

The image features a blue roller coaster track against a clear blue sky. In the upper left, there is a white rounded rectangle containing the text 'ADIPS' in large, bold, blue letters, with 'Amusement Device Inspection Procedures Scheme' in smaller black text below it. Below this, a blue horizontal bar contains the text 'Safety Inspection Regulation for Fairs and Amusement Parks' in white.

**ADIPS**

Amusement Device Inspection Procedures Scheme

Safety Inspection Regulation  
for Fairs and Amusement Parks

# **IB Conference**

## **Annual In Service Inspection**

# ***Annual In-Service Inspection***



*A review of practice, standards and compliance issues*

# ***Session Aims***



## Aim:-

- To provide an overview of the administrative aspects of annual in-service inspection and highlight particular issues

## Reason for the Session:

- ADIPS has reviewed a number of devices where the paperwork is considered below expected standard
- HSE are likely to be focussing on quality improvements across the ADIPS system
- Paperwork part of the inspection process is a key feature

# ***Session Structure***



- To review best practice for reviewing controllers information
- To set out ADIPS guidance on the checking of controllers information
- To focus on some specific areas of paperwork checks
- Electrical Reporting
- Defects Notification (2010)

# ***ADIPS Compliancy Finding***



- ❑ Over last two years ADIPS reviews indicate potential areas of concern relating to the checking of controllers documentation
- ❑ Controllers are not always thorough with their paperwork
- ❑ DOCS issued where controller paperwork inadequate/ incorrect/ poor
- ❑ Controller Information may be not considered important or checks too cursory

# ***Inspection Requirements***

## ***Paperwork Checks***



### ADIPS Guidance

- ❑ A check of the controllers paperwork is one of the four principal areas of inspection

*(Examination/ functional test and reporting are the other elements)*

- ❑ Also covered in HSG175 and some elements in HSE guidance notes

# ***Inspection Requirements***

## ***Paperwork Checks***



Generally the “must haves” within the controllers operations manual are:-

- Previous inspection reports on the Device
- A Design Review or an MRA
- Details of Safety Critical Components
- An NDT Schedule
- In addition the Operations Manual should contain other relevant information  
*(Device History/ Accidents & Incidents/ Maintenance etc)*
- Register of Modifications

***(Full guidance on the “operations manual” is detailed in HSG175)***

# ***Inspection Requirements***

## ***Paperwork Checks***



- ❑ Controllers do not structure their information as per some of the guidance
- ❑ The requirements are presented differently in different documents
- ❑ It may be difficult to find
- ❑ It may be there in title but inadequate as a document

So what should an AIB do?

# ***Inspection Requirements***

## ***Paperwork Checks***



- Notify the controller ahead of time everything you will need to see
- Be as thorough and insistent on paperwork as any other part of the examination
- Ensure that paperwork deficiencies are reported on
- Be rigorous

# ***Inspection Requirements***

## ***Paperwork in the field***



- ❑ Lack of Paperwork found on rides  
*(It is noted that a spot visit is different from an inspection but.....!)*
  
- ❑ Paperwork for Design Review is often only Structural/Mechanical and rarely refer to other disciplines when they ought to
  
- ❑ MRA – often not satisfactory to the extent that some documents whilst titled an MRA are not actually an MRA

# ***Inspection Requirements***

## ***Paperwork in the field***



- ❑ Operations Manuals Poor and do not include information required  
*(A manufacturers OM is not on its own enough! Guidance sets out additional elements that should be included, even if not physically in a manual)*
- ❑ Lack of detail on safety critical components  
(poor/absent schedules)
- ❑ NDT schedules poorly presented and without reference to the Safety Critical Components or any Design Review

# ***Inspection Requirements***

## ***Paperwork Checks***



- ❑ There are too many areas to go through here today
- ❑ ADIPS are considering developing a standardised paperwork checklists for use by IBs
- ❑ Focus on NDT/ Design Review/ MRA elements for today

# ***Inspection Requirements***

## **Paperwork - NDT Schedules**



The **controller of a device** should have a written schedule of inspection for NDT that specifies:-

- the frequency of in-service NDT
- the type of NDT to be used
- the location and defect acceptance criteria

# ***Inspection Requirements***

## **Paperwork - NDT Schedules**



A **suitably qualified mechanical/structural engineer**  
should have identified the:

- Parts of the device that require testing
- Frequency of inspection
- Extent of dismantling required to gain access

# ***Inspection Requirements***

## **Paperwork - NDT Schedules**



An **NDT practitioner** should have specified the:

- appropriate test methods
- techniques to be used.

# ***Inspection Requirements***

## **Paperwork - NDT Schedules**



***NDT Practitioners should not be specifying the:***

- *Parts of the device that require testing; or*
- *The frequency of inspection*

*These parts of the schedules must be formulated by a*

***suitably qualified mechanical/structural engineer***

# ***Inspection Requirements***

## ***Paperwork – DR/MRA***



- ❑ Either a Design review or a Maturity Assessment should be in place
- ❑ The IB is obliged to “confirm” that these documents are in place
- ❑ It is recognised that it is not a quality check on the content but the document should be relevant
- ❑ A piece of paper with the right words at the top and no material content could place the IB at risk

# ***Inspection Requirements***

## ***Paperwork – DR/MRA***

### Pre-Use Inspections

(HSG175 para 135)

For the pre-use inspections for the IB has to:

- CONFIRM they have been carried out
- They are DOCUMENTED in the controllers operations manual



# ***Inspection Requirements***

## ***Paperwork – DR/MRA***



Whatever the document (DR or MRA) an IB needs to also confirm that:

- That the DR/ MRA refers to the device that is being inspected

# ***Inspection Requirements***

## ***Paperwork – MRA***



- ❑ Controllers responsible for compiling the MRA
- ❑ Specific guidance has been given by HSE in HSG 175 and more specifically in a Information Minute on MRAs
- ❑ Also ADIPS guidance refers to certain requirements
- ❑ Most of the notes are aimed at the controllers

# ***Inspection Requirements***

## ***Paperwork – MRA***



- ❑ Reduced risk to an acceptable level is assumed where there is evidence that the design is adequate is based on a number of years of safe operation.
- ❑ A declaration or claim by the controller would be impossible to make if the MRA had little or no supporting documentation.
- ❑ Minimum Requirement is a declaration referring to appropriate evidence that can prove design by maturity

# ***Inspection Requirements***

## ***Paperwork – MRA***



Acceptable evidence is required in an MRA that would enable the Controller to demonstrate:-

- That the ride has an adequate history of safe operation
- This history could be used to indicate that the risk of injury arising from a failure of design is low
- That this low risk is at an acceptable level for that type of ride

# ***Inspection Requirements***

## ***Paperwork – MRA***



- ❑ Not satisfactory to just check a piece of paper is there headed as an MRA
- ❑ It is not an IBs role to review the “quality” of the content but to confirm that an MRA has been carried out and is *appropriate or has relevant content*
- ❑ The HSE are likely to conclude that an IB has not been diligent if they have confirmed that the MRA is in place but that it is obviously not an MRA

# ***Inspection Requirements***

## ***Paperwork – MRA***



An MRA is not an MRA if:-

- The assessment does not make any reference to the proven safe operational history of the ride
- There is no concluding statement that says the device is SAFE

For example:-

- A declaration without reference to an assessment
- An assessment that is only an operational risk assessment
- A risk assessment that has no historical basis

# ***Inspection Requirements***

## ***Paperwork – MRA***



Typically we have found:-

- The MRA is a declaration from the controller with no back up paperwork to prove safety through maturity
  
- The MRA is only part complete
  
- The MRA is not an MRA but some form of operational risk assessment

# ***Inspection Requirements***

## ***Paperwork – MRA***



*Notwithstanding the basic “tick box” requirement, it is recommended as good practice for the IB to:-*

- Confirm that the content would be construed as an MRA
  
- Satisfy themselves that the controller has all the required components in place to form an MRA  
*(See Controllers guidance in HSG175 Appendix 2)*
  
- In any case much of the supporting documentation required for an MRA would be expected to exist within the operations manual*

# ***Inspection Requirements*** ***ELECTRICAL REPORTS***



# ***Inspection Requirements***

## ***ELECTRICAL REPORTS***



- ❑ ADIPS has found during field inspections a number of issues when reviewing controllers documentation
  
- ❑ It is important for IBs to be thorough when issuing the reports

# ***Inspection Requirements***

## ***ELECTRICAL REPORTS***



Typical problems with reports:

- Report is only one page – not valid unless the complete set of forms are attached as instructed
  
- Recommendations are written that indicate defect correction is required before the DOC is valid but are not listed as CAT 1 and the tick box is ticked as “Device is Safe”

# ***Inspection Requirements***

## ***ELECTRICAL REPORTS***



Typical problems with reports:

- ❑ Reports are issued with “Device not Safe” ticked but the DOC is still issued
- ❑ Category 1 defects such as incorrect fuse or breaker sizes being put down under a lower category

# ***DEFECT Reports 2010***



In 2010.....

- Replacement for “UDR” will be made available
- Two Parts:
  - NOTIFICATION of **SERIOUS** DEFECT (NSD)
  - NOTIFICATION of **COMMON** DEFECT (NCD)

# NOTIFICATION OF SERIOUS DEFECT (NSD)



Used by: IB

- May be used if necessary to inform the Controller that the IB has discovered an extremely serious safety related defect
  
- Should outline any actions necessary before continued use
  
- Should also be sent to ADIPS
  
- This will be kept confidential unless there are safety considerations for other devices

# NOTIFICATION OF COMMON DEFECT (NCD)



Used by:        Controller or IB

- ❑ Notifies ADIPS that a defect has been discovered on a device that might be common to other similar devices;
  - ❑ (or devices with similar design elements).
  
- ❑ ADIPS can then inform other Controllers and IBs to check for similar defects

# Questions

