Senior Curator – Aquarium Life Support  
#02557  
City of Virginia Beach – Job Description  
Date of Last Revision: 09-13-2019

FLSA Status: Exempt  
Pay Plan: Administrative  
Grade: 9

City of Virginia Beach Organizational Mission & Values
The City of Virginia Beach exists to enhance the economic, educational, social and physical quality of the community and provide sustainable municipal services which are valued by its citizens. The City of Virginia Beach organization is based upon a belief in the democratic process of government. This belief provides meaningful ways for citizens, reflecting the diversity of our City, to contribute to the development of public policy. This process is enhanced by organizational values which guide member performance within the Virginia Beach Quality Service System. These Values define our desired organizational culture. We value quality customer service; teamwork; leadership and learning; integrity; commitment; and inclusion and diversity.

Class Summary
Assist the Aquarium Facilities – Systems Coordinator in the development, operations, and management of the Virginia Aquarium’s life support and water quality section to meet the mission and objectives of the Virginia Aquarium & Marine Science Center. Supervise staff responsible for the daily operation of large aquatic animal life support systems and related components; automated controls and monitoring equipment; water chemistry; and related maintenance and repair.

Representative Work Functions and Responsibilities
Oversee all aspects of aquarium life support systems and related components; monitoring the operation of large aquarium life support systems including but not limited to, automated control systems, mechanical equipment, pumps, ozone generators, motors, filters, and foam fractionators to ensure adherence to the highest standards of safety, compliance, and all applicable standards and regulations. Remain abreast of legal and safety changes and prepares appropriate responses.

Oversee water quality lab operation for both internal and external water quality testing, with external testing tied to the citizen water quality monitoring program. Support lab functions by reviewing records and reports; and coordinating with lab manager on water quality recommendations, lab budget development and monitoring, equipment repair or replacement and purchasing of lab supplies to maintain optimal water quality and animal health.

Hire and train section staff, supervise day-to-day activities; conduct performance evaluations, handle employee disciplinary issues, oversee employee schedules and approve leave. Train and motivate staff; support career development and goals.

Develop and implement aquarium life support and water quality standards and procedures in accordance with industry best practices, safety protocols, standards and guidelines established by the Virginia Aquarium, governing agencies and regulatory/accrediting bodies.

Assist the Aquarium Facilities – Systems Coordinator with strategic planning, exhibit planning, facility planning, and implementation of department goals.

Participate in section budget preparation; forecast, plan, and monitor operating expenditures. Prepare specifications and scope of work documents. Obtain quotes, and evaluate products and vendors for purchased goods and services. Review, approve and oversee section staff project budget proposals and
purchasing activities.

Work with the Aquarium’s veterinary and animal care team to ensure the highest standards of animal care and welfare with regard to life support and water quality. Ensure section staff understand the role of life support and water quality in achieving veterinary and animal care standards and goals, as well as achieving and maintaining standards and accreditations.

Collaborate with all sections of the Aquarium to facilitate programming projects, exhibit improvements, implementation and design, by ensuring life support and water quality considerations and needs are adequately covered and addressed for all aquatic exhibit displays in public and behind the scenes areas; develop protocols and procedures to ensure accurate, up-to-date standards and state of the art design to ensure the safety and wellbeing of the Aquarium’s animal collection, visitors, staff and volunteers, thereby contributing to the visitor experience and supporting the Aquarium’s mission.

Collaborate with all sections of the Aquarium, serving as an advisor and providing oversight of life support and water quality elements impacted by the repair, maintenance, and renovation of existing exhibits. Contribute to the planning of new exhibits with regard to life support systems and exhibit water filtration.

Investigate, initiate, and collaborate with Aquarium staff, volunteers, fellows, and other professional institutions on research projects and professional participation in committee or animal programs such as Species Survival Plan (SSP), Association of Zoos and Aquariums (AZA) and AZA SAFE: Saving Animals From Extinction, or other professional life support, water quality, animal health, husbandry and welfare programs.

Prepare and present information at public and professional meetings, conferences, and other events; speak in front of a variety of audiences to address public relations issues, while ensuring Aquarium mission and values are communicated effectively and in a professional manner.

Oversee record keeping and the maintenance of daily records for aquarium systems and exhibits using industry standard management software through direct supervision of staff. Identify and establish the use of metrics for use in monitoring systems, components and staff performance, as well as for providing feedback on the progress and achievement of goals. Analyze metrics and data trends to identify areas of successful operations, as well as areas needing improvement. Ensure documentation for new and existing equipment, systems and automated controls are created, maintained, stored and are readily accessible to other staff, as appropriate.

Research and implement solutions and improvements related to aquarium life support and water quality to improve operations, safety and animal collection health; realize efficiencies; and establish a culture of innovation.

Compile data and prepare statistical and narrative reports; presentations and articles for publication that promote and support the Aquarium’s mission and goals.

Maintain aquarium life support systems and water quality in accordance with Federal, State, City guidelines, and accreditation standards, for organizations such as but not limited to; Association of Zoos and Aquariums (AZA), Alliance of Marine Mammal Parks and Aquariums (AMMPA), United States Department of Agriculture (USDA), United States Fish and Wildlife Service (USFWS), Occupational Safety and Health Administration (OSHA), Virginia Department of Game and Inland Fisheries (DGIF), and Association of Zoos and Aquariums (AZA).

Perform other job duties requiring skills, knowledge and physical requirements as demanded by those
Senior Curator #02557

duties described or less. Individual assignments will be determined by the supervisor based on then current workloads and department needs.

Performance Standards
Effectively oversee aquarium life support section, which includes the water quality lab. Ensure the maintenance of aquatic animal life support systems in accordance with industry best practices, safety protocols, standards and guidelines established by the Virginia Aquarium, governing agencies and regulatory/accrediting bodies. Ensure timely and accurate water quality test results. Adhere to policies, procedures, and performance standards set forth by the City. Effectively manage subordinate staff; ensure compliance and staff awareness to all safety regulations and guidelines. Compile timely reports and narratives with a high degree of accuracy; use appropriate sources of information and data to develop projects and work plans consistent with departmental goals within budget guidelines. Communicate effectively with staff, volunteers, and general public to promote a positive, productive, and informative work environment and public image; promote the Aquarium and maintain knowledge of industry innovations and new techniques, water quality standards, and other relevant issues through professional exchange via professional meetings, training, and membership in professional organizations and presentations and publications for professional groups.

Minimum Qualifications
Requires any combination of education (above the high school level) and experience equivalent to nine (9) years in fields utilizing the required knowledge, skills, and abilities and associated with such positions as Aquarium Life Support Technician/Operator/Engineer, Aquarist, Assistant Curator, or Curator.

Must have, or obtain, a current and valid Virginia or North Carolina driver’s license in accordance with Virginia or North Carolina DMV driver’s license eligibility requirements.

Preferred Qualifications
Bachelor’s degree or higher in biology, marine biology, marine science, zoology, aquarium science, aquaculture, or related field.

Experience supervising staff in aquatic animal life support or similar field.

Experience with large-scale aquatic animal life support system maintenance and repair in a public aquarium or similar facility.

Extensive experience with aquatic animal life support system management and design including automated controls in a public aquarium, aquaculture facility or similar facility.

Experience with water quality testing including sample collection, analysis and data interpretation in a public aquarium or similar institution.

Experience developing and maintaining budgets.

Experience developing project cost estimates and work plans.

Experience adhering to animal facility accreditation standards.


Certification as a Water Quality Technician Level II through Aquatic Animal Life Support Operators (AALSO).

This description is intended to indicate the kinds of tasks and levels of work difficulty that will be required of positions that will be given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of any supervisor to assign, direct, and control the work of employees under his or her supervision. The use of a particular expression or illustration describing duties shall not be held to exclude other duties not mentioned that are of similar kind or level of difficulty.
Completion of a National Swimming Pool Foundation (NSPF) Certified Pool & Spa Operator (CPO) course.

**Special Requirements**

All employees may be expected to work hours in excess of their normally scheduled hours in response to short-term department needs and/or City-wide emergencies.

This position may require that incumbents to wear and maintain appropriate personal protective equipment such as, but not limited to, steel toed shoes, hard hats, safety glasses, gloves, or other safety attire and equipment in designated areas of risk. Specific requirements will be determined and communicated by the employee’s supervisor based on position assigned.

Positions within this class have been designated as Alpha I positions requiring employees to work during inclement weather, regardless of the City’s operational status.

**Knowledge-Skills-Abilities Required to Perform Satisfactorily**

A. **Knowledge**
   1. Knowledge of OSHA and industry safety guidelines and standards, occupational hazards and the safety precautions necessary in an aquarium environment.
   2. Knowledge of engineering practices and concepts associated with designing and operating aquatic filtration systems and related control systems.
   4. Knowledge of electrical systems, electronics systems, basic networking and associated test and maintenance equipment.
   5. Knowledge of Association of Zoos and Aquariums (AZA), Alliance of Marine Mammal Parks and Aquariums (AMMPA), U.S. Fish and Wildlife Service (USFWS), Virginia Department of Game and Inland Fisheries (DGIF), and U.S. Department of Agriculture (USDA), and other governing agencies’ and regulatory/accrediting bodies’ standards and guidelines

B. **Skills**
   1. Skill in the installation, operation, troubleshooting, maintenance and repair of complex aquarium life support systems and all associated equipment and controls systems.
   2. Skill in managing complex and multiple projects from concept through completion. Skill in supervising staff and volunteers.
   3. Skill in developing and managing projects, cost estimates and operating budgets
   4. Skill in the application of research methods and materials.
   5. Skill in problem solving.
   6. Skill in the use of hand and power tools related to operations and maintenance of aquarium life support systems and associated equipment.
   7. Skill in creating, reading, and interpreting technical drawings, technical specifications and written repair/maintenance procedures.
   8. Skill in water sampling, testing, and interpreting water quality data and giving clear and concise direction regarding water treatments.
   9. Skill in communicating effectively and clearly both written and orally.
   10. Skill in job related computer applications including industry standard record keeping software (Microsoft Office Suite and that currently supporting work performance).

C. **Abilities**
   1. Ability to manage the day to day efforts of employees with different levels of experience and
to address any issues that arise in order to maintain the highest standards of animal care.
2. Ability to lead and manage a diverse team.
3. Ability to conduct performance evaluations.
4. Ability to work independently and effectively with limited or no supervision.
5. Ability to maintain a work ethic supporting the Aquarium’s mission and goals.
6. Ability to effectively manage time and prioritize competing tasks.
7. Ability to effectively communicate with and Aquarium guests in a manner that enhances their experience.
8. Ability to give and follow directions and maintain effective working relationships with Aquarium staff and other groups or organizations with which the Aquarium has contact.
9. Ability to communicate effectively in public forums, conferences, professional gatherings and with the general public and aquarium guests.
10. Ability to accomplish goals within budget
11. Ability to maintain detailed records.
12. Ability to develop and maintain a clean and organized work environment for the front and back of house displays.

**Working Conditions**
The below stated working conditions are intended to provide a general overview of the environmental conditions inherent in the job setting, as well as the physical, mental, and sensory requirements necessary to perform the essential functions of positions in the noted job title. A more detailed description will be made available at the position (PCN) level.

**NOTE:** Per HR Policy 6.19, Americans with Disabilities, the City follows the requirements of the Americans with Disabilities Act (ADA) in all hiring and employment decisions. The City shall not discriminate on the basis of disability in its hiring and employment practices. The City shall make reasonable accommodations for the known physical or mental limitations of a qualified applicant or employee with a disability upon request unless the accommodation would cause an undue hardship on the operation of the City’s business.

**Physical Requirements:** Physical refers to the requirement for physical exertion and coordination of limb and body movement.
Medium to heavy work that involves walking, standing, bending, stooping, climbing, lifting, pushing and raising objects, and involves exerting up to 75 pounds of force on a regular and reoccurring basis; may require exerting up to 100 pounds of force on occasions; occasional use of standard office equipment; considerable skill and adeptness in the use of the fingers, hands or limbs in tasks involving close tolerance or limits of accuracy.

**Mental Requirements:** Mental refers to the degree that the job involves cognitive activities, and use of mental processes
Performs professional level work requiring the application of principles and practices of a wide range of administrative, technical, or managerial methods in the solution of administrative or technical problems; applies general understanding of operating policies and procedures to solve complex administrative problems; requires continuous, close attention for accurate results or frequent exposure to unusual pressure.

**Environmental Conditions:** Environmental refers to job conditions inherent to the job setting, including those that may lead to injury or health hazards even though precautions have been taken.
May risk exposure to animals/wildlife to include exposure to animal bites, scratches, and diseases; may be exposed to venomous and non-venomous animals, insects, fishes, amphibians, arthropods and other species of organisms; work may be performed outdoors, indoors, in or under water, under all types of
Senior Curator #02557

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weather conditions with exposure bright/dim light, dusts and pollen, extreme heat and/or cold, wet or humid conditions, noise, vibration, fumes, odors, traffic, moving machinery, electrical shock, toxic or caustic chemicals, and height.

**Sensory Requirements:** *Sensory refers to hearing, sight, touch, taste, and smell required by the job.*

This job requires normal visual acuity, and field of vision, hearing, and speaking.