Safety of the Playground!
information booklet for administrators of play areas
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Introduction

Children have a right to play. The United Nations Convention on the Rights of the Child upholds that right within Article 31. Play is a fundamental part of childhood, but it is recognised that children may encounter dangers when they play. Adults can help to keep children reasonably safe when they play, but care must be taken not to stifle the independence and self-expression that play provides. In developing play provision it is the duty of all concerned to ensure that maximum benefit is afforded to children.

Municipalities, local authorities, schools, kindergartens, landscape architects and others looking to develop play areas are often at a loss to know how to begin. This publication is aimed to help to guide them, and those wishing to improve existing areas, through the process of providing a safe and stimulating play area. In this respect, it is also useful to manufacturers and suppliers of playgrounds and playground equipment as they will usually be the first point of reference for such organisations.

It should be appreciated that play is all about doing. Children learn, through play, to manage risk. Play areas should be as safe as necessary, not as safe as possible. By exposing children to risk in an environment where that risk has been carefully assessed, children learn to assess risk for themselves. This allows them to take this knowledge into the wider world where the likely severity of an injury in the event of a misjudgement is considerably higher.

An important part of play is the presentation of challenges and the use of imagination on the play area. Stimulating and exciting play areas not only greatly help in the child’s development but also, by providing an exciting place for children to play, keep them away from much more dangerous places to play such as railway lines, river and canal banks, road sides, construction sites, and so on.

Good and stimulating play areas need not be expensive (financially) but they do require a little more time in the planning stage. A logical and systematic approach to the process will greatly facilitate matters and consideration should also be given at the early stages for the future management and maintenance of the area. The same applies to upgrading of existing areas. A little thought goes a long way. This book aims to help guide through the process, as well as assisting those who already operate play areas to ensure that they are fit for purpose.
CONTENTS

BEFORE YOU BEGIN........................................................................................................ 5
Legal Issues .................................................................................................................. 5
Consultation .............................................................................................................. 5

DESIGN .......................................................................................................................... 6
Design pointers .......................................................................................................... 6
Seating ......................................................................................................................... 6
Litter Bins ................................................................................................................... 6
Fencing ......................................................................................................................... 6
Gates ............................................................................................................................ 7
Equipment Positioning ............................................................................................... 9
Vandalism and Site Safety Issues .............................................................................. 9
Equipment ................................................................................................................. 9
Surfacing ................................................................................................................... 10
Surface Area ............................................................................................................. 11
Landscaping and Planting ......................................................................................... 11

SUPPLY AND INSTALLATION .................................................................................. 14
Contractors ................................................................................................................ 14
Specification ........................................................................................................... 14
Installation ................................................................................................................ 14
Documents provided by the supplier ........................................................................ 14
Post Installation Inspections ..................................................................................... 14

INSPECTION AND MAINTENANCE .......................................................................... 16
General ....................................................................................................................... 16
Three-tiered Inspection Regime .............................................................................. 16
Routine Inspection ................................................................................................... 16
Operational Inspection ............................................................................................. 16
Annual Main Inspection ........................................................................................... 16

Competence and training ......................................................................................... 16
Quality Control ......................................................................................................... 17
Maintenance ............................................................................................................. 17
Manufacturers’ Instructions ...................................................................................... 17
Surfacing .................................................................................................................. 17
Post Installation Inspections .................................................................................... 17
Regular Maintenance and Cost Guidelines ............................................................. 18
Accidents and incidents ............................................................................................ 18

PLAYGROUND STANDARDS .................................................................................. 19
Introduction ................................................................................................................. 19
Legal Position ............................................................................................................ 19
Protection Principles of the Standards .................................................................... 20
Summary of Safety Requirements of EN 1176 ........................................................ 21
General Safety Requirements .................................................................................... 21
Protection Against Entrapment ............................................................................... 22
Protection Against Crushing or Shearing ................................................................. 22
Protection Against Falling ....................................................................................... 22
Protection Against Collision .................................................................................... 24
Protection Against Poor Finish, Materials or Construction .................................. 25

APPENDIX A ............................................................................................................. 26

PROPOSAL OF INTERNAL QUALITY CONTROL SYSTEM ................................... 26
The Inspection Plan ....................................................................................................... 26
The Schedule for Maintenance and Repairing ......................................................... 27

APPENDIX B ............................................................................................................. 35

THE SAMPLE OF THE PLAYGROUND BOOK .......................................................... 35
BEFORE YOU BEGIN

Legal Issues

Playgrounds are made up of various components. These may include traditional and contemporary playground equipment, such as slides, swings and climbing frames, but also they typically include other ancillary items such as fences, gates, litter bins, bicycle racks, planting and signs.

The playground equipment will come under the terms of The General Product Safety Directive (2001/95/EC). The Directive sets up the obligations upon producers, importers and distributors to place only safe products onto the market and to follow up dangers. The national law provisions will vary from state to state but the general rule in most legislation it is presumed that products shall comply with standards to ensure they are safe. The European Standard series EN 1176 and EN 1177 cover playground equipment and surfacing.

It is worth noting that only the equipment falls under the scope of the Directive and the standards not the playground as a whole. Therefore some safety aspects (cleanliness, protruding branches, fencing) which are linked to an overall playground maintenance are not covered by the Directive but by the national legislation.

If purchased playground equipment turns out to have significant deficiencies, the purchaser may within a certain deadline demand that the purchase should be cancelled or the deficient parts replaced, pursuant to the national legislation.

Consultation

The users of a potential playground should be consulted before the design begins. This includes consulting with children, parents, carers, schools and local people. If a playground is right for adults as well as children then the children are more likely to benefit from adult supervision during their play. If it is right for children they are more likely to gain maximum benefit from it. A good play area will have a wide range of play opportunities, provided by equipment, landscaping, planting and other features. It will also be located with sensitivity to the needs of locals and users.

1 Please insert reference to your national legislation related to the playground equipment safety.
2 Please insert reference to your national legislation related to this matter.
DESIGN

Design pointers

Play area designers too often think of fixed equipment only. A good play area is an experience. The use of such things as planting, ground graphics, ground contours, etc. all add to the ambiance of the site. A pleasant and attractive site is not only more fun to play on but also encourages parents or carers to stay longer on site, giving both extra supervision and also allowing younger children more time to play. The use of planting and landscaping also gives greater reign to the child’s imagination – too often play areas do not encourage this very important aspect of the child’s development.

Impact attenuating surfacing is expensive (it often costs more than the equipment). EN1176 states that well-maintained turf or topsoil is a suitable impact attenuating surface for fall heights of up to one metre (note that this height may be varied by National Standards Organisations depending upon local climatic conditions, as frosty winters or draught and sunny summers. Many manufacturers now make stimulating equipment with fall heights of just less than one metre. Consider using a reasonable amount of lower equipment (especially if providing for young children). Try getting on your knees some time in a play area. This puts you at the height of a small child and suddenly one metre now seems quite high!

Toddler and junior equipment should be on separate parts of the area to discourage toddlers from using equipment not designed for them.

The provision of shade, especially where toddlers are concerned, is becoming ever increasingly important. Planting is the cheapest option to provide shade.

Seating

Provision of seating for parents/carers is a must. In many communities the play area can also serve as a social meeting place for parents of young children. Seating should be positioned so that it faces as much of the play area as possible. Where there are nearby external hazards such as water or roads it should be positioned to allow a clear view of any children who may stray towards the hazard. Seats should be positioned at least one metre away from fencing to discourage their use to “vault” the fence and should be securely fixed to the ground. There should be some form of hard standing in front of the seat to reduce erosion.

Litter Bins

Litter bins are another requirement to keep the area clean. Wasp stings can be a real problem in the summer or autumn in some areas. For that reason, position bins between two metres and three metres from seats and gates. They should be secured to the ground and have an easily removable insert (which should be padlocked to prevent unauthorised removal). Dog litter bins should not be positioned on or adjacent to a play area.

Fencing

Fences are designed to keep out dogs and to prevent young children wandering off into danger. If dogs are not a problem and there is no need to keep children in then fencing may not be necessary.

Not all fence types are suitable for play areas, but good quality fencing should be used where
it is considered to be necessary.

The location of the play area (e.g. rural wooded) may restrict the use of metal fencing and conversely heavy vandalism may preclude the use of timber. Similarly, a temporary play area may also determine the quality of fencing provided. In all cases the fencing should not contain any safety hazards and the control recommendations contained in the EN 1176 standard offer useful guidance.

Fences can serve three functions:
1. to contain children within the relative safety of the play area,
2. allied with good gates, to keep dogs off the play area,
3. to give children a sense that it is their area and separate from the surroundings.

Fences should be constructed and erected in accordance with the appropriate national standards, with a minimum height of 1.0 metre recommended.

The suitability of other proprietary fence systems for the intended use should be examined prior to placing orders.

The following aspects should be taken into consideration:
1. the flexibility of panels (rigid panels may not be suitable for sloped sites),
2. the security of proprietary caps and edgings,
3. child entrapments within the fence,
4. sharp and projecting fittings,
5. the durability of materials appropriate for any anticipated vandalism and likely usage,
6. the types of preservative treatment, e.g. the pressure impregnation of timber and hot dip galvanizing etc. of steel,
7. the quality of material (as a general rule, the best quality/largest sections of robust materials that can possibly be afforded at the outset should be considered thereby minimising the necessity for frequent repairs and maintenance).

Areas where problems do occur are:
1. breakage due to inadequate wire mesh diameter or supporting wire strength,
2. lack of top board or rail to protect upper edge of fence from damage due to climbing,
3. the use of nails alone for the assembly of timber fences and their hazardous exposure following vandalism,
4. the use of spiked railings, barbed wire and fleur-de-lys split fence pales,
5. the dismantling of fences assembled with conventional fixings,
6. inadequate posts, rails and distance between centres,
7. incorrect installation.

Gates

It should be recognised that even in the best-regulated area accidents can occur and therefore access for emergency vehicles is essential. An ambulance requires an opening of at least 2.15 metres and ideally an ambulance should be able to get right up to the area. This may require a hard standing access where the ground is otherwise unsuitable in wet conditions. Where access is normally locked it is essential that the local emergency services (fire and ambulance) be consulted on emergency access arrangements.

A trolley bed (as carried in ambulances) can be used where a vehicle cannot get right up to the area. However this unit weighs around 58 kilos unladen. If it cannot be pushed to the area because of the ground conditions (it can manage a hard standing footpath minimum of 1 metre wide), then delays may occur whilst a second emergency team is sent to the site to provide the required manpower to lift the bed and patient. It may also be necessary to
provide ramps where obstructions may hinder the progress of the bed.

Fencing and associated gates, animal grids etc are only necessary where there is either a need to prevent children straying away from the area into a hazardous location or to keep dogs out. There may also be occasions where fencing and gates are necessary where motorcycles etc are being brought into the area.

The position of gates is important. Firstly consider the direction from which children will normally approach the area. (They are reluctant to “detour” and if there is not a conveniently positioned gate will climb over the fence). Often wear patterns on the grass indicate the most popular routes of approach. Where possible do not have gates directly open onto a hazard such as a road or open water. Sloping ground should be avoided if possible. It is also important that gates are positioned in such a way as not to create a movement clash. It is surprising how often the only way to and from a gate is, for instance, across the arc of swing of swing seats.

Gates and grids should be a minimum of 1 metre open width to allow passage of pushchairs and wheelchairs and any grid should be positioned so that the bars do not hinder their passage.

Gates should normally open outwards except where opening outwards may cause a hazard to others (i.e. opening into the path of pedestrians/cyclists etc). This is because dogs find it easier to push a gate than pull it and therefore can access a gate opening inwards much more easily. The gate should ideally not close quicker than 5 seconds to make wheelchair access easier and also to prevent it striking the back of a child walking through.

The use of a self-closing mechanism is strongly recommended to maintain the gate in a closed position. Mechanisms can vary from a simple spring to offset hinges. Several manufacturers have brought out gates with internal self-closing mechanisms. Whilst more expensive, these gates are normally maintenance free, and their rate of closing can be easily regulated.

Maintenance gates should be sufficiently wide to allow for all likely machinery, but they should be kept locked when not in use.

Where ‘kissing gates” or similar are used it is essential that these allow the passage of a pushchair and wheelchair and also if these are the sole means of access to the playing field/play area they should not inhibit the use of an ambulance trolley bed.

It is worth considering the positioning of seats within the area to assist on supervision of gates. Seats positioned adjacent to, or directly facing, gates make it easier for parents with more than one child to see if one of them is “straying” from the area.

It is important that there are no finger or hand traps and shear points. This means that there should be a minimum gap of 12mm between the gate and the posts etc, both sides of the gate. This minimum gap should be maintained throughout the full range of movement of the gate throughout its full arc.

On existing gates it may only be possible to do this by providing a stop plate on the gate which closes onto a rubber stop at least 12 mm thick. (A standard rubber door-stop works very well). The stop should be at least 700 mm from the ground.

A clearance of between 60 mm and 110 mm should be maintained beneath the gate to reduce foot injuries. Ground should be leveled to prevent this gap closing through the range of movement. Hard standing at least 1 m each side of the gate is recommended to prevent
ground wear and thus the development of trip hazards.

There should be no sharp edges and all edges should be a minimum of 3 mm radius.

Gate latches, if present, should be able to be operated from both sides of the gate and any catch should ideally not project more than 25 mm. Any projecting bars for catches should ideally be mushroomed at the end (these are normally at eye height for a small child).

If the gate has high mass there should be a closing mechanism that prevents it slamming into the back of a child passing through (see closing time above).

High mass gates will require extra strong hinge and slam posts. They will also require heavy-duty hinges and other fixings.

Dog grids should be secured in place (it is surprising what a group of small children can lift). However it should be possible, using special tools, to be able to occasionally access the area under the grid for cleaning purposes.

**Equipment Positioning**

Consider how children will move around the play area. Will they have to pass in front of moving swing seats to get from the gate into the area? When coming off the slide and running to get to the roundabout will they have to pass through the path of some moving equipment that might strike them?

Where possible, position swings alongside fencing so that there is no natural route across them. That way you do not need swing barriers that can act as a gathering point and generally increase risks on a play area.

Slides should not face due south (unless they are well shaded) to prevent excessive heat build up on the chute at midday.

Rotating items (roundabouts) need at least two metres clear space around them and large items that rotate and rock may need a barrier around them to prevent young children running into the path of rotation.

**Vandalism and Site Safety Issues**

Vandalism to play areas mainly occurs where there is no nearby facility for teenagers. Consider therefore the provision of something for them. The main thing they want is somewhere to sit and meet with their friends. A simple separate seating area or specialist teenage shelter will normally reduce the incidence of vandalism.

Intimidation by one child towards others can be a problem. The provision of at least two gates will greatly reduce this risk.

Graffiti can be a problem but can also be a badge of ownership. Obviously offensive graffiti needs to be removed but keeping non-offensive graffiti (and some of it can be quite artistic) may help to prevent further damage.

**Equipment**

There is a vast range of equipment on the market. Look around and get catalogues and leaflets from several manufacturers. Most of these will provide designs and illustrations.
However consider if you might be better buying from a firm who can supply equipment from several manufacturers, that way you can combine the best from each of them.

Do you want wood or metal equipment? Remember that in high vandalism areas, metal might prove longer lasting than wood. Equipment should comply with the requirements of EN1176.

Does all your play equipment have to be conventional equipment? Planting such as willow structures can be used as very inexpensive play equipment and can involve the children in their actual construction.

Try to provide play equipment that meets as many as possible of various types of play and the needs of the child. Some manufacturers now show in their catalogues the various types of play that their equipment caters for.

Imagination is an important part of play. By careful choice of equipment you can greatly stimulate the child in this respect.

Remember that children grow up. The ages of children using the site in ten years time may not be the same as those using it now. Plan to allow for these changes in your community.

**Surfacing**

The EN 1177 standard requires an impact attenuating surface under all items of play equipment with a fall height in excess of 600mm, and under all items that have forced movement such as swings, roundabouts and slides, regardless of fall height. It is important to remember that these surfaces do not prevent all injuries but they do reduce the severity of head injury. The standard states that well-maintained grass and topsoil is acceptable for a fall height of up to 1000 mm (note that this height may be varied by National Standards Organisations depending upon local climatic conditions).

There are four types of surfacing:

1. **Loose fill** materials such as bark, wood chip and shredded pallets, sand, pea gravel, and shredded rubber. These surfaces should be laid to a depth of 300 mm. They are not suitable under items (i.e. roundabouts) where the ground clearance is critical but would be the preferred surface where there is a high horizontal component in the fall such as cable runways.

2. **Rubber surfaces** are available in the form of tiles or a continuous in-situ material. Both consist of rubber crumb bound by resin. The suppliers should be able to provide test certificates to show that the depth that they are providing meets the Head Injury Criteria (HIC) of the EN 1177 standard from the relevant free height of fall. They are available in a variety of colours and attractive ground graphics can be incorporated into the surface to provide an extra play dimension.

3. **Grass Mat** is an open mesh rubber surface which does not have high impact attenuation in its own right but if correctly laid onto well prepared soil can meet the HIC requirements of EN1177 for up to the maximum permitted fall height of three metres. Because the grass grows through it, it tends to blend in with the surrounding grass surfaces and is particularly good for rural areas. Grass growing through the matting can be cut using a conventional mower.
4. *Carpet surfaces* consist of a carpet-type surface over an impact attenuating medium such as sand or rounded particles. Certification should be provided by the supplier in respect of the fall heights.

**Surface Area**

The area of surfacing depends upon the potential height of fall. Children rarely fall vertically; they tend to fall away from equipment so that the higher they are when they start to fall, the further out they land. For items other than swings and some rocking items, with a fall height of less than 1500 mm, the surface should extend for a minimum of 1.5 metres all around, measured when the equipment is at the extreme of its movement.

For items with a free height of fall above 1500 mm the following formula should be used to calculate the surface area:

\[
\text{Dimension} = (\text{Maximum fall height} – 1.5m) \times 0.667 + 1.5m
\]

Surfacing should extend by at least this amount around the equipment

For seesaws, spring rockers and rocking horses the surfacing should extend to at least 1000 mm, measured when the equipment is at the extreme of its movement.

For swings, a different calculation is necessary:

Measure the distance from the pivot point on the top bar to a seat surface. Multiply this dimension by 0.867 and then add 1.75 metres for all surfaces except loose fill or 2.25 metres for loose fill. The surfacing should extend by at least this distance front and back and for at least 875 mm either side of the centre point of the swing seat. In practice surfacing normally extends to the inside of the uprights.

So for a swing with a measurement of 1.8 metres from seat surface to the underside of the top bar the calculation is as follows:

*For Rubberised surfacing*

\[
1.8 \, \text{m} \times 0.867 = 1.561 \, \text{m}
\]

\[
1.561 \, \text{m} + 1.75 \, \text{m} = 3.31 \, \text{metres front and back from the point directly below the centre of the top bar.}
\]

*For Loose Fill surfacing*

\[
1.8 \, \text{m} \times 0.867 = 1.561 \, \text{m}
\]

\[
1.561 \, \text{m} + 2.25 \, \text{m} = 3.81 \, \text{m front and back from the point directly below the centre of the top bar.}
\]

**Landscaping and Planting**

Good use of landscaping and planting can greatly add to the attractiveness and play value of a play area.
The provision of some shade for young children is important to protect from excessive sun. The use of trees can provide this shade as well as add visual interest to the site.

If your play area is in a rural area, consider letting the grass grow long and seed it with meadow flowers. Paths can be cut through the long grass and when the ground starts to wear a new path can be cut and the worn area can be allowed to regenerate. Playing with wild flowers not only teaches children about nature but also introduces a new dimension to their play.

The introduction of ground contours also adds shape and texture to the area. Slopes however should not be too steep as young children would not be able to control their movement. If toddlers use the area, a maximum slope of 1:12 is recommended.

Mounds under slides or the use of embankment slides can eliminate the need for an expensive safer surface as it reduces the fall height from the equipment. However, planting and ground contours should not block principle sight lines from surrounding property that may allow for casual supervision.

Local gardeners, parks departments, garden centres and plant nurseries can all provide information regarding local soils and conditions. Plants with poisonous berries or leaves or sharp thorns should not be used, nor should plants such as Giant Knotweed which can produce allergic reactions.

The following is a brief list of possible planting.

*For Fragrance*
- Many of the herbs, e.g. Rosemary, Thyme, Sage, Lemon Balm, Sweet Cecily, Marjoram, Mint, Lavender, and Bay,
- Buddleja davidii (often known as the Butterfly bush),
- Choisyia ternate, Mexican orange blossom,
- Honeysuckle,
- Myrtle,
- Osmanthus burkwoodii,
- Pinus sylvestris, Scots Pine,
- Populus trichorpa, Balsm popular,
- Sambucus nigra, Elder,
- Viburnum fragrans, Scented vibunum.

*Texture and Shape*
- Betula pendula, Wheeping birch,
- Briza media, Quaking grass,
- Clematis vitalba, Old Man’s Beard,
- Corylus avellana, “Contorta”, Corkscrew hazel,
- Salix viri,
- Ninalis, Osier willow,
- Sorbus aria, Whitebeam.

*Colour*
- Acer campestre, Field maple,
- Bellis perennis, Daisy,
- Caltha palustris, Marsh Marigold,
- Cornus sanguinea, Dogwood,
- Fuchsia magellanica, Fushia,
- Linaria annua, Honesty,
- Rosa Rugosa, Hedge Rose,
Sorbus aucuparia, Mountain Ash. Many of these will also help to provide necessary shade.

The following plants should be absolutely avoided:
- Daphne mezereum spp. (mezereon),
- Ilex aquifolium (European holly),
- Laburnum anagyroides (common laburnum),
- Taxus baccata (European yew),
- Andromeda polifolia (marsh andromeda),
- Euonymus europaeus spp. (European spindle tree),
- Hedera helix “arborescens” (English ivy),
- Juniperus communis (common juniper),
- Rhamnus cathartica (common buckthorn),
- Rhododendron spp. (rhododendron),
- Robinia spp. (locust),

Alongside the above-mentioned woody plants, there are a number of herbaceous plants that pose a serious risk because of their toxicity:
- Convallaria majalis (lily of the valley),
- Delphinium cultorum (King Arthur),
- Helleborus spp.,
- Papaver somniferum (opium poppy),
- Solanum nigrum (black nightshade),

Toxic exotic plants are not included in the above lists.
SUPPLY AND INSTALLATION

Contractors

It is important that installation work is carried out by competent contractor. National trade associations or construction engineers association may exist that list such contractors. Other contractors who are not members of these bodies may also be satisfactory but it is recommended that if using one of these contractors, suitable references should be obtained.

Specification

It is recommended that your order specifies that the equipment must comply with, and be installed to comply with EN 1176. Surfacing should comply with the EN 1177 standard.

Installation

Installation is where many of the problems with new play areas occur. Remember that the supplier should be responsible for the full job even if she or he uses subcontractors for part of the work.

Documents provided by the supplier

Necessary documents normally comprise:

- the product identification and the name of the producer (importer),
- technical documentation showing the construction of the equipment or surfacing (it should include information on construction, dimensions, materials used for production, list of recommended spare parts, note on paints and varnishes), as well as information on safe assembling of all elements of the equipment, please check carefully "small prints" to ensure that there is nothing to invalidate your specification,
- instruction of use (including, preferably, graphic information on safety zones and safe distances between the equipment), information on maintenance and inspection,
- test reports or other documentation that demonstrate the conformity with the EN 1176 and EN 1177 standards (as a minimum the written statement on completion of the work that the equipment is compliant with the standards).

The most common are the certificates issued by accredited institutions. Other documents of that kind are for example declarations of conformity issued by the supplier or producer or test reports provided by the producer or independent entities (accredited laboratories).

In practice, it is good to know that certificates do not guarantee the safety and conformity with the standards, therefore, it is recommended to check the equipment before the playground is open for children. The best provider of such checking is the accredited laboratory or specialised inspection entity. The report on safety of the playground will constitute the recommendations given for future while such inspection. This check may be carried out with the use of the specific checklist.

Post Installation Inspections

A post installation inspection by a competent inspector is recommended. It not only looks at standard compliance and safety issues but also at the quality of installation and
workmanship. A satisfactory report can be proof that the operator has complied with their legal requirement of providing a safe play area.

The post installation inspection can also (if requested) provide testing of impact attenuating surfacing.
INSPECTION AND MAINTENANCE

General
The safety of children on their playgrounds does not depend solely upon the initial design of the site and the selection of equipment. Its continued management and the provision of high quality inspection and maintenance programmes are essential if safe opportunities for children to play creatively are to be preserved.

The playground equipment standard EN 1176-7:2008 recommends a three-tiered regime for the inspection of playgrounds. By utilizing this regime operators can be satisfied that they are helping to meet their duties to the users.

Inspections should cover the whole of the site and not just the equipment. Pathways, fences, seats, gates and so on all need to be checked.

Three-tiered Inspection Regime

The inspection regime that is recommended in EN 1176-7:2008 is:

Routine Inspection
This looks at the equipment's basic condition, especially faults due to recent vandalism. Such inspections may be carried out by the manager or his/her staff and should be recorded on a simple sheet or book. The equipment supplier should provide a checklist of what to look for. Frequency will vary with the site circumstances and local usage although weekly should be seen as a minimum.

Operational Inspection
This looks in more detail at the equipment, essentially at vandalism and certain types of minor wear. Such inspections may be carried out by the manager or his/her staff and should be recorded. Frequency will vary with the site circumstances although it is recommended to provide it each 1-3 month time.

Annual Main Inspection
This should be carried out by a competent specialist not connected with the playground operator or manager. Essentially it looks at vandalism, minor and major wear, long-term structural problems, changes in standard compliance and design practice, risk assessment etc. Such inspections are offered by insurance companies, playground equipment manufacturers, commercial companies and safety organisations. Organisations should be checked to ensure that their inspections are acceptable to insurance companies and that suitable professional indemnity insurance is carried.

Competence and training
All persons carrying out work on a playground should be competent to do so. It is recommended that staff carrying out the routine inspections should have undertaken some basic training in playground inspections. Training courses are available from organizations, business entities, traders, non-profit organisations, or responsible authorities. For single playground operators, the training may be linked to the annual main inspection.
**Quality Control**

Where commercial companies carry out inspections it is helpful to have an independent random check by an independent organisation. This is especially necessary for inspections that are contracted out to, for example, a landscape contractor. An internal systems audit can be useful for larger organisations.

If it is not the legal obligation the playground operator should develop a management system to ensure the required safety level of the playground (we include proposal of such a system as an Appendix to this publication). A system should exist for recording and checking on repairs.

Management should include as a minimum:
- be able to demonstrate that a risk analysis has been carried out;
- keep available the results of said risk analysis and the preventive measures established on the basis of said results;
- keep available the inspection and maintenance schedule;
- keep a list of each playground equipment (name, number, type, producer etc);
- keep the procedure on how to act in case of emergencies, for example a fire or accident;
- keep the plan of a playground showing the location of each equipment
- be able to demonstrate that the inspection and maintenance schedule is being implemented correctly with regard to each item of the playground equipment by keeping a logbook with historical data
- keep data showing inspections carried out by public authorities (as a part of the logbook).

**Maintenance**

No inspection programme is worthwhile unless a structure exists for repairing faults and replacing parts. The manufacturer's original parts should be used if they are available.

**Manufacturers’ Instructions**

No playground equipment should be purchased without details of inspection and maintenance requirements. A note should be kept of the age of the equipment and a special inspection carried out before the expiry of the warranty.

**Surfacing**

Surfacing should be carefully checked for its soundness. Economic impact absorbency tests are available as part of the annual inspection if required.

**Post Installation Inspections**

New playgrounds and equipment should be carefully checked for compliance, specifications and installation procedures before being accepted. Where only a single item is placed on a site, such inspections are uneconomic but can be carried out as part of an annual inspection since they will fall within warranty periods if there is anything wrong. The same procedure should be taken when replacing the items on the playground, rearrangements, or developing the area.
Regular Maintenance and Cost Guidelines

It is important to budget for regular maintenance to the area. The main factors to allow for are:

- grass cutting,
- sand exchange in the sandpits,
- emptying of litter bins,
- annual Inspections,
- top-up for loose fill surfacing – allow for topping up by 10% a year,
- part replacement (swing bushes, swing seats, chains, etc.).

It is appreciated that in many communities some of the above will be provided free of charge by local volunteers.

In addition it is wise to set up a sinking fund to cover those costs that do not necessarily come up every year: repainting metal equipment every five or six years and replacement of equipment and surfacing as it wears out – allow 10% (plus inflation) of the original capital cost.

Play area operators should also ensure that they have satisfactory insurance in accordance with local requirements.

Accidents and Incidents

It is inevitable that accidents and incidents will take place on the playground. Accidents reports are for the competent authorities a very useful source of information about the hazards occurring at playgrounds. They will often result in inspections being carried out with regard to the owner of the playground where the accident took place or, where appropriate, the producer of the equipment involved in the accident.

Such a form (either provided by the competent authority or being a part of the internal Quality Control System – see Annex 6) could be filled in online by parents, witnesses of the accidents, owners of playgrounds etc. However the competent authority will usually impose no penalty if the administrator will voluntarily cooperate in restoring the safety of the play area.

The person who is reporting the accident should report on:

- Playground, where the accident took place (operator and playground data, equipment involved (detailed description, including description of elements, name and address of the manufacturer).
- The accident or incident (date and time of the accident or incident, description of the accident).
- The victim (her/his age and sex, clothing worn, including footwear – this data is relevant for analysing the cause of the accident for example the entrapment of cloth or foot).
- The injuries (location and type and treatment taken if applicable).
- The circumstances of the situation (number of children present at the playground, number of children present at the equipment involved, statements of witnesses, if applicable; together with the name and contact details).
- The name and contact details of the person reporting the accident.
- Proposed and implemented equipment modifications following the accident, if applicable (if there is a document certifying the implemented modification).
PLAYGROUND STANDARDS

Introduction

The European Standards for Playground Equipment: EN 1176 and EN 1177 were originally published in 1998 and drew heavily on the British Standard BS 5696 and the German Standard DIN 7926.

The European Standard EN 1176 is published in nine parts. The first part, Part 1, lists general safety requirements and test methods that apply to all playground equipment within its scope. This includes items that are installed onto a playground with which children are expected to play, even if they have not been designed for this purpose. It does not cover staffed, supervised adventure playgrounds that are run along pedagogic principles.

The parts of EN 1176 are:

- EN 1176-1:2008 Playground equipment - General safety requirements and test methods
- EN 1176-2:2008 Playground equipment – Additional specific safety requirements and test methods for swings
- EN 1176-3:2008 Playground equipment – Additional specific safety requirements and test methods for slides
- EN 1176-4:2008 Playground equipment – Additional specific safety requirements and test methods for cable runways
- EN 1176-5:2008 Playground equipment – Additional specific safety requirements and test methods for carousels
- EN 1176-6:2008 Playground equipment – Additional specific safety requirements and test methods for rocking equipment
- EN 1176-7:2008 Playground equipment – Guidance on installation, inspection, maintenance and operation
- EN 1176-10:2008 Playground equipment – Additional specific safety requirements and test methods for fully enclosed play equipment
- EN 1176-11:2008 Playground equipment – Additional specific safety requirements and test methods for spatial networks

Additionally, there is also a European Standard that specifies test methods for impact attenuating playground surfacing. It is:

- EN 1177:2008 Impact attenuating playground surfacing – Determination of critical fall height

Legal Position

In most countries the standards are not retrospective and nor is compliance with them a specific a legal requirement. However, compliance represents good practice in the event of an accident claim.

The limitations of the standards should be recognised: mere compliance will not automatically create a safe playground. Like previous playground standards they should be used intelligently. For this reason, it is essential that annual main inspections be carried out by competent inspectors who can give sensible advice about a playground’s compliance or otherwise with the standards.
Equipment that was produced before the introduction of the standards may not comply, but may comply with previous standards. Equipment that has been perfectly safe under previous standards will not suddenly become dangerous the day after publication of the EN 1176 standard. Existing equipment should be inspected by a competent inspector to the new standard and an assessment of risk made on whether replacement or upgrading is required.

New equipment should meet the EN 1176 standard.

Playground equipment products do not require, and will not carry a CE mark. They may carry a BSI Kitemark or a TüV mark. The same applies to the provision of impact absorbing surfaces.

Some elements of EN 1176 are open to interpretation. In the event of a dispute, a decision on interpretation may be sought from your National Standards Organisation or, if necessary, from the European Standards Committee. This may take some time.

**Protection Principles of the Standards**

The introduction to Part 1 notes that it is not the purpose of the standard ‘to lessen the contribution that playground equipment makes to the child’s development and/or play’. It also embraces the idea that risk taking is an essential part of play provision, and recognizes the requirement to enable risk taking whilst protecting children from serious harm.

The standard is expected to protect children from hazards that they cannot foresee. This is through intentional use, or use that can be reasonably expected.

It is important that the standards are used as a tool to guide decision makers on the safety of play provision. It should not be used as a blunt instrument to deny children access to exciting play opportunities, nor should it be interpreted to give providers free reign to include any type of risky activity.

It is important to understand the principles of protection that the standard is applying as this will enable a sensible interpretation. It will also have use when assessing items of equipment for which the standard is not directly applicable.

The principles of protection are:

1. **Head and neck entrapment**

   It is possible for children to become trapped by the head or neck. This can have serious consequences as they may be unable to free themselves, thus leading to serious injury or death. The standards define specifications to prevent the likely causes of entrapment. It may be that some entrapment can still occur, but the risks of this happening have been calculated to be sufficiently remote that no further specifications are required.

2. **Entrapment of body or clothes**

   Children may become entrapped in parts of equipment if due regard is not paid to this possibility. Accordingly the standards define specifications to reduce the likelihood of such entrapment.

   This can include, for example, children becoming trapped in tunnels because the tunnels are too narrow. The standard defines certain minimum dimensions to ensure that tunnels are not too narrow.

   Children’s clothing or hair can become entrapped in parts of equipment. This can
have serious consequences. For example, if a scarf around a child’s neck becomes entrapped at the top of a slide after they start sliding they may be left hanging by their neck. The standard makes provision for this sort of hazard.

3. Shearing / loss of limbs / crushing
The standards make provision to ensure that situations where equipment parts move this are not likely to result in serious injury. This may include ensuring sufficient space between a moving component and a static one, such as between the beam of a seesaw and its support structure.

4. Falling
Falls are inevitable in play. The standard helps to define way in which, firstly children can be prevented from falling from height. This can be through the provision of handrails, guardrails or barriers.

It further specifies requirements so that when children do fall they are not seriously injured as a consequence. This includes ensuring that the space through which children fall is clear of obstacles that a child could strike, and by specifying certain impact attenuating properties of the playground surface.

5. Collision
Children may collide with each other, or with parts of playground equipment. The standard specifies requirements to minimise the likelihood that this will occur. For example, swing seats must be a certain minimum distance from their support structure to reduce the likelihood of hitting it. Another example is the use of impact attenuating surfacing to protect users once they have fallen.

6. Poor finish, materials or construction
Sharp components on playground equipment clearly have the potential to cause unnecessary injury. The standard specifies requirements that help to minimise the risk of injury when children are in contact with it.

Summary of Safety Requirements of EN 1176

The following are the general safety requirements that apply to all items of playground equipment. The list here is not the complete list of safety requirements of the standards. For full details reference must be made to the full standards. There are additional requirements that apply to specific items (such as swings, slide and roundabouts). These are listed in the next chapter.

General Safety Requirements

- All equipment that has a secondary function (e.g. rocking and rotating) shall be assessed against all additional parts of the standard that apply.
- The size of the equipment and the degree of difficulty it offers should always be suitable for the intended users.
- The risks presented by the equipment should always be apparent.
- Water (rain) should not collect on the equipment unless it has been designed specifically for this.
- Equipment must allow access for adults.
- All enclosed equipment (such as tunnels) longer than 2 000 mm must have at least two openings into it to allow for escape.
- There should be information table displayed on the playground containing data of the person responsible for its maintenance, the address of the area and emergency numbers. Ideally, a phone booth should be accessible nearby.
A basic level mark must be clearly and permanently marked on the equipment. This mark shows the level to which the surfacing should be maintained (it is very useful for maintenance of the loose surfaces as well as checking the proper installation).

Equipment should be marked so that it can be identified. The marking should include: name and address of supplier, equipment reference number, year of manufacture, the number and date of the standard (EN 1176-1:2008).

Protection Against Entrapment

- Consideration should be taken of the materials being used in case they change size, shape or position during use.
- There shall be no V shaped openings in a downward direction where the angle is less than 60°.
- The entrapment requirements of EN 1176-1:2008 clause 4.2.7.4 must be adhered to so that the whole body of users does not become trapped.
- There shall be no accessible bound openings (that includes fencing) with a lower edge above 600 mm above the ground that allows relevant test probes.
- Gaps for V shaped openings within or immediately before the free space should not be able to trap hair or clothes.
- Protruding components or spindles must not trap hair or clothes.
- Slides, fireman’s poles and accessible roofs must pass the toggle test (see EN 1176-1:2008 D.3 for full details).
- Any surface intended for running or walking must not contain a gap likely to trap a foot or leg. There shall be no gap greater than 30 mm in the direction of movement on such surfaces (this does not apply to surfaces inclined at more than 45°).
- To avoid finger entrapment gaps that change size in use must not have a minimum dimension less than 12 mm.
- Any gap within the free space, or any gap where the lower edge is above 1 000 mm above the ground must pass the finger rod tests (they should be either less than 8 mm or greater than 25 mm – see EN 1176-1:2008 D.4 for full details).
- Ropes fixed at one end should not form a loop that could trap a user.
- Ropes fixed at both ends should not form a loop that is wide enough to allow relevant test probe to pass through.
- Ropes must not cause an entrapment against other parts of the equipment.

Protection Against Crushing or Shearing

- There must not be crushing or shearing points between moving parts of equipment, or between moving and stationary parts.
- Any component from which a high impact force could be generated must be made with impact attenuating properties.
- Any heavy suspended parts (with a mass greater than 25 kg) that are suspended above the user must be at least 400 mm above the ground and must be at least 230 mm from the support posts at all times. This does not apply to swings.
- Gaps between the flexible parts of bridges and their rigid sides must not be less than 230 mm at any time.

Protection Against Falling

- Where applicable, equipment must have handrails, guardrails or barriers.
- Handrails, guardrails or barriers on ramps must start from the lowest point.
- For fall heights up to 600 mm no barriers or guardrails are needed.
- For equipment that is easily accessible and the fall height is over 600 mm barriers and suitable impact attenuating surfacing are needed.
- For equipment that is not easily accessible and the free height of fall is no greater than 1 000 mm no guardrails or barriers are needed, but suitable impact attenuating surfacing is.
- For equipment that is not easily accessible and the free height of fall is between 1 000 mm and 2 000 mm guardrails and suitable impact attenuating surfacing are needed.
- For all equipment with a free height of fall of 2 000 mm or more barriers and a suitable impact attenuating surface are needed.
- Where handrails are required they must be installed at a height of between 600 mm to 850 mm above the standing surface. The handrails must comply with at least the grasp requirements (i.e. they shall have a cross section not exceeding 60 mm).
- Where guardrails are required they must be installed to a height of between 600 mm to 850 mm (measured from the standing surface to the top of the rail). Guardrails must completely surround the platform except where a play element leads to or from it. The width of any opening in the guardrail must not be greater than 500 mm except where the opening gives access to or from stairs, ramps or bridges, in which case the width of the opening must not be wider than the stair, ramp or bridge.
- Where barriers are needed on easily accessible equipment they must be at least 700 mm high. For equipment that is not easily accessible they must be between 600 mm and 850 mm high. Barriers must completely surround the platform except where a play element leads to or from it. The width of any opening must not be greater than 500 mm unless there is a guardrail across it. Where the opening is on easily accessible equipment or where it gives access to a steep play element (steeper than 45°) then the maximum opening width is 1 200 mm.
- Barriers cannot have horizontal or near-horizontal elements that allow children to climb. The tops of barriers must discourage children from standing or sitting on them.
- The cross section of any support designed to be gripped (i.e. sustain the whole body weight using the hands) must be between 16 mm to 45 mm.
- The cross section of any support designed to be grasped (i.e. help a child to balance) must be less than 60 mm.
- Ladder rungs must be secured against rotation. They must be evenly spaced, except for the gap between the ground and the bottom rung and the top rung and the platform. Rungs or steps must be level to within ±3 mm. Ladders must have rungs and/or styles that meet the grasp requirements or they must have handrails that meet the grip requirements.
- Stairs must have guardrails or barriers according to their height. For stairs up to 1 000 mm in height a guardrails can be used instead of a barrier as long as the gap beneath the guardrail is less than 600 mm. Guardrails and barriers must be provided from the first step and must conform to the grasp requirements. If stairs are steeper than 45° and higher than 1 000 mm the barrier must meet the grasp requirements or a handrail must be provided. The angle of the stairs must be constant. There must be at least three risers. The treads must be evenly spaced and level to within ±3 mm. The treads must be at least 110 mm deep and project at least 140 mm. If the height of stairs is over 2 000 mm intermediate landing must be provided so that the sets of stairs are offset by at least the width of the stairs or they change direction by at least 90°. Intermediate landings must be at least as wide as the stairs and at least 1 000 mm long.
- Ramps should be inclined at up to 38° and of a constant angle. They must have guardrails or barriers according to their height. For ramps up to 1 000 mm high a
guardrail may be used as long as the gap beneath it is less than 600 mm. Guardrails must start at the beginning of the ramp. Ramps must be level across their width to within ±3 mm. There must be measures to resist slipping such as footholds.

- For steep play elements (greater than 45°) the opening in the barrier must not exceed 500 mm and the height must not exceed 2 000 mm.
- Ropes fixed at one end must have a diameter of between 25 mm and 45 mm.
- Ropes fixed at both ends must have a diameter of between 16 mm and 45 mm.
- The surfacing should be level especially when the loose fill is under such items as swings, slides’ endings, or area around roundabouts.

Protection Against Collision

- For full details of forced movement, free space and falling space see EN 1176-1:2008.
- Free spaces must not overlap with other free spaces, or with falling spaces, unless otherwise noted. This does not apply to items in a cluster that are intended to be used as a single item.
- The free space must not contain any obstacles that can hit or be hit by a user undergoing a forced movement, although parts of the equipment that contain or bear the weight of the user are allowed.
- Travel routes through the playground must not cross through the free space.
- The shall be no unexpected obstacles in, on or around the equipment that the user is not likely to expect that could cause injury if hit by a user.
- Suspended ropes fixed at one end between 1 000 mm and 2 000 mm long must be at least 600 mm from fixed equipment and at least 900 mm from swinging equipment (such as other ropes). They must not be mixed with swings in the same bay.
- Suspended ropes between 2 000 mm and 4 000 mm long must be at least 1 000 mm from other parts of the equipment.
- The free height of fall must not exceed 3 000 mm. For full details of calculating the free height of fall see EN 1176-1:2008 clause 4.2.8.1.
- The impact area and falling space can be calculated as shown above.
- The falling space must not contain any obstacles onto which a user could fall and sustain injury except:
  - adjacent parts where the difference in free height of fall is less than 600 mm.
  - parts that bear the weight of the user or contain the user or that help the user to keep balance.
  - parts of equipment at an angle greater than 60° to the horizontal (so that any impact force is reduced).
- If the free height of fall between adjacent platforms is greater than 1 000 mm the lower platform must have impact attenuating surfacing.
- For fall heights up to 600 mm where there is no forced movement hard surfaces such as macadam are allowed. For fall heights over 600 mm, or where there is forced movement (such as swings, roundabouts, seesaw) a suitable impact attenuating surface must cover the entire impact area. Full details can be found in EN 1176-1:2008.
- Grass, if suitably well maintained, is acceptable for fall heights of up to 1 000 mm (note that this height may be varied by National Standards Organisations depending upon local climatic conditions).
- Heavy suspended beams (with a mass of 25 kg or more) must have a ground clearance of at least 400 mm. There must be a minimum 50 mm radius to all changes in profile. They must be limited in their range of motion to 100 mm and must not go beyond the support posts. They must always be at least 230 mm
Protection Against Poor Finish, Materials or Contruction

- The materials used in construction must be suitable and apply with appropriate European Standards. Climatic or atmospheric conditions must be taken into account.
- Surface coatings must not contain toxins.
- Materials that are known to produce surface flash must not be used.
- National and local building regulations must be adhered to.
- Timber in contact with the ground must be protected against rot (see EN 1176-1:2008 clause 4.1.3 for full details). Only timber with a low susceptibility to splintering is allowed.
- Metals must be protected against atmospheric corrosion. Metals known to produce toxic oxides must be prevented from scaling or flaking by a suitable non-toxic coating.
- Glass reinforced plastics (GRP) that are used for slides must have a method of showing excessive wear (e.g. by using differently coloured layers).
- Dangerous substances are not allowed (such as asbestos, lead, formaldehyde, coal tar oils, carbolineums, polychlorinated biphenyls).
- The structural integrity must be assured by compliance with the appropriate sections of EN 1176-1:2008. See the full standard for details.
- All materials used must be non-splintering.
- Protruding nails, wire rope ends or pointed or sharp-edged parts are not allowed. Rough surfaces must not present the risk of injury.
- Protruding bolts are not allowed. See EN 1176-1:2008 clause 4.2.5 for full details.
- All accessible corners and edges must be rounded with a radius of at least 3 mm, or they must not be sharp.
- Connections must be secure so that they cannot be undone or work loose.
- Consumable components must be capable of being replaced and must be protected against tampering.
- Wire ropes must be unstressed and protected against corrosion. For full information about wire and fibre ropes see EN 1176-1:2008 clauses 4.2.12.3 to 4.2.12.5.
- Chains must comply with ISO 1834. The maximum opening in the links in any one direction is 8.6 mm, except where connections are made where the opening can be either less than 8.6 mm or greater than 12 mm.
APPENDIX A

PROPOSAL OF INTERNAL QUALITY CONTROL SYSTEM

The owner or administrator of the play area could create his own system of quality control on the playground. The main elements of such system should be clear and transparent. The system consists of Regulation of the playground, Inspection Plan, Maintenance Schedule and additional documents such as notifications of various activities towards the equipment. These activities should be recorded in the Playground Book (see below – Appendix B).

The relevant parts of the system could be provided in the way mentioned below.

*The authors wish to underline, that it is only our guideline, since the area administrators are free to develop and modify the below recommendations.*

The Inspection Plan

The first task is to prepare the Inspection Plan for the playground, which should cover the main elements of managing the play area.

<table>
<thead>
<tr>
<th>THE INSPECTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whereas the reduction of the hazards on the playground is essential the following inspection plan is introduced:</td>
</tr>
<tr>
<td><strong>1. The Routine Inspection</strong> will be carried out … times per week (at least once a week) with the use of the specific form (see Annex 1). The Routine Inspection aim is to check the basic condition of the equipment, especially faults due to recent vandalism, wear or weather conditions. During this inspection the following aspects will be checked: the cleanliness of surfacing, integrity and minor and major wear of the equipment, the foundations and the safety of the playground in general.</td>
</tr>
<tr>
<td><strong>2. The Operational Inspection</strong> will be provided … times per year (at least once per three months) with the use of the specific form (see Annex 2) and once a year during the Annual Main Inspection. The Operational Inspection looks in more detail at the equipment, its functionality and stability, essentially at vandalism and certain types of minor wear. It includes inspecting the play area regulations, fencing (with gates), surfacing, the safety zones, positioning of the equipment and supportive elements of the play area, markings, integrity and level of wear as well as connections.</td>
</tr>
<tr>
<td><strong>3. The Annual Main Inspection</strong> will be carried out once a year with the use of the specific form (see Annex 3). This should be done by a commission where competent specialist not connected with the playground operator or manager is represented. The Annual Main Inspection looks in more detail at the equipment, its functionality and stability, essentially at vandalism and certain types of minor wear. It includes inspecting the play area regulations, fencing (with gates), foundations and surfacing, the safety zones, positioning of the equipment and supportive elements of the play area, markings, integrity and level of wear as well as connections. During this inspection it might be necessary to dig out and dismantle some equipment. Essentially, it looks at vandalism, minor and major wear, long-term structural problems, changes in standard compliance and design being result of the play area rearrangements. During this inspection the assessment of recorded documents connected to the playground is carried out.</td>
</tr>
</tbody>
</table>
The effects of the inspection shall be the maintenance and repairing activity of such elements as connections, surfacing, posts, chains, foundations, handrails, guardrails, construction elements and movable parts.

All inspections as well as maintenance and repairing activity shall be carried out by qualified personnel and with the use of the appropriate tools and documentation (see Annexes 1-4).

If the inspection will detect the faults that have impact on safety, they shall be eliminated immediately. If such repairs are not possible, the equipment which does not meet the requirements shall be secured in such a way that will make it impossible for the users to have an access to it (either by immobilising or dismantling it). The fault shall be stated in special form (see Annex 5). Repair of fault shall be recorded therein.

If the equipment is temporary deleted from the play area, its foundations shall be secured or dismantled so that the play surface is safe.

The information on the accident shall be registered in the specific form (see Annex 6).

During the Annual Main Inspection this Inspection Plan shall be reviewed and verified, if necessary.

The producer recommendations for the inspection requirements are in section…. 

Done at …, date, signature

The Schedule for Maintenance and Repairing

The additional document is The Schedule for Maintenance and Repairing. It will ensure that the inspection activities were carried out correctly and will refer to the provisions of the Inspection Plan and its forms. It should be adopted for each playground.

THE SCHEDULE FOR MAINTENANCE AND REPAIRING

Whereas the reduction of the hazards on the playground is essential the following inspection plan is introduced:

1. After every Routine Inspection:
   a) the surfacing shall be cleaned,
   b) the surface shall be levelled (if loose fill is used), according to the mark indicating a basic level of the surfacing.

2. Before the Operational Inspection takes place:
   a) the maintenance of the surfacing shall be done,
   b) the missing loose fill shall be laid and the synthetic surfacing shall be repaired.

3. After every Operational Inspection:
   a) the loose parts shall be repaired,
   b) the posts shall be greased if needed,
   c) the basic level mark and the information tables shall be maintained.

4. Before the Annual Main Inspection:
a) the painting of the wooden parts shall be done,  
b) the painting and laying the splintered elements shall be done.  
The painting shall be done with the paint and varnish recommended by the equipment  
suppliers.

5. The sand in sandpits will be changed … times a year (recommended twice a year).

All inspections as well as maintenance and repairing activity shall be carried out by qualified  
personnel and with using the appropriate tools and documentation (see Annexes 1-4).

If the inspection will detect the faults that have impact on safety, they shall be eliminated  
immediately. If such repairs are not possible, the equipment which does not meet the  
requirements shall be secured in such a way that will make it impossible for the users to  
have an access to it (either by immobilising or dismantling it). The fault shall be stated in  
special form (see Annex 5). Repair of fault shall be recorded therein.

If the equipment is temporary deleted from the play area, its foundations shall be secured or  
dismantled, so that the play surface is safe.

Every change in the equipment or rearrangement which can have impact on the safety shall  
be made in consultation with the producer or qualified specialist.

The producer recommendations for the inspection requirements are in section…

Done at … Date Signature
Annex 1

THE ROUTINE INSPECTION FORM

The playground No: ..........................

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<thead>
<tr>
<th>Date of inspection</th>
<th>Surface level</th>
<th>Surface cleanliness</th>
<th>Integrity of equipment</th>
<th>The foundations covered</th>
<th>The equipment is worn</th>
<th>Other (which)</th>
<th>Signature</th>
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</table>
Annex 2

THE OPERATIONAL INSPECTION FORM

The playground No: ……………………

<table>
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<th>No.</th>
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<th>No</th>
</tr>
</thead>
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<tr>
<td>1.</td>
<td>Regulation of the playground is complete and transparent</td>
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<td>2.</td>
<td>Fencing is complete and safe</td>
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<td>3.</td>
<td>Surface is in appropriate condition</td>
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<td>4.</td>
<td>There are no changes in the minimal openings of the equipment</td>
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<td>5.</td>
<td>Auxiliary elements pose no danger</td>
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<td>6.</td>
<td>There are litter bins</td>
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<td>7.</td>
<td>Basic level markings are appropriate</td>
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<td>8.</td>
<td>Equipment is stable</td>
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<td>9.</td>
<td>Equipment has the appropriate markings</td>
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<tr>
<td>10.</td>
<td>Equipment is complete</td>
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<tr>
<td>11.</td>
<td>Wear of the moving parts is normal</td>
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<tr>
<td>12.</td>
<td>Condition of chains is good</td>
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<tr>
<td>13.</td>
<td>Wear of the equipment is normal</td>
<td></td>
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<tr>
<td>14.</td>
<td>Connections are good</td>
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<tr>
<td>15.</td>
<td>There are no signs of splintering nor corrosion</td>
<td></td>
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<tr>
<td>16.</td>
<td>There are no other irregularities</td>
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Explanatory notes and conclusions:

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Done at: …………… Date: ………………… Signature………………………………………
Annex 3

THE ANNUAL MAIN INSPECTION FORM

The playground No: ……………………

I. This inspection was carried out by the following commission:
   1. ………………………………….
   2. ………………………………….
   3. ………………………………….
   4. ………………………………….

II. The playground was inspected and the following was stated:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regulation is complete and transparent</td>
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<td>2.</td>
<td>Fencing is complete and safe</td>
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<td>3.</td>
<td>Surface is in appropriate condition</td>
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<td>4.</td>
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<td>9.</td>
<td>Equipment has the appropriate markings</td>
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<td>10.</td>
<td>Equipment is complete</td>
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<td>11.</td>
<td>Wear of the moving parts use is normal</td>
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<tr>
<td>12.</td>
<td>Condition of chains is good</td>
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<tr>
<td>13.</td>
<td>Wear of the equipment is normal</td>
<td></td>
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<td>14.</td>
<td>Connections are good</td>
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<td></td>
</tr>
<tr>
<td>15.</td>
<td>There are no signs of splintering nor corrosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>The foundations are good</td>
<td></td>
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<tr>
<td>17.</td>
<td>There are no irregularities caused by the repairs</td>
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<tr>
<td>18.</td>
<td>Inspection plan is good</td>
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<td>19.</td>
<td>Schedule of the maintenance and repairing is good</td>
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<tr>
<td>20.</td>
<td>There are no other irregularities</td>
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</table>

III. The note on the playground documentation (Inspection Plan and The Schedule of the Maintenance and Repairing)

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IV. The general information on safety of the playground (after carrying out this inspection, and reviewing the information on both accidents and the previous inspections):

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……………………………………………………………………………………………....................................

V. Explanatory notes and conclusions:

……………………………………………………………………………………………....................................

……………………………………………………………………………………………....................................

Done at: ……………… Date: ………………… Signatures:
   1. ………………………………………
   2. ……………………………………
   3. ……………………………………
   4. ……………………………………
Annex 4

THE MAINTENANCE AND REPAIR FORM

The playground No: ..........................

1. The following maintenance / repair* activities were carried out on ............... (date):
   ...........................................................................................................................................
   ...........................................................................................................................................
   ...........................................................................................................................................
   ...........................................................................................................................................
   ...........................................................................................................................................
   (describe details of the work which was done)

2. The mentioned activities were / were not* were done as a result of the inspection / information* submitted on: ............. (date).

3. The mentioned activities were / were not* carried out properly.

4. Explanatory note and conclusions:
   ...........................................................................................................................................
   ...........................................................................................................................................
   ...........................................................................................................................................
   ...........................................................................................................................................

5. The deadline for the repair expires: ..................................................

   Done at:.................................
   Date:.................................

   Signature of the maintenance or repair provider:.................................
   Signature of administrator or authorised person:.................................

* circle the appropriate information
Annex 5

THE NOTIFICATION OF THE FAULT FORM

The playground No: ……………………

1. Following the Routine Inspection / Operational Inspection / Annual Main Inspection* done on ……… (date) the fault was found in the equipment no. …………

2. The fault is / is not* relevant for the safety of playground users.

3. The description of the fault

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4. Suggestions for corrective measures (including deadlines):

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Done at:……………………………..
Date:…………………………………
Signature:……………………………

* circle the appropriate information
## Annex 6

### THE NOTIFICATION OF THE ACCIDENT FORM

<table>
<thead>
<tr>
<th>Operator data:</th>
<th>Playground data:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Name:</td>
</tr>
<tr>
<td>Address:</td>
<td>Address:</td>
</tr>
<tr>
<td>Tel:</td>
<td></td>
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</tbody>
</table>

### Playground equipment data:

<table>
<thead>
<tr>
<th>Name of a manufacturer:</th>
<th>Description of elements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of a manufacturer:</td>
<td>Other comments:</td>
</tr>
</tbody>
</table>

### Accident/incident data:

<table>
<thead>
<tr>
<th>Description of the accident/incident:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Date and time:</td>
<td></td>
</tr>
<tr>
<td>Meteoric conditions (rain, snow):</td>
<td></td>
</tr>
<tr>
<td>Victim:</td>
<td>(name, address, tel., age, sex)</td>
</tr>
<tr>
<td>Clothing worn by the victim, including footwear:</td>
<td></td>
</tr>
<tr>
<td>Number of children present at the playground:</td>
<td></td>
</tr>
<tr>
<td>Number of children present at the playground equipment:</td>
<td></td>
</tr>
<tr>
<td>Type of injuries:</td>
<td></td>
</tr>
<tr>
<td>Short description:</td>
<td></td>
</tr>
<tr>
<td>Witnesses:</td>
<td>(name, age, address and tel.)</td>
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<tr>
<td>Statements of witness:</td>
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<td>Treatment taken:</td>
<td></td>
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<tr>
<td>Proposed and implemented equipment modifications following the accident:</td>
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<td>Victim compensation:</td>
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<tr>
<td>Other information (photographic material, video camera recordings, etc.):</td>
<td></td>
</tr>
<tr>
<td>Person reporting an accident</td>
<td>(name, age, address and tel.):</td>
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</tbody>
</table>

To be sent by fax: (to write a fax number of the competent authority)  
by email: (to write an email address)  
or by post at the following address (to write an address)
THE PLAYGROUND BOOK

Number of the playground............

Location of the playground:

Owner/administrator of the playground:

Done at:

Date:

Signature:
<Here you can insert copies of certificates, invoices for the equipment purchase, instructions for use and maintenance provided by the producer or importer, information of the safety zones, plan (even handwritten) of the playground etc.>

<Below you should keep the complete list and photos of all playground equipment on the area, including its identification – for example:
1. Green seesaw – producer: XYZ Ltd., 3 Little Street, 00876 Windsor, Ontario, Canada (catalogue item: GS998876/08), Certificate No.: 7766-AD-2008 issued by the Global Scientific Committee for Playground Safety
2. Yellow seesaw with the horse head – producer: etc.
3. Red small seesaw
4. One-seated swing
5. Two-seated swing
6. Slide
7. Bridge
8. …

Please remember that when reconstruction or rearrangement is done, the relevant information should be recorded, including the type and date of modification>
## 1. List of the Routine Inspections:

<table>
<thead>
<tr>
<th>No.</th>
<th>Date of inspection</th>
<th>Name of the person who carried out the inspection</th>
<th>Signature</th>
<th>Name of the person who accepted the inspection results</th>
<th>Signature</th>
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<You may put additional pages of that kind if needed.>
2. List of the Operational Inspections:

<table>
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<tr>
<th>No.</th>
<th>Date of inspection</th>
<th>Name of the person who carried out the inspection</th>
<th>Signature</th>
<th>Name of the person who accepted the inspection results</th>
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3. List of Annual Main Inspections:

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<tr>
<th>No.</th>
<th>Date of inspection</th>
<th>Names of the inspection commission</th>
<th>Signatures</th>
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<You may put additional pages of that kind if needed.>
4. List of maintenance and repair activities:

<table>
<thead>
<tr>
<th>No.</th>
<th>Date of activity</th>
<th>Name of the maintenance or repair activities provider</th>
<th>Signature</th>
<th>Name of the person who accepted the maintenance or repair work</th>
<th>Signature</th>
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<You may put additional pages of that kind if needed.>
### 5. List of notified faults:

<table>
<thead>
<tr>
<th>No.</th>
<th>Date when the fault was notified</th>
<th>Name of the person, who notified on fault</th>
<th>Signature</th>
<th>Name of the person who accepted the notification of the fault</th>
<th>Signature</th>
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</table>

*You may put additional pages of that kind if needed.*
6. List of the recorded accidents:

<table>
<thead>
<tr>
<th>No.</th>
<th>Date of accident</th>
<th>Name of the person who informed on the accident</th>
<th>Signature</th>
<th>Name of the person who recorded the accident</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
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<You may put additional pages of that kind if needed.>