Position	Life Support Systems and Water Quality Keeper
Facility	Columbus Zoo and Aquarium
Location	Powell, Ohio
Job Summary	Operates, maintains and repairs the Animal Care department's life support and water quality systems.
Ecceptial Eurotions	Operator monitors and ensures proper functioning of all equipment

#### **Essential Functions**

• Operates monitors and ensures proper functioning of all equipment vital to the operation of Animal Care exhibit water quality and life support systems and exhibit water features (e.g. lab equipment, pumps, valves, filters, ozone generators, backwashes, generators). • Communicates daily with co-workers and curators with regard to LSS and water quality issues as they relate to animal health and exhibit function/appearance. Works closely with co-workers to monitor and maintain nitrogen cycling in new and empty tanks, and to ensure all scheduled and unscheduled water changes, transfers and tank-drop procedures are completed safely and efficiently. This may include but is not limited to monitoring and performing the following analyses: salinity, pH, temperature, ammonia, nitrite, nitrate, copper, sulfate, ORP, hardiness alkalinity, dissolved oxygen, phosphate, turbidity, chlorine, and other parameters as assigned by curators. • Will serve as a spotting diver when only one diver is in water. • Maintain efficient operation of backwash recovery system and water reclamation in order to reclaim at least 95% on marine systems. Prepares and maintains salt water batches and water transfers on large systems. • Performs minor service and repairs to LSS equipment/systems including but not limited to water pumps, ozone equipment, meters/monitors/probes/sensors and associated calibrations, air blowers, and air prep units, water towers and vessels, water chillers and heat exchangers, valves, LSS plumbing, filters, and generators. • Troubleshoots water chemistry problems by recommending and adding chemicals, synthetic seawater and reclaimed seawater to tanks as needed to maintain appropriate levels and responds to life support system alarms. • Maintains accurate records of water quality testing and life support reading/activities and generates reports/recommendations (e.g. repairs, purchases, supplies) based on the information. • Coordinates with and assists Facilities Department with major repairs; preventative maintenance service; and, on water quality and life support equipment. • Maintains an inventory of back up LSS equipment, parts and supplies to facilitate regular preventative maintenance service and minor repairs.

# Other Duties and Responsibilities

 Assures safety of self, animals, co-workers and visitors by observing safety guidelines around the animals, equipment, and vehicles. • Utilizes chemical supply products and follows standardized usage guidelines and safety information as set by the Material Data Sheets and makes recommendations to curator staff on compliance related issues. • Attends region meetings and participates in developmental seminars (e.g. remains current on job skills) and workshops as required. • Provide input to head keeper and curator staff on all aspects (e.g. water quality, safety, life support systems) of the region. Provides educational information about the region's animal population through such activities as interacting with the public, conducting keeper talks, conducting tours and workshops, attending docent meetings, composing articles for zoo publication and conducting volunteer trainings. • Participates in cross-training as directed • Establishes and maintains contacts with other keepers outside of the Columbus Zoo, field researchers and other specialist as required. • Provides leadership to other Animal Care team members and departments on water quality and life support issues as required. • Constantly strives to further the mission of the organization and avidly supports the Columbus Zoo and Aquarium, Zoombezi Bay, Safari Golf Club and The Wilds. • Implements sustainable practices in daily tasks whenever possible. • Performs other duties as assigned. • Ability to adhere to the Columbus Zoo and Aquarium's drug-free workplace policy including but not limited to pre-employment, random, post-accident, reasonable suspicion and follow-up treatment required. • Ability to successfully complete a criminal history background check annually required.

# **Knowledge, Skills and Abilities**

• Thorough understanding of biological, mechanical, and chemical filtration systems including; ozone mechanics, ORP, chlorine injection, biological filters, rapid sand filters, and the ability to trouble shoot these types of systems required. • Skills in LSS plumbing, minor electrical, fiberglass repair, and light carpentry preferred. • Knowledge of spectrophotometers (e.g. HACH) and multiprobe mini-sonde (e.g. hydrolab, YSI) preferred. • Proficiency with computers required with MSOffice software experience preferred. • Ability to perform strenuous physical work required. • Ability to develop and deliver informational presentations to small, medium, or large groups required. • Ability to communicate well both verbally and in writing required. • Ability to plan and organize work in an efficient and cost-effective manner and without direct supervision required. • Ability to provide excellent guest service by positively interacting with guests and upholding the Make it G.R.E.A.T. standards required. • Ability to develop and maintain cooperative working relationships with all Zoo team members and contacts regarding company business required. • Ability to adhere to standard operating procedures including but not limited to safety protocols required.

### **Education & Experienced Required**

• Bachelor's Degree in chemistry, biology or relevant field required. Four years of relevant experience may be substituted for a degree. • Six months experience as LSS/Water Quality Keeper preferred. • Experience in the maintenance of aquariums, aquatic life support systems, and use of water quality testing equipment preferred.

# **Licenses and Certifications Required**

• S.C.U.B.A. certification required or ability to obtain S.C.U.B.A. certification within one year of employment. • Ability to pass Dive Program annual swim test required. • Ability to pass Dive Program physical exam required. • Possession of a valid Ohio motor vehicle operator's license and a good driving record required, as well as ability to operate standard shift vehicles required. • Proof of negative TB screening prior to placement and annually thereafter required.

# **Physical Requirements**

• Ability to work a flexible schedule including evenings, weekends and holidays required. • Ability to be at an on-call basis preferred.

# **Working Conditions**

• Operates monitors and ensures proper functioning of all equipment vital to the operation of Animal Care exhibit water quality and life support systems and exhibit water features (e.g. lab equipment, pumps, valves, filters, ozone generators, backwashes, generators). • Communicates daily with co-workers and curators with regard to LSS and water quality issues as they relate to animal health and exhibit function/appearance. Works closely with co-workers to monitor and maintain nitrogen cycling in new and empty tanks, and to ensure all scheduled and unscheduled water changes, transfers and tank-drop procedures are completed safely and efficiently. This may include but is not limited to monitoring and performing the following analyses: salinity, pH, temperature, ammonia, nitrite, nitrate, copper, sulfate, ORP, hardiness alkalinity, dissolved oxygen, phosphate, turbidity, chlorine, and other parameters as assigned by curators. • Will serve as a spotting diver when only one diver is in water. • Maintain efficient operation of backwash recovery system and water reclamation in order to reclaim at least 95% on marine systems. Prepares and maintains salt water batches and water transfers on large systems. • Performs minor service and repairs to LSS equipment/systems including but not limited to water pumps, ozone equipment, meters/monitors/probes/sensors and associated calibrations, air blowers, and air prep units, water towers and vessels, water chillers and heat exchangers, valves, LSS plumbing, filters, and generators. • Troubleshoots water chemistry problems by recommending and adding chemicals, synthetic seawater and reclaimed seawater to tanks as needed to maintain appropriate levels and responds to life support system alarms. • Maintains accurate records of water quality testing and life support reading/activities and generates reports/recommendations (e.g. repairs, purchases, supplies) based on the information. • Coordinates with and assists Facilities Department with major repairs; preventative maintenance service; and, on water quality and life support equipment. • Maintains an inventory of back up LSS equipment, parts and supplies to facilitate regular preventative maintenance service and minor repairs. • Assures safety of self, animals, co-workers and visitors by observing safety guidelines around the animals, equipment, and vehicles. • Utilizes chemical supply products and follows standardized usage guidelines and safety information as set by the Material Data Sheets and makes recommendations to curator staff on compliance related issues. • Attends region meetings and participates in developmental seminars (e.g. remains current on job skills) and workshops as required. • Provide input to head keeper and curator staff on all aspects (e.g. water quality, safety, life support systems) of the region. • Provides educational information about the region's animal population through such activities as interacting with the public, conducting keeper talks, conducting tours and workshops, attending docent meetings, composing articles for zoo publication and conducting volunteer trainings. • Participates in cross-training as directed • Establishes and maintains contacts with other keepers outside of the Columbus Zoo, field researchers and other specialist as required. • Provides leadership to other Animal Care team members and departments on water quality and life support issues as required. • Constantly strives to further the mission of the organization and avidly supports the Columbus Zoo and Aquarium, Zoombezi Bay, Safari Golf Club and The Wilds. • Implements sustainable practices in daily tasks whenever

Salary

This position pays \$22.24 an hour

possible. • Performs other duties as assigned.

**Respond To** 

https://columbuszoo.org/job-details/zoo/year-round?job=c7dbc3-

2-bd2f-67d7-bdc2-ff0000bf4b43

Closing date

05/04/2019