

HOW TO GET MORE OUT OF YOUR INSPECTIONS

LIVEWIRE AERIAL DESIGN

THE INSPECTOR

It is important when coordinating an annual inspection of an aerial adventure park, zipline, or challenge course to be familiar with the following items. Preparation of these items will ensure that the inspector is properly qualified to conduct a comprehensive, professional, and safe inspection.

Valid Inspector Certification

Their certification must be up to date and compliant with the jurisdiction (State, County, City) that the inspection is being performed. Most jurisdictions in America require specific certifications so be sure to check which one(s) and if there is a specific level associated.

Valid Insurance

Inspection companies are required to carry general liability insurance as part of the certification but it is critical to request specific policy data including identification number, dates, and coverage limits. This data can be provided by requesting a COI (Certificate of Insurance).

Registered in Jurisdiction

Some jurisdictions require inspectors to register prior to an inspection to ensure compliance. Some examples include California, Colorado, and Clark County NV. If your jurisdiction requires registration, make sure to verify a company's status with the jurisdiction prior to committing.

Experience With All Elements

Ask your inspector for a list of site references and their elements to ensure that the inspector is familiar with the elements present on your own site. Provide your inspector with a list of your site's elements as well so that they may verify their expertise and properly prepare for the inspection including providing their own Personal Protection Equipment and inspection tools. It is also beneficial to provide them with previous inspections ahead of time to review.

Access to a Professional Engineer

Not all inspectors have access to a P.E. but it is an added benefit if they are unsure of something during an inspection to be able to consult with an engineer.

THE COURSE INSPECTION

Now that you have decided on an inspector, it is time to prepare for the course inspection. Below are five items that may or may not seem obvious but are guaranteed to help your site have the best inspection possible. These items will address preparation prior to and actions to be taken during the inspection.

Gather The Course Documents

There are many documents that an inspector should evaluate during the inspection so be prepared and gather them ahead of time. These documents include engineering drawings, course manufacturer manuals (operations/maintenance), inspection and maintenance forms, training forms, testing documentation, and equipment certifications (i.e. Head Rush).

Everything Counts

It may seem silly to mention this, but big or small, high or low, every element counts. Create a checklist of all elements onsite to ensure the inspection is comprehensive. If you are not sure if something falls within the inspection scope, consult with the inspector.

Stay With The Inspector

Whether it is the site owner, general manager, lead guide, or the maintenance director, it is critical that a site representative accompanies the inspector for the entirety of the inspection. This provides opportunity for discussion on issues, education on methods of resolution, and general info.

Prepare Safe Access

Take into consideration the accessibility of every component, critical connection, and element to make sure there is a safe means of access for inspection. This may require as little as some light landscaping to create an easy path or as much as renting a man lift. Consult with your inspector prior to any large fees as your inspector may have an alternative method.

NDT May Be Required

Not all sites, elements, or manufacturers require Non-Destructive Testing, but be prepared to accommodate a request for a test of some nature. This is especially relevant for a first time inspection on an old course to verify design load limits or component life (i.e. wire ropes).

THE EQUIPMENT INSPECTION

One of the most tiring and monotonous aspects of an annual inspection is the equipment inspection section where every single piece of equipment and hardware must be individually inspected. Here are a few things that you can do to help the inspector be successful and ensure your equipment receives the attention it deserves.

Gather Everything

This may seem obvious at first but is not always accomplished. It helps a great deal when sites gather all of their equipment and hardware into as few physical locations as logically possible. In addition, gather together all inspection documentation, manufacturer manuals, and recertification documents (i.e. Head Rush) for easy access during inspection.

Clean The Equipment

Often times annual inspections occur in the offseason for sites and may not coincide with scheduled cleanings. To save time and prevent gear from being retired unnecessarily, clean all of the equipment in accordance with manufacturer recommendations. It also smells better!

Know Your Stuff

Being prepared to answer questions about your equipment is key in completing an efficient inspection that keeps as much of your gear in operation as possible. Key items to know: equipment life span, purchase dates, rough cycle counts, use of hardware in systems, and retirement criteria.

Retire It Now

When gathering all of your equipment and hardware, separate out all of the pieces that have failed in the past and follow manufacture instructions for proper disposal. This may include destruction in a specific way, returning to the manufacturer for recycling, or a combination of the two. This will immediately cut down on the amount of equipment pieces for inspection.

Organization

This item hits two areas for equipment. First, make sure that your equipment storage area is well organized, well lit, and properly labeled with tagged out equipment completely separate. Second, is make sure your equipment is individually labeled whether with manufacturer serial numbers or site specific ID's. These must coincide with your documents.

THE OPERATIONAL AUDIT

Before diving in too deep on this one, it is important to acknowledge that many inspectors do not audit operations so this section may not apply to your annual inspection this year. However, LiveWire Aerial Design strongly recommends hosting a third party operations audit to maintain a high level of safe execution. The purpose of an audit is to expose areas of opportunity to elevate your operation. Aspects of the items below may also be requested during an annual inspection.

Staff Operations

The bulk of an operations audit focuses on the every day tasks that staff will complete to ensure a fun and safe guest experience. An auditor will at minimum observe staffing levels, process uniformity across staff, and efficiency of systems. This takes a long time to accomplish well!

Rescues

This section is the area rarely enjoyed by staff but is of utmost importance in terms of preparation. An auditor will ask the site to perform rescues with varying scenarios and issues that occur commonly in the industry. Staff may be asked to perform a full course evacuation, a rescue involving an unconscious guest, a midline zipline rescue over hard to access terrain, or a live shooter scenario. Nothing is outside of the realm of possibility so be prepared!

Maintenance, Inspections, Documentation

In consideration of annual inspections occurring only once a year, it is critical to evaluate a site's ability to adequately inspect and maintain the elements onsite while properly documenting the process. An audit of these areas will dig into the knowledge and skills of your staff as well as the systems in place to support their success via procedure manuals, diagrams, pictures, and videos.

Guest Experience

For this area of an audit, the entire operation and business are evaluated from the perspective of a guest and for the purpose of identifying areas of improvement for guest experience and areas of exposure to risk for the business. Aspects that will be audited are the registration system, check-in process, gear up process, educational session (ground school), transportation, and then finally the fun part of the business.

AFTER THE INSPECTION

Once the inspection is complete, it's time to get down to business to make sure your course addresses all of the requirements and recommendations set forth by the inspector. Below are items to address immediately following the inspection, but do not wait until afterwards to read these because they are important!

Lock Out, Tag Out

If your site received any "Fail" dispositions, then it is critical that you immediately place a tag on the course, element, equipment, or piece of hardware indicating its status and then lock out the item to prevent any access. Failure to do so can result in negligence. To take some of the pressure off the site, the inspector should be completing this step prior to leaving.

Timely Report Delivery

Before the inspector leaves your site, it is important to confirm when you will receive the report. An inspection report should be delivered in a timely fashion to ensure you have the information you need but also that the report is comprehensive. It is advisable to request a summary prior to departure so that you have time to discuss the conclusions and begin resolving any issues.

Make A Plan

Once the inspector leaves, it is time to make a plan to address all of the opportunity areas identified. Make a list of all the element deficiencies, equipment that needs to be replaced, and documentation that may be missing. Prioritize the list and start planning! When you receive the official report, it is critical to read it in full and make sure every item is accounted for.

Execute and Document

Begin executing your plan in accordance with manufacturer requirements and inspector recommendations. It is essential that you document and photograph everything. Provide this evidence to your inspector in the case that they need to modify or update the report.

Submit The Report

Inquire with the governing body with jurisdiction over your site to see if submitting a report is required. If it is, submit the final report with any necessary supporting documents.

QUESTIONS?

It is LiveWire Aerial Design's hope that this document is helpful in providing your site with an easier and higher quality annual inspection than ever before! Maybe something caught your eye and you want to dig into it some more, contact us today! We would love to talk and see how we can help make your business a safe and successful one for years to come. Here is a little bit about what we do and how to contact us.

Who Are We?

LiveWire Aerial Design was founded in October of 2018 by David M. Saenz after many years in the industry and with a strong desire to push the industry forwards in terms of elevating safety and the human experience. Based in Boulder, CO, LiveWire is right at the heart of adventure and prepared to travel around the world to make a difference in every way possible.

What Do We Do?

Our focus is in four areas: Compliance, Consulting, Construction, and Components. Each area of focus consists of many subcategories but at the end of the day, we are here help you in any manner that your business requires. Visit our website (listed below) and read more about what we are doing and schedule a time to talk!

What About Inspections?

Yes we do inspections! It would certainly be ironic if we did not provide this service but we are proud to offer third party inspections and audits to all sites. Schedule your future inspection today with a few simple clicks on our website!

Contact Us Today!

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