

(September 2021)

PERFORMANCE CRITERIA  
FOR

**SECTION 11 94 00**

**VETERINARY EQUIPMENT**  
09/21

**TABLE OF CONTENTS**

**GENERAL**

**1.1 REFERENCE**

**2.1 DESCRIPTION & MATERIALS**

**3.1 SUBMITTALS**

**3.2 QUALITY ASSURANCE**

**3.3 STANDARDS DEVIATIONS**

**3.4 DELIVERY, STORAGE AND PROTECTION**

**3.5 INSTALLATION, VERIFICATION AND ACCEPTANCE TESTING**

**3.6 WARRANTY**

**3.7 OPERATIONS AND MAINTENANCE (O & M)**

**GENERAL**

This Performance Criteria specifies the requirements for veterinary equipment.

**1.1 REFERENCE**

**1.1.1 Unified Facilities Criteria (UFC)**

Contractor must comply with the following:

- A. UFC 1-200-01 General Building Requirements
- B. UFC 1-200-02 High Performance and Sustainable Building Requirements
- C. UFC 4-510-01 Military Medical Facilities

**1.1.2 Military Standard**

- A. MIL-STD 1691 Construction and Material Schedule for Medical, Dental, Veterinary and Medical Research Laboratories

**1.1.3 National Fire Protection Association (NFPA)**

- A. NFPA 99 Healthcare Facilities Code
- B. NFPA 101 Life Safety Code
- C. NFPA 260 Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture
- D. NFPA 701 Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

**1.1.4 Military Health System Standards**

- A. Reserved for future

**1.1.5 American Society for Testing and Materials (ASTM)**

- A. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- B. ASTM D4157 Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)

**1.1.6 Underwriters Laboratories (UL)**

- A. UL 60601-1 Medical and Electrical Equipment, Part 1: General Requirements for Safety

### 1.1.7 International Electrotechnical Commission (IEC)

- A. IEC 60601 Medical Electrical Equipment and Systems]

### 1.1.8 Food and Drug Administration

- A. CFR Title 21, Chapter I

### 1.1.9 Other Standards

- A. CAL-117 (California Technical Bulletin 117-2013)
- B. Reserved for future

## 2.1 DESCRIPTION & MATERIALS

All requirements within the MIL-STD 1691 JSN descriptions are must be met as well as the performance guidelines listed in the following descriptions.

### 2.1.1 All JSN'S

- A. Paints, fabrics, and finishes will be selected from the manufacturer's standard options for the specified model unless noted otherwise.
- B. All fabrics (upholstery or drapery) must meet the appropriate fire test associated with each type of fabric as outlined by testing within the reference standards.
- C. All fabrics (upholstery) must meet the appropriate resistance to abrasion test associated with each type of fabric as outlined by testing within the reference standards.
- D. All product finishes and fabrics (upholstery or drapery) must meet industry standards for infection control and performance.
- E. All product finishes must be capable of maintaining sheen and color through warranty period when using industry standard cleaning and disinfection solutions.
- F. All display panel surfaces must maintain clarity through warranty period when using industry standard cleaning and disinfection solutions.
- G. All equipment that have components that are meant for reuse must be autoclavable or able to withstand industry standard cleaning and disinfection processes.
- H. Electrified equipment must be 115 Volt 15 amp maximum unless noted otherwise.
- I. Casters provided must be designed for use on the installed floor finish.
- J. All products that have interoperability capable hardware (i.e. internal storage, data transmission via wireless, Ethernet, LAN, or USB to PC or server connectivity) must meet Cybersecurity requirements in accordance with DoDI 8510.01 Risk Management Framework.
- K. DoDI 8510.01 applies to all DoD IT (medical devices included) that receive, process, store, display, or transmit DoD information. These technologies are broadly grouped as DoD IS, platform IT (PIT), IT services, and IT products. This includes IT supporting research, development, test and evaluation (T&E), and DoD-controlled IT operated by a contractor or other entity on behalf of the DoD.

### 2.1.2 Veterinary Equipment (Diagnostic)

#### A. Anesthesia

##### V0150 – Anesthesia/Ventilator System, Veterinary

1. Display must be LCD/LED high contrast with continuous display of measured parameters. Display text will be readable in any ambient light level.
2. Provide construction that is non-porous, impervious to fluids, non-ferrous, and corrosion resistant. External parts must allow for thorough cleaning and disinfection. All components that come into contact with fluids or gases will be disposable or easily disinfected if being reused.
3. Equipment must be suitable to accommodate animals of all types and body weights.
4. [Unit to be mounted on an included mobile cart or trolley supplied by the manufacturer.]

#### B. Scale/Balance

##### V0025 – Scale, Weighting, Animal, Large

##### V0026 – Balance, Small Animal

1. Display must be LCD/LED high contrast with text readable in any ambient light.
2. Functions to include weight recall, reweigh, and kg/lbs. display.
3. Construction must be free of sharp edges, resistant to corrosion, and splash proof. External parts must

allow for thorough cleaning and disinfection.

4. Large animal scale must be able to accommodate animals weighing 300 pounds.
5. [Hardware to include wireless, Ethernet, or USB to PC connectivity for data transmission.]

### 2.1.3 Veterinary Equipment (Treatment)

#### A. Exam and Operating Table

##### **V0015 – Table, Examination/Treatment, Animal, CRS, 33x20x72**

##### **V0030 – Table, Operating, Veterinary, Hydraulic**

1. All exposed metal parts, including the table base, must be constructed of stainless steel. Construction must be free of sharp edges, non-porous, impervious to fluids, non-ferrous, and corrosion resistant. Non-metal parts must be anti-static, antimicrobial, non-porous, and impervious to fluids.
2. All components that come into contact with fluids or gases will be disposable or easily disinfected if being reused.

#### B. Hyperbaric Oxygen Therapy

##### **V0040 – Chamber, Hyperbaric, Animal**

1. Display must be LED/LCD high contrast with text readable in any ambient light.
2. Construction must be non-porous, impervious to fluids, and corrosion resistant. Parts must allow for thorough cleaning and disinfection.
3. [Hardware to include wireless, Ethernet, or USB to PC connectivity for data transmission.]

### 2.1.4 Veterinary Equipment (Support)

#### A. Grooming

##### **V0020 – Clipper, Hair, Animal**

1. Construction to be non-porous and corrosion resistant. Parts must allow for thorough cleaning and disinfection.

#### B. Animal Housing Support

##### **V0045 – Washer, Pressure, Veterinary, Hot Water**

1. Must have a minimum flow rate of 1.8 gpm.
2. Unit must have a minimum operating pressure of 1100 psi.

#### C. Animal Housing Support

##### **V0110 – Dispenser, Bedding, with Conveyor**

##### **V0115 – Filler, Bottle, For Lab Animals**

##### **V0120 – Station, Clean/Dump, Waste, Portable**

1. Construction to be non-porous, impervious to fluids, and corrosion resistant. Parts must allow for thorough cleaning and disinfection.

### 2.1.5 Hoods/ Biological Safety Cabinets (Support)

##### **V0130 – Workbench, Laminar Flow, Mobile, 4 Feet**

##### **V0135 – Bio-Clean Unit, Duo-Flow**

- A. All surfaces that could come in contact with liquids or gasses must be corrosion resistant and easily cleanable. All glass within equipment must be tempered.
- B. On-board lighting must be provided and will deliver uniform foot-candles at the work area.
- C. All vented air must pass through HEPA filtration before leaving equipment.
- D. Provide an automatic lifting option to adjust the worksurface height to accommodate technicians of various heights and promote proper ergonomics.

### 2.1.6 Animal Containment (Support)

##### **V0005 – Cage, Animal, Large**

##### **V0006 – Kennel, Large Animal, Intensive Care, Mobile**

##### **V0007 – Cage, Transport, Aluminum, Large**

##### **V0008 – Rack, 4 Each, Single Cage, Primate**

##### **V0010 – Cage, Animal, Small**

##### **V0011 – Cage, Squeeze, Primate**

##### **V0012 – Housing, Group, Exercise Unit**

##### **V0065 – Rack, Rodent, 5 or 6 Tier, Including 30 Cages**

##### **V0067 – Rack/Shelving, Rodent, 4 or 5 Tier, 20 Cages**

- V0069 – Rack/Shelving, Mouse, 5 Tier, 25 Cages
- V0070 – Rack, Mouse, 4/5 Tier, Incl. 20/30 Cages Per Rack
- V0072 – Rack, Ferret, 3 Tier, 6 Cages Per Rack
- V0074 – Rack, Rabbit, 6 Cages Per Rack
- V0076 – Rack, Rabbit, 3 Cages Per Rack
- V0078 – Rack, Cat, 6 Cages Per Rack
- V0082 – Rack, Guinea Pig, 15 Cages Per Rack
- V0084 – Rack, Hamster, With 20 Cages
- V0085 – Shelving Unit For 20 Hamster Cages
- V0086 – Rack And Cage System, Metabolism, 8 Per Unit
- V0088 – Rack And Cage, Metabolism, 18 Per Unit
- V0105 – Run, Modular, Stainless Steel
- V0125 – Rack, Excreta Pan
- V0140 – Isolator, Micro, Housing Unit

- A. Bar/wire containment materials must be stainless steel or aluminum, resistant to corrosion, and readily serializable.
- B. Non-metal containment materials may include PC, PEI, PSC, PMP plastic and tempered glass. Materials must be impact resistant [and autoclavable/sterilizable].
- C. All containment units must have removable floors or trays for cleaning.
- D. Containers must have compatible rack systems which are modular and allow for individual containment units to be readily removed.
- E. Include tamper resistant locking functionality.

### 3.1 SUBMITTALS

#### 3.1.1 Submittals required for government review

- A. Submittal requirements are outlined in [Division 01] [PWS SOW] [\_\_\_]
- B. [Product Information must include manufacturer's installation instructions, sizing (including required clearance for access and maintenance), utility requirements, isometric drawings, tagged floorplans showing placement for count accountability and accessories/options/consumables lists.]
- C. All submittals require Government approval prior to procurement. Submit all listed items herein, with information sufficient to show full compliance with the criteria. Submit all product selections for review and approval, including but not limited to: materials, finishes, colors, options, accessories, and complimentary products. Provide for review all warranties and service contracts and any available extended warranty or service options.
- D. Samples: Furnish material samples and full range of color selection options for all items that offer material and color selections.
- E. Submit and highlight all applicable options for Government review for all items which optional accessories are provided.
- F. [Joint Interoperability Test Command (JTIC) Approval Documentation.]

### 3.2 QUALITY ASSURANCE

#### 3.2.1 Materials and Equipment

- A. Materials and equipment must be standard products of a manufacturer regularly engaged in the manufacture of products which are of a similar material, design, and workmanship and are offered for sale on the commercial market through advertisements, manufacturer's catalogs, or sales brochures. The products must have been in commercial or industrial use under similar circumstances and of similar size for 2 years prior to selection for approval/procurement. Products must be supportable for at least three years after government acceptance.

#### 3.2.2 Alternative Service Record

- A. Products having less than a 2-year field service record will be acceptable if a certified record of the manufacturer's factory or laboratory tests demonstrating performance compliance is provided to the Contracting Officer.

#### 3.2.3 Service Support

- A. Equipment items must be supported by service organizations located near the equipment installation, able to service the equipment on a regular basis and respond to emergency calls throughout the warranty period.

### **3.2.4 Manufacturer's Nameplate**

A. Each item of equipment must have an attached nameplate that is securely affixed in a conspicuous space. A nameplate listing only the name of the distributing agent is not acceptable. The nameplate must contain the following fields in English:

1. Manufacturer's name and address
2. Model and Serial Number
3. Item's utility ranges and/or capacities
4. Voltage, amperage, and applicable Underwriters Laboratory (UL) or Conformité Européenne (CE) rating if electrically powered
5. Date of manufacture

### **3.2.5 Factory Inspection**

A. Arrange and perform all quality control and quality assurance inspections required by the technical sections of the criteria, unless otherwise specified. Report these inspections in the daily report to the Government inspector.

### **3.2.6 Product Qualifications**

A. The products specified in the technical sections of this criteria establish standards for each item.

### **3.2.7 Design Parameters**

A. It is not the intention of this Criteria to limit consideration to products of specific manufacturers. The product standards establish the characteristics for which submitted items of equipment will be reviewed and approved by the Government. Equipment furnished must meet each of the following parameters specified in the technical sections:

1. Size of equipment
2. Function of equipment
3. Standard and listed accessories and options
4. Equipment controls and performance of equipment
5. Construction of equipment
6. Finish

## **3.3 STANDARDS DEVIATIONS**

### **3.3.1 Reporting and Submission for Approval**

A. Submit for approval a record of deviations from the standards listed in section (3.2.7.A.) established for each specified product, before ordering equipment.

## **3.4 DELIVERY, STORAGE AND PROTECTION**

### **3.4.1 Packaging and Transporting**

A. Each unit of equipment must be placed in a substantial shipping container or crate for safe transportation to final destination. The shipping container or crate for heavy equipment must be on skid construction to facilitate handling by lift equipment.

### **3.4.2 Packing List**

A. Clearly and legibly indicate on exterior of each container or crate the shipping address and a brief description of contents. Fasten to outside of container a packing list and complete instructions for uncrating equipment and setting it in place. Protect such information in a weatherproof envelope.

### **3.4.3 Protection**

A. Properly protect all materials and equipment from injury and damage during storage, installation, and acceptance.

## **3.5 INSTALLATION, VERIFICATION AND ACCEPTANCE TESTING**

### **3.5.1 Qualifications of Installers and Inspectors**

- A. If required by product warranty, use installers that are approved and licensed by the manufacturer. When required to complete installation, all electricians and plumbers used must be bonded and licensed in the project's jurisdiction.
- B. [Company specializing in installing the products specified in this section must have a minimum 5 years of documented experience.]
- C. [Company specializing in installing the products specified in this section must be within 200 miles or 4 hours travel time.]

### **3.5.2 Installation, Operation, Testing and Certification**

- A. Products must be delivered in manufacturer's original packaging with manufacturer's installation instructions. Include clearly marked project reference.
- B. Prior to installation, thoroughly examine the equipment, materials, and components for both visual defects and conformance with criteria.
- C. Install all equipment in compliance with manufacturer's written instructions and installation procedures.
- D. After installation, the equipment must be inspected and tested under operating conditions. If the equipment fails an inspection or test, such defects/failures must be corrected. Upon correction of defects/failures, inspect and retest all affected functions related directly and indirectly to the defect or failure. Corrections, replacement, and retesting must be made at no additional expense to the Government.
- E. Provide all items necessary to make equipment fully functional.
- F. Provide appropriately trained personnel to energize, commission, inspect, electrical safety check, calibrate, certify, and provide all required technical testing for equipment and systems. Contractor must provide documentation, test reports and certification documentation attesting that the equipment is properly installed, functional, safe, calibrated, and ready for its intended use.
- G. An equipment item will be considered defective if it cannot be made to meet all established criteria consistent with the activities listed in section (F).
- H. Provide two sets of special tools, software, and any other item/s for each equipment [item] [item type] if required for maintenance and/or future reconfiguration of the item.
- I. Contractor to supply all start-up supplies for medical equipment for a fully operational installation. Contractor must supply to the Government a listing of all needed supplies for ongoing equipment operation for each item of equipment requiring additional supplies for operation.
- J. Engage a factory-authorized service representative to train Government's staff and maintenance personnel to adjust, operate, and maintain medical equipment.
- K. [Confirm functionality of required interfaces to other systems and networks.]

## **3.6 WARRANTY**

### **3.6.1 Minimum Requirements**

- A. Warranty requirements are outlined in [Division 01] [PWS SOW] [\_\_\_].
- B. [Provide manufacturer's written warranty for all items listed. Provide warranty for a minimum of (1) year against defects in materials and workmanship. Warranty must provide for material, labor and all associated replacement and/or repair costs required to provide for a fully operational equipment replacement or repair. Submit manufacturers and installers standard service contract beyond the warranty period for Government review. Warranty must be transferrable to the final owner without risk of being voided. All warranty certification and documentation must be provided to the final owner after date of acceptance.]
- C. Provide routine warranty service in accordance with manufacturer's warranty requirements, for a period of [12 months (minimum)] [\_\_\_] after the open for business date. Perform work during regular working hours. Perform service only by factory trained personnel. Maintain a maintenance log of all service orders performed during the warranty period.

## **3.7 OPERATIONS AND MAINTENANCE (O & M)**

### **3.7.1 Provide the following to the final owner**

- A. Provide O & M data for all FFE-LVS as outlined in [Division 01] [PWS SOW] [\_\_\_].
- B. Upon completion of equipment installation, furnish [two (2)] copies of operators/service/maintenance manuals for each type of equipment which will require service or maintenance
- C. Each manual must contain operating instructions and information required for performing periodic maintenance on the equipment. Each service manual must include an illustrated parts breakdown which identifies each part of the

unit with manufacturer's part number, wiring diagrams, and a list of necessary service parts, tools, and equipment needed to support maintenance requirements.

- D. Accessory Catalogs: Upon completion of the Project, furnish two copies of the manufacturer's catalogs containing optional accessory items available for all equipment relative to the procured equipment/system delivered herein.
- E. Provide instruction video for cleaning and maintenance, when available.
- F. Provide cleaning requirements for all items to prevent void of warranty.
- G. [Provide contact information for Repair Technician or Emergency Repair Company]
- H. Provide contact information to [Logistics, Pharmacy, Laboratory, and Biomedical Equipment Services.]
- I. Train designated staff in the operation and maintenance of the provided equipment/system. Provide two training sessions for equipment/system users and two training sessions for maintenance personnel scheduled to accommodate shift work. [Provide training certificates that can be executed up to eleven months after the system is installed, in order to provide a refresher course for each group of trainees.] Provide DVD copy of the training with the O & M data.

**--End of Section--**