

DEPARTMENT OF VETERANS AFFAIRS

**Justification and Approval (J&A)
For
Other Than Full and Open Competition (>\$150K)**

Acquisition Plan Action ID: VA259-17-AP-5657

1. **Contracting Activity:** Department of Veterans Affairs, VISN 19, Eastern Oklahoma VA Health Care System (EOVAHCS), 1011 Honor Heights, Dr., Muskogee, OK 74401. The Department of Veterans Affairs proposes to enter into a contract based on other than full and open competition for Xenex UV disinfecting equipment.
2. **Nature and/or Description of the Action Being Processed:** Justification and approval for other than full and open competition for the purchase of new UV disinfecting equipment. This is a new procurement and the contract contemplated will be a firm-fixed-price sole source procurement. This action is to replace current Xenex UV mercury free disinfecting equipment with new ones.
3. **Description of Supplies/Services Required to Meet the Agency's Needs:** The VA is purchasing new mercury free UV disinfecting equipment to replace the current older equipment. This equipment shall be used to disinfect patient's rooms throughout the hospital. Recent studies demonstrate conclusively that manual cleaning is inadequate for effectively reducing the bioburden in patient care areas because as many as 70% of high-touch surfaces (e.g., bed rails, call buttons, television remote controls) are missed during both standard discharge and isolation cleanings.
4. **Statutory Authority Permitting Other than Full and Open Competition:**
 - (X) (1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements per FAR 6.302-1;
 - () (2) Unusual and Compelling Urgency per FAR 6.302-2;
 - () (3) Industrial Mobilization, Engineering, Developmental or Research Capability or Expert Services per FAR 6.302-3;
 - () (4) International Agreement per FAR 6.302-4
 - () (5) Authorized or Required by Statute FAR 6.302-5;
 - () (6) National Security per FAR 6.302-6;
 - () (7) Public Interest per FAR 6.302-7;
5. **Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority):** The Xenex Robot, uses environmentally-friendly technology, provides hospital environment disinfection by deactivating bacteria and viruses. This includes, but is not limited to, multi-drug resistant organisms (MDRO) such as methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant *enterococci* (VRE), as well as *Clostridium difficile* (*C. diff*). The Xenex Robot utilizes a unique high-intensity, Full Spectrum™ Pulsed Xenon Ultraviolet (PX-UV) light that covers the entire germicidal range (200-300 nm). It is the only hospital UV disinfection technology available that does not use continuous UV light, or bulbs that contain toxic mercury. The Xenex Robot is the only portable UV disinfection system on the

market to use Pulsed Xenon Ultraviolet light (PX-UV), which creates a high-intensity light covering the entire germicidal spectrum. Mercury creates narrow-spectrum light (253.7 nm). The germicidal range for microorganisms is 200-300 nm. Xenex is the only available portable UV system to completely cover this entire germicidal range at all wavelengths. Mercury lamps only create light at 253.7 nm. In addition to DNA damage preventing replication, full-spectrum PX-UV has been shown to cause cell lysis, irreversibly destroying the organism. The Xenex process is efficient. It is the only device on the market that operates with 5-minute *C. diff* position run times, and requires no warm-up or cool down time associated with mercury lamp technology. Inpatient rooms are disinfected in 10 minutes (15 minutes if the room has a bathroom). Published recommendations for mercury UV devices reference a median of 45 minutes to disinfect inpatient rooms. The Xenex Robot is proven to deactivate bacteria, viruses, fungi, and spores with independent lab verification on over 22 microorganisms and 2,000 samples. For example, it deactivates:

- *C. diff* at a range of 1 meter in 5 minutes; 99.8% reduction
 - VRE at a range of 1 meter in 5 minutes; 99.8% reduction
 - MRSA at a range of 1 meter in 5 minutes; 99.99% reduction
 - Ebola at a range of 1 meter in 1 minute, >4 log reduction at the limit of detection
 - Anthrax at a range of 1 meter in 15 minutes >3 log reduction at the limit of detection
 - **Xenex provides the only UV disinfection system in the marketplace, used to disinfect surfaces in healthcare facilities, that does not use bulbs that contain mercury. Mercury is toxic.**
 - The Xenex Robot is the only UV system that incorporates certain features for high usability and safety, including:
 - Low transport height for improved user visibility in high-traffic areas
 - Pulsed Xenon Ultraviolet light system, which does not produce unpleasant odors
 - 4-pound push weight
 - Durable, shock-absorbing wheels for ease of movement over thresholds and elevator gaps
 - Self-storing bulb system that eliminates the need for a separate device cover
 - An enclosed bulb to eliminate risk of contact burn
 - Real-time use statistics and analytics in a secure, cloud-based portal
 - Wireless and data connections through Wi-Fi and commercial cellular
 - Xenex users have disinfected as many as 60 rooms in a 24-hour period with a single device
- Xenon is an inert gas. Mercury is a toxic metal. Special cleanup is required in the event a mercury bulb breaks, and special disposal requirements may apply depending upon the amount of mercury present in the bulb and the laws of the State where disposal occurs.

6. **Any Other Facts Supporting the Use of Other than Full and Open Competition:** The Xenex Germ-Zapping Robot™ is the only available portable ultraviolet light disinfection system that does not use bulbs containing mercury, which is a toxic substance. Rather, the Xenex device uses a bulb containing non-toxic xenon gas. The Xenex device helps our government customers support their mission and goals and meet their policy compliance obligations under Presidential Executive Order 13693 as well as specific agency requirements. The VHA Directive 7706, dated 7 January 2016, states “replacement with non-mercury alternatives during maintenance or end-of-life”. This equipment was at end-of-life. The ultimate goal of the directive is to achieve a mercury free environment. As a facility EOVAHCS goal is to be completely mercury free.

Presidential Executive Order 13693, Planning for Federal Sustainment in the Next Decade, issued March 19, 2015:

Chapter VI: Other Than Full and Open Competition (OFOC) SOP
Attachment 3: Request for Sole Source Justification Format >\$150K

Sec. 3. Sustainability Goals for Agencies. In implementing the policy set forth in section 1 of this order and to achieve the goals of section 2 of this order, the head of each agency shall, where life-cycle cost-effective, beginning in fiscal year 2016, unless otherwise specified Sec. 3.

(j) advance waste prevention and pollution prevention by:

(iv) reducing or minimizing the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of, particularly where such reduction will assist the agency in pursuing agency greenhouse gas emission reduction targets established in section 2 ...