

## ***AEHS, Inc.***

### **An Environmental, Health, and Safety Consulting Firm**

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## **Brooke Army Medical Center (BAMC) Fort Sam Houston, Texas**

This contract includes the provision of one ESH technician full-time at BAMC with oversight by a Certified Industrial Hygienist (CIH). The primary tasks can be divided into three main areas: Hazard surveys; Environmental surveillances; and Training.

The hazard surveys include all facility areas to include patient care, support, industrial, and administrative. These specific surveys cover waste anesthesia gas monitoring such nitrous oxide for oral surgery and halothanes for routine anesthesia applied operations. Operating room support also includes the measurement of ventilation, lighting, and general safety monitoring. Also, potential exposure to the various chemicals used for sterilizing equipment is monitored.



Environmental Surveillances include quarterly inspections of the sixteen Satellite Accumulation Points, monthly monitoring of the 90-day storage facility, routine monitoring of the handling of the hazardous wastes, and seeking opportunities for recycling. The 90-day facility is inspected for dates of containers, aisle widths, condition of containers, and safety inspections of showers, telephone connections, and clean-up kits. Additionally, regulated medical waste (RMW) operations are monitored. By initiating action for weighing and identifying all RMW, not only is accountability increased, but changes can be detected that can lead to retraining or process changes.

Pollution prevention efforts have included assistance in obtaining special environmental monies for recycling of formalin (10%– 35% formaldehyde solutions), alcohol, and formaldehyde. These efforts resulted in an annual savings of over \$30,000 per year for formalin, \$15,000 for alcohol, and 90% of the use of formaldehyde. Additionally, action was initiated and response was secured from the TCEQ to allow used “green” tubes to be placed in the regular trash without further testing beyond the manufacturers’ claims.



Other environmental efforts include the stack sampling and efficiency testing of the environmental control device on the Ethylene Oxide (ETO) Sterilizer. The gas concentration is measured before the environmental control device and then again after passing through the pre-heating oven and catalytic converter to determine the efficiency. TCEQ requires an annual testing with a removal efficiency of at least 99.97% removal. In addition to the environmental issues associated with the ETO, personnel monitoring and training for the operators as well as adjacent CMS staff and the emergency responders was performed.

Training is provided in the following subjects:

Hazard Communication

Respiratory Protection

Infection Control as associated with Pressure Rooms

Materials Handling Equipment (Forklift) Operators

Satellite Accumulation Point Managers

Fire Safety

Confined Space

Lockout/Tagout

For more information, please contact Ron Bishop, CIH, at (210) 656-9300 or by e-mail at [rmbishop@texas.net](mailto:rmbishop@texas.net).