### Burson Roof Monitors -- Permit Required Confined Space Entry Permit

1. **Burson Roof Monitors Entry Procedure and Permit**
   **All shaded areas must be completed by the Entry Supervisor or Entrant**

2. **Work to be Performed and Location:**

3. **Date Issued:** / / 
   **Time Issued:** : a.m. p.m.

4. **Permit Space Hazards**
   (X = Potential Hazard or Testing Requirement)
   - **Oxygen** - hazardous when less than or equal to 19.5% OR greater than or equal to 23.5%.
   - **Flammable Gases or Vapors** - hazardous when greater than 10% of LFL / LEL.
   - **Hydrogen Sulfide** - hazardous when greater than 10 PPM
   - **Carbon Monoxide** - hazardous when greater than 50 PPM (always look for when welding or near a fuel combustion source (cars, utility carts, etc.).
   - **Other Toxics:** vapors from lab when ducts are open.

5. **Additional Permits or Forms (Please attach if required)**
   **Hot Work Permit:** YES NO N/A
   **LOTO / Hazardous Energy Control Procedure:** YES NO N/A
   **Other:**

6. **Equipment Required for Entry & Work**
   (Check box when complete)
   - **PPE**
   - **Atmospheric Testing**
   - **Respiratory Protection**
   - **Ventilation Equipment**
   - **Rescue Equipment**

7. **Communication method used by attendants and entrants**
   (Check all that apply)
   - **Radio**
   - **Voice**
   - **Other**

8. **Confined Space Rescue**
   - The assigned confined space attendant is responsible for evacuating entrants in the event of an emergency by means of verbal communication or retrieval equipment used for the entry. At no time will the attendant enter the confined space. In the event the attendant is unable to evacuate the entrant(s), the Charlotte Fire Department will be notified by UNC Charlotte Police Dispatch at 704-687-2200 to provide rescue assistance. Upon the arrival of rescue personnel, the attendant should brief the rescuers of any notable information.

9. **Authorized Entrants**
   (List by name)

10. **Authorized Attendants**
    (List by name)

11. **Preparation for Entry**
    (Check boxes when complete)
    - Notify chemistry department of service interruption to fume hoods and complete the Confined Space Entry Permit and any other required permits and forms. Labs must be notified that work is going to be completed on their lab ventilation systems (fume hoods, inlet ducts) so that work can be stopped within the hoods.
    - Inspect all required equipment, tools and PPE prior to entry. Barricade the area to prevent unauthorized entry or access. Setup necessary equipment for entry operations. At least two persons are required to be present when entry is made and work is to be completed in Burson roof monitor areas. Radio communication is required to be available for all entrants to these spaces.
    - Ensure that all hazardous energy is isolated per the specific Hazardous Energy Control Procedure. All loose clothing and long hair, if applicable, must be tied back to prevent potential entanglement in rotating machinery.
    - Sign in Authorized Entrants in Step 9 and Sign in Attendants in Step 10.
    - Take a preliminary atmospheric reading with approved 4-gas meter and record reading on Step 12. Atmosphere should be continuously tested during entry. Periodically record sample readings in Step 12.
    - Upon eliminating or controlling all hazards and the Entry Supervisor signing Step 13, proceed to make entry.

12. **Atmosphere Testing Record Acceptable Conditions**
    | Time of Sampling | CH₄ – Methane - Less than 10% of LEL / LFL | O₂ - Oxygen Range - Minimum allowable = 19.6% to Maximum allowable = 23.4% | H₂S - Hydrogen Sulfide - < than 10 PPM | CO - Carbon Monoxide - < than 35 PPM | Other Toxic: |
    | Pre-Entry Results | Entry #1 Results | Entry #2 Results | Entry #3 Results | Entry #4 Results | Entry #5 Results |

13. **Authorization by Entry Supervisors**
    I certify that all required precautions have been taken and necessary equipment is provided for safe entry and work in this Burson roof monitor confined space.

   **Printed Name**
   **Signature**
   **Date**
   **Time** : a.m. p.m.

14. **Permit Cancellation**
    (Complete at the end of job not to exceed 24 hours)
    **Date**
    **Time** : a.m. p.m.

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July 2018

This permit must be posted at the job site -- One Copy to Department’s File and One Copy to EHS Office (Fax 7-5392 or EHS Building)