

ORDER
on the safety of fairground attractions, machinery and installations for funfairs or amusement parks
(itinerant equipment)

The Minister of the Interior, Overseas France and Territorial Communities,
The Minister for the Economy, Industry and Employment,
The Secretary of State responsible for industry and consumption,

Having regard to Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services and, in particular, Notification No

Having regard to Law No 2008-136 of 13 February 2008 on the safety of fairground attractions, machinery and installations for funfairs or amusement parks,

Having regard to Decree No on the safety of fairground attractions, machinery and installations for funfairs or amusement parks,

Hereby order:

Art.1.- This Order defines, for itinerant equipment, the procedures for inspection of fairground attractions, machinery and installations for funfairs and amusement parks.

Art.2.- For inspection purposes, the equipment is classified according to its type into four categories defined in Annex I to this Order.

Art. 3.- The terms and conditions, the scope and the periodicity of the technical inspection of the equipment appear in Annex II. Details of the verifications and the points on which a serious anomaly mentioned in the inspection report justifies a counter-inspection are described in Annex III.

Art. 4.- The model of the report setting out the conclusions of the inspection referred to in Article 2 is described in Annex IV.

Art. 5.- The model of the technical dossier for the equipment is described in Annex V.

Art. 6.- The Minister of the Interior, Overseas France and Territorial Communities, the Minister for the Economy, Industry and Employment and the Secretary of State responsible for industry and consumption shall be responsible, each for his own part, for the implementation of this Order, which shall be published in the *Official Journal* of the French Republic.

Done in Paris, on ...

**ANNEX I to the Order of ...
Classification of equipment**

CATEGORY	TYPES AND EXAMPLES
1	<p><u>FAIRGROUND RIDES AND ATTRACTIONS FOR CHILDREN (under 14 years of age)</u> Example: mini-scooters, merry-go-rounds, car circuits, small electric trains, mini-caterpillars, small swings, circuit on rails for children and children with parents, aeroplane rides for children, slides, kindyland, sundry funfair stands, etc.</p>
2	<p><u>ATTRACTIONS WITH LIMITED THRILLS (speed less than 12 RPM)</u> Example: dodgems, auto-scooters, merry-go-rounds, wooden horses, carrousel, car circuits, big wheels, merry-go-rounds with rides that vary in height, ghost trains, electric or combustion go-karts, funhouses, large swings of limited rotation, seesaws and roundabouts, simulators, flume rides, etc.</p>
3	<p><u>ATTRACTIONS WITH EXTREME THRILLS (speed more than 12 RPM)</u> Example: large swings with 360° rotation, rides rotating at high speed, aeroplane rides for adults, attractions with several planes of rotation with or without tilting planes of rotation, caterpillars, TURBO JET, CANYON, TOP-SPIN, PARATROOPER, HULLY-GULLY, GALACTICA, OCTOPUS, ROTOR, BOOMERANG, MATTERHORN, JET-BOB, etc.</p>
4	<p><u>OTHER ATTRACTIONS WITH EXTREME THRILLS</u> Example: roller coaster, attractions rotating at high speed with vertical rotation or close to it, such as ENTERPRISE, UFO, ROUND UP, BOOSTERS, EJECTOR, etc.</p>

	<p>Roller coasters are divided into classes:</p> <ol style="list-style-type: none"> 1) With loops or corkscrews <ul style="list-style-type: none"> . with a single train; . with several trains; 2) Without loops or corkscrews <ul style="list-style-type: none"> . with a single train; . with several trains.
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ANNEX II to the Order of ...
Terms and conditions and scope of technical inspections of
equipment

1 - PURPOSE

The purpose of this Annex is to lay down the procedures for the technical inspection of equipment. Such examination covers its general condition in order to detect anomalies likely to create a situation dangerous to people.

2 - ORGANISATION OF THE FIRST TECHNICAL INSPECTION.

a) Initial technical inspection of new equipment

This inspection takes place when the equipment is first commissioned and prior to its being opened to the public. It includes all of the periodic inspection checks referred to hereinafter, verification of the recommendations on the design and manufacture of equipment contained in the constructor's installation and inspection instructions and the recommendations on informing the consumer.

b) First technical inspection of equipment already in service

Such equipment is subject to a technical inspection comprising all of the periodic inspection verifications referred to hereinafter. Such inspection shall be performed within a maximum period of:

- 3 years for equipment in categories 1 or 2 having undergone verification by a specialist company within the last 3 years
- 1 year for equipment in categories 3 or 4 having undergone verification by a specialist company within the last 3 years
- 6 months for equipment which has not undergone verification by a specialist company within the last 3 years

3 - ORGANISATION OF THE PERIODIC INSPECTION

The inspection shall be carried out on equipment in operating condition, assembled, installed and supplied with lighting and power generation, with all accessories in place. However, parts which are inaccessible when the equipment is installed and the breakage of which would present serious risks to users and the public shall be inspected during assembly or disassembly. Additional partial disassembly may be requested.

The inspection shall be conducted in the presence of the operator or of one of his duly authorised representatives, responsible for the presentation of the equipment and, at the request of the inspection bodies, for its start-up and operation, under the various operational conditions possible.

4 - PERIODICITY OF THE PERIODIC INSPECTION

Inspections shall take place every three years for equipment in categories 1 or 2 and every year for equipment in categories 3 or 4.

5 - SCOPE OF THE INSPECTION

Inspections shall be carried out:

-Systematically for:

The visible and accessible parts, particularly welds and assemblies;

The major parts of the structure, the breakage of which would present serious risks for users and the public. Such parts shall, depending on each case, be subjected to penetrant inspection, magnetoscopy or thickness inspection;

The overspeed control system.

-By spot checking for the other parts.

Verifications shall include an operational test on moving parts under normal conditions.

For equipment in categories 3 or 4, load tests shall be carried out at the request of the inspector.

For new equipment, a document drawn up by a person or body qualified in structural calculation shall stipulate the areas to be inspected and set out the procedures for the inspection.

6 - GENERAL PRESENTATION OF THE REPORT

The nature and scope of the inspection point by point, each point being identified by a reference, are described in Annex III of the Order.

The list of all these points shall be reproduced in the periodic inspection report (the model is appended in Annex IV).

7 - CONTENT OF THE REPORT

The first page of the report shall be filled in and must clearly indicate the conclusion of the inspection.

The next two pages shall be presented according to a principle of boxes to be ticked. For each reference stipulated in Annex IV of this Order, the inspection body shall place a cross in one of the following corresponding columns:

- Column "F" for "FAVOURABLE" is used if the equipment satisfies the point under consideration.
- Column "O" for "OBSERVATION" is ticked whenever a comment is necessary. If need be, such observation, identified by its reference, shall be reiterated on the first page under the reservations formulated by the inspection body.
- As the specifications have been designed to be adaptable to the majority of equipment, a column entitled "N/A" ("NOT APPLICABLE") is provided. This column shall be ticked if the equipment does not incorporate the corresponding facilities (unless the absence of such facilities is considered as a defect).
- Column "CI" when a counter-inspection is required.

NOTE – When it has been impossible to carry out a test, or when it has been impossible to examine a point, column "O" ("OBSERVATION") shall be ticked.

In this case, the inspection body shall detail under 'observations' the reasons why such examination could not be carried out. If such examination concerns major parts of the structure, the breakage of which would present serious risks for users and the public, the inspection body may be forced to give an unfavourable opinion as regards operation of the equipment.

The report shall explicitly mention:

1. The anomalies justifying a "favourable" conclusion and prescriptions for which the operator shall append the document(s) attesting to the completion of works or tests to the technical dossier for the equipment once repairs have been made;
2. The anomalies justifying an "unfavourable" conclusion, the seriousness of which is such that they must be subject to a counter-inspection by the approved body.

ANNEX III

Details of the inspection

NB: To facilitate legibility, the inspection points requiring a counter-inspection in the event of serious anomaly shall be suffixed by the note CI.

1 - BRACING SYSTEMS - STABILITY

Reference 11 - Bracing Systems:

The inspection consists in ensuring that the bracing system is in place under each of the support structures provided and that there are no bracing systems presenting signs of deterioration.

Reference 12 - Stability – balance - counterweight - ballast:

The inspection consists in ensuring:

- That the anchorage points, should they exist, are in place and are securely fixed;
- That, if there are any guy systems, the cables are in good apparent condition and their terminations correctly constructed;
- That the installation is stable during an operating test on one or more cycles.

Reference 13 – Floors

The inspection consists in ensuring:

- That floors, walkways and passages are correctly attached and adequately secured, that they are in good condition and do not present any corrosion or significant deterioration;
- That, if there are connections between modules, the liaisons are in place.

NOTE:

1. The surface condition, slippery or insecure underfoot, is included in the inspection.
2. Reference 51 only concerns access ways or passages for the public or users (waiting for or leaving the attraction).

2- FRAMEWORKS AND MECHANISMS:

Reference 21 – Construction of assemblies - fastenings - welds CI

The inspection consists in an examination of assemblies of framework components. The fixing accessories (bolts, screws, axles, axle stop pins) must be in place. Welds must not present cracking, delamination, corrosion.

Reference 22 – Parallelograms – rotors, arms CI

The inspection consists in an examination of the assemblies and components constituting such units.

NOTE - The fastening accessories (bolts, screws, axles) must be in place and secure. Welds must not present cracking, delamination, corrosion.

The various parts of this type of framework must be free of corrosion. They must not present any distortion.

Reference 23 - Axles, ball joints – bearings – wheels CI

The inspection consists in ensuring during testing that there is no mechanical stiffness, random noises or unplanned shocks in the kinematics.

Reference 24 – Protection of mechanisms CI

The inspection consists in ensuring that mechanisms likely to be in the vicinity of the public or users are protected.

Reference 25 – Hooks, cables CI

The inspection consists in ensuring that hooks present neither distortion nor faults on the anti-release system and that cables, lines, chains and their means of suspension are in a good state of repair.

Reference 26 – Isolation of moving parts

The inspection consists in ensuring that moving parts likely to be in the vicinity of the public or users are protected.

3- GUIDES – RAILS – TRACKS:

Reference 31 - rails, guides CI

The inspection consists in ensuring:

- That the fastenings of rails and guides to their support structure and connections between sections of rails and guides are effective;
- That the connection and fastening accessories are in place and not loose;
- That rails and guides are sufficiently thick to bear the stresses to which they are subject.

Reference 32 - Alignment - absence of irregularities, distortion CI

The inspection consists in assessing the alignment of guides, rails, and tracks.

Reference 33 – Protection of users CI

Guardrails, if present, must not present any defects.

Reference 34 – Condition of tracks CI

The inspection consists in assessing the alignment of guides, rails, and tracks.

4- DEVICES: PODS – TRAINS – CARS - AEROPLANES – STANDS...:

Reference 41 – Fastenings – guides CI

The inspection consists in ensuring, fastening by fastening:

- That no fastening components (bolts, screws, pins, axles, stop pins) are missing, loose, or not fully in place;
- That there is no wear or corrosion;
- That fastenings which include articulations do not present mechanical stiffness (this inspection can only be carried out if the articulation can be moved by hand);
- That guiding systems do not show any abnormal wear.

Reference 42 – Bars: effectiveness and locking CI

When safety bars are provided, the inspection consists in ensuring:

- That they are all installed;
- That they are free of distortion;
- That fastenings and articulations are free of corrosion;
- If applicable, the effectiveness of the mechanical locking system and the electrical safety contact.

Reference 43 – Ease of access to the rides

The inspection consists in ensuring that, where they exist, ladders, steps and other similar devices are in good condition and securely fastened.

Reference 44 – Internal fittings

The inspection consists in ensuring that the various internal fittings (seats, etc.) are in a good state of repair and securely fastened.

Reference 45 – Decorative equipment CI

The inspection consists in ensuring that decorative equipment is in a good state of repair and securely fastened.

Reference 46 – Gates

The inspection consists in ensuring that access gates are in a good state of repair and securely fastened.

5- PUBLIC ACCESS:

Reference 51 – Floors – walkways:

The inspection consists in ensuring that floors, walkways and passages are correctly fastened and secure, that they are in good condition and do not present corrosion or significant deterioration and that, if there are connections between modules, the liaisons are in place.

NOTE:

1. The surface condition, slippery or insecure underfoot, is included in the inspection.
2. Reference 51 only concerns access ways or passages for the public or users (waiting for or leaving the attraction).

Reference 52 - Steps - climbs - slopes - podia:

The inspection consists in ensuring:

- That steps, climbs and slopes are provided for access to passages and podia;
- That such devices are secured to the floors to which they provide access;
- That they are stable, in good condition and do not present corrosion or significant deterioration.

NOTE:

1. The surface condition, slippery or insecure underfoot, is included in the inspection.
2. Reference 52 only concerns access ways or passages for the public or users (waiting for or leaving the attraction).

Reference 53 – Barriers - guardrails CI

When such devices exist, the inspection consists in ensuring:

- That barriers and/or guardrails are in a good state of repair;
- That, when fastenings between modules are provided for, the connection is effective.

Reference 54 – Doors and gates: CI

The inspection consists in ensuring:

- That, if doors exist, their clearance is such that they cannot come into contact with moving parts;
- That exit doors open outwards.

NOTE – Reference 54 does not concern doors or gates which are part of the equipment itself and which are moved by vehicles or other mechanisms.

Reference 55 – Automatic locking devices: CI

The inspection consists in ensuring that the automatic device for locking the doors and the emergency manoeuvring device in the event of power outage are in good working condition.

6- CONTROLS:**Reference 61 – Control post – prohibition of access to the public**

The inspection consists in ensuring that the control post incorporates doors or barriers likely to render it inaccessible to the public under normal conditions and that it is sheltered. The location of the control post must be protected against inclement weather conditions and positioned in such a way that all of the equipment is visible and that accidental start-up is impossible.

Reference 62 – Control units - identification of controls if they are complex

The inspection consists in ensuring:

- That the control units are in good condition and that they work;
- The identification status of control units.

Reference 63 – Emergency systems CI

The inspection consists in checking that the emergency stop systems work correctly.

Reference 64 – Speeds CI

The inspection consists in taking a reading of the maximum speed, checking that it is compliant with the constructor's instructions or with the speed laid down for the category of equipment, and ensuring that the overspeed device works correctly.

7- BRAKING SYSTEM:**Reference 71 – Normal braking CI**

The inspection consists in ensuring during testing that normal braking works correctly during each phase of the operating sequence.

Reference 72 – Additional braking CI

The inspection consists in ensuring during testing that additional braking, if present, is in good working order. If this is a replacement braking system used as a back-up in the event of failure of normal braking, or if it is an emergency braking system, the tests are carried out after the normal braking system has been shut down.

8- DEPARTURE WARNING SIGNAL – DISPLAYS AND INSTRUCTIONS**Reference 81 – Sound or light signal**

The inspection consists in ensuring that, if a sound or light signal exists warning of departure, it is in good working condition.

Reference 82 – Displays and instructions

The inspection consists in ensuring, when they exist, that displays and instructions intended for the public and users are visible and in a good state of repair.

Reference 83 – Dangerous areas and sundry prohibitions

The inspection consists in ensuring the presence of particular instructions related to the specificity of the equipment.

9- FIRE PROTECTION**Reference 91 – Tarpaulins – covers**

The inspection consists in ensuring that tarpaulins and covers are in a good state of repair and securely fastened and, if they are likely in the event of fire to fall on users or the public, that they are covered by a certificate guaranteeing a degree of protection of M2.

NOTE – There must not be more than 5 years between the date of the certificate and the date of delivery of the equipment.

Reference 92 - Extinguishers

The inspection consists in ensuring, when an installation is fitted with fire extinguishers appropriate to the risks, that the latter are accessible and that the certificate of periodic inspection is duly affixed to them.

Reference 93 – Public safety – evacuation

The inspection consists in ensuring, in the case of closed structures, that exits and passageways are unencumbered.

10 – INSTRUCTIONS FOR THE OPERATOR**Reference 101 - Operating instructions**

The inspection consists in ensuring the presence of commissioning and operating instructions for the equipment close to the control post.

Reference 102 – Safety instructions

The inspection consists in ensuring the presence of safety instructions in the event of failure of the normal operating system.

11- HYDRAULIC OR PNEUMATIC CIRCUITS AND MECHANISMS:

Reference 111 - Absence of significant leaks, deterioration and apparent corrosion CI

The inspection consists in ensuring:

- That there are no leaks other than functional leaks;
- That there are no significant distortions, signs of tearing, cracking or breakage;
- That the entire circuit is free of significant corrosion.

NOTE – The examination covers the pipes, connections and mechanisms, excluding the internal condition of the devices.

Reference 112 – Absence of unplanned shocks CI

The inspection consists in ensuring during testing:

- That there are no abnormal vibrations during movements;
- That no unplanned shocks occur in the operating sequence;
- That the buffer stops work correctly, if they exist.

Reference 113 – Safety device used to return jacks to their initial position CI

The inspection consists in ensuring that this system works correctly when it exists.

12- INSPECTION WITH A VIEW TO PROTECTING AGAINST THE DANGER OF ELECTRICAL CURRENTS PURSUANT TO PREVAILING REGULATIONS:

NOTE – The inspection covers exclusively those components which are part of the equipment. The junction box connection cable provided by the electricity company is also inspected. It does not cover the statutory inspection of installations carried out in implementation of the Decree of 10 October 2000 for electrical installations used by workers.

Reference 121 – State of repair of installations

The inspection consists in ensuring:

- The good state of repair and correct fastening of electrical equipment and conduits;
- The presence, accessibility, identification and effectiveness of the all-pole circuit breakers used to isolate the entire installation.

Reference 122 - Differential circuit breaker – earth CI

The inspection consists in ensuring:

- The presence:
 - Of a differential device of 30 milli-amperes backing up the installation;
 - Of indications allowing the connection of the installation to an earth connection of suitable value;
 - Of a terminal for earthing the installation;
- Of the equipotential bonding of the various metal masses simultaneously accessible.

Reference 123 – Protection against the risk of direct contact with exposed live conductors or conductive parts which are usually live

The inspection consists in ensuring that exposed live conductors and conductive parts are kept out of reach by means of obstacles or by insulation.

ANNEX IV**Model of the equipment inspection report**

A single box must be ticked in each column.

INSPECTION BODY:

REGARDING THE EQUIPMENT:

- Category and type;
- Name of the equipment;
- Name and address of the owner;
- Name and address of the operator;
- Name and address of the manufacturer or importer;
- Name and address of the vendor if known;
- Year of manufacture, known or estimated.

INSPECTION CARRIED OUT ON
LOCATION OF THE INSPECTION

CONCLUSION:

USE OF THE EQUIPMENT

- FAVOURABLE UNTIL
- UNFAVOURABLE

ANOMALIES WHICH MUST BE SUBJECT TO A COUNTER-INSPECTION

NAME OF THE INSPECTOR and STAMP OF THE INSPECTION BODY

	Ref.	F	O	N/A	CI
1 Bracing systems – Stability:					
Bracing system: condition, conformity and position	11				
Stability: anchorage, cables, supports and balance	12				
Floors: condition, continuity and covering	13				
2 Frameworks and mechanisms:					
Assembly, linkage, welds	21				
Parallelogram, rotor, arms	22				
Axles, ball joints, bearings, wheels, main bearings	23				
Protection of mechanisms: stop pins, pins, brakes	24				
Hooks, cables	25				
Isolation of moving parts (mechanical hazards)	26				
3 Guides, rails, tracks:					
Rail junctions and movement	31				
Fastenings, general condition, alignment	32				
Protection of passengers	33				
Condition of tracks (floors and edges)	34				
4 Devices, pods, trains, cars, aeroplanes, boats, rings:					
Fastening, guidance and stability	41				
Safety bars, belts, harnesses	42				
Ease of access to rides	43				
Internal fittings	44				
Decorative equipment	45				
Gates	46				
5 Public access:					
Condition of floors and walkways	51				
Condition of steps, climbs, coverings, podium, passageways	52				
Barriers, guardrails, baseboards					
Doors and gates	53				
Automatic locking devices	54				
	55				
6 Control post:					
Control console, visibility, signalling, no access to the public	61				
Safety devices, functionality	62				
Emergency systems	63				
Speeds	64				
7 Braking system:					
Normal braking, effectiveness, safety	71				
Emergency braking, effectiveness, safety, lifespan	72				

8 Departure warning, displays and instructions for the public: Admissibility of passengers, sound and light signals Intercoms Instructions for the public Dangerous areas, sundry prohibitions (in words, pictograms)	81 82 83				
9 Fire protection Tarpaulins and covers	91				
Extinguishers Instructions, public safety, evacuation	92 93				
10 Instructions for the operator: Operating instructions Safety precautions	101 102				
11 Circuits and mechanisms, hydraulic, pneumatic: Absence of significant leaks, deterioration, corrosion Absence of unplanned shocks Safety device for return to the initial position	111 112 113				
12 Electrical installations Condition of the installation Differential circuit breaker – earth Protection against the risk of direct contact with live conductors	121 122 123				

OBSERVATIONS

No	Referenc	Observation

ANNEX V

Technical dossier for the equipment

Composition

- Constructor's technical document (mandatory only for new fairground attractions).
- Documents certifying the completion of any works.
- Initial inspection report.
- Inspection reports.

Category: Type: Name of the equipment:

Constructor:.....

Constructor's address:.....

Post code: Town:

Telephone: Telex:.....

Date of manufacture: Reference:

Date when first opened to the public: Reference:

Date of the first inspection: Reference:

Total dimensions: Assembled: Weight:.....

Number of devices or pods:.....

Number of passengers or players: Age group:

Source of energy: - public mains – autonomous power supply

- single phase – three phase