Contact: info@applus.com

Amusement ride Inspection

People across the globe are spending more money nowadays on leisure, increasing the attraction of the population to amusement parks. These facilities must be inspected and tested to guarantee that all of them are being properly maintained complying with the operation standards.

THE Applus+ SOLUTION

Applus+ offers a comprehensive service for amusement rides and water slides, combining its extensive expertise in the core areas of inspection, non-destructive testing and health and safety with the skills and knowledge of other strategic players in the industry.

Our inspection services for amusement park rides and devices support our clients in:

- Evaluating technical and regulatory issues to ensure that the attraction meets all mandatory requirements
- Reducing the potential implications of HSE involvement, as enforcement action may lead to prosecution and, even in the best-case scenario, substantial costs
- Gaining peace of mind through the knowledge that their attraction is not a danger to their workforce or the public
- Identifying potential areas of concern and dealing with them in an organized and effective manner
- Safeguarding the health and safety

Applus+ provides services for all the phases of a project:

Design Phase

- Design review: Structural calculation dossiers, detailed design drawings, technical specifications, testing plan and compliance with local and European standards EAE-11 / EC-3 and BS EN 1069
- Structural modeling: Modeling of the structural set with specific software of structural calculations (SAP2000v15), verifying the appropriateness of the structural design.
- Materials: Analysis of the material certificates
- Review of OandM's as per EN 1069
- Risk assessment
- Slide type classification
- Velocity and acceleration study
- Engineering
    - Instrumentation and quality control of processes
    - Energy efficiency
    - Electrical studies and technical consultancy

Construction Phase

- Supervision and inspection in manufacturing and assembly
- Vendors inspection
- Construction management
- Supervision of construction for structural, electrical and mechanical works
    - QA/QC
    - Material testing
    - Topographical survey
    - Cost control and schedule monitoring
    - Construction supervision and QC at the site
    - H-M-L voltage works supervision
- Tests
    - Conventional NDT
    - Advanced NDT

Commissioning Phase

- Acceptance testing of the entire facility:
    - Control: PLC, trapdoor sensors, valves, flow sensors, E-stops, etc.
    - Hydraulic conditions and water flows
    - Water drainage
    - Ride tests
    - Acceleration and speed measurements
- Fiberglass status
- Valve lockouts
- Review of signages and instructions
- Regulatory inspection technical assistance (RTI)
    - Support for legalization of works

- Diagnosis of facilities and equipment for legalization according to the regulation of serious accidents

Operation Phase

- OandM supervision and inspection
  - Asset integrity condition analysis and inspection
  - Failure analysis and metallurgical studies
  - Software for monitoring inspections
- Ride tests
- Acceleration and speed measurements
- Mechanical predictive tests
- Electrical testing and predictive maintenance
- Electrical technical assistance
- Conventional non-destructive testing (NDT)
- Semi-advanced NDT (In-service inspection)
- Advanced NDT
- Statutory inspection
- Drones Inspection