



## ACCREDITATION REQUIREMENTS FOR INSPECTION BODIES WORKING IN THE FIELD OF FAIRGROUND AND AMUSEMENT EQUIPMENT

**DAC-REQ-16**

**October 2017**

Approved by		Head, Inspection Bodies Accreditation Section	
Revision History			
ISSUE NO.	REV. NO.	DETAILS	DATE
1	0	Issue for use	22-10-2013
2	0	As per document review; the definition, General requirements and inspection method and procedures sections were changed	03-05-2015
2	1	Moving regulations related to IBs working in the Emirate of Dubai from the previously addressed Clause 3.11.1 to ANNEX C	13-09-2015
2	2	<ul style="list-style-type: none"><li>• Updates in the definitions</li><li>• Adding ASTM and ISO 17842 reference standards.</li><li>• Adding the definition of trampoline and trampoline court.</li><li>• Excluding the trackless train in clause 2 clause 2.2.</li><li>• Exclusions are amended in clause 3.5.1</li><li>• Adding clause 7.4: Reporting.</li><li>• Update clause 3.4, related to calibration of measuring and testing equipments with relation to ISO/IEC 17025.</li><li>• Bibliography shortened and updated reference to ASTM, ISO 17842, ISO/IEC 17020 and ISO/IEC 17025.</li><li>• Updating scope of the accreditation levels in6 ANNEX A.</li></ul>	26-10-2017



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		<ul style="list-style-type: none"> <li>• Updating the illustration diagram in6 ANNEX B.</li> <li>• Updating clause 7.1 for existing rides in Dubai</li> </ul>	
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## **DUBAI ACCREDITATION DEPARTMENT – DUBAI MUNICIPALITY**

### **1 DEFINITIONS**

#### **1.1 DAC**

Refers to Dubai Accreditation Department of Dubai Municipality.

#### **1.2 Amusement Devices**

Any arrangement of equipment through or on which a guest moves, where the desired effect is primarily achieved by virtue of the guest's self-powered motion or any other system that is not covered by amusement rides, e.g. (tents, climbing walls, trampoline, trampoline court, soft play area,...). Refer to [ANNEX B](#) for classification details.

##### **1.2.1 Simple Amusement Devices**

Any devices used, or intended to be used, that has been permitted for use by persons unaccompanied by adults (i.e. inflatable, trampolines, mobile climbing walls, slides...etc.).

#### **1.3 Amusement Rides**

An arrangement of structural or mechanical elements (or both), which has as its prime function the provision of movement of patrons in some controlled manner such that the patrons are not necessarily required to move themselves to obtain the desired effect.

#### **1.4 Inspection Body (IB)**

Refer to ISO/IEC 17020 definition.

#### **1.5 Initial Approval** (as referred to in BS EN 13814 clause 3.3, ISO 17842 part 1 clause 3.17 and ASTM F2974, Clause 6,7, and 8)

Design and calculation review, verification, inspection and tests executed by the independent inspecting body's before a ride is first made available for public use, either for permanent installations or any relocated installation regardless of time period.

#### **1.6 Independent Inspection** (as referred to "Independent Examination" in the BS EN 13814 or "Periodical Test" in the ISO 17842 under the in-service inspection")

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Procedures and investigations necessary for the independent inspection body (IB) to decide whether the amusement ride/device is in such a condition that it can continue to be operated safely, or whether it requires defects to be remedied immediately or within a specified time.

### **1.7 Installation Inspection** (as referred to “Examination” in the BS EN 13814 or ASTM F2974 “Clause 8 & Clause 10”)

Amusement rides/devices may be subjected to a special inspection after each new installation. Refer to clause [3.5.2](#) for more details.

### **1.8 Exceptional Inspection** (as referred to “Examination” in the BS EN 13814, ASTM F2974 “Clause 9 and 10”)

Inspection after modification, repair, incident or accident conducted by the independent inspecting body.

### **1.9 Daily Inspection** (as referred to in BS EN 13814 clause 3.17, ISO 17842 part 2 clause 4.3.5.2 or ASTM F770, Clause 4)

An inspection performed daily by qualified and competent staff under the responsibility of the Controller (ride controller) before the amusement ride/ device is acceptable for operating.

### **1.10 Log Book** (as referred to in BS EN 13814 clause 6.6.1.2 or ISO 17842 part 1 clause 5.7)

Book or file containing all the necessary information about the use and history of any amusement ride/ device, including its design, initial approval, annual inspections / any incident records

### **1.11 Modification**

Any alteration to the hardware or software of an amusement ride/ device, including the introduction of a new safety critical component or the substitution of a safety critical component, which results in a deviation from the design specification.

### **1.12 Repair**

Repair of abnormal condition parts to an acceptable condition that does not result in a deviation from the original design specification.

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### **1.13 Safety Critical Component**

Any type of component of an amusement ride/ device on which the safety of the passengers and staff are depending upon.

### **1.14 Major Modification or Repair**

It is defined as the repair or modification that is carried out on a safety critical component of an amusement ride/device.

### **1.15 Passenger Unit**

Part or parts of an amusement ride/ device for where the passenger is intended to ride.

### **1.16 Platform**

Horizontal or slightly inclined surface raised above the level of an adjacent area.

### **1.17 Operator**

Person appointed by the controller to be in control of the operation of an amusement ride/ device at all times when it is intended to be available for the passengers.

### **1.18 Controller (ride controller)**

Person or organization having overall control of an amusement ride/ device. This may be either an individual or corporate body owning an amusement ride/ device or the concessionaire or lessee who has been granted control of the device, by the owner, for a specific period.

### **1.19 Inspection Certificate**

Certificates issued by IBs shall indicate compliance of amusement ride/ device with safety requirements and its fitness for use.

### **1.20 Inspection Report**

Inspection reports issued by IBs with sufficient detailed record of the inspection and its results along with checklist and recommendations.

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### **1.21 Finding**

Any observation raised during inspection that will not have direct influence on the final decision for issuing the certificate.

### **1.22 Critical finding**

Any finding related to any safety critical component.

### **1.23 Conformity Decal**

Conformity decal is defined as a sticker (refer to clause [1.1](#) for the decal requirements).

### **1.24 Passenger/ Patron/ User/ Guest**

A paying or a non paying person, that takes position in the passenger Unit for the duration of the ride cycle time.

### **1.25 Client**

The originator of the request and responsible for payment of service rendered.

### **1.26 Work Order**

A Work Order is given by the IB's to their Inspector, this document will provide information with the identifiable code that is unique to the Work Order, type and name of amusement ride/ device, site location and access details, an onsite client contact details and general instructions including but not limited to the standard to be followed and the scope inspection.

### **1.27 Nondestructive Testing (NDT)**

Nondestructive testing (NDT) is a wide group of analysis techniques used in science and industry to evaluate the properties of a material, component or system without causing damage.

### **1.28 Abnormal (abnormality/ abnormalities)**

Not a normal situation or outcome, a deviation from the original recognized state.

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### **1.29 Shall**

The word “shall” is used when stating a mandatory requirement.

### **1.30 Should**

The word “Should” is used when the statement is advisory.

### **1.31 Competence**

Competence can be defined as having the correct combination of educational qualification, training, skills, experience and knowledge that a person has and their ability to apply them to perform a task safely.

### **1.32 Trampoline (e.g. BS EN 13219)**

A strong, taut sheet, usually of canvas, attached with springs to a metal frame and used for gymnastic springing and tumbling, it is often called Gymnastic trampoline.

### **1.33 Trampoline Court (e.g. ASTM 2970)**

- 2 A defined area comprising one or more institutional trampolines or a series of institutional trampolines (trampoline intended for use in a commercial or institutional facility), typically has angles and in some cases the angle can be more than 45 degrees.**

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### **2 SCOPE**

#### **2.1 Inspection Services:**

This document is applicable to Inspection Bodies that are inspecting the Fairground and Amusement Park Rides/Devices (mobile, temporary and permanently installed machinery, structures, tents...etc.). This document, including its Annexes – where applicable, is used as accreditation criteria along with ISO 17020 standard and other relevant inspection standards.

In general the main standards that defines the frame work (scope of inspection) are BS EN 13814, ISO 17842 part 1 or ASTM F2974, the others will be ride/device specific in addition to the main standards as referenced in ANNEX B.

#### **2.2 Exclusion:**

Excluded from this document requirements are fixed grandstands, construction site installations, scaffolding, removable agricultural machinery, trackless train and coin-operated kiddie ride that is intended for the use by the small kids and does not require operator supervision.

#### **2.3 Amusement Rides/Devices:**

This document specifies the minimum steps required to ensure the fulfillment of the international standard requirements for Initial Approval and Independent Inspection.

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### **3 GENERAL REQUIREMENTS**

- 3.1** The IB shall conform to requirements stipulated in DAC-REQ-06.
- 3.2** Reports issued shall clearly indicate findings and critical findings, along with the corrective action taken. Document review, depending on the scope of work as defined by the standard e.g. BS EN 13814, ISO 17842 (Design documentation, design or operation risk assessment...etc.), ASTM F2291 (Clause 5.7) or ASTM F2974, is a normal part of the inspection. IBs shall refer to the operator's/manufacturer's serial number/document number and revision date of the document checked, in the Inspection Certificate/Report.
- 3.3** The inspection body shall ensure the availability of unique identification of the ride/device under inspection (In case of unavailability the number shall be provided by the IB and to be permanently affixed to the ride/ device).
- 3.4** It is the responsibility of the inspector to verify the availability of operator(s), technician(s) and maintenance team qualification and training records (ASTM F770 clause 8 gives training requirements) and the daily & periodical check is carried out as per the manufacturer recommendations in addition to what is listed in the Log Book requirements (e.g. clause 6.6 of the BS EN 13814, ISO 17842 part 1 clause 5.7.2).
- 3.5** Due to the variety of the installations for the same type amusement rides/devices (such as the frequent changing of location for temporary rides/ devices), a risk assessment issued by the controller shall be verified and evaluated by IB's.
- 3.6** The IB Shall ensure that underground footing foundation and/or attachment(s) to a structure has been adequately verified (in however format).

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- 3.7** IB shall verify and record closing of all raised critical findings prior issuing the certificate<sup>1</sup>.
- 3.8** Inspection Certificate/Report shall indicate the type of ride/device, as per [ANNEX B](#), and the capacity, as appropriate.
- 3.9** IBs shall provide a conformity Decal to be fixed on amusement ride/ devices after found in compliance with the relevant standard requirement. The sticker shall include the following information:
- IB's logo;
  - Name of IB;
  - Certificate reference number;
  - Contact number;
  - Name of inspector;
  - Inspection reference standard;
  - Type of inspection;
  - Ride/ device serial number; and,
  - Date of inspection and expiry date.

The conformity sticker shall have a minimum height of 8.5cm and width of 5.5cm, expired sticker shall be removed and new sticker shall be placed in such a way to be visible to all users.

### **3.10 Subcontracting**

Subcontracting can only be done at the same level of accreditation or the subsequent level; that is, accredited IBs for Level 1 and 2 can subcontract part, or all, of its inspection activities to accredited IBs of the same level, or the subsequent level, depending on the intended/required scope of activity.

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<sup>1</sup> It is the responsibility of rides/devices owner to close all those findings within the defined time frame set by DAC accredited IB and fulfill the requirement of the standard as per the Accredited IB's report.



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Where the inspection body subcontract certain specialized activities for part, or all, of its inspection activities, there must be identifiable knowledgeable member(s) of the main IB's management personnel knowledgeable to be able to:

- a) Define the problem adequately to enable the subcontractor to offer appropriate services, personnel and equipment;
- b) Choose an appropriate subcontractor and to assess its technical competence (e.g. methods, personnel and facilities);
- c) Interpret the results supplied by the subcontractor and relate these results properly to the service originally requested or problem originally defined.

The IB shall either be accredited for NDT or subcontract it to an accredited IB, by an internationally recognized accreditation body.

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### **4 SPECIFIC CRITERIA OF COMPETENCE**

#### **4.1 Requirements for Technical Competence of Staff**

IBs shall assess the competence of all categories of staff involved in the inspection process. Any inspection staff under training shall not be allowed to perform inspection activities independently under any circumstances. The IB's shall maintain training records, experience information records for all inspection staff. All inspection staff must be correctly skilled and authorized for the type of work engaged.

Whereby the staff of the IB's carries out in-house calibration of measuring and test equipment, training records of these staff, qualifications certificates and experience information shall be stored together with details of who is authorized to perform specific calibrations.

Only IBs accredited for level 1, 2 and 3 are allowed to provide inspection services for both Amusement Rides and Amusement Devices. Only IBs level 1 are allowed to carry out any design review, inspection of manufacturing process and initial Inspection related scopes. IBs of level 4 are only allowed to provide independent inspection services for the Amusement Devices, unless otherwise stated in their scope of accreditation.

The minimum number of the technical staff and their educational background, qualifications, competence and experience, for each level, is stipulated in [ANNEX A](#).

#### **4.2 Training and Development**

The IB shall ensure that all inspectors (for all Levels and disciplines) shall have the following training, as minimum:

- a) Safe conduct of the inspectors' duties, in particular safe practices applicable to amusement ride/ devices.
- b) Risk assessment
- c) Knowledge of applicable statutory requirements
- d) Codes of practice and standards.
- e) Instruction on any risk involved.

And the following specific training and development schemes shall be assured for inspectors, relating to their discipline, as minimum:

And for the specific training and development schemes, inspectors shall be trained for following, each relating to their discipline:



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- a) Civil Engineering / Structural Parts Assessment Examination/ Inspection
- b) Electrical Examination/ Inspection
- c) Mechanical / Hydraulic / Pneumatic Examination/ Inspection
- d) Control Systems
- e) Knowledge on the amusement ride/ devices design / calculation

### **4.3 Level of Supervision and Requirements for Technical Support**

Following are the classified levels of supervision that must be exerted by the inspection bodies and circumstances under which they shall be exerted:

- Occasional (on Senior Inspectors)

If the senior inspector is the highest level of competence in the IB, then he/ she is responsible for holding sufficient records that review of the work has been done as per this requirement either by him/ her or by any of his/ her peers. Direct contact, to review work with Supervisor, shall be done at least annually. Technical support from persons qualified to peer senior inspector to be readily available.

- Frequent (on inspectors)

Direct daily contact with Supervisor at least weekly. Technical support from persons qualified to senior inspector.

- Constant (on inspectors under-training)

Direct daily contact with Supervisor. Technical support from persons qualified to senior inspector or inspector to be readily available.

### **4.4 Requirements for Site Work**

Preparation for Site work:

- Prior to going to site, the Inspection Body must ensure the following:
- All needed Personnel Protective Equipment that ensure safety of personnel on site are taken to site;
- Critical test equipment must be checked prior to leaving secure storage before inspection;
- Calibration of test equipment has been completed if required;
- A Work Order is issued to each Inspector and any other staff member attending site; and,

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- Suitable and sufficient risk assessment covering the Inspection bodies activities.
- The Inspection Body shall allocate inspection activities based from the work program for each inspector in the form of Work Orders. Work Orders to be used by inspectors on site shall contain the following information as minimum:
- Identifiable number traceable to the client request/ contract;
- Type of the equipment and related information about Safety Critical Component to be inspected;
- Site Location (site map is recommended to be provided);
- Instructions for inspections; and,
- Contact person on behalf of the IB's client.
- Upon arriving at any inspection site, there shall also be an obligation from the IB for the inspector to enquire the following information:
- Information about previous inspections, where no previous records exists the Inspection body shall proceed with a design review, inspection of manufacturing process and initial Inspection.

Equipment availability:

The IB shall have ready access to the following testing facilities/equipment, as minimum:

- Acceleration and velocity measuring equipment (travelling accelerations);
- Air pressure measuring equipment;
- Torque measuring, micrometer, vernier caliper;
- Appropriate torch for visual inspection;
- Measuring tape/ruler; and,
- Electrical Installation Testing/ Measuring Equipment.

Some of these instruments may be provided by the controller or by the maker. The IB has always to check the suitability of them in relation to the test to be carried out, the calibration and always to indicate in the report (owner, maker, type and calibration expiry date of the equipment). The personnel using these instruments shall give evidence of training and of the necessary qualification.

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In any case, calibration of measuring and testing equipment shall be internationally traceable, through accredited calibration laboratories in accordance with ISO/IEC 17025.

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### **4.5 Inspection Methods and Procedures**

#### **3.5.1 Initial Approval (IB level I)**

As referred earlier in the document, BS EN 13814, ISO 17842 part 1 & 3 or ASTM 2974 generally defines the required scope of work/inspection while other standards, specific to the ride/device, shall be followed in conjunction with those mentioned here. Initial approval as defined in the said standard is compulsory in all parts/steps (refer to 6.5.2 of BS EN13814 or clause 4 of ISO 17842 part 3 or clauses 6, 7 & 8 of ASTM 2974 for details).

The initial approval of amusement rides and/or devices shall generally comprise of three steps i.e. design review (e.g. see 6.5.2.2, of BSEN 13814, clause 4 of ISO 17842 part 3 and clauses 6 of ASTM F2974), inspection of manufacturing process (e.g. see 6.5.2.3 of BSEN 13814, ISO 17842 part 3 clause 4.1.3 or clause 7 of ASTM 2974) & initial inspection (e.g. see 6.5.2.4 of BSEN 13814, ISO 17842 part 3 clause 4.1.3.3 or clause 8 of ASTM 2974).

The IB shall, where practically possible, conduct all steps of initial approval at the manufacturer facility and prior to shipping the ride to the intended installation site.

Inflatable, trampolines (simple device), XD cinema (simulators, or arcade games, activated by action of patrons or VR “Virtual reality”–), soft play area, paddle boat, bumper boat, dry slides, splash water park intended for children less than 10 years old and overall structure height no more than 2 meter in total height from the ground level, bungee trampoline and ejection bungees are excluded from the design review requirements and the inspection of manufacturing process. However, initial inspection still needs to be carried out and independent inspection against the drawing. Certain exclusions are based on the product certification from the country of origin from an accredited CAB.

The result of the initial approval shall be in a form of one complete report with subsequent three individual reports that reflect each step i.e. design review, inspection of manufacturing process and initial inspection. This shall, as far as practically possible, be completed prior the inspection in the installation site (Independent Inspection).

In case the design of a completely identical ride has been previously reviewed by the same IB, the design review scope for the new ride can be reduced to verifying the design basis (design standards, local law and load assumptions) and comparing the design documents for the new ride for compliance to the already reviewed documents. New set of design review documentation shall be issued. This applies only when no copyrights/personal rights are being violated (in general the manufacturer should have contracted the design review for the existing ride and shall allow to use it for the new ride).

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### **3.5.2 Independent Inspection**

All Amusement Rides/*Devices* required for usage, together with all ancillary parts (lighting, audio, video, platforms, fencing... etc.), shall have an Independent Inspection (i.e. as referred in the standard BS EN 13814 clause 7.7, ISO 17842 part 3 clause 4.2 or ASTM 2974), at intervals specified below, by accredited IBs, taking into accounts the followings:

- In the case of changing of location, generally an Independent Inspection is required for the Amusement Rides/Devices, excluding the Simple Devices, provided that all the Initial Approval records are available with the ride/ device.
- Should the Amusement Rides/Devices have been standing in the usual location and not used for a period of 60 continuous days, from the closure, an Independent Inspection shall be conducted.

In any case, the inspection intervals shall be shortened in time when necessary due to modification, repair, safety concerns or the soundness of the amusement rides/ devices, the relevant department shall be notified.

- In order to ensure the fulfillment of the standard requirement at the new installation site, an installation inspection (eg. as defined in EN 13814, 7.7.2, or ASTM 2974) may be carried out only by the same accredited independent inspection body, which initially produced the certificate and related reports, instead of the independent inspection if the location of the ride/device is changed. The newly issued certificate shall only be valid till the original expiry date of the previous complete/full independent inspection reports and related certificate. Same applies for the re-inspection after 60 days out of service rides/devices, if the certificate still valid. New conformity Decal is not required.

### **3.5.3 Specific requirements**

If an inspection started by *IB*, and report was issued, or if the inspection could not be successfully completed, or a certificate was revoked or cancelled the findings and critical findings shall be followed by the same inspection body, otherwise a complete full inspection is required to re-evaluate the condition of the ride.

### **3.5.4 Visual Inspection**

In most inspection categories a full visual inspection which will include exposing the chosen critical components and carrying out a visual inspection, with disassembly where required by the log book or operating manual; where irregularities are suspected disassembly may be required.

Any visual inspection may need to be supplemented by non-destructive testing at the discretion of the independent inspection body, refer to the relevant standard for more information on visual inspection requirements. In any case visual inspection shall be

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part of the independent inspection not substituting it (e.g. as referred to in BS EN13814, clause 7.7.1.3, ISO 17842 part 3 clause 4.2.2 or ASTM 2974).

### **3.5.5 Exceptional Inspection**

Inspection after Major Repair and Modification

After major Repair and Modification to any Amusement Ride/Device, or after occurrence of major incident, the repaired or modified part(s) shall be classed as new, and requiring an Initial Approval and an Independent Inspection.

Inspection after Regular Repair

The Amusement Ride/Device does not require re-inspection in the case of regular repair.

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- ISO/IEC 17020: Conformity assessment – Requirements for the operation of various types of bodies performing inspection.
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories.
- Local order No. 11/2003, Administrative order No. 30/2007.
- DAC-REQ-06: General Accreditation Requirements for Inspection Bodies.
- BS EN 13814: Fairground and Amusement Park Machinery and Structures – Safety.
- ASTM F24 committee issued standards (example from the core standards: F2291, F1193, F770 & F2794).
- ISO 17842 part 1, 2 and 3.

19 of 25 **Accreditation Requirements for Inspection Bodies working in the field of Fairground Amusement Equipment**  
DAC-REQ-16 Issue 2, Rev. 2, October, 2017



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### **6 ANNEX A**

#### Minimum Number of Permanent Staff for Each Level

IB Level	Electrical	Structural (Civil)	Mechanical	Experience (for each principle)	Scope of Inspection	Total Number of Minimum Staff
	Number of staff	Number of staff	Number of staff		Type of Inspection	
1	Degree	Degree	Degree	10 years: 5 of which in the Amusement Rides inspection, with at least 3 years in design review in the Amusement Rides	✓ Amusement Rides/Devices	6
	2	2	2		<ul style="list-style-type: none"><li>Initial Approval</li><li>Independent Inspection</li><li>Exceptional Inspection for Major Repair and Modification</li></ul>	
2	Degree	Degree	Degree	6 years: 3 of which in the Amusement Rides inspection	✓ Amusement Rides/Devices	2
	1	1 of any discipline			<ul style="list-style-type: none"><li>Independent Inspection</li></ul>	
3	Degree	Degree	Degree	4 years: 2 of which in amusement rides inspection.	✓ Amusement Rides/Devices (Excluding complex, vertical movement, block zones, looping and pendulum rides and rides with acceleration more than 3G)	2
	1	1 of any discipline			<ul style="list-style-type: none"><li>Independent Inspection</li></ul>	
4	Diploma	Diploma	Diploma	2 years: 1 of which in amusement devices inspection.	✓ Amusement Devices	1
	1 of any discipline				<ul style="list-style-type: none"><li>Independent Inspection</li></ul>	

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### **7 ANNEX B**

Below are Amusement Rides and Devices Categories according to the level of IBs:

Rides/Devices (IBs Level I & Level II):

S.N.	Title	Inclusion
1.	Amusement Rides/Devices	Acceleration: Area 1,2,3,4 & 5 for example: <ul style="list-style-type: none"><li>• BS EN 13814: clause 6.1.6.2.4.1.</li><li>• ASTM F2137 &amp; ASTM F2291, Clause 6.</li><li>• ISO 17842, clause 5.1.7.2.2.</li></ul>

Rides/Devices (IBs Level III):

S.N.	Title	Inclusion
1.	Amusement Rides/Devices (Excluding complex, vertical movement, block zones, looping and pendulum rides and rides with acceleration more than 3G)	Acceleration: Area 1,2 & 3 for example: <ul style="list-style-type: none"><li>• BS EN 13814: clause 6.1.6.2.4.1.</li><li>• ASTM F2137 &amp; ASTM F2291, Clause 6.</li><li>• ISO 17842, clause 5.1.7.2.2.</li></ul>

#### **Devices (IBs Level IV):**

S.N.	Title	Inclusion
1.	Water attractions	<i>Water slides (Excluding complex water slides such as the slides with block zones).</i>  <i>Example standards may include BS EN 1069, ASTM F2376, ASTM F2461</i>

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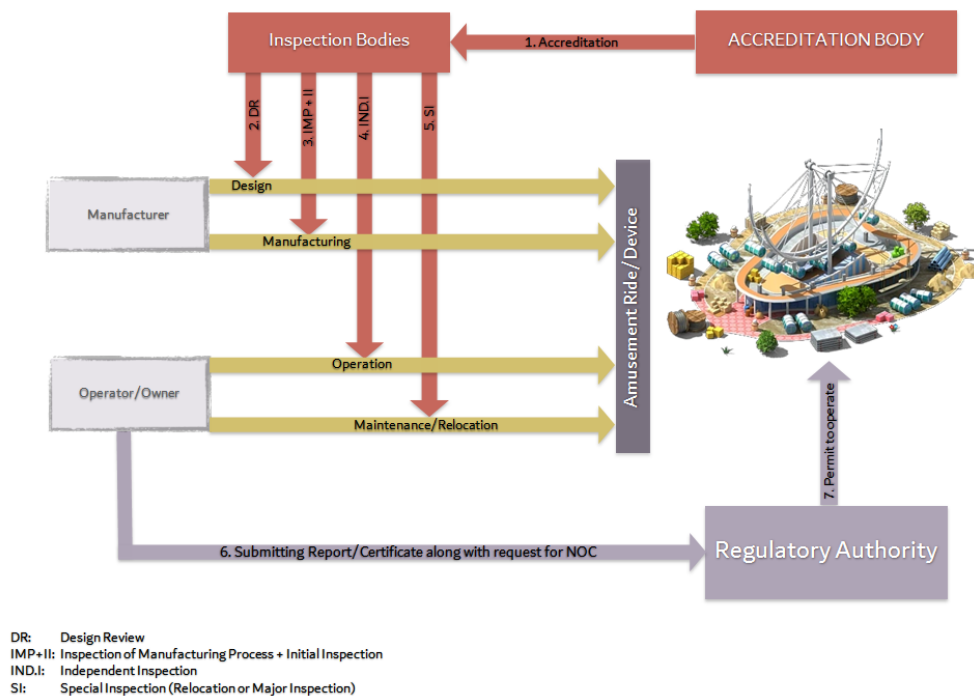
<b>2.</b>	Thrill devices	<i>Go-Carts, Bumper Car...etc</i> <i>Example standards may include ASTM F2007</i>
<b>3.</b>	Slow moving devices	<i>Bumper Boats (generally battery operated) and Paddle Boats.</i> <i>Example standards may include ASTM F2460</i>
<b>4.</b>	Walk-through attractions	<i>Haunted houses, Inverted rooms, mirror mazes, simulators and XD Cinemas</i>
<b>5.</b>	Extreme sports	<i>Different fixed climbing walls like free climbing, lead climbing...etc.</i> <i>Bungee Trampolines and trampoline courts/parks.</i> <i>Example standards may include ASTM F2970</i>
<b>6.</b>	Fixed rope courses	<i>All fixed rope courses and tree top adventures, rope courses, zip lines...etc.</i> <i>Example standards may include BS EN 15567 part 1 &amp;2 and ASTM F2959</i>
<b>7.</b>	Inflatable amusement attractions.	<i>All inflatable attractions that is used on land and in water like inflatable water parks, except the ones used for decoration purposes and not intended for public use.</i> <i>Example standards may include ASTM 2374, BS EN 14960, BS EN 15649 (Parts 1:7)</i>
<b>8.</b>	Mobile climbing wall  Mobile rope courses	<i>Both manual and auto belay mobile climbing wall (most of the time it is trailer mounted)</i> <i>Include all adventure mobile rope courses from different sizes –Example standards may include BS EN 15567 part 1 &amp;2 and ASTM F2959</i>
<b>9.</b>	Trampoline	<i>Single and multiple beds trampoline</i> <i>Example standards may include BS EN 13219 &amp; ASTM F2970</i>
<b>10.</b>	Slides	<i>Only dry slides (any size)</i>

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### 8 ANNEX C

Inspection Bodies Responsibilities towards Amusement Rides/Devices in the Emirate of Dubai:

Example illustration of ride/device lifecycle and distribution of responsibilities



DAC Accredited IBs shall inspect all amusement rides/devices, existing or coming into the city of Dubai (fixed or traveling), according to the internationally recognized standard (e.g. BS EN 13814, ISO 17842 or ASTM Committee F24).

#### 8.1 Existing rides:

The following processes/considerations are mandatory for amusement rides/devices existing in Dubai market before 1st of January 2015 except where excluded by this document:

- DAC Accredited IBs can issue inspection certificates/reports for existing rides/devices (fixed or traveling/moving) without full record/certificates of Initial Approval issued by DAC Accredited IB, in the Emirate of Dubai, until 30th June 2017. Subsequent to 30th of June 2017, and in general, DAC

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accredited IB's can no longer inspect the rides/devices where no Initial Approval is present by DAC Accredited IB or it could not be completed till the set date. Below are two situations:

- a. Complex rides with vertical movement, block zones, looping and pendulum rides and rides with acceleration more than 3G has to have full initial approval in place from DAC accredited IB prior further inspection process.
  - b. Non-complex rides without vertical movement, block zones, looping & pendulum rides and rides with acceleration less than 3G may be subjected to initial inspection followed by independent inspection with shorter inspection intervals (i.e. 6 month inspection and full NDT on yearly basis) only (no design review or inspection of manufacturing process is required in this case) subject to accepted case evaluation.
- b) In this case, DAC Accredited IBs shall start with the Initial Approval alongside the Independent Inspection. DAC Accredited IBs shall also issue an upgrade/mitigation list, with a defined time frame to ensure a continuous upgrade process, for those rides/devices that are not fulfilling the requirement of the standard (e.g. BS EN 13814, ISO 17842 or ASTM F2974). The IB reserves the right to exclusively verify corrective actions taken for those findings raised by them in the upgrade/mitigation list, unless otherwise decided by DAC and the Public Health and Safety Department (PHSD) of Dubai Municipality, after being notified by the operators. In this case Initial inspection shall be conducted prior the independent examination.
- c) If the result of the Initial Approval alongside the independent inspection shows a major/severe incompliance with the standard requirements (e.g. BS EN 13814, ISO 17842 or ASTM F2974), and it cannot be resolved or mitigated, the report may be submitted to PHSD for their further procedure.
- d) DAC Accredited IBs are not required to carry the Inspection of Manufacturing Process for rides/devices that are already installed (Before 1st January 2015); for the purpose of issuing Initial Approval record/certificate.

### **8.2 Newly installed rides:**

DAC Accredited IBs shall verify that newly installed rides/devices (installed after the 1st of January 2015) have Initial Approval Certificate, issued by DAC Accredited IBs, before conducting any further inspections, except where excluded by this document (2.2 Exclusion). No grace period is given in this case.

### **8.3 Independent Inspection Intervals:**

Independent Inspection certificate intervals of amusement rides/devices operating in the Emirates of Dubai, as per local order No. 11/ 2003 and Administrative Order No. 30/2007 – Public Health and Community Safety in the Emirate of Dubai, shall not exceed 12 months starting from the closure of all critical findings in the report.

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The rectification period shall be clearly mentioned in the report, and shall not exceed 30 days for the non critical findings and 60 days for the critical findings, from the date of issuance of the inspection report.

Inspection report(s) should be submitted to the ride/device owner/operator within a period not exceeding one week from the last inspection date.

### **8.4 Reporting:**

Accredited IBs shall report to the Dubai Accreditation Department (DAC) on a monthly basis (within the 1st week of every month) the inspection which was carried out in this field. The report shall include (but not limited to):

- 1- Client details,
- 2- Equipment details, including its serial number,
- 3- Inspection result,
- 4- Inspection report/certificate number and validity period, and
- 5- Inspector(s) details.

### **8.5 Log Book:**

DAC Accredited IBs shall also verify that Log Book (as defined in clause 6.6 of the BS EN 13814 or ISO 17842 clause 5.7) is updated, maintained and kept readily available with the ride/device intended for every independent inspection.

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