



ADVENTURE PRODUCTS

ADVENTURE TRAIL

OPERATIONS, INSPECTIONS,
AND MAINTENANCE MANUAL

Manual 1.13 REV. R2 FIRST PUBLICATION

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TABLE OF CONTENTS

1.0 OVERVIEW	4
2.0 OWNERSHIP	4
2.1 RCI Website	4
2.1.1 Client Portal Details	4
2.2 Personnel	5
2.2.1 Adventure Trail Operator	5
2.2.1.1 Operator Requirements	5
2.2.1.2 Operator Rules and Responsibilities	5
2.2.1.3 Operator Certification	5
2.2.1.4 Operator Recertification	6
2.2.2 Adventure Trail Operator Trainer	8
2.2.2.1 Operator Trainer Requirements	8
2.2.2.2 Operator Trainer Rules and Responsibilities	8
2.2.2.3 Operator Trainer Certification	8
2.2.2.4 Operator Trainer Recertification	9
2.2.3 Adventure Trail Inspector	9
2.2.3.1 Inspector Requirements	9
2.2.3.2 Inspector Rules and Responsibilities	9
2.2.3.3 Inspector Certification	10
2.2.3.3.1 Inspector Certification-Performed by RCI	10
2.2.3.4 Inspector Recertification	10
2.3 Participants	11
2.3.1 Participant Rules and Responsibilities	11
2.3.1.1 Adventure Trail Chaperone Requirements	12
2.3.2 Participant Attire	12
2.3.3 Participant Belongings	12
2.4 Attraction Details	12
2.4.1 Data Plate	12
2.4.2 Attraction Stickers	13
2.4.3 Rules Signs	13
2.4.3.1 Branded Rules Signs	13
2.4.3.2 Translated Rules Signs	13
2.4.4 Entrance Barrier	14
2.5 Inspection Requirements	14
2.5.1 Daily Pre-Use Inspection	14
2.5.2 Quarterly Inspection	14
2.5.3 Annual Inspection and Recertification	14
2.5.3.1 Annual Inspection and Recertification	15
-Performed by RCI	
2.5.3.2 Annual Inspection and Recertification	15
-Performed by RCI Certified Inspector	
2.6 Emergency Action Plan (EAP)	16
2.6.1 Adventure Trail Evacuation	16
2.6.1.1 Adventure Trail Evacuation Procedure	17
2.6.1.2 Adventure Trail Evacuation-Severe Weather	17
2.7 Safety Reports	17
2.7.1 Reportable Events	17
2.7.2 Non-reportable Events	18
2.7.3 Safety Report Filing	18



3.0 OPERATING PROCEDURES	18
3.1 Opening the Adventure Trail	18
3.2 Closing the Adventure Trail	18
3.2 Operations	19
3.3.1 Adventure Trail Staff Numbers	19
3.3.2 Pre-Flight Check	19
3.4 Weather and Elevation	19
3.4.1 Wind	19
3.4.2 Rain	20
3.4.3 Thunderstorms	20
3.4.4 Extreme Cold or Extreme Heat	20
3.4.5 High Altitudes	20
3.5 Participant Assists and Rescues	21
3.5.1 Assisting Participants	21
3.5.1.1 Nervous or Scared Participant	21
3.5.1.2 Approaching Unruly Participants	21
3.5.1.3 Participant Urinates While on the Adventure Trail	21
3.5.2 Participant Rescues	21
3.5.2.1 Medical Emergencies	21
3.5.2.2 Notification of Emergency or Injury	22
4.0 INSPECTION	22
4.1 Daily Pre-Use Inspection	22
4.1.1 Daily Pre-use Inspection Criteria	23
4.2 Quarterly Inspection	23
4.3 Annual Inspection and Recertification	24
4.4 Structural Inspection	25
4.4.1 Bolts and Nuts	25
4.4.1.1 Loose Bolts	25
4.4.1.2 Exposed Threads	25
4.4.2 Base Connections and Footings	26
4.4.3 Steel Splices	26
4.4.4 Welds	26
4.4.5 Adventure Trail Entrance	27
4.4.6 Steel Cables	27
4.4.7 Platforms	27
4.4.8 Elements	27
4.4.8.1 Rope	27
4.4.8.2 Hardware	28
4.4.8.2.1 Eyebolt Connections and Steel Thimbles	28
4.4.8.2.2 Aluminum Ferrule and Ferrule T's	28
4.4.8.2.3 Plastic Poly-fixes	28
4.4.9 Slide	28
4.4.10 Padding	28
4.4.11 Sun Shades	29
5.0 MAINTENANCE	29
5.1 Attraction Maintenance	29
5.1.1 Element Servicing, Repair, and Cleaning	29
5.1.1.1 Element Servicing	29
5.1.1.2 Barrier Netting Repair	30
5.1.1.3 Rope and Netting Cleaning Procedures	30
5.2.2 Paint Repairs	30
5.2.2.1 Temporary Solution	30
5.2.2.2 Permanent Solution (RCI Recommended)	31
5.2 Modifications	31
6.0 REVISIONS	31

1.0 MANUAL OVERVIEW

Adventure Trail is a series of elevated platforms connected by rope bridges and towers that are completely encased in netting. Adventure Trail is a harness-free attraction and the interconnected rope bridges allow participants to choose their own path through the attraction.

2.0 OWNERSHIP

The purpose of this manual is to provide RCI product Owners with the information they need to own and operate an Adventure Trail safely and efficiently. Every RCI Adventure Trail is engineered to increase the level of safety, reduce the staff needed, and raise throughput capacities compared to other similar amusement attractions.

*Note: Although an Adventure Trail looks and feels much like a challenge attraction, it is an amusement attraction and should be managed as such.

This manual is developed to be compliant with the following applicable standards:

- ASTM F2291 Standard Practice for Design of Amusement Rides and Devices
- ASTM F2375 Standard Practice for Design, Manufacture, Installation and Testing of Climbing Nets and Netting/Mesh used in Amusement Rides, Devices, Play Areas and Attractions
- ASTM F1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use
- ASTM F770 Standard Practice for Ownership, Operation, Maintenance, and Inspection of Amusement Rides and Devices

Should there be any inconsistency between the standards and this manual, the terms of the manual shall control. RCI will not provide service, support, or products to any location that is not compliant with this manual.

2.1 RCI WEBSITE

Owners/Operators have access to a Client Portal on the RCI website containing product manuals, instructional videos, supporting documents, products, safety reports, and a number of other useful tools.

2.1.1 CLIENT PORTAL DETAILS

To access the Client Portal:

1. Navigate any browser to <https://rciadventure.odoo.com/client-portal>

2.2 PERSONNEL

2.2.1 ADVENTURE TRAIL OPERATOR

The Adventure Trail must be monitored and operated by certified Operators. An Operator is a certified staff member permitted to oversee daily operations of the attraction. Daily operations of the attraction includes (but may not be limited to) daily opening and closing duties, complying with and enforcing all rules and procedures, daily pre-use inspections, monitoring participant activity, and maintaining safety. All staff involved with the operations and maintenance of an RCI attraction must have a valid and current certification.

2.2.1.1 OPERATOR REQUIREMENTS

In order to be certified as an Operator, individuals:

- Must be 16 years or older to operate. May be subject to local, state or country laws.
- Must be under the maximum weight of 350lbs (158kg).
- Must be at least 42" (1.06m) tall. Operators over the height of 70" (1.78m) should be cautious.
- Must successfully complete all requirements for certification.
- Must follow all rules and be able to perform their duties without restrictions for the safety of all parties involved.
- Must be able to communicate with staff and participants clearly.
- Must be able to assess the difference between a medical emergency and non-emergency incident.
- Must be willing to work at heights of 15' (4.6m) or more for extended periods of time.
- Be capable of bending, stooping, climbing and standing for long periods of time. An Adventure Trail attraction requires physical exertion by the Operator. Those who are not able to easily perform these activities should not operate an Adventure Trail.
- Must behave appropriately towards all participants and guests.
- Must not currently have any of the following conditions: pregnancy, neck, back, joint or heart problems, recent surgery, recent stitches/wound closures or any history of physical conditions that may be aggravated by operating the attraction.

2.2.1.2 OPERATOR RULES AND RESPONSIBILITIES

An Operator is tasked with the day-to-day operations of an Adventure Trail which includes, but is not limited to:

- All opening and closing duties as described in sections 3.1 and 3.2.
- Conducting daily pre-use inspections of the attraction prior to opening the attraction.
- Documenting the daily pre-use inspection on the daily checklist for each operational day.
- Complying with, informing, and enforcing all participant rules of the attraction.
- Monitoring activity on the attraction and immediately stopping any unsafe behavior.
- Maintaining safety of all participants, guests, and other personnel.
- Ensuring that the number of participants on the attraction does not exceed the maximum number of participants as defined on the attraction data plate.

In addition to completing the day to day operations, Operators must comply with the following rules while operating. Failure to observe the following safety instructions could result in serious injury or death and may result in being dismissed from the attraction or property.

OPERATOR RULES AND RESPONSIBILITIES *CONTINUED*

- Operators must follow all posted signs and stickers.
- Operators must constantly monitor all participant activity, enforce all safety rules and stop any behavior before it becomes unsafe. Operators must place themselves in a position to communicate with co-workers and participants at all times. Operators must wear a whistle at all times in order to gain the attention of participants or sound an alarm in the instance of an emergency. It is RCI policy that all Operators be provided with a whistle.
- At a minimum, RCI requires at least one certified Operator to operate the attraction. In certain instances, the size of the attraction may require additional staff. If the site has additional products or attractions, consult the other volumes of the manual for staffing guidelines.
- Cell phones, cameras, and electronics are strictly prohibited from being used or carried on to the attraction.
- Pockets must be empty. No loose objects. Eyeglasses must be tight and secure.
- Operators must wear secure footwear at all times. No bare feet, flip-flops, open-toed or open-heeled (with no strap) shoes. Shoelaces must be tied.
- No gum, food or drinks allowed on the attraction.
- No running, jumping, horseplay while operating.
- No climbing on the outside of the structure or on the barrier net.
- Operating while under the influence of illegal drugs or alcohol is prohibited. Please consider prescription medications and their effects prior to operating. Always consult your healthcare professional prior to operating if you have any questions or concerns.

Operators must be responsible when operating the Adventure Trail! You should be in good health to operate. You know your physical, mental, and emotional conditions. If you suspect your health could be at risk for any reason or you could aggravate a pre-existing condition of any kind, notify the Manager of the attraction and do not operate the attraction. Risks are inherent when operating an Adventure Trail. Failure to observe the safety instructions outlined in this manual could result in serious injury or death. Please be aware of the risks involved with operating. Notify the Manager of the attraction of any injuries on the attraction before leaving the area. In the case of an injury, a Manager must be notified and all parties involved must fill out a Safety Report.

2.2.1.3 OPERATOR CERTIFICATION

Valid Adventure Trail Operator certificates are required for all staff overseeing and conducting daily operation and inspection of the Adventure Trail. All Operators must meet the job requirements listed above in section 2.2.1.1, pass a practical training, and a written test in order to be certified. Operator certification is valid for one year and all Operators must be recertified each year.

2.2.1.3 OPERATOR CERTIFICATION *CONTINUED*

Operators who demonstrate competence in skills, knowledge of policies, procedures, and pass practical and written tests will be awarded an Adventure Trail Operator certificate.

The initial Operator certificate is valid for one year from the date of issue; annual recertification is required as outlined in section 2.2.1.4.

Operator training details:

- All trainees must read through the manual and understand the content.
- Custom attractions or attractions with additional features may require additional training.
- 100% participation is required of all trainees.
- Trainees must demonstrate competence in skills, knowledge of all policies and procedures.
- Trainees must pass a written test after attending 100% of the practical training.
- Cell phones are not permitted during training.
- Trainees must wear appropriate clothes and appropriate footwear.
- Certification will be subject to the Operator Trainer's discretion

Once the practical training has been performed, trainees will be given a written test issued by the Operator Trainer. Trainees who pass both the practical training and the written test will be considered compliant and will be issued an Operator certificate which will be valid for one year. All Operators must be recertified each year.

*Note: Refer to section 2.2.3 to learn more about the Operator Trainer position and certification process.

2.2.1.4 OPERATOR RECERTIFICATION

To verify compliance with the RCI requirements for the safe operation of the attraction, every Adventure Trail Operator must be recertified on an annual basis. In order to be recertified, an Operator must attend a practical training and pass a written test. RCI recommends that at a minimum, the following criteria be tested to establish that the Operator meets the operating requirements, is compliant with this manual, and is qualified for recertification. The recertifying Operator must:

- Meet the job requirements and responsibilities as outlined in sections 2.2.1.1 and 2.2.1.2
- Be capable of operating the attraction as outlined in section 3.0.
- Be capable of inspecting the attraction as outlined in section 4.0.
- Be capable of recommending maintenance, repairs, and replacements as outlined in section 5.0.
- Demonstrate the capability of executing the site-specific Emergency Action Plan as outlined in section 2.6.
- Meet any site-specific requirements or regulations.

2.2.2 ADVENTURE TRAIL OPERATOR TRAINER

Certified Operator Trainers are qualified individuals who are permitted to train and certify Operators. Certified Operator Trainers are also responsible for Operator recertification on an annual basis. Operator Trainers can not train Inspectors. The Operator Trainer certification is valid for three years and must recertify upon certificate expiration. The location is responsible for designating a qualified individual to be the Operator Trainer for the attraction. The location must provide the necessary information to RCI. If the location has other RCI attractions, the requirements for the Operator Trainer may differ. Consult all necessary manuals.

2.2.2.1 OPERATOR TRAINER REQUIREMENTS

In order to be certified as an Operator Trainer, individuals:

- Must be 21 years or older. May be subject to local, state or country laws.
- Must hold a valid Operator certificate.
- Must have operating experience or knowledge of the attraction.
- Must successfully complete all requirements for certification including attending a physical practical training and passing a written test.
- Must exhibit a knowledge of all rules and procedures.
- Must effectively demonstrate competent teaching abilities of all rules and procedures.
- Must be able to communicate with staff and trainees clearly and effectively.

2.2.2.2 OPERATOR RULES AND RESPONSIBILITIES

All Operator Trainers must abide by the rules and responsibilities listed in section 2.2.1.2.

2.2.2.3 OPERATOR TRAINER CERTIFICATION

Valid Operator Trainer certificates are required in order to train and certify Operators. Operator Trainers must meet the job requirements listed above in section 2.2.3.1, pass a practical training and a written test in order to be certified. Operator Trainer certification is valid for three years and all Operator Trainers must be recertified upon certificate expiration.

2.2.2.3 OPERATOR TRAINER CERTIFICATION

Trainees must exhibit a knowledge of all rules and procedures and be able to train and teach new and existing staff. Trainees will also undergo training on how to effectively utilize the online testing system in order to certify staff. Once the practical training has been performed, trainees will be given a written test. Trainees who pass both the practical training and the written test will be considered compliant and will be issued an Operator Trainer certificate which will be valid for three years. All Operator Trainers must be recertified upon certificate expiration. Contact RCI's Training and Inspection Department to get certified as an Operator Trainer.

2.2.2.4 OPERATOR TRAINER RECERTIFICATION

To verify compliance with the RCI requirements for the safe operation of the attraction, every Operator Trainer must be recertified every three years. The site must contact RCI's Training and Inspection Department to renew their certification.

2.2.3 ADVENTURE TRAIL INSPECTOR

Certified Inspectors are qualified individuals who are permitted to complete and submit the annual inspection of the attraction as outlined in section 4.3 of this manual. All Inspectors must be trained by RCI. The Inspector certification is valid for three years and Inspectors must recertify upon certificate expiration. Sites that wish to have a certified Inspector on site can contract RCI to perform this training.

2.2.3.1 INSPECTOR REQUIREMENTS

In order to be certified as an Inspector, individuals:

- Must be 21 years or older. May be subject to local, state or country laws.
- Must successfully complete all requirements for certification including attending a physical practical training and passing a written test.
- Must effectively demonstrate competency in all inspection criteria of the attraction.
- Must demonstrate how to safely secure any cameras, tools, etc. needed to complete the annual inspection.

2.2.3.2 INSPECTOR RULES AND RESPONSIBILITIES

Inspectors are required to follow all attraction rules listed in section 2.3.1. The Inspector is also responsible for completing the following tasks:

- Ordering from RCI the necessary inspection paperwork needed to complete the inspection prior to any attraction certification expiration dates.
- Completing the annual inspection in accordance with the inspection requirements and procedures listed in this manual.
- Blocking access to any parts of the attraction deemed as failed or unsafe and contacting RCI for all replacements.
- Submitting all documents and pictures required upon completion of the annual inspection to RCI in a timely manner prior to any attraction certification expiration dates.

2.2.4.3 INSPECTOR CERTIFICATION

To verify compliance with the RCI requirements for the safe operation of the attraction, every Inspector must be trained and certified by RCI. On site Operator Trainers are not permitted to train Inspectors. Valid Inspector certificates are required in order to complete the required annual inspection of the attraction and safety equipment. Inspectors must meet the job requirements listed above in section 2.2.4.1, pass a practical training and a written test in order to be certified. Inspector certification is valid for three years and all Inspectors must be recertified upon certificate expiration.

2.2.4.3.1 INSPECTOR CERTIFICATION-PERFORMED BY RCI

Sites can contract RCI to conduct Inspector training. All trainees must attend 100% of practical physical training. Trainees will undergo training on how to safely inspect the attraction and how to adequately document and submit the annual inspection. Trainees will also be trained on how to order the necessary paperwork required in order to complete the annual inspection, as well as how to audit their site's operations. Once the practical training has been performed, trainees will be given a written test. Trainees who pass both the practical training and the written test will be considered compliant and will be issued an Inspector certificate which will be valid for three years. All Inspectors must be recertified upon certificate expiration. To schedule this training, contact RCI's Training and Inspection Department.

2.2.4.4 INSPECTOR RECERTIFICATION

To verify compliance with the RCI requirements for the safe operation of the attraction, every Inspector must be recertified every three years. All Inspector recertification training must be conducted by RCI. To schedule this training, contact RCI's Training and Inspection Department.

2.3 PARTICIPANTS

2.3.1 PARTICIPANT RULES AND RESPONSIBILITIES

As stated in section 2.2.1.2, Operators are required to enforce all participant rules to help ensure the safety of all guests. The following information must also be displayed on signage near the Adventure Trail attraction. Participants:

- Must be able to understand and demonstrate knowledge of all safety rules and the Adventure Trail environment to experience the attraction without a responsible chaperone.
- Must be at least 42" (1.06m) tall to participate without a responsible chaperone. RCI requires that any child between the height of 32" (0.81m) and 42" (1.06m) be assisted by a responsible chaperone. Any participants over 70" (1.77m) must use caution.
- Must be under the maximum weight of 350lbs (158kg).
- Must wear secure footwear at all times. No bare feet, flip-flops, open-toed or open-heeled (with no strap) shoes. Shoelaces must be tied.
- Pockets must be empty. No loose objects such as cell phones or cameras. Eyeglasses must be secure. Operators are not responsible for lost or misplaced personal items.
- Cell Phones are not allowed on attraction. Cameras and other electronics are strictly prohibited from being used or carried onto the attraction.
- No gum, food or drinks allowed on the attraction.
- Follow all Operator instructions, posted signs and stickers.
- No climbing on the outside of the structure or on the barrier net.
- Only one participant on a slide at a time and no climbing up the slide.
- No running, jumping, or horseplay. Operators reserve the right to expel participants displaying these behaviors.
- Participating while under the influence of drugs or alcohol is prohibited. Please consider prescription medications and their effects prior to participating. Always consult your healthcare professional prior to participation if you have any questions.
- This attraction is not recommended for guests with the following conditions: pregnancy, neck, back, joint or heart problems, recent surgery, recent stitches/wound closures or any history of physical conditions that may be aggravated by these attractions. People with characteristics that inhibit their ability to follow these rules and the verbal commands of their chaperone or an Operator should not participate.

Participate responsibly when on the Adventure Trail! You should be in good health to participate. You know your physical condition, our Operators do not. If you suspect your health could be at risk for any reason or you could aggravate a pre-existing condition of any kind, do not participate. Risks are inherent when participating on an Adventure Trail. Injuries that can occur, include, but are not limited to bumps, bruises and scrapes. Please be aware of the risks involved with participating. Make the Operator aware of any pre-existing injuries or other conditions before being harnessed. Notify the Manager of the attraction of any injuries on the attraction before leaving the area.

An Adventure Trail requires physical exertion by the participant. Participants must climb, bend, stoop, walk up and down stairs, etc. Those who are not able to easily perform these activities should not attempt. Management reserves the right to refuse anyone access to the attraction if they believe it would be unsafe for them, other guests or the staff.

Failure to observe the preceding safety instructions could result in serious injury or death and may result in participants being dismissed from the attraction or property at the discretion of the Operators and management. In the case of an accident, a Manager must be notified and all parties involved must fill out a Safety Report. All safety reports must be submitted to RCI within seven days of any incident.

2.3.1.1 ADVENTURE TRAIL CHAPERONE REQUIREMENTS

A responsible chaperone should be capable of helping the child navigate through the attraction. RCI recommends that a chaperone be a parent, guardian, or at least above the age of 18. At a minimum the chaperone must:

- Be at least 48" (1.2m) tall.
- Fit all criteria pertaining to the rules
- Must stay within one element distance of the child at all times

2.3.2 PARTICIPANT ATTIRE

As stated in section 2.3.1, participants are required to have appropriate footwear. Bare feet, high heels, flip-flops, open-toed or open-heeled (no heel strap) shoes are not allowed. Owners may want to consider offering shoes to borrow or purchase. Participants should be wearing fully dry clothing and it is recommended that the clothing cover their shoulders and thighs.

2.3.3 PARTICIPANT BELONGINGS

For the safety of participants, personnel, and all guests, participants are not allowed to carry items with them onto the attraction. No loose objects such as cell phones, cameras, wallets, or any other loose items are allowed on the attraction. Pockets must be empty in order to participate on the attraction. Participants should be encouraged to leave personal items somewhere secure on the ground. Owners may want to consider adding lockers, storage bins or cubbies to their facility. Operators are not responsible for any lost or misplaced personal items.

2.4 ATTRACTION DETAILS

There are key components that must be located on or around the attraction in order to be considered compliant with manufacturer requirements. Do not remove any of these components before consulting with RCI. These components include the following:

2.4.1 DATA PLATE

Each attraction has a unique identification number and has a predetermined maximum number of participants who can be on the Adventure Trail at one time. Individual Adventure Trails are assigned a data plate, which must be posted on the entrance to the attraction. The data plate includes:

- Manufacturer information
- Attraction serial number
- Maximum number of participants
- Participant weight limit
- Unaccompanied minimum height
- Maximum height
- Participant speed

2.4.2 ATTRACTION STICKERS

All stickers must be in place on the structure according to manufacturer specifications. Specific sticker locations can be found on the attraction plan set provided by RCI. Stickers may include but are not limited to:

- Column number stickers
- Inspection certification stickers

*Note: Replacement stickers can be ordered from RCI by contacting the Client Success Department. If any of the stickers listed above are not present, they must be replaced and installed in their designated locations.

2.4.3 RULES SIGNS

A participant rules sign is provided with each Adventure Trail attraction. It is mandatory that this sign is posted near the attraction entrance and is oriented in such a way as to make reading easy for all participants. All participants have a duty to read and acknowledge the rules. RCI recommends posting an additional rules sign near the ticket booth if it is located away from the attraction entrance.

*Note: Variations to the rules sign provided to the Owner upon purchase must be requested in writing and approved in writing by RCI.

2.4.3.1 BRANDED RULES SIGNS

In order to stay compliant with manufacturer requirements, the owner/client may create their own signs as long as the instructions listed below are followed:

- All content on the RCI sign that is provided to the owner/client as part of the purchase agreement must be listed verbatim on the new sign that the owner creates.
- The new sign must clearly state what attraction the rules are for.
- The owner/client may choose to use the RCI product logo or simply spell out the product name as it is officially written per brand guidelines.
- Health warning symbols must be present.
- The final design of the new sign must be sent to the RCI Compliance Manager to be kept on file in the

2.4.3.2 TRANSLATED RULES SIGNS

Similar rules apply if an owner/client chooses to have their sign translated in another language other than English.

- The English sign must be present alongside the translated version.
- All content on the RCI sign that is provided to the owner/client as part of the purchase agreement must be listed with the most accurate translation on the new sign that the owner/client creates.
- The product name(s) should not be translated into alternate words or meanings wherever the product name is listed on the sign.
- The new sign must clearly state what attraction the rules are for. The owner/client may choose to use the actual product logo or simply spell out the product name as it is officially written per brand guidelines.
- Health warning symbols must be present

*Note: Owners/clients can access the downloadable version of the Rules Sign Policy on RCI's online Client Portal.

2.4.4 ENTRANCE BARRIER

It is the duty of the Owner/Operators to ensure that appropriate barriers are kept in place for the Adventure Trail. Entrance barriers must meet all design and engineering specifications and have an appropriate padlock to close off the Adventure Trail when not in use and prevent unauthorized access to the attraction. Carabiners may not be used as locks for an entrance barrier.

Barriers may include:

- Perimeter fencing

2.5 INSPECTION REQUIREMENTS

A series of attraction inspections are required as part of owning and operating an Adventure Trail. The following sections summarize the necessary inspections. Additional detailed information about inspections can be found in section 4.0.

2.5.1 DAILY PRE-USE INSPECTION

A daily pre-use inspection of the Adventure Trail attraction must be completed prior to each operational day by a certified Operator before participants are allowed on the attraction. The daily pre-use inspection must be documented each time and records must be kept on file at the site location. RCI recommends rotating the staff completing the daily pre-use Inspection to avoid complacency with inspection requirements. Refer to section 4.1 for more details on how to perform a daily pre-use inspection.

2.5.2 QUARTERLY INSPECTION

A quarterly inspection, conducted by a certified Operator every quarter, includes a more thorough, hands on inspection of the Adventure Trail attraction and all attraction documentation. Quarterly inspections must be documented and records must be kept on file at the site location. Refer to section 4.2 for more details on

2.5.3 ANNUAL INSPECTION AND RECERTIFICATION

Annual inspection and recertification is critical to ensure continued safe operation of any RCI system. An annual inspection of an Adventure Trail is a very thorough and detailed examination of all components of the attraction including, documentation in the form of Daily Checklists, maintenance logs, safety reports, and ensuring all staff is trained and certified. To verify compliance with the RCI requirements for the safe operation of the Adventure Trail, the attraction must be inspected and subsequently recertified on an annual basis. Facilities can contract RCI to perform the annual inspection, or use an RCI certified on site Inspector to perform the annual inspection. Facilities that do not follow one of these processes will be considered non-compliant after their initial certificate to operate has expired.

Maintaining a current attraction certification is mandatory to operate the attraction. RCI will make an effort to notify the Owner of the recertification requirements and to make arrangements, however, the primary responsibility for compliance belongs to the Owner. RCI reserves the right to alert the appropriate authorities if the Adventure Trail is not certified to operate. If the facility is not inspected and recertified annually or the appropriate documentation is not sent to RCI, the facility assumes all liability for structure and safety. Reference sections 2.5.3.1 and 2.5.3.2 for more details on how to meet the annual inspection requirements.

2.5.3.1 ANNUAL INSPECTION AND RECERTIFICATION- PERFORMED BY RCI

Facilities can contract RCI to perform the annual inspection. If a site contracts RCI to complete the annual inspection, an RCI Inspector will inspect the attraction structure, signage, operations, and all documentation associated with the attraction. The RCI Inspector can make recommendations based on the results of the inspection. RCI reserves the right to withhold the certification until proof of repairs/recommendations are submitted and approved. If all requirements are met and the attraction is deemed compliant after inspection, RCI will issue a new certification valid for one year. To schedule the annual inspection, contact RCI's Training and Inspection Department.

2.5.3.2 ANNUAL INSPECTION AND RECERTIFICATION- PERFORMED BY AN RCI CERTIFIED INSPECTOR

If the site has a RCI certified Inspector, the annual inspection can be completed without contracting RCI. The RCI certified Inspector is responsible for ordering and purchasing all necessary inspection materials prior to completing the annual inspection and prior to any attraction certification expiration dates. The RCI certified Inspector is responsible for inspecting the attraction structure, signage, operations, and all documentation associated with the attraction. The RCI certified Inspector is also responsible for submitting all inspection documentation and pictures to RCI according to the instructions listed on the paperwork. Once received, RCI will process the submitted materials and if all inspection requirements are met, RCI will issue a new certification valid for one year. Not including all the required materials may result in a delay in processing time. RCI reserves the right to withhold the certification until proof of repairs/recommendations are submitted and approved.

Refer to section 2.2.4 to learn more about the certification process and requirements for a RCI certified Inspector.

2.6 EMERGENCY ACTION PLAN (EAP)

A documented Emergency Action Plan (EAP) must be on hand in the event of an emergency. Sites are responsible for writing and maintaining an up to date EAP. RCI will not provide an EAP to any location. All staff members should know their role in the EAP and the EAP should be routinely practiced. At a minimum, this document should include evacuation routes, emergency contact numbers, and what to do in a medical or weather-related emergency. Medical emergencies may include but are not limited to heart attack, seizure, asthma attack or unconsciousness. Weather emergencies may include tornado warnings, lightning, earthquakes, or fires. Other situations that warrant the immediate evacuation of participants off of the Adventure Trail should also be included.

Sites must write their own EAP and it must include at a minimum the following:

- Site address
- Site-specific emergency contacts
- Contact information for the nearest police department
- Contact information for the nearest paramedics
- Contact information for the nearest fire department
- Utility company emergency contacts
- Evacuation routes and procedures
- An emergency rescue procedure that has been practiced with local emergency services (Fire, Police, Sheriff or another professional high angle rescue service)
- Weather procedures

*Note: An EAP must be posted near the Adventure Trail attraction or in a binder at the site location.

2.6.1 ADVENTURE TRAIL EVACUATION

In the event of an attraction or facility emergency, an evacuation may be necessary. The documented evacuation plan must be part of the site specific EAP.

Special consideration must be made for the following:

- Location of evacuation meeting spots
- Individuals responsible for initiating the evacuation
- Coordination with outside agencies such as fire, police, paramedics, etc.
- Communication with Operators
- Ingress and Egress for participants, personnel and equipment.

An Adventure Trail must be evacuated, at a minimum, for the following reasons:

- Immediately following an injury or medical emergency requiring emergency assistance
- Facility emergencies such as a fire or weather related emergency.

Following an event such as this, the Adventure Trail must be evacuated and inspected for any hazardous conditions before it can be reopened. This type of evacuation does not have a time limit. Evacuation must be done in a safe, organized, and controlled manner.

It may not be possible to reopen the Adventure Trail if it was damaged during the emergency or subsequent evacuation. It is highly recommended that the Adventure Trail Owner consult with the local fire marshal for a timeline and evacuation routes.

2.6.1.1 ADVENTURE TRAIL EVACUATION PROCEDURE

Facilities must include a specific evacuation procedure according to their site specifics in their EAP. All attraction personnel should be trained and aware of the evacuation procedure. Evacuation procedure must be practiced and documented on an on-going basis for the life of the Adventure Trail. Adventure Trail evacuations should occur using the following instructions in order:

1. Operators will blow their whistle to get participants' attention.
2. Shout, "This is an emergency evacuation! Please proceed to the nearest exit immediately!"
3. Shout, "Do not run!" as needed until the Adventure Trail has been evacuated.
4. Direct participants to the nearest exit or other safe location.
5. Operators should confirm that all participants have exited the attraction before leaving the area.

2.6.1.2 ADVENTURE TRAIL EVACUATION-SEVERE WEATHER

It is highly recommended that severe weather have its own set of documented evacuation criteria and procedures for outdoor Adventure Trails. When evacuating an Adventure Trail due to severe weather, RCI requires that the attraction must be fully evacuated in a timely, but safe manner. Severe weather may include the following situations:

- Winds above 45 mph
- Heavy rain
- Thunderstorms
- Any type of lightning within 10 miles of the attraction
- Extreme cold
- Extreme heat

*Note: Additional information regarding operating during severe weather can be found in section 3.4.

2.7 SAFETY REPORTS

If a reportable event occurs or in the event that an emergency rescue is performed on the Adventure Trail, RCI must be notified within seven days of the occurrence using the RCI safety report available on the RCI website.

The Operators on duty at the time of the incident are not required to file the report with RCI, but a responsible representative of the Adventure Trail or the Owner may file the report. Artifacts from the incident, and photos and video surveillance of an incident must be preserved and submitted to RCI along with the safety report. Depending on the incident and the possible cause, RCI may require additional training at the expense of the Owner.

2.7.1 REPORTABLE EVENTS

Examples of events requiring a safety report to be filed with RCI include the following:
Any injury or illness that required immediate first aid.

- If hospitalization is required, recommended or will be needed at a later date. (Examples: dislocated shoulder, a broken bone, or deep laceration.)
- Near misses or incidents that could have resulted in serious injury or death.
- Emergency rescues.
- Anything required to be reported by any government entity.

2.7.2 NON-REPORTABLE EVENTS

The following events do not require a safety report to be filed with RCI.

- A participant broke a rule and was not subsequently injured.
- Minor injuries as defined by the Manager. (Examples: bloody nose, reopened small cut, minor bruises.)

2.7.3 SAFETY REPORT FILING

RCI must be notified within seven days of the occurrence using the RCI safety report available on the RCI website. Failure to report incidents may result in the revocation of a certificate of operation by RCI or could require additional safety training by RCI at the expense of the Owner. All safety reports must be kept on file at the Adventure Trail location.

To file a safety report:

1. Navigate any browser to <https://rciadventure.com/client-portal/safety-report-form/>
2. Complete the step-by-step form.

3.0 OPERATING PROCEDURES

3.1 OPENING THE ADVENTURE TRAIL

Each operational day, certified Operators are responsible for completing all daily opening duties for the attraction. Before opening the Adventure Trail to the public, the following steps must be completed by a certified Operator:

- Perform a daily pre-use inspection of the attraction and attraction area.
- Document the daily pre-use inspection on the Daily Checklist.
- Ensure the appropriate number of Operators are present and outfitted appropriately.
 - Additional Operators may be required depending on the configuration of the Adventure Trail or depending on the presence of additional products.
- Remove the necessary Adventure Trail entrance barriers.
- Set up queue lines in place if necessary.

The Daily Checklist is documentation that a daily pre-use inspection occurred and was completed by certified Operators. Operators are required to complete a new Daily Checklist prior to each operational day. Copies of all completed Daily Checklists should be kept and logged by the site. An example of the Daily Checklist can be downloaded from the Client Portal on RCI's website. Copies of the Daily Checklists may be requested by RCI at any time including during the Annual Inspection.

3.2 CLOSING THE ADVENTURE TRAIL

At the close of business the Operators are responsible for closing the attraction per the guidelines in this manual. The attraction should be closed and securely locked to prevent any access. To close the Adventure Trail, the following steps must be completed:

- Ensure everyone is safely off the Adventure Trail.
- Secure and lock all entrance gates.
- Return all fences and barriers to their designated locations.

3.3 OPERATIONS

An Operator is tasked with the day-to-day operations of an Adventure Trail. The Adventure Trail must be monitored and operated by certified Operators. Daily operations of the attraction includes (but may not be limited to) daily opening and closing duties, complying with and enforcing all rules and procedures, daily pre-use inspections, monitoring participant activity, and maintaining safety. All staff involved with the operations and maintenance of an RCI attraction must have a valid and current certification.

3.3.1 ADVENTURE TRAIL STAFF NUMBERS

At a minimum, RCI requires at least one certified Operator to operate the attraction. In certain instances, the size of the attraction may require additional staff. Operators must be equipped with a whistle. If radios are used, they must be safely secured to the Operator. Basic belt clips are not acceptable, and the Operator must be able to use the radio without the radio being untethered.

*Note: Locations with additional features or products may require additional Operators. Refer to the other volumes of this manual for staffing requirements.

3.3.2 PRE-FLIGHT CHECK

Before any participant is allowed on the attraction, the Operator must perform a Pre-Flight Check on each and every participant. The Pre-Flight Check includes:

- Recite the participant rules
- Ensure participants pockets are empty
- Explain how the attraction works and where the exits are located

3.4 WEATHER AND ELEVATION

A safe environment for Adventure Trail participants and personnel must be maintained. It may be necessary to close some portions or features of the attraction during certain weather conditions. All Operators must be trained on the weather procedures in the event of severe weather conditions. Severe weather procedures should also be included in the site specific Emergency Action Plan.

*Note: RCI recommends stating the facility's weather policy on its website as well as near the Adventure Trail to inform participants prior to getting on the attraction.

3.4.1 WIND

While an Adventure Trail is designed to withstand very high winds, it is not safe to operate in extreme wind conditions (winds exceeding 45mph). If winds exceed 45 mph during operation, the attraction must be evacuated. In order to operate when winds are above 35mph and below 45mph, follow these instructions:

- Participants must be made aware of the conditions prior to getting on the attraction.
- There can be no flying objects or debris.
- The winds cannot be strong enough to blow participants off elements or platforms.
- Operators must still be able to clearly communicate at all times.

3.4.2 RAIN

An Adventure Trail can be operational during rainy weather. Operation during heavy rain is not recommended. Special considerations in rainy weather are:

- The rain may cause the attraction surfaces to become slippery. Operators must notify all participants to be more cautious on slippery surfaces.

3.4.3 THUNDERSTORMS

An Adventure Trail must not be operated when lightning is within 10 miles of the structure. Operators should regularly check weather sources and radar to monitor approaching severe weather. Hearing thunder indicates that lightning is within 10 miles. When lightning is within 10 miles, all participants must be evacuated immediately and directed to shelter. Participants are allowed back on the attraction 30 minutes after the last thunderclap is heard or when radar indicates that lightning is greater than 10 miles away.

Operators should perform a pre-use inspection of the attraction prior to allowing participants back on the Adventure Trail.

*Note: In the event that someone is injured by a lightning strike, immediate medical attention is necessary. Call 911. For more information about lightning, visit NOAA at www.lightningsafety.noaa.gov

3.4.4 EXTREME COLD OR EXTREME HEAT

An Adventure Trail can be operated in cold weather, however, adhere to the following precautions:

- The attraction can not be operated in the snow.
- Participants must take care when wearing gloves as their grip may not be as strong or secure as usual due to cold temperatures.
- Operators must warn participants of possible icy and slippery conditions while on the attraction. Participants must be encouraged to move at a slower, more cautious pace.

In extreme heat, the following precautions must be observed:

- Pay special attention to participants on days that are above average temperatures. Be aware of the signs of dizziness or dehydration. If someone shows signs of dizziness or dehydration, do not allow them to continue and safely escort them to the nearest exit when they are stable.
- Operators and participants must stay hydrated. Allow personnel and participants to take necessary breaks to get water.
- Operators are encouraged to rotate regularly as to not be stationed in the same spot for extended periods of time.

3.4.5 HIGH ALTITUDES

Operation of the Adventure Trail is not limited by elevation or altitude. However, for attractions located at high altitudes, RCI recommends reminding Operators and participants who may not be acclimated, to be cautious of altitude effects. Operators should be aware of the signs of altitude sickness. If anyone shows signs of altitude sickness, such as headaches, dizziness or vomiting, immediately do the following:

- Direct the participant to the nearest platform.
- Allow them to temporarily sit.
- The Operator can safely bring water up to the participant.
- Do not allow them to continue on the Adventure Trail.
- Escort or direct them to the nearest exit and off the Adventure Trail when they are stable.
- Contact medically trained staff to attend to them.

3.5 PARTICIPANT ASSISTS AND RESCUES

Emergencies may arise on an Adventure Trail and can be sudden and unexpected occurrences that demand immediate action to maintain safety. Not all scenarios may require the execution of the site's Emergency Action Plan. Operators are responsible for determining if a participant simply needs routine assistance while on the attraction or if a participant requires medical attention. Operators must be trained on the site's Emergency Action Plan.

3.5.1 ASSISTING PARTICIPANTS

Some issues can be resolved using the following techniques when assisting participants in certain situations. The attraction Operator must always be aware of all participants and quickly assist if anyone is needing assistance or is simply scared.

3.5.1.1 NERVOUS OR SCARED PARTICIPANT

- The Operator should ask the participant if they need assistance and talk in a calm, reassuring voice.
- Give words of encouragement or ask simple 'yes' or 'no' questions.
- Encourage participants to try an easier element.
- Direct them to the nearest exit if they wish to get off the attraction.

3.5.1.2 APPROACHING UNRULY PARTICIPANTS

- The Operator should inform the participant that they are breaking the rules.
- If the participant disregards the first warning, notify the participant that they must exit the attraction immediately.
- If the participant does not exit the attraction on their own, the Operator should safely escort them off.
- The Operator can call for assistance from management if necessary.

3.5.1.3 PARTICIPANT URINATES WHILE ON THE ADVENTURE TRAIL

- Temporarily close the specific area where the participant urinated.
- Safely escort the participant off the attraction.
- Clean any urine off of the Adventure Trail as soon as possible.

3.5.2 PARTICIPANT RESCUES

3.5.2.1 MEDICAL EMERGENCIES

A medical emergency can be a life-threatening condition. A person who is conscious may still be having a medical emergency. When there is a medical emergency or other immediate danger that prevents a participant from exiting the Adventure Trail in a normal manner, it is necessary to carry out the site's documented Emergency Action Plan (EAP). It is important that the proper emergency contacts be posted near the attraction and in the EAP. RCI recommends that each site consult their local emergency services teams to prepare a rescue procedure before an emergency occurs and to practice the procedure on a routine basis.

*Note: Operators should know their limitations before attempting to lift participants who are much larger than they are.

3.5.2.2 NOTIFICATION OF EMERGENCY OR INJURY

If a reportable injury occurs or in the event that an emergency rescue is performed on an Adventure Trail, RCI must be notified within seven days of the occurrence. A reportable injury may be defined as an injury that requires medical attention. Failure to do so may result in the revocation of your attraction, certificate of operation by RCI, or could require additional safety training by RCI at the cost of the Owner. Refer to section 2.7 for instructions on how to file a safety report with RCI.

4.0 INSPECTION

Routine inspection is essential for the safe function of an Adventure Trail. This includes a daily pre-use inspection, a detailed quarterly inspection, and an annual inspection with recertification.

*Note: Inspection of the Adventure Trail structure and components requires working at height on the elements and platforms. Be sure to follow OSHA and local guidelines for working at height.



4.1 DAILY PRE-USE AND INSPECTION

A daily pre-use inspection of the Adventure Trail must be completed each operational day by a certified Operator before participants are allowed on the attraction. Only certified Operators are qualified to complete the daily pre-use inspection. The daily pre-use inspection is a visual and tactile inspection of the attraction structure to ensure that the attraction is safe to use. It must be documented on a site-specific daily checklist and kept on file at the facility. The daily pre-use inspection could take anywhere from 30 minutes to an hour or more depending on the size of the Adventure Trail and the number of Operators conducting the inspection. The location should account for the time it takes to complete the daily pre-use inspection when scheduling staff.

There should always be more than one certified Operator on-site during opening inspections to assist in the event of an emergency.

The daily pre-use inspection includes the attraction structure and attraction area. The entire attraction must be cycled by an Operator, meaning that each element, platform, and incline (and slide, if present) must be crossed and inspected, and any additional features on the attraction must be tested. Any element that is deemed unsafe must be closed off and documented on the daily checklist including the location of where the issue was found, and a Manager should be notified.

All daily inspection checklists must be retained in a binder that is easily accessible to the Operators performing the inspection. These checklists should be reviewed by a Manager on a daily basis to ensure that any issues are addressed in a timely manner. All past daily inspection checklists must be kept on site and retained. Copies of these daily checklists may be requested by RCI at any time including during the Annual Inspection.

*Note: The Daily Checklist can be downloaded from the Client Portal on the RCI website.

4.1.1 DAILY PRE-USE INSPECTION CRITERIA

Per ASTM F770, Adventure Trail Owners are required to have site-specific inspection criteria. To aid in the development of said criteria, RCI recommends that the following components, at minimum, be inspected and documented on a daily basis. For sites with custom features or components, there will be additional items that must be inspected on a daily basis. Moreover, sites with multiple features should consult the other volumes of the manual to find the inspection criteria for each of those components.

RCI requires that the following be inspected and documented on a daily basis:

- Date of pre-use inspection
- Manager on-site
- Operators on-site, including a record of who completed the Daily Checklist
- Operating conditions
 - Temperature (if attraction is located outdoors)
 - Wind Speed (if attraction is located outdoors)
 - Other factors (rain, snow, etc.)
- Type of structure being inspected, if multiple structures are on site
- Adventure Trail opening steps
 - Entrance barriers removed
 - Safety rules posted and visible
- Functionality check of the attraction by a certified Operator, meaning that all features on the attraction must be inspected and tested.
- Structural inspection per section 4.4
- Adventure Trail closing steps
 - Entrance locked and all entrance barriers returned to designated location
 - Any incidents documented and completed safety reports filed
 - Any maintenance or repairs on the attraction documented

*Note: Refer to section 4.4 for detailed inspection criteria for Adventure Trail attraction structure. The Daily Checklist can be downloaded from the Client Portal on the RCI website.

4.2 QUARTERLY INSPECTION

When an Adventure Trail attraction is open and operational, a quarterly inspection is required. A quarterly inspection, conducted by a certified Operator or RCI certified Inspector each quarter, includes a more thorough inspection of the attraction and all attraction documentation. This inspection must be documented on a quarterly inspection checklist. All quarterly inspection checklists must be retained in a binder that is easily accessible to the Operators performing the inspection. Copies of these quarterly inspection checklists may be requested by RCI at any time including during the Annual Inspection.

In addition to the inspection of the attraction structure, all documentation for the quarter must be reviewed including:

- Verifying all personnel of the attraction have a current and valid certification.
- Daily inspection checklists for each operational day must be completed and filed
- Emergency Action Plan and training logs must be up to date

*Note: The quarterly inspection checklist can be downloaded from the Client Portal on the RCI website.

4.3 ANNUAL INSPECTION AND RECERTIFICATION

An annual inspection of an Adventure Trail is a very thorough and detailed examination of all components of the attraction, including the attraction structure and all attraction documentation. Following the commissioning inspection, RCI will issue a certificate to operate for each RCI attraction that has been inspected and determined to be in compliance with all requirements and as a result, safe to operate.

The initial certificate to operate is valid for one year from the date of issue. To verify compliance with the RCI requirements for the safe operation of the Adventure Trail, the attraction must be inspected and subsequently recertified on an annual basis. The annual inspection must be performed by a RCI certified Inspector. During the use of an Adventure Trail, components will become worn and items will need routine maintenance. It is the responsibility of the certified Inspector to locate any potential issues and start a plan for the continued safety of all personnel and participants.

Maintaining a current attraction certification is mandatory to operate the attraction. RCI will make an effort to notify the Owner of the recertification requirements and to make arrangements, however, the primary responsibility for compliance belongs to the Owner. RCI reserves the right to refuse the sale of replacement parts to non-compliant locations and reserves the right to alert the appropriate authorities if the Adventure Trail is not certified to operate. If the facility is not inspected and recertified annually or the appropriate documentation is not sent to RCI on an annual basis, the facility assumes all liability for structure and safety of all participants and personnel.

Facilities can contract RCI to perform the annual inspection or have an RCI certified on site Inspector perform the annual inspection. Facilities that do not follow one of these processes will be considered non-compliant after their initial certificate to operate has expired. Reference section 2.5.3 for more details on how to meet the annual inspection requirements.

The annual inspection involves, at minimum, the following criteria:

- Inspecting the attraction structures to ensure they are safe to operate according to the inspection guidelines in this manual. Refer to section 4.4 for structural inspection requirements.
 - a. Any issues or recommendations found during the annual inspection must be corrected immediately. RCI may require that proof of correction be submitted to RCI prior to issuing a new certificate to operate.
- Inspecting and documenting any attraction structure modifications.
 - a. This includes any new layouts, additions, etc.
- Inspecting all attraction signage according to the guidelines in this manual. Refer to section 2.4 for signage requirements.
- Verifying that any maintenance records and quarterly inspections are documented and up to date.
- Auditing all other attraction documentation and verifying all the following are valid and up to date:
 - a. All personnel of the attraction must have a current and valid certification on file. Any personnel that do not have a valid certificate must attend a training and be certified by a RCI certified Operator Trainer prior to operating.
 - b. Daily inspection checklists for each operational day must be completed and filed.
 - c. Emergency Action Plans and Emergency Action Plan training logs.
 - d. Any Safety Reports must be submitted to RCI and on file at the location.

*Note: Sites with additional attractions should consult the other volumes of the manual to find the inspection criteria for each of those components.

During the annual inspection, the RCI certified Inspector will document all of the specifics listed above, as well as all attraction layout specifics, and take all necessary inspection pictures to log the inspection. All inspection documentation will be kept on file for each year the annual inspection is completed. The RCI Inspector can make recommendations based on the results of the inspection. RCI reserves the right to withhold the certification until proof of repairs/recommendations are submitted and approved. If all requirements are met and the attraction is deemed compliant after inspection, RCI will issue a new certification valid for one year.



WARNING

An annual inspection and recertification is critical to ensure continued safe operation of any RCI attraction. RCI reserves the right to refuse the sale of replacement parts to non-compliant locations and alert local authorities if necessary.

4.4 STRUCTURAL INSPECTION

All components of the Adventure Trail attraction must be inspected by certified Operators prior to opening each day. The entire attraction must be cycled by an Operator, meaning that each element must be crossed and any additional features on the attraction must be inspected. This inspection must be documented on the Daily Inspection Checklist.

4.4.1 BOLTS AND NUTS

Most structural steel connections on an Adventure Trail use A325 bolts. All bolts must have at least one full thread exposed beyond the accompanying nut. Only with RCI Engineering approval and signature, may this standard be altered. Bolts are to be tight and the Anco® nut locking pin, if present, is to be engaged in at least one complete thread of the bolt.

4.4.1.1 LOOSE BOLTS

When 1/3 or less of the bolts in a single connection are found to be loose, repair can be completed by simply tightening. When more than 1/3 of the bolts in a single connection are found to be loose, repair can only be completed by replacing all of the bolts in the connection with new bolts and nuts. Replace each bolt individually before moving on to the next bolt. Do not remove all bolts at once. If this occurs, contact the RCI Client Success Department immediately. RCI may request that proof of repair be submitted.

4.4.1.2 EXPOSED THREADS

In order to prevent injury there must not be any locations where participants can come into contact with exposed bolt threads.

Exposed threads may be mitigated by:

- Installation of a cap nut.
- Reversal of the bolt (must be replaced with a new bolt and nut).

*Note: Contact the RCI Client Success Department prior to reversing any bolts on the attraction. RCI will need to grant permission and may require that proof of the modification be submitted.

4.4.2 BASE CONNECTIONS AND FOOTING

A base plate is a flat supporting plate or frame at the base of a column, designed to distribute the column's weight over a greater area and provide increased stability. Base plates should be inspected for the following:

- All base plate connections should be flush and tight.
- The anchor bolt does not spin when the nut is tightened.
- No cracks on the base plates or in the foundation around the base plate.
- No cracks, rust, corrosion, or damage to any of the base plate welds.
- No damage to the paint.
- No gaps between the base plate and the ground that exceed $\frac{1}{4}$ ". Grout is needed if gaps between the base plate and ground exceed $\frac{1}{4}$ ". RCI requires the use of a 5000 psi non-shrink grout for this repair.

A footing is part of a structure that is in direct contact with soil and transmits load into it. If footings are present, they must be inspected for the following:

- There are to be no cracks in the foundation around the footings.
- No cracking on the footing stemming from underneath the base plate.
- All base plate connections to footers must be present and tight. Loose nuts found at base connections to footers may be tightened as long as the following remains true:
 - No crevasses are found in the concrete.
 - The anchor bolt does not spin when the nut is tightened.
- No gaps between the base plate and the footer that exceed $\frac{1}{4}$ ". Grout is needed if gaps between the base plate and concrete exceed $\frac{1}{4}$ ". RCI requires the use of a 5000 psi non-shrink grout for this repair.

4.4.3 STEEL SPLICES

Steel splice plates are found where sections of the Adventure Trail come together. Steel splice plates must be inspected for the following:

- Steel splices must be flush and tight. There must be no gaps between steel plates.
- All bolts and nuts are present and secure. The Anco® nut locking pin must be present and engaged in at least one complete thread of the bolt.
- No rust or corrosion, or any damage to the paint.

4.4.4 WELDS

Almost all welds on the Adventure Trail are fused perpendicular intersecting plates of steel. Inspect all welds for the following:

- Verify that all welds look similar to one another.
- Any broken, cracked, or flaking rust welds are causes to immediately close the attraction until an RCI Engineer has had an opportunity to review and provide a repair procedure. RCI may require that a NDT inspection be performed. After the repair procedure has been provided to the location, RCI will require proof to be documented and submitted before granting permission to open the attraction. Once the repair procedure has been completed and approved the Adventure Trail can be reopened.
- All welds should be coated in the approved course paint. Welds should always be the first priority when repairing paint over the Adventure Trail's service life.

*Note: Contact the RCI Client Success Department for any questions or concerns about welds on the attraction.

4.4.5 ADVENTURE TRAIL ENTRANCE

The Adventure Trail entrance must be inspected prior to each operational day.

- Ensure that the Adventure Trail is capable of being securely locked when closed.

Inspect the attraction and ensure that all necessary information signs and stickers are present and legible.

These signs and stickers include:

- Data plates
- Rules signs
- Attraction stickers

4.4.6 STEEL CABLES

All steel cables should be inspected for the following:

- All connections should be tight and secure.
- There should be no broken wire cables.
- There should be no rust or corrosion.
- No cracking found on the ferrules or thimbles.
- All cables should be evenly loaded.

4.4.7 PLATFORMS

All platforms should be inspected for the following:

- All connections should be tight and secure.
- Platforms should not have any damaged components or any sharp spots.
- Ensure platforms are free of any debris or trip hazards.
- All guardrails should be secure and free of any sharp spots. The guardrails should not have an opening large enough for anyone to fit through.

4.4.8 ELEMENTS

During the daily pre-use inspection, an Operator must inspect all elements on the attraction. The entire attraction must be cycled by an Operator, meaning that each element must be crossed. No hardware or fastening devices should be accessible from within the play zones.

4.4.8.1 ROPE

All rope must be inspected for the following:

- No severed strands, holes, abrasions, or excessive wear.
- No gaps between the cargo net and perimeter frame.
- No discoloration, excessive sagging or stretching.
- No sharp spots.
- All connections must be tight and secure. There should be no gaps in any section of netting that would allow any participant to fit through (even when stretched).
- All hardware must be present, secure, and pass inspection.

Rescue Tape® can be used on ropes that have wear, but still pass inspection criteria. Rescue Tape® is a self fusing silicone tape that is safe to use on the rope elements. The element in question should be monitored daily for any changes or progression in wear to ensure participant safety. Refer to section 5.1.1.1 for further details on how to use Rescue Tape®.

If any section of the attraction does not pass inspection, the section should be immediately closed off to participant access. Contact the RCI Client Success Department for further information.

4.4.8.2 HARDWARE

4.4.8.2.1 EYEBOLT CONNECTIONS AND STEEL THIMBLES

Eyebolts are used to connect elements to the platforms.

- Ensure all eyebolts are flush and tight.
- Ensure eyebolts have no cracks or excessive wear.
- Ensure eyebolts are free of rust and pitting.
- Replacement of an eyebolt must occur for wearing exceeding 10% of the eyebolts' original diameter.

Thimbles are metal grooved rings inserted into a loop of rope to prevent wear.

- Ensure thimbles have no cracks or excessive wear.
- Ensure thimbles are free of rust and pitting.
- Ensure thimbles are free of any sharp spots.

4.4.8.2.2 ALUMINUM FERRULE AND FERRULE T'S

A ferrule is a metal ring or cap placed around the rope for reinforcement or to compress pieces of rope together. Ferrule T's are found where two rope lengths intersect and connect.

- Screws should be present and tight.
- All surfaces should be smooth. If the surface is sharp, it can be filed down or covered with Rescue® Tape.
- No looseness as this may cause excessive wear to the rope.
- No cracking.

4.4.8.2.3 PLASTIC POLY-FIXES

Poly-fixes are plastic fixings and can be found on some of the rope elements.

- All screws should be present and tight.
- All surfaces should be smooth. If the surface is sharp, it can be covered with Rescue® Tape.
- No looseness as this may cause excessive wear to the combi-rope.
- No cracking.

4.4.9 SLIDE

If the attraction is equipped with a slide, the slide must be inspected. All slides must be installed as specified in the plan set, including height, slope, path, hardware, and all landing zones. The slide should not contain any damaged components or sharp spots within the participant's reach. All hardware must be present and all connections should be tight and secure.

4.4.10 PADDING

RCI may have included padding with the Adventure Trail or may have required that padding be added by the Owner. If padding is required, it must be present for the Adventure Trail to operate.

- The padding should have no excessive wear such as rips, holes, or damage that may cause harm to a participant.
- Inspect the padding to ensure that it is securely attached.

*Note: If padding is in need of repair, contact the RCI Client Success Department for further instructions.

4.4.11 SUN SHADES

Sun shades are optional additions on outdoor Adventure Trails. If sun shades are present, all hardware should be tightly mounted and installed according to the manufacturer's recommendations and their attachments must be inspected daily. A variety of bolts, screws, welds, and other types of fasteners must be checked for looseness or any signs of failure. If a sun shade has become unattached at any place, any elements under the shade must be shut down until it can be repaired. Verify there are no rips or tears in the material.

*Note: Please refer to sun shade manufacturer information on inspecting, maintaining, and removing the product during harsh weather conditions.

5.0 MAINTENANCE

Adventure Trail maintenance activities include, but are not limited to cleaning the attraction, repairing any damaged paint, tightening and replacing fasteners as needed, and maintaining the condition of the netting. Environmental and operational factors heavily affect the wear and subsequent lifespan of the Adventure Trail parts. The need to replace wearable parts or perform maintenance is often best determined by inspecting the structure on a regular basis. Unusual sounds and degraded performance are indicators that parts need to be replaced. Follow all operational instructions to avoid unnecessary damage to the Adventure Trail. The Adventure Trail must be immediately shut down if any large-scale repairs are required. Contact RCI immediately for any repairs or modifications.

5.1 ATTRACTION MAINTENANCE

5.1.1 ELEMENT SERVICING, REPAIR, AND CLEANING

5.1.1.1 ELEMENT SERVICING

The most common type of maintenance needed on elements will be tightening loose connections. Any loose connections found on the elements must be tightened immediately. This can be completed with a wrench. Ensure that no participants are on or under the attraction while doing any maintenance or repairs on elements. Any tools brought onto the attraction must be securely connected to prevent dropping anything at height. Examples of loose connections may be found on:

- Ferrule T's
- Poly-fixes
- Eyebolts
- Quick links
- Element bolts
- Turnbuckles
- Steel Cables

Another type of maintenance that may be needed on elements will be the use of Rescue tape®. Rescue Tape® is a self fusing silicone tape that is safe to use on the rope. Do not use any other kind of tape on the attraction. Rescue Tape® can be used to cover sharp spots or worn rope on the elements that are within reach of a participant. The element in question must still pass inspection in order to use Rescue Tape® as a repair. After applying the Rescue Tape® to the location, the Operator or Inspector should ensure that the spot is safe to touch and is not still sharp. Even after applying Rescue Tape®, the element should be monitored daily for any changes or progression in wear to ensure participant safety. Contact the RCI Client Success Department for all product orders.

5.1.1.2 BARRIER NETTING REPAIR

Small tears in the barrier netting can be repaired with a lacing cord. Use the following instructions:

1. Cut the ends of the severed barrier net strands flush with the intact netting and melt with a lighter to prevent any unraveling.
2. Stitch the netting back together using a section of lacing cord. Use clove hitches to secure each node of netting.
3. Secure the ends of the lacing cord strand with double-fisherman's knots.
4. Cut the free ends of the lacing cord so that 1-2mm protrudes from the fisherman's knot.
5. Melt the ends of the lacing cord to prevent unraveling.

Larger sections of the barrier netting can be repaired using the following instructions:

1. Cut the ends of the severed strands flush with the intact netting and melt with a lighter to prevent any unraveling.
2. Cut a replacement section of netting to fit the gap.
3. Stitch the perimeter of the new netting panel with a section of lacing cord. Use Clove hitches at each mesh opening.
4. Secure the ends of the lacing cord with double-fisherman's knots.
5. Cut the free ends of the lacing cord so that 1-2mm protrudes from the fisherman's knot.
6. Melt the ends of the lacing cord to prevent unraveling.

5.1.1.3 ROPE AND NETTING CLEANING PROCEDURES

Elements can be cleaned using a diluted solution of a non harsh detergent, such as Simple Green and rinsed with fresh cold water and a soft bristled brush. The elements should be allowed to dry naturally. Avoid using any chemicals. Attractions located in marine or chlorinated environments should be routinely rinsed with fresh water.

5.1.2 PAINT REPAIRS

RCI recommends that any paint damage be repaired within 48 hours of first steel exposure. The two methods for handling paint repairs are as follows:

5.1.2.1 TEMPORARY SOLUTION

- Use a Scotch pad or 120 grit sandpaper to smooth any rough edges of the blemish.
- Lightly coat with a rust-inhibiting spray primer. The Rust-Oleum color of your choice or a similar product is acceptable for Adventure Trails located in indoor or non-marine environments. Adventure Trails located in marine environments should use ZRC as a rust-inhibiting primer.

*Note: When completely repairing the paint blemish at a later time, any rust-inhibiting spray primer must first be removed with a light sander or wheel before applying the permanent Epoxy primer and paint.

5.1.2.2 PERMANENT SOLUTION (RCI RECOMMENDED)

- Use a Scotch pad or 120 grit sandpaper to smooth any rough edges of the blemish.
- Mix the needed amount of epoxy primer part A and epoxy activator part B.
- Apply epoxy primer mixture to bare, cleaned steel with a fine tip brush. This step must happen within two hours of activating the epoxy primer. Once applied, the epoxy primer mixture will be dry and paint ready in about one hour at 70 °F (21°C).
- Mix the needed amount of epoxy paint part A and epoxy paint activator part B.
- Apply the epoxy paint mixture over the dried epoxy primer mixture.
- Clean and seal all cans of unused primer, activator, and paint for future use.

5.2 MODIFICATIONS

Every modification done to an Adventure Trail must be reviewed and approved by RCI prior to implementation in order to be deemed compliant.

RCI reserves the right to review the modification after implementation to ensure that the work was completed as required for compliance and without compromising the Adventure Trail. Contact the RCI Client Success Department for information on the requirements needed for attraction modifications.

6.0 REVISIONS

Revision history for this document is outlined in the following table:

REV	MODIFIED	APPROVAL	APPROVED
R0	GRACE COLEGROVE	03/11/2022	JORDAN TERPSTRA
R1	GRACE COLEGROVE	06/21/2023	JORDAN TERPSTRA
R2	KYRA DUTKIEWICZ	01/22/2026	JORDAN TERPSTRA

Summary of R0 Changes:

- Initial Publication

Summary of R1 Changes:

- Page 5, Operator age requirement

Summary of R2 Changes:

- Page 30, Referencing paint touch up procedure