

**ATTACHMENT A**  
**NPS IMR Health and Safety Audit Program**  
**Audit Finding Summary Report - Health & Safety**  
**Grand Canyon National Park**

Alphacode	Location	Finding	Audit date	Priority	Subpart	Citation	Finding Description	Recommendation	Hazard Severity
GRCA	GRCA	1	6/11/18 - 6/14/18	2	Cranes/Hoists	29 CFR 1910.179(j)	Crane and hoist inspections were not provided for overhead cranes and auto lifts.	Remove hoists and lifts from service that do not have proper inspections performed. Obtain valid inspections prior to use.	I
GRCA	North Rim Maintenance Bay	2	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(g)(2)(i)	Exposed live conductors were protruding from a conduit where a piece of equipment was removed. The conductors are approximately 8 feet above the ground.	Shut off the circuit powering the conductors. Demo the wire and conduit. Alternatively, cap the wires and enclose inside the conduit to prevent contact.	I
GRCA	GRCA	3	6/11/18 - 6/14/18	2	Powered Industrial Trucks	29 CFR 1910.178(l)	The park could not confirm that a qualified trainer is available or that staff are adequately trained. Daily inspections are not documented.	Develop and implement a written training program for operation of powered industrial trucks. Prohibit uncertified employees from operating forklifts.	I
GRCA	Yavapai Geology Museum	4	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.28(b)	An anchor point is installed in a small rock on a ledge for the purpose of accessing communication equipment on the side of the building. Accessing this anchor point introduces a fall hazard into the canyon.	Install an additional anchor point away from the ledge to approach the existing anchor point using 100% tie-off.	I
GRCA	Science and Resource Warehouse	5	6/11/18 - 6/14/18	2	Bloodborne Pathogens	29 CFR 1910.1030(d)(2)(x)	Employee food items and potentially-infectious water samples were stored together in a refrigerator.	Do not store food or drinks with blood or other potentially infectious materials present. Use separate refrigerators and properly label as food use only or no food allowed.	II
GRCA	North Rim EMS Apparatus Bay	6	6/11/18 - 6/14/18	2	Bloodborne Pathogens	29 CFR 1910.1030(d)(4)(iii)(B)(1)(i)	An open regulated medical waste container with a red bag did not have a lid.	Regulated waste must be stored in containers that are closeable.	II
GRCA	GRCA	7	6/11/18 - 6/14/18	2	Bloodborne Pathogens	RM 50B Section 4.6 29 CFR 1910.1030(c)(1)&(g)(2)	A written BBP program is currently in draft form. Training is not documented.	Finalize the Exposure Control Plan (ECP). Review the plan and conduct training annually. Document annual review and training for staff identified in the exposure determination.	II
GRCA	GRCA	8	6/11/18 - 6/14/18	2	Confined Space Entry (Permit Required)	29 CFR 1910.146(c)	A written Confined Space program is currently in draft form. Training is not documented. Permit-required spaces in the park have not been specifically identified.	Finalize the program. Conduct and document training. Evaluate the park for permit-required confined spaces. Inform exposed employees by posting danger signs or equally effective means.	I
GRCA	GRCA	9	6/11/18 - 6/14/18	2	Control of Hazardous Energy (Lockout/Tagout)	29 CFR 1910.147(c)(7)(i)(A)	A written LOTO program is currently in draft form. Training is not documented.	Finalize the written program. Document training for authorized staff.	I
GRCA	GRCA	10	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(g)(1)	Items are stored directly below switches and breaker panels which obstructed the work space. Locations observed include: South Rim Visitor Center, Emergency Services Center (Operations Center), Blacksmith shop; North Rim Admin Custodial Room, plumbing shop, carpenter shop, Interp offices, old gas station Interp office, community building, furniture storage, Roads bay, auto shop; Desert View Old Visitor Center utility room, Interp office.	Maintain three feet of clearance directly in front of electrical equipment to permit ready and safe operation.	I
GRCA	Emergency Services Center - Station 1 Workshop	11	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.334(a)(2)(ii)	Electrical tape was observed on the flexible cord of a belt sander. The jacket of the cord was damaged underneath the tape.	Remove the tool from service until repairs and tests necessary to make the equipment safe have been made by a qualified electrician. Alternatively, dispose of the tool.	II
GRCA	Old Maintenance Building - Exterior	12	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(7)(iv) 29 CFR 1910.305(b)(2)(i) 29 CFR 1910.334(a)(2)	An outlet plate is damaged and does not cover the box, exposing wiring inside. A flexible extension cord is attached with electrical tape covering damage to its jacket.	Repair the damaged plate. A qualified electrician should inspect and test the outlet to verify its safety. Remove the flexible cord from service and replace as necessary.	II

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GRCA	GRCA	13	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(2) 29 CFR 1910.304(b)(4)	High-amperage appliances are plugged into RPTs (power strips). Each appliance is high-amperage and could potentially overload the RPT. Locations observed include: South Rim Greenhouse nursery; North Rim EMS evidence store room.	Unplug appliances and plug directly into wall outlets. Only plug in low-amperage equipment (i.e., computer equipment) into RPTs. Do not overload circuits by more than 80 percent of their rated capacity.	III
GRCA	GRCA	14	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(b)(1)(ii)	Breaker panels were observed with openings, exposing live parts inside. Locations observed include: North Rim old gas station intern office, generator building; Desert View pump station.	Effectively close the opening in the panel using a compatible material.	I
GRCA	GRCA	15	6/11/18 - 6/14/18	2	Fall Protection	29 CFR 1926.502(k) 29 CFR 192503(a)&(c)	A written Fall Protection program is currently in draft form. Training is not documented.	Finalize the fall protection program and train employees exposed to falls during the course of their work.	I
GRCA	GRCA	16	6/11/18 - 6/14/18	2	General Environmental Controls	29 CFR 1910.147(c)(5)(ii)	Lockout tags were applied to electrical equipment. The tags were not labeled with the identity of the individual who placed the tag. Locations observed include: North Rim waste water treatment plant, EMS SCBA pump room.	Determine the purpose of the tags. Singularly identify the tags or remove if not necessary.	IV
GRCA	GRCA	17	6/11/18 - 6/14/18	2	Hand and Portable Powered Tools	29 CFR 1910.242(a)	Damaged impact tools (i.e., cold chisels) were observed. Mushroomed chisels present a risk of flying chips and glancing blows. Locations observed include: North Rim plumbing shop, carpenter shop, wildland fire engine bay.	Repair or dispose and replace damaged tools. Use the proper tool for the task to reduce damage.	III
GRCA	GRCA	18	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.101(c) CGA Pamphlet P-1 1965	Compressed gas cylinders were located in flammable cabinets in the South Rim Science and Resource warehouse, Wildland Fire hazmat shed, maintenance building garage room, south gate laydown yard and sheds; North Rim treatment area, wildland fire flammable locker; Desert View maintenance hazmat locker. A flammable compressed gas cylinder was stored next to a flammable cabinet in the Science and Resource Warehouse.	Do not store cylinders near combustible substances such as gas, oil, gasoline, or waste. Recommend adequate distance of at least 20 feet. Store cylinders in a well-ventilated area.	II
GRCA	GRCA	19	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.106(a)(29) 29 CFR 1910.106(d)(2) NWCG PMS 442	Plastic household gas cans, jerricans, and obsolete or damaged safety cans were stored with fuel inside. These types of cans are not OSHA-compliant and present a fire hazard. Locations observed include: South Rim Science and Resource warehouse, Emergency Services Center, Ranger storage, Halibase, South gate laydown sheds, Trail Crew.	Discontinue use and dispose of plastic gas cans. Replace cans with OSHA-compliant or DOT-approved safety cans. Metal military-style jerricans may be retrofitted with a self-closing lid that vents.	II
GRCA	GRCA	20	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.106(d)(3)(ii)(a)	A flammable storage cabinet has been modified by drilling holes into the inside of the door [Need Location]. One of the holes is open, impairing the integrity of the door.	Replace the missing screw in the open hole to maintain the integrity of the door.	II
GRCA	GRCA	21	6/11/18 - 6/14/18	2	Hazardous Materials	NFPA 1 (2015) 60.5.1.12	Incompatible materials (e.g., corrosives and flammables) were stored together in flammable storage cabinets and lockers. Locations include: South Rim Headquarters courtyard FMD hazmat locker; North Rim generator building.	Train staff to properly store hazardous materials and separate incompatible materials, such as corrosives and flammables, bleach and ammonia, etc. Refer to a product's SDS for incompatibilities.	II

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Grand Canyon National Park**

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GRCA	GRCA	22	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.101(b) CGA Pamphlet P-1-1965	Compressed gas cylinders were found not secured and stored on the floor or shelving, creating a potential hazard if knocked over. Locations include: South Rim Helibase; North Rim Admin FM office, plumbing shop, roads bay, generator building conex area, wildland fire flammable locker, auto shop.	Securely store cylinders to prevent them from falling over. Store in a vented area.	II
GRCA	South Rim Trail Crew Leather Shop	23	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.253(b)(4)(iii)	Oxygen cylinders were stored within 10 feet of fuels.	Separate oxygen cylinders from fuel gases and combustibles (especially oil and grease) by at least 20 feet or by a fire wall at least 5 feet high and rated one-half hour or greater.	II
GRCA	GRCA	24	6/11/18 - 6/14/18	2	Hearing Conservation	29 CFR 1910.95(c) 29 CFR 1910.95(k)	The park did not provide a written Hearing Conservation program or documentation of noise surveys.	Conduct a noise survey of park areas and operations. Develop a written program. Employees exposed to 85 dBA over an 8-hour time-weighted average (TWA) must be entered into the program. Provide baseline and annual audiograms and annual training to staff entered into the program.	II
GRCA	Emergency Services Center - Boiler Room	25	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.212(a)(1)	A guard was dislodged from one of the motors used to run the pump for the boilers, exposing rotating parts. The guard was located on the floor next to the motor.	Replace the guard. Utilize appropriate energy isolation procedures to ensure the motor does not activate during replacement.	II
GRCA	GRCA	26	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.215(b)(9) 29 CFR 1910.215(a)(4)	Bench grinders were observed with improperly adjusted work rests and tongue guards and with abrasive wheels loaded with non-ferrous metals (i.e., aluminum) and wood. This practice can cause the wheel to overheat and fail (explode). Locations observed include: South Rim maintenance building; North Rim EMS treatment area, wildland fire engine bay; Desert View maintenance shop.	Adjust work rests to within 1/8 inch and tongue guards to within 1/4 inch as the diameter of the wheel diminishes. Resurface clogged and grooved wheels with a dresser tool. Educate staff to only use proper materials that may be used with tools.	II
GRCA	GRCA	27	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.213(d)(1)	Table saws were missing a guard to cover the blade above the table. Locations observed include: North Rim carpenter shop; Desert View maintenance shop.	Remove the saw from service until a guard that covers the saw blade above the table and adjusts to the width of the stock is installed.	II
GRCA	GRCA	28	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.212(a)(3)	Drill presses were not equipped with a guard covering the bit and chuck. Locations observed include: North Rim carpenter shop, EMS treatment area, auto shop; Desert View maintenance shop.	Remove the drill press from service. Equip the press with a telescoping guard or retrofit a shield to cover the bit and chuck during operation.	I
GRCA	GRCA	29	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.212(b)	Fixed machinery (i.e., abrasive wheel grinders, drill presses, saws, etc.) were not properly anchored to prevent walking or moving due to vibration. Locations observed include: North Rim carpenter shop, EMS treatment area, fire cache, auto shop; Desert View maintenance shop.	Properly anchor fixed machinery to prevent walking or moving.	III
GRCA	GRCA	30	6/11/18 - 6/14/18	2	Materials Handling and Storage	29 CFR 1910.176(b)	Materials are stored on surfaces not rated for storage, (e.g., tops of cabinets) and heavy materials are stored overhead, creating hazards. Locations observed include: South Rim Science and Resource warehouse; North Rim plumbing shop; Desert View maintenance office trailer.	Safely and securely store materials so as not to create a hazard.	II

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GRCA	South Gate Laydown Yard	31	6/11/18 - 6/14/18	2	Materials Handling and Storage	29 CFR 1910.176(b) 29 CFR 1910.184(c)	A cinder spreader is suspended from an outdoor gantry using nylon straps that indicate signs of damage and wear. The straps are in the sunlight which is contributing to their degradation.	Select proper sling type for application. For continuous use in direct sunlight, metal slings such as wire rope or chain slings are a better selection. Regularly inspect slings or other hoisting equipment. Document inspections.	I
GRCA	Landfill	32	6/11/18 - 6/14/18	4	Materials Handling and Storage	BMP	A soil pile is not benched or sloped properly to prevent collapse, creating a hazard when a backhoe operator exits a cab or when a truck backs up to the stockpile and a worker is under the pile.	Recommend trucks not be permitted to back up to the stockpile and workers not be permitted to load the bed of their trucks while working next to the stockpile	I
GRCA	GRCA	33	6/11/18 - 6/14/18	2	Materials Handling and Storage	29 CFR 1910.179 ASME/ANSI B30.16	Manual chain hoists (chain falls) were observed. It was not determined during the audit that inspections are conducted. Locations observed include: South Rim generator building, auto shop.	For normal service, visually inspect the chain fall monthly and/or when used. Perform annual documented inspections. Inspections must be conducted by designated persons.	II
GRCA	Desert View Maintenance Area	34	6/11/18 - 6/14/18	4	Materials Handling and Storage	Bobcat O&M Manual	Safety tread on the skid steer tires were worn, creating a recognized hazard.	Remove the skid steer from service until tires are replaced and the equipment passes inspection. Inspect equipment daily prior to use.	II
GRCA	North Rim Auto Shop	35	6/11/18 - 6/14/18	2	Medical and First Aid	29 CFR 1910.151(c) ANSI/ISEA Z358.1	A wet battery charging setup was observed. No 15-minute eyewash is available.	Provide 15 minutes of continuous flushing eye wash station in areas with the potential for exposure to highly injurious corrosive chemicals (i.e., strong acids/bases).	I
GRCA	GRCA	36	6/11/18 - 6/14/18	2	Personal Protective Equipment	29 CFR 1910.132(a)	Hard hats were observed to be past the manufacturer's expiration date. Locations observed include: Emergency Services Center; South Gate laydown yard and shed; South Rim WWTP conex box.	Dispose of expired personal protective equipment (PPE), including hard hats, and replace as necessary. Follow manufacturer's recommendations.	I
GRCA	GRCA	37	6/11/18 - 6/14/18	2	Personal Protective Equipment	29 CFR 1910.134(h)	N95 filtering facepiece respirators and cartridges were found improperly stored. Non-NIOSH approved dust masks were observed. Locations observed include: South Rim Maintenance area building, Greenhouse Nature Plant Nursery, WWT maintenance shed, FMD hazmat lockers; North Rim carpenter shop paint room, roads bay, campground kiosk; Desert View maintenance shop, watchtower storage.	Properly maintain and store respirators in a sanitary condition. Dispose of filtering facepiece respirators after one 8-hour shift or once they become unsanitary. Use only filtering-facepiece respirators that are approved for use by NIOSH.	IV
GRCA	GRCA	38	6/11/18 - 6/14/18	2	Personal Protective Equipment	29 CFR 1910.132(a)	Hearing protection was stored in an unsanitary condition. Locations observed include: South Rim WWT; South Rim Auto Shop.	Properly store hearing protection in a sanitary condition.	III
GRCA	GRCA	39	6/11/18 - 6/14/18	2	Personal Protective Equipment	29 CFR 1910.132(d) 29 CFR 1910.132(f)	A written PPE program is currently in draft form. Training and personal protective equipment (PPE) assessments are not documented. PPE is supplied to employees; however, expired PPE and poor maintenance and storage of PPE was observed.	Finalize the written program. Assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE. Provide training on the use of PPE.	IV
GRCA	Headquarters Boiler Room	40	6/11/18 - 6/14/18	2	Toxic and Hazardous Substances	29 CFR 1910.1001(j)(3)(i)	Discussion with park staff indicated that asbestos-containing materials (ACM) are present in the area. The park does not maintain an asbestos operations and maintenance (O&M) plan or inventory.	Assess facilities for ACM and maintain records of presence, location, and quantities. Inform staff performing housekeeping activities in areas where ACM may be contacted during such activities.	I

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GRCA	South Rim Museum Collections Building	41	6/11/18 - 6/14/18	2	Toxic and Hazardous Substances	29 CFR 1910.1096	Uranium ore was found located in five-gallon plastic buckets. One bucket was marked with a sticker that read CAUTION RADIOACTIVE MATERIALS. IMR Safety Manager visited the park during the audit to assess the hazard.	Uranium ore in excess of 100 µCi must bear a durable, clearly visible label bearing the radiation caution symbol (trefoil) and the words: CAUTION RADIOACTIVE MATERIALS. Determine the need for the ore and properly dispose of the material.	II
GRCA	North Rim CC Hill Boneyard	42	6/11/18 - 6/14/18	2	Toxic and Hazardous Substances	29 CFR 1910.1001(k)(6)	Approximately 12 linear feet of asbestos cement pipe (Transite) was found among debris.	Properly dispose of asbestos containing material according to state of Arizona regulations.	I
GRCA	Helicopter Building - Helibase	43	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.28(b)(1)(i) 29 CFR 1910.29(b) 29 CFR 1910.22(b) 29 CFR 1910.23(c)(7)(i)	The roof of the corner room is not labeled with a load limit and items are stored on the roof. Load limit was not known by park staff.	Obtain a working load limit for the surface and inform employees of the limit using signage or equally effective means.	I
GRCA	South Rim Reclaimed Building	44	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.22(a)(3)	Four bolts which previously anchored machinery are protruding from the floor, creating a tripping hazard.	Remove bolts and maintain a floor surface free from obstructions.	III
GRCA	North Rim Carpenter Shop	45	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.30(a)(3)(iv)	Fall protection equipment was improperly stored in a pile inside a cabinet.	Train staff to properly store fall protection equipment.	IV
GRCA	North Rim Carpenter Shop	46	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.23(b)(10)	An aluminum portable step ladder was observed without safety information labels and is covered in paint. The top of the ladder is bowed, indicating that it has been used as a step.	Tag defective ladders out of service. Replace ladders that can not be inspected due to damage.	I
GRCA	GRCA	47	6/11/18 - 6/14/18	2	Welding Cutting and Brazing	29 CFR 1910.253(b)(2)(iv)	Oxygen and acetylene welding cylinders are stored together in a corner of the shop and on a welding cart with no safety caps or regulators. Several of the cylinders are not properly secured to prevent a hazard from falling over. Locations observed include: South Rim old auto shop, auto shop; North Rim roads bay, auto shop.	Secure oxygen and fuel gases at least 20 feet apart or separated by a five (5) foot high 1/2-hour rated fire wall.	II
GRCA	GRCA	48	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(a)(2)(ix)	Glass lamps were observed that are not protected from damage, which would create a hazard from broken glass (and mercury in fluorescent bulbs). Locations observed include: South Rim Headquarters boiler room, Ranger operations building and storage, sign shop; North Rim plumbing shop, furniture store, roads bay, generator building auto shop; Desert View maintenance office trailer, maintenance shop.	Place covers, guards, or sleeves over lamps. Replace light covers after lamp replacement or damage to the cover itself.	IV
GRCA	GRCA	49	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(2) 29 CFR 1910.304(b)(4) 29 CFR 1910.305(a)(2)	Uninterruptible power supplies (UPSs) and relocatable power taps (RPTs), or power strips, were connected in series creating a "daisy chain." Locations observed include: South Rim Museum Collections; North Rim Admin Concessions Analyst office, waste water treatment plant, EMS evidence store room, Visitor Center.	Plug UPSs and RPTs directly into outlets. Install additional wall or floor outlets where needed.	III
GRCA	Ranger South Rim Storage; North Rim pump house	50	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(a) 29 CFR 1910.303(b)(2) 29 CFR 1910.305(a)(2)(i)	Temporary wiring (i.e., extension cord) was spliced to power fixtures. Locations include: South Rim Ranger storage; North Rim pump house.	Remove the temporary wiring. Properly hard wire or provide an outlet to plug in a UL-listed cord assembly from a second light fixture if necessary.	III

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**Audit Finding Summary Report - Health & Safety**  
**Grand Canyon National Park**

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GRCA	Helicopter Building - Helibase	51	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.334(a)(1)	An electric plug-in chisel was located on the floor of a restroom plugged into an outlet while not in use.	Properly handle tools to prevent damage. Unplug tools and wrap up cords to prevent damage when not in use and unattended.	III
GRCA	South Rim Roads/Signs Shop	52	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(b)(2)(i)	An outlet plate is missing, exposing wiring.	Replace the missing plat on the outlet.	III
GRCA	GRCA	53	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(f)(2) NFPA 70 408.4	Breaker switches were not labeled indicating the load on each switch. Locations observed include: South Rim trail crew operations; North Rim plumbing shop, old gas station Interp office; community building, furniture storage, auto shop.	Clearly identify all breaker switches, including spares. Do not use tape to label switches, as tape may fall off or moved.	III
GRCA	North Rim Plumbing Shop	54	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.334(a)(2)(ii)	The jacket of the flexible cord on the pipe cutter is pulling away from the plug, exposing wiring underneath. Discussions with staff indicated that the machine is typically not used in favor of a hand threader.	Remove the machine from service. Replace the cord with a UL listed cord approved by the manufacturer or replace the tool.	III
GRCA	GRCA	55	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(b)(1)(ii)	Punch-outs were missing from junction boxes, outlet boxes, and breaker panels which exposed the wiring inside. Locations observed include: North Rim carpenter shop; Desert View pump station, maintenance office trailer.	Effectively close the opening in the junction box using a compatible material.	III
GRCA	North Rim Carpenter Shop	56	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(a)(2) 29 CFR 1910.305(g)(1)(iv)(D) 29 CFR 1910.334(a)(1) 29 CFR 1910.305(a)(2)(ix)	A trouble light (temporary wiring) is attached to the ceiling, also placing strain on the cord. An improper lamp is located in the socket, and is not protected from breaking.	Remove the light. Do not use temporary wiring in permanent installations. Do not connect cords to building surfaces. Do not hang equipment from cords, potentially damaging the cord. Hardwire additional light fixtures where necessary. Protect glass lamps from damage.	III
GRCA	North Rim Carpenter Shop	57	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.334(a)(2)(ii)	The jacket of the flexible cord on the Milwaukee "Hole Hawg" drill is pulling away from the flexible cord, exposing wiring underneath.	Remove the tool from service. Replace the cord with a UL listed cord approved by the manufacturer or replace the tool.	III
GRCA	North Rim Fees Office	58	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(7)(iv)	An electrical outlet, identified as "does not work", has a damaged cover plate.	Repair the outlet and replace the damaged plate.	III
GRCA	North Rim Fees Office	59	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.305(g)(1)(iv)(B)	A flexible cord is run through the exterior wall with the plug on the inside. It was not determined where the cord was running from (possibly a phone box).	Determine the purpose of the cord. Remove the cord once determined safe. Do not run flexible cords through holes in walls, as it creates abrasion against the jacket and prevents a section of the cord from being inspected.	III
GRCA	GRCA	60	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(2) 29 CFR 1910.304(b)(5) 29 CFR 1910.305(a)(2) 29 CFR 1910.305(g)(1)(iv)(C)	Extension cords are run through door frames, exposing them to damage from crushing and abrasion. Locations observed include: North Rim fees office; Desert View old Ranger station trailer, Watchtower.	Remove the extension cords. Conduct a continuity test and dispose of the cords if damaged. Install additional outlets where necessary.	III
GRCA	North Rim Mule Barn	61	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(2) 29 CFR 1910.303(b)(7)	A light fixture is wired directly from an open junction box. The wiring is exposed between the box and the fixture.	Properly rewire the fixture per manufacturer's instructions in a neat, workmanlike manner.	III

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**Audit Finding Summary Report - Health & Safety**  
**Grand Canyon National Park**

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GRCA	North Rim Waste Water Treatment Plant	62	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.334(a)(2)(ii)	A Milwaukee sander's flexible cord is repaired with electrical tape. There is a tag attached reading "do not use."	A qualified electrician may replace the entire cord with a manufacturer part. Alternatively, dispose of the tool.	III
GRCA	Desert View Wastewater Lagoons Large Shed	63	6/11/18 - 6/14/18	2	Electrical	29 CFR 1910.303(b)(1)(i) 29 CFR 1910.303(e) 29 CFR 1910.304(a)(2) 29 CFR 1910.305(a)(2) 29 CFR 1910.305(g)(2)(iii)	Two damaged extension cords were observed. The jacket of one cord was damaged, exposing wiring inside. The second cord was shop-repaired with a new plug. The cord does not maintain UL listing.	Recommend disposal of damaged extension cords over repair. Recommend not assembling shop-made cords. Purchase cords and hard-wired equipment listed for their intended use. Install additional outlets where necessary.	III
GRCA	GRCA	64	6/11/18 - 6/14/18	2	Emergency Action Plan	29 CFR 1910.38	The park does not maintain an Emergency Action Plan (EAP). Training documentation was not available.	Develop an EAP including specific plans for evacuation routes and procedures in each area. Designate and train employees to assist in safe and orderly evacuation of other employees.	III
GRCA	GRCA	65	6/11/18 - 6/14/18	2	Fire Protection	29 CFR 1910.157(c)(1)&(4) 29 CFR 1910.157(e)	Several fire extinguishers are unmounted, missing and/or inaccessible throughout the park. Monthly visual inspections of fire extinguishers are not consistently conducted at North Rim and Desert View.	Properly mount all fire extinguishers on brackets or in cabinets so that they are readily accessible and do not present a hazard. They should not be set on furniture or directly on the floor. Visually inspect fire extinguishers monthly. Date and initial the inspection tag for recordkeeping purposes. Verify that extinguishers are in their designated place, unobstructed to access and visibility, pressure gauge in operable (green) range, and are full by weighing or hefting.	III
GRCA	South Rim Maintenance Area Laydown	66	6/11/18 - 6/14/18	2	General Environmental Controls	29 CFR 1910.141(b)(2)(i)	The vehicle water tank was not labeled as "non-potable" source of water.	Mark the tank in a manner that clearly indicates that the water is unsafe and not to be used for drinking, washing of the person, cooking, etc.	II
GRCA	North Rim Waste Water Treatment Plant	67	6/11/18 - 6/14/18	2	Hand and Portable Powered Tools	29 CFR 1910.242(b)	Compressed air hoses are equipped with nozzles that do not limit air pressure to below 30 psi or have chip guarding for cleaning. Safety glasses were not observed in the area.	Do not use compressed air for cleaning at air pressure above 30 psi and without effective chip guarding. Appropriate PPE should always be used during operations.	III
GRCA	GRCA	68	6/11/18 - 6/14/18	2	Hazard Communication	29 CFR 1910.1200(e)(1)(i) 29 CFR 1910.1200(g) 29 CFR 1910.1200(h)	The park's written Hazard Communication program is dated 2005. A Globally Harmonized System (GHS)-compliant written program is currently in draft form. Training is not documented.	Finalize the new written program. Provide staff with effective information and training on hazardous chemicals in their work area at the time of their initial assignment and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals.	III
GRCA	Science and Resource Warehouse	69	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.106(e)(9)(iii)	Combustible rags were identified in a closed metal rag waste can. The rags are not emptied daily.	Properly dispose of combustible (i.e., oily) rags from containers daily. Consider if the quantity of rags generated necessitates a daily use container or if a metal storage drum is more appropriate.	III

**NPS IMR Health and Safety Audit Program**  
**Audit Finding Summary Report - Health & Safety**  
**Grand Canyon National Park**

AlphaCode	Location	Finding	Audit date	Priority	Subpart	Citation	Finding Description	Recommendation	Hazard Severity
GRCA	GRCA	70	6/11/18 - 6/14/18	2	Hazardous Materials	29 CFR 1910.106(d)(3)(ii)	Flammable storage cabinets were not labeled to identify their use. The cabinets were used for storing flammables at the time of the audit. Locations observed include: South Rim greenhouse nursery; Desert View maintenance area.	Label the cabinet in conspicuous lettering "Flammable - Keep Fire Away".	III
GRCA	GRCA	71	6/11/18 - 6/14/18	2	Machinery and Machine Guarding	29 CFR 1910.213(h)	Radial arm saws are not properly installed to self-retract. Locations observed include: North Rim carpenter shop; Desert View maintenance shop.	Remove the saws from service. Install the saws in such a manner that the front end of the unit will be slightly higher than the rear, so as to cause the cutting head to return gently to the starting position when released by the operator.	II
GRCA	South Rim Trail Crew Operations	72	6/11/18 - 6/14/18	2	Materials Handling and Storage	29 CFR 1910.176(b) 29 CFR 1910.184(c)	A diesel transfer tank in the back of a truck is secured with a nylon strap which has degraded from exposure to the sun and the elements.	Properly secure the tank to the truck. Ensure tanks are listed and approved for DOT use.	III
GRCA	GRCA	73	6/11/18 - 6/14/18	2	Materials Handling and Storage	29 CFR 1910.176(c)	Cardboard boxes and other items were stored on the floors in many locations, creating hazards from tripping, fire, and pest harborage. Locations observed include: North Rim Admin building FM office and custodial room, plumbing shop.	Keep areas free from accumulation of materials that constitute hazards from tripping, fire, explosion, and pest harborage.	III
GRCA	Helicopter Building - Helibase	74	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(4)	Emergency Exit lighting did not operate when tested, indicating a dead backup battery.	Test emergency lights monthly to ensure proper operation. Replace batteries as necessary.	III
GRCA	GRCA	75	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(4) NFPA 13 (2013) 27.1	Fire suppression systems were not inspected within 12 months. Locations observed include: South Rim Wildland Fire hazmat shed; North Rim Admin building custodial room, generator building conex area hazmat locker, EMS building, wildland fire flammable locker.	Schedule regular inspections of the sprinkler system with accredited contractor.	III
GRCA	North Rim Admin Building	76	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(4) NFPA 13 (2016) 6.2.9	Two spare sprinkler heads were present on the premises.	Maintain a stock of at least 6 spare sprinkler heads that correspond to the type and temperature ratings of the sprinklers in the property.	III
GRCA	North Rim EMS Building	77	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(4) NFPA 101 (2015) 9.6.2.7	Manual pull stations for the fire alarm system are blocked in the work room and fire cache.	Maintain a clear space in front of manual pull stations.	III
GRCA	GRCA	78	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(4) NFPA 13 (2013) 8.5.6.1	Boxes and other items are stored within 18 inches of the ceiling in a sprinklered area; thus, preventing the sprinkler system from operating properly.	Remove stored items from within 18 inches of the ceiling to allow proper operation of sprinklers.	III
GRCA	Desert View Old Visitor Center	79	6/11/18 - 6/14/18	2	Means of Egress	29 CFR 1910.37(a)(3)	A folding table was placed in front of a fire exit. The table was moved during the audit. This building is not occupied except for special events.	Educate staff not to place items such as folding tables in locations that obstruct access to exit routes.	IV



**NPS IMR Health and Safety Audit Program  
Audit Finding Summary Report - Health & Safety  
Grand Canyon National Park**

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GRCA	GRCA	80	6/11/18 - 6/14/18	2	Medical and First Aid	29 CFR 1910.151(c) ANSI/ISEA Z358.1	Documentation was not provided to verify weekly activations of emergency eyewash stations and showers. Locations observed include: South Rim Emergency Services Center, maintenance building, reclaimed building; North Rim EMS treatment area; WWT plant; Desert View pump station.	Activate eyewash stations weekly long enough to flush out dead leg sections of piping and test for proper operation. Document weekly flushes using a tag or other effective method.	III
GRCA	GRCA	81	6/11/18 - 6/14/18	2	Medical Management and First Aid	29 CFR 1910.151	Park law enforcement officers are trained EMS personnel. No first aid training is provided to staff below EMT level. Helicopter landing zones are maintained on both rims for transport to Flagstaff. First aid supplies throughout the park were expired or inadequate.	Provide adequate first aid supplies. Replace expired products when necessary. Provide first aid training to staff where medical response is greater than 3-4 minutes.	IV
GRCA	GRCA	82	6/11/18 - 6/14/18	2	Respiratory Protection	29 CFR 1910.134(c)(2)	A written Respiratory Protection program is currently in draft form. Training is not documented. Voluntary use of filtering facepiece respirators is permitted. Appendix D is incorporated into the draft program; however, documentation was not provided.	Finalize the written program. Provide staff who voluntarily wear filtering facepiece respirators with Appendix D of the respiratory protection standard. Document receipt of information in Appendix D by having the employee sign a copy.	III
GRCA	Outside North Rim Fees/Interp Offices	83	6/11/18 - 6/14/18	2	Walking-Working Surfaces	29 CFR 1910.22(a)(3)	Nails are protruding through damaged boards on the walkway outside the offices.	Repair damaged boards so that the walkway is free of protruding nails, loose boards, etc.	III
GRCA	GRCA	84	6/11/18 - 6/14/18	3	Electrical Safety/Work Practices	29 CFR 1910.332	A written plan was not provided. Various wiring issues throughout the park indicate that the plan is necessary. Training is not provided to qualified/unqualified persons.	Develop and implement a program that addresses training, selection and use of work practices, use of equipment, and safeguards for personal protection for qualified and unqualified persons.	I
GRCA	GRCA	85	6/11/18 - 6/14/18	3	Industrial Hygiene	RM 50B Section 4.1	A written exposure assessment was not provided by the park.	Conduct and document in writing an exposure assessment to determine physical and chemical agents that present exposures to employees including chemical and biological hazards, noise and vibration hazards, temperature hazards and radiation hazards (ionizing and non-ionizing).	III
GRCA	GRCA	86	6/11/18 - 6/14/18	3	Contractor Safety & Health	RM 50B Section 7	A contractor safety and health plan is included in the draft documented program dated 2014.	Develop and implement a Contractor Safety & Health plan that establishes roles and responsibilities for all individuals involved in the process.	IV
GRCA	GRCA	87	6/11/18 - 6/14/18	3	Employee Involvement	RM 50B Section 1.8	Employees are involved in the program in the form of safety committee and performance standards. The safety committee charter is several pages long and overly demanding of its members, serving as a barrier for many employees who would otherwise participate.	Develop a new safety committee charter that addresses roles and functions of the members.	IV
GRCA	GRCA	88	6/11/18 - 6/14/18	3	Goals and Objectives	RM 50B Section 1	Draft goals and objectives are included in the draft Occupational Safety and Health plan dated 2014.	Establish measurable and achievable safety and health goals annually. Identify in writing a member of management responsible and accountable for the fulfillment of each goal.	IV

**NPS IMR Health and Safety Audit Program  
 Audit Finding Summary Report - Health & Safety  
 Grand Canyon National Park**

Alphacode	Location	Finding	Audit date	Priority	Subpart	Citation	Finding Description	Recommendation	Hazard Severity
GRCA	GRCA	89	6/11/18 - 6/14/18	3	Hazard Analysis	RM 50B Section 3.1	A library of Job Hazard Analyses (JHAs) exists, but they are not continually developed.	Review, correct, and update JHA forms regularly. This may be done by supervisors, workers, and/or management.	IV
GRCA	GRCA	90	6/11/18 - 6/14/18	3	Heat Injury Prevention	RM 50B Section 4.13	A Heat Stress Management SOP dated 2004 was provided. All employees are sent email messages on high-heat days. The park maintains a wet bulb globe thermometer (WBGT) at the airfield. Great efforts are made by the park to prevent visitor heat stress issues through the preventative search and rescue (PSAR) program. No cold injury prevention program was provided.	Review the existing SOP and evaluate its efficacy. Implement the SOP for daily operations. Develop a cold injury prevention SOP or program for winter months.	III
GRCA	GRCA	91	6/11/18 - 6/14/18	3	Management Leadership and Accountability	RM 50B Section 1.4	The Safety Manager reports directly to the Superintendent. A stand-alone budget is provided to support the safety and health program. Managers, supervisors and employees have measurable safety and health criteria in their annual performance standards. Line-management walk-around audits are not conducted and documented.	Conduct line- management walk-around audits and ensure results are documented and tracked.	IV
GRCA	GRCA	92	6/11/18 - 6/14/18	3	Safety and Health Policy	RM 50B Section 1	A draft policy is included in the draft Occupational Safety and Health plan dated 2014.	Finalize the draft written Safety and Health Policy reflecting management's commitment to safety and health. Communicate the policy in writing to all employees.	IV
GRCA	GRCA	93	6/11/18 - 6/14/18	3	Safety and Health Training Program	RM 50B Section 5	According to discussions with park personnel, safety and health and operational leadership training was not funded in 2017. A safety and health training policy is included in the draft Occupational Safety and Health plan.	Commit necessary resources to training for all staff. Refer to individual findings to prioritize required training topics and frequencies.	IV
GRCA	GRCA	94	6/11/18 - 6/14/18	3	Safety Inspections	RM 50B Section 1.5	Procedures are included in the draft Occupational Safety and Health plan with a requirement to conduct annual inspections of facilities. Documentation of inspections was not provided.	Ensure inspections are conducted at least annually and documented in writing in accordance with DOI and NPS policy.	IV
GRCA	GRCA	95	6/11/18 - 6/14/18	3	Safety Program Audit	RM 50B Section 1.4	The draft Occupational Safety and Health plan includes procedures for an annual program audit. Existing programs are not regularly reviewed and many programs are under development in draft form.	Ensure audits are conducted at least annually and documented in writing in accordance with DOI and NPS policy.	IV
GRCA	GRCA	96	6/11/18 - 6/14/18	3	Written Safety and Health Plan	RM 50B Section 1	A draft Occupational Safety and Health plan dated 2014 was provided.	Develop and implement a documented Occupational Safety and Health plan. Review and update the plan annually.	IV

**NPS IMR Health and Safety Audit Program  
 Audit Finding Summary Report - Health & Safety  
 Grand Canyon National Park**

Alphacode	Location	Finding	Audit date	Priority	Subpart	Citation	Finding Description	Recommendation	Hazard Severity
GRCA	GRCA	97	6/11/18 - 6/14/18	4	Personal Protective Equipment	ANSI/ASSE A10.32	Fall protection equipment (i.e., retractable lifeline, lanyard, positioning belts) was observed indicating an expired end-of-life date. Locations observed include: South Rim Waste Water Treatment; South Rim Trail Crew operations.	Remove expired equipment as per manufacturer recommendations. Inspect equipment prior to each use and document monthly inspections.	I
GRCA	GRCA	98	6/11/18 - 6/14/18	4	Hazardous Materials	BMP 10 CFR 31.5	Tritium EXIT signs were observed. Tritium is a radioactive isotope and these signs are general license material. Locations observed include: North Rim pump house; Desert View generator room.	Recommend removing and replacing the signs. Tritium signs must be transferred to a specific licensee—such as a manufacturer, distributor, licensed radioactive waste broker or licensed low-level radioactive waste disposal facility.	III
GRCA	GRCA	99	6/11/18 - 6/14/18	P	Heat Injury Prevention	Positive	The Preventative Search and Rescue (PSAR) program is an exemplary practice. Visitor safety is increased, as well as demands on park staff for SAR operations.	Extend heat illness and injury practices into an employee program.	N/A
GRCA	GRCA	100	6/11/18 - 6/14/18	P	Materials Handling and Storage	Positive	Several areas on the South Rim displayed excellent housekeeping practices.	Extend good housekeeping practices throughout the park.	N/A