- missing chimney pot.

You can see that there must sometimes be an element of discretion in prioritising work, taking into account the particular needs of the tenants.

(d) Response times

These are related to the urgency of the repair. They are *target response times*, so will not always be achieved; but they provide a goal to which repairs staff should work.

Generally, emergency repairs should be completed within 24 hours; urgent repairs within 3-7 days; and routine repairs within 3-6 weeks. The Housing Corporation sets benchmark targets as 24 hours for emergencies, 5 working days for urgent repairs and 28 working days for routine repairs.

Monitoring the performance of the repairs service should include how well it has attained target response times. We will return to this when we examine the need to monitor activities.

Now we will move on to examine approaches to actually getting the work done: the organisation of the contracting aspects of repair.

4. Getting the Repairs Done

4.1 Approaches

The delivery of responsive repair services can be organised in a number of different ways.

If the organisation has a decentralised system of housing management, it might also have a decentralised repair services. However, even when management is decentralised, the delivery of the repairs service needn't be - this could still operate through a centralised system.

Possible approaches include:

(a) An estate based repair team

This is the approach advocated by the Priority Estates Project, as you have already seen. In this case, the estate manager would be responsible for authorising the work of the repairs team within the estate. The workforce also will be based on the estate.

As you discovered earlier in this block, this approach has the advantage that the tenants get to know the workers. It may also provide better incentives for the workforce to do a good job.

The diagram below shows the possible organisation of an estate based approach, both for procedures (discussed above), and to getting the work done. It is extracted from the P.E.P. publication, *Housing Management* (1990) by Anne Power.

(b) Zoned maintenance

Teams of repair staff visit estates (or a local area) on a regular basis. Customers are informed of this normal cycle, and so are aware of the dates when the team will next visit. Cycle periods can vary from one to ten weeks or more.

In general, experience has shown that small areas, and shorter cycles, work best. If the cycle is a long one, then customers reporting repairs just after the end of a cycle will have to wait a long time for the repair team to return.

This approach is particularly suited to less populated and rural areas, where estates are unlikely to be large enough to warrant an estate based approach.

Ideally, zones should be of a similar size and likely workload. However, if it is not possible to produce similar sized zones, it may be possible to vary the length of the cycle, to accommodate different volumes of work in each zone.

Only emergency repairs are dealt with outside the normal cycle.

(c) A central repairs service

This used to be the approach adopted by most housing organisations, particularly local authorities, but it is losing favour. If it is a large service, it may be less responsive to tenant requirements and more bureaucratic than the two approaches just examined. However, for small housing organisations, there will be no choice but to opt for a centralised system.

The advantages claimed are economies of scale, in the necessity to hold stocks of materials, plant, transport, etc. However, for a large organisation, administration is necessarily more complex than with the other two approaches, and effective management control is more difficult. This does not apply, of course, to a small organisation.

4.2 Finding a contractor

You have already examined the process of letting planned maintenance contracts in the last section. Usually, large housing organisations will also appoint responsive maintenance contractors on the basis of competitive tenders, but smaller organisations may adopt a rather different approach, as you shall see.

Responsive maintenance involves very many different tasks, which occur randomly. This is quite unlike the work for planned maintenance, which we have examined, where requirements are precise from the outset. This means that it is difficult to adopt the approach of a single, fixed price contract for responsive maintenance work.

(a) Contracts in large organisations

For large housing organisations, such as local authorities and the largest housing associations, the usual approach is to let a *term contract* - for a particular period of time - against a *schedule of rates*. This was mentioned briefly in the last section.

Schedule of rates

A schedule of rates is essentially a list of all of the different tasks which are demanded of responsive repairers. The schedules are usually drawn up by building trade - joinery, plumbing, bricklaying, etc. They usually give some indication of the average frequency of the repair, which can be determined from past repair records and reports.

The schedule is priced by the organisation, so that each task has a value, or rate. Contractors tender to provide these service, on the basis of a percentage adjustment to the specified rates. In this way, the tenders become competitive.

Since it is often the task of the housing officers to value each job, they must be familiar with, and be able to use, the schedule of rates. For this reason, it is important that the schedule:

- *is written clearly, in simple language;*
- *covers as many tasks as possible.*

So that you can get some idea of what schedules of rates look like, a sample from a *plumbing* schedule of rates is reproduced below.

PLUMBING SCHEDULE OF RATES

Item No.	Job Description	Unit	Annual Frequency (Approx)	Price Per Unit £
1	REPAIRS TO TAPS Turn off supply as necessary – strip tap, repair, renew or adjust the lock nut, washer or jumper. Clean and grease as necessary. Re-assemble tap and check operation.	Tap	1,100	2.33
2	REPAIR INTERNAL STOP TAP Turn off external stop tap. Strip internal stop tap, repair or renew parts as necessary. Check operation.	Tap	180	3.37
3	RENEW TAPS (ALL TYPES) Turn off supply, drain off. Remove trap, move sink as necessary. Remove old taps and fit new taps, reconnect trap, reposition sink. Turn on supply and check operation.	Tap	140	8.38
4	RENEW INLET CONE JOINT As necessary remove old cone joint and flush pipe. Renew cone and refix flush pipe.	Joint	440	2.52
5	WC BALL VALVE Turn off water, remove cistern lid, dismantle ball valve from cistern. Dismantle ball valve and renew parts as necessary, clean and re-assemble. Adjust overflow as necessary. Refit ball valve to cistern. Turn on water, check operation, refit cistern lid.	Valve	2,560	3.89

(b) Contracts in small organisations

(i) The panel

Small housing associations will not generate sufficient demand for responsive repairs, for it to be worthwhile to draw up a schedule of rates. This is an expensive, time consuming exercise, which must be justified by the volume of repairs.

An alternative approach is to draw up a *list, or panel*, of possible contractors. They are selected on the basis of the indicative prices which they provide, for a specimen range of repairs tasks. As repairs arise, one of the contractors is requested to undertake the repair. This might be on the basis of expertise, or the price indicated, or even geographical area (for a housing association with a wide spatial spread of dwellings). Indeed, a number of small, predominantly rural housing associations may experience difficulties in finding a suitable contractor; there may be few firms in the area, and they may be unwilling to undertake such small, inexpensive tasks.

(c) Specifications

The tender documents must, of course, include a full specification for each task - just as for planned maintenance contracts. Small housing organisations, without a tendering procedure, must ensure that specifications are either supplied with each job, or advised in advance. The standard of repairs cannot be left to the judgement of the contractor.

There are a number of possible approaches to this:

(i) Specifications may require that all materials conform to *British Standards* which you learned about in Block 2.

(ii) They may specify a requirement to meet the *Workmanship on Building Sites* standard, BS 8000.

(iii) They may adopt a more specific approach, and specify particular standards for different types of work.

(iv) They may also require that contractors are approved by a relevant body, such as the *Council of Registered Gas Installers* (CORGI), or hold a relevant *British Board of Agreement* certificate.

A combination of all of these approaches is likely to be most effective, but this is a responsibility of the technical staff, with the relevant knowledge of standards for materials and work.

As we identified in the last section, it is likely that most housing organisations will have developed a range of *standard specifications* for different tasks. These can be adapted to suit specific requirements.

(d) Procedures for checking the quality of work

It is essential that contractor's work is constantly monitored, to ensure performance standards. However, it would be unrealistic, and very expensive, to check all work. A realistic target is to inspect up to 10% of all jobs.

Clearly, any contractor who persistently fails to meet the necessary standards faces having the contract ended or "*determined*". Where there is no contract, the organisation can simply cease to employ that particular firm.

Another approach to checking quality, which is particularly valuable, is to ask tenants to evaluate the quality of the service they have received. Customers might, routinely, be given an *evaluation form* or *satisfaction card* to complete. This will enable them to comment on issues of particular importance to them, such as whether the worker tidied up after completing the work.

Customer care policies on repairs should define the contractor's responsibilities in relation to customers. We will return to these later.

Summary

1. **Customers should be aware of any repairs for which they are responsible.**
2. **The procedures for reporting repairs must be clearly defined, and customers should obtain a receipt. Ideally, the repair work should be undertaken by appointment.**
3. **The organisation must have clear procedures for recording, checking and prioritising repairs.**
4. **Work is prioritised according to whether it is emergency, urgent or routine.**
5. **Target response times should be clearly stated, and will vary with the priority afforded the repair.**
6. **Responsive maintenance work may be estate based, there may be a zoned system, which operates on cycles, or it may be organised centrally.**
7. **Contracts are usually let as term contracts by large organisations, with a schedule of rates, and standards fully specified.**
8. **Small housing organisations may select contractors from a panel, drawn up from indicative prices supplied by the firms.**

5. Monitoring the Maintenance Service

Regular monitoring is essential in all aspects of housing management, and the repairs function is no different. It is only by monitoring that the organisation is able to assess its performance, and take action to remedy any examples of poor performance.

5.1 Day to day monitoring

We have already identified a number of regular methods by which the performance of the repairs system should be monitored. We'll begin by revising these.

(a) Monitoring when repairs are completed, and following up uncompleted work.

This indicates if repair work is failing to meet target response times, and action can be taken to rectify any failures or oversights.

It also permits overall performance in relation to target response times to be assessed. If particular tasks are regularly outside targets, or specific repair teams do not perform to target, the causes must be investigated and rectified.

(b) Customer satisfaction/evaluation forms and complaints

These must be dealt with as soon as they are received. They enable, not only the quality of work to be assessed from the customer's point of view, but also the quality of the service they received from the contractor.

All complaints must be investigated promptly, and a letter of explanation sent, with an apology if appropriate.

Satisfaction slips are particularly important when customer care policies specify the behaviour expected of the contractor's staff. There is no point in having a policy which is ignored by everyone!

(c) Inspection of work

For major contracts, work will be inspected on a regular basis, to ensure that standards are maintained.

For responsive maintenance work, we suggest that a minimum of 10% of jobs should be inspected. Together with the customer evaluations, this should give a clear indication of whether the quality of work is good.

5.2 Monthly monitoring

(a) Cost control

The maintenance function will have a budget, to which it must keep. Thus, expenditure should be monitored fairly frequently, at least once a month, in order to check whether spending is keeping within limits. Any serious overspend requires action to bring expenditure back into line. In extreme circumstances, it may, for example, require that priorities are redefined more narrowly, and less urgent work put back to the next financial year.

It is usual to monitor expenditure in a number of different ways, so that excessively costly elements can be identified. Hence, expenditure might be monitored by repair type (groups of tasks), and by budget head (e.g. emergency repairs, cyclical repairs, etc.).

Over a longer period, monitoring the expenditure on each property/estate can provide valuable information about the maintenance costs of different designs, for future use. It might also help to identify customers who are abusing the system (see below).

(b) The demand for responsive repairs

The costs of responsive repairs are the most difficult to control, because by definition they are unplanned and unforeseen.

Demand should be analysed for two reasons:

(i) Many similar requests from a particular estate or group of properties may suggest the need for a programmed maintenance plan for this element. As you have seen, work is generally cheaper if it can be included in a planned approach.

(ii) If particular customers are requesting very many repairs, they can be identified. The Audit Commission suggests that authorities should take steps to "deter" any who are frequently abusing the system. Tenants who fail to take proper care of the property can, as a last resort, be taken to court for breach of contract.

(c) Maintenance for re-lets

In many housing organisations, the cost of repairs to empty properties prior to reletting is very high. There is a need to relet quickly, so these repairs tend to take priority. This can result in an unreasonable amount of the organisation's resources being diverted to this task.

If this expenditure is monitored, steps can be taken to reduce the amount and cost of the work done. As the Audit Commission (op. cit., 1986) argues,

"Owners in the private housing market expect to occupy dwellings as they find them."

High expenditure on relets may also indicate the need to take more effective action to protect empty properties - by rapid boarding up, for example.

(d) Customer satisfaction

There is a need for a more regular and detailed examination of customer complaints and evaluation forms than will be identified in the report (see below). This will enable the organisation to see if complaints relate to:

- a particular contractor
- specific trades
- a particular office.

Appropriate action can then be taken, to remedy any particular problem.

This analysis will also highlight any aspects of the *customer care policy* which are failing. We shall examine this soon.

5.3 Annual/Quarterly monitoring

(a) Reports on performance

Housing organisations need to monitor their activities, not just on a day to day or monthly basis, but as a systematic process, to assess overall performance. Thus, it is important that information about day to day performance is collated, in the form of a report on the service. This enables the organisation to see where the persistent problems lie, and it can take steps to rectify this.

It will also indicate if performance is improving, or declining, over time.

(b) Annual (or quarterly) reports should summarise:

- numbers of repairs reported;
- jobs completed, for each trade;
- jobs outstanding for each trade;
- numbers of complaints, analysed by type;
- % of jobs completed within target times - overall, and by repair team and/or trade (as appropriate to the system employed);
- expenditure compared to budget, for both planned and responsive work;

- where problem areas are identified, the proposed steps to rectify the problem should also be specified.

6. Customer Care Policies

As you have already discovered, the repairs service often generates more customer complaints than any other aspect of service delivery. It may be, therefore, an aspect which can be most readily improved, from the customer's viewpoint!

In this section, we will revise and expand on those elements of customer care, particularly related to the maintenance function.

6.1 Good practice in customer care involves:

(a) Staff training. Essential: this includes training not only in customer care, but also about the repairs function. Knowledgeable staff are better able to complete accurate job tickets, so work progresses more efficiently.

(b) Clear explanations of the procedures for reporting and obtaining repairs services, preferably in a handbook.

(c) Advice, in the handbook, on looking after the property.

(d) Giving explicit response times which may be expected, for different sorts of repairs. This may include compensation payments for a failure to meet the target.

(e) Providing a receipt, which indicates the target completion date.

(f) Offering an appointments service for repair work.

(g) Responding promptly to letters, with maximum response times.

(h) Routinely providing satisfaction/evaluation slips when work is completed.

(i) Providing an efficient complaint's procedure, which ensures that complaints are investigated within maximum time periods. There may be provision for compensation payments.

(j) Consulting with customers about the design of programmed maintenance work, and where relevant, offering some choice about the work to be done.

(k) Consulting with customers about the timings of programmed work, and the expected disruption.

(l) Providing explicit guidance about the standards required of contractors, and making customers aware of these.

(m) Regular consultation with tenants groups, such as tenants' associations.

Now, let's examine some examples of customer care policies, relating to these good practice guidelines.

6.2 Examples of customer care policies

Customer care policies can relate both to the housing organisation and to its contractors, as you have seen. They must be well publicised, so that customers understand what they may expect of staff.

(a) Policies in the housing organisation

Some organisations provide a *customer agreement,* in which the authority undertakes to fulfil certain obligations. Others set policies out as *codes of conduct*. Details should be included in the tenant's handbook.

An example might include a commitment to:

- carry out repairs within the published agreed response times;
- acknowledge requests in writing, with a job number and completion date;
- arrange for inspections by appointment, within two weeks;
- arrange for customers to agree appointment times with contractors;
- advise in writing if work is delayed;
- inspect a minimum of 15% of work;
- respond to all letters within 7 working days;
- be available to accept repairs requests between am and 5pm;
- advise about improvement and major repair timetables.

(b) Policies relating to contractors

It is becoming more common for organisations to include customer care requirements in conditions of engagement for its contractors. The contractor is then obligated, by the contract, to meet these requirements.

These requirements might include:

- offering a reliable appointments system for customers, with targets for achievement;
- clearing up dirt and debris, and providing dust sheets as appropriate;
- leaving homes secure;
- removing furnishings only with approval;

- for more extensive work, agreeing with the customer the condition of furnishings etc. in advance;
- that workers must always be polite and courteous;
- that they should not smoke or play radios without the customer's consent.

Activity 12

Find out whether your organisation has any explicit customer care policies relating to maintenance and repair.

If not, are there implicit approaches, which all staff are expected to observe?

How do these compare to the Good Practice guidelines you have just examined, or the approaches in the examples?

Time allocation 30 minutes

A range of explicit customer care policies were identified earlier, so you should have been able to compare these to your own organisation's quite easily.

Implicit policies may include many of these aspects, but they remain unseated. The housing staff are *aware* of what is *generally expected of them*, but this remains hidden from the customers. For example, it may be usual practice to attempt to complete work within, say, one month. Or, the repair workers may share an understanding that they should clear up. However, unless such policies are made "official", and are publicised to customers, it will not be clear whether these expectations are being realised.

Summary

1. **The repairs and maintenance service should be routinely monitored, by checking on work outstanding, customer satisfaction and complaints, and works' inspections.**
2. **There must be a system of cost control, so that expenditure and complaints can be adjusted to keep within budget.**
3. **Monitoring the demand for responsive work can help to identify when planned work is needed, and also customers who abuse the system.**
4. **The maintenance costs of relets - often an expensive item - should be monitored, and action taken as necessary.**
5. **Customer complaints need to be carefully analysed, to identify specific, recurring problems.**
6. **Data also needs to be summarised and analysed, in annual or quarterly reports.**
7. **Organisations should have specific customer care policies which relate to the repairs function.**
8. **These essentially involve keeping the customer fully informed about procedures, the progress of work, and seeking customer approval/consent where necessary.**
9. **Customer care policies can include responsibilities to customers, by both the organisation and its contractors.**

Self Test 2

1. *According to the Audit Commission, what proportion of a local authority's maintenance budget should be spent on planned maintenance?*

2. *Why might the organisation need to undertake a stock survey?*

3. *Give some examples of cyclical repairs.*

4. *What is the purpose of a job ticket?*

5. *Define:*

(i) *emergency repairs*

(ii) *urgent repairs*

(iii) *routine repairs*

6. Identify three approaches to the organisation of repairs work.

7. What is a schedule of rates?

8. In what ways should the repairs service be monitored?

9. Why are customer care policies important?

Now turn to the Answers at the end of the Block.

Answers

Self Test 1

1. It has become more important because:
   (i) the stock is ageing, due both to Right to Buy, and low levels of new build;
   (ii) there is much less slum clearance;
   (iii) resources are under severe constraint, so must be used more efficiently.
2. (i) Programmed repairs involve replacing long lasting components, such as windows or roofs.
   (ii) Planned cyclical maintenance is for items which need to be maintained on a regular basis, such as exterior paintwork.
   (iii) Responsive maintenance is work which cannot be planned, because components fail unexpectedly.
3. Generally, more expenditure on planned, cyclical maintenance will (eventually) reduce responsive maintenance costs.
4. The key roles in the repairs function are those of:
   - client;
   - consultant;
   - contractor;
   - customer.
5. The advantages claimed include:
   - tenants can identify with particular workers;
   - workers are better motivated, and tend to do a better job as a result;
   - they also take better care of materials;
   - it reduces vandalism;
   - it may permit more innovation;
   - to paraphrase Anne Powers, *the physical need of the estate can be viewed as a whole.*

Self Test 2

1. 65-70% of the total budget.
2. It may need to do this to find out about:
   - the types of stock;
   - the numbers of each type;
   - the condition of each of the types.

   This will permit a thorough assessment of stock condition, which is essential to planning a repairs programme.
3. Cyclical repairs might include:
   - external painting;
   - decoration of internal, communal areas;
   - servicing equipment.
4. A job ticket authorises a repair; it specifies what needs to be repaired, and where.
5. (i) Emergency repairs are repairs which are necessary to prevent the risk of injury or damage to health.

   (ii) Urgent repairs are for problems which seriously affect the convenience or comfort of the occupier.

   (iii) Routine repairs are all other problems, which do not have serious consequences.
6. (i) An estate based repairs team;

   (ii) zoned maintenance, in which there are cycles for visits to particular estates;

   (iii) central repairs systems.
7. A schedule of rates itemises particular repair tasks, and prices each task.
8. A repairs service should be monitored:
   (i) day to day, via
      - monitoring the completion of jobs;
      - specific customer evaluation forms;
      - inspections of work.

   (ii) on a monthly basis, via
      - cost control, to keep within budget;
      - analysing the demand for responsive repairs;
      - analysing the re-let work;
      - analysing overall customer satisfaction.

(iii) annual or quarterly, via

- reports which analyse all aspects of performance within the service.

9. Customer care policies are important because they will help to improve customer satisfaction. They will also assist to improve staff performance, by setting clear targets for all aspects of the service.