Confined Space Classifications (Salina)

The following were determined to be confined spaces; they may not be permit required that employees of the Division of Facilities may encounter:

Utility Tunnels, Crawl Spaces, Ventilation Duct Work, Vaults and Pits, these may be reclassified as permit required if there is a known or history of atmospheric hazards or that there is a serious safety and or health hazards that exists such as a large steam leak, engulfment, welding, toxic chemical use, exposed live electrical wires, flooding, or atmospheric changes.

The following have been determined to permit required confined spaces that employees of the Division of Facilities may encounter:

Manholes (except for tunnels unless reclassified as permit required due to a known hazard), Electrical Vaults, Sewers, Tanks, Boiler/Boiler Stacks and Ventilation Duct Work in these areas: Chill Plant Tower Pit, Air Handling Units with chemical exposure having limited access entrance and exit.

The Standard Operating Procedure is an extension of the KSU Confined Space policy. All staff must understand their role and responsibility as assigned.

Air monitoring continuously must be conducted in all confined spaces permit or non-permit spaces.

Standard Operating Procedure for Tunnel Entry or Confined Space (Non-Permit)

Prior to Entrance Tunnel or Confined Space (Non-Permit)

1. Two Persons at all times.


4. Visual Inspection of outside area of the entrance into the tunnel or confined space. Make sure that there in no operating equipment or vehicles are in the vicinity that could contaminate the air quality in the tunnel or confined space.

5. Entryway to tunnels or confined space shall be secured. Doors, manhole covers, screens, etc., required to be left open must be manned or properly barricaded.
6. Ventilation of the tunnels or confined space by forced air using the portable unit.

7. Monitor tunnel or confined space entryway air quality prior to entrance using the four gas monitor.

8. Call Facilities Office at (785) 826-2911 giving them entrance time and duration during normal operating hours Monday thru Friday 8:00 a.m. to 5:00 p.m. after hours contact Security at (785) 826-2909 with Location of Entry, Expected Time Frame of Project and Number of People Entering.

**Entrance into Tunnel or Confined Space (Non-Permit)**

9. Evaluate the tunnel or confined space for any unknown hazards. Make sure to control all known hazards.

10. Test communication that there is not a dead zone. If dead zone is encountered use an alternate source such as a cell phone.

11. Make sure the air monitor is used continuously while in the tunnels or confined space.

12. Perform task. Control hazards by working de-energized.

**Exiting the Tunnel or Confined Space (Non-Permit)**

13. Ensure all tools are removed from area.

14. Call Facilities Office at (785) 826-2911 giving the exit time during normal operating hours Monday thru Friday 8:00 a.m. to 5:00 p.m. after hours contact Security at (785) 826-2909 with Location of Exit, and Number of People Exiting.

15. Turn off Air Monitor and return it to the appropriate Docking Station.

16. Prior to Docking the Air Monitor take a photo copy of the PEAK readings. Write the date and tunnel location and send the Safety Training Office.

If at anytime the monitor goes off for any reason or if you encounter a serious hazard you must evacuate the tunnels or confined space immediately.
Standard Operating Procedure for Permit Required Confined Spaces

Prior to Entrance into a Permit Required Confined Space

1. Supervisor will define personnel roles such as entrant and attendant. Two Persons at all times. **If the permit required space involves the tunnels it will require three persons.**

2. Supervisor will complete the entrant permit and review with assigned personnel.


5. Entryway to the permit confined space shall be secured. Doors, manhole covers, screens, etc., required to be left open must be manned or properly barricaded.

6. Visual Inspection of outside area of the entrance into the permit confined space. Make sure that there in no operating equipment or vehicles are in the vicinity that could contaminate the air quality in the tunnel.

7. Ventilation of the permit confined space by forced air using the portable unit.

8. Monitor permit confined space entryway air quality prior to entrance using the four gas monitor.

9. Call Facilities Office at (785) 826-2911 giving them entrance time and duration during normal operating hours Monday thru Friday 8:00 a.m. to 5:00 p.m. after hours contact Security (785) 826-2909 with Location of Entry, Expected Time Frame of Project and Number of People Entering.

Entrance into a Permit Required Confined Space

10. Evaluate the permit confined space for any unknown hazards. Make sure to control any existing hazards.

11. Test communication that there is not a dead zone. If dead zone is encountered use an alternate source such as a cell phone.

12. Make sure the air monitor is used continuously while in the permit confined space.
13. Perform task. Control hazards by working de-energized.

**Exiting the Permit Required Confined Space**

14. Ensure all tools are removed from area.

15. Call Facilities Office at (785) 826-2911 giving the exit time during normal operating hours Monday thru Friday 8:00 a.m. to 5:00 p.m. after hours contact Security (785) 826-2909 with Location of Exit, and Number of People Exiting.

16. Prior to Docking the Air Monitor record PEAK readings on permit form. Permits should be sent to the Safety Training Office.

17. Turn off Air Monitor and return it to the appropriate Docking Station.

18. The Confined Space Permit form will be kept on file in the Departmental Supervisor Safety Notebook. All permits must be kept on file for a period of one year.

If at anytime the monitor goes off for any reason or if you encounter a serious hazard you must evacuate the permit confined space immediately.
Confined Space Entry Permit

Location of space: __________________________________________________________

Date: ____________  Time: ____________  Expiration: ____________

Purpose of entry: __________________________________________________________

Authorized Entrant(s): ______________________________________________________

Attendant(s): ________________________________________________________________

Entry Supervisor: ________________________________

Rescue contact: KSU Security    Phone #: 826-2909

Rescue Procedure: ___________________________________________________________________

_________________________________________________________________________________

Hazards:

Atmospheric Hazards

☐ Oxygen Deficiency (19.5%) Enriched (23.5%)
☐ Flammable Materials
☐ Toxic Substances

Other Hazards

☐ Mechanical Hazards
☐ Electrical Hazards
☐ Wet/Slippery Conditions
☐ Heat/Cold

Engulfment Hazards

☐ Flowable Materials

☐ Electrical Hazards
☐ Reduced Visibility
☐ Noise

Configuration Hazards

☐ Downward Slopped Floors
☐ Inwardly Converging Walls

☐ Other________________

Equipment:

Lockout/Tagout   yes  no
Ventilation     yes  no
Isolation       yes  no
Respirators     yes  no
Escape Respirator yes  no
Fire Extinguisher yes  no
Lighting        yes  no
Harness         yes  no

Rescue Equipment  yes  no
Lifelines       yes  no
Radios          yes  no
Other PPE       yes  no
Hard Hat        yes  no
Goggles         yes  no
Ear Plugs       yes  no
Other Permits   yes  no
### Requirements Completed

Please Mark with an X

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Mark</th>
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</thead>
<tbody>
<tr>
<td>Lock Out/De-energize/Try-out</td>
<td></td>
</tr>
<tr>
<td>Lines(s) Broken-Capped-Blanked</td>
<td></td>
</tr>
<tr>
<td>Purge-Flush and Vent</td>
<td></td>
</tr>
<tr>
<td>Ventilation</td>
<td></td>
</tr>
<tr>
<td>Secure Area (Post and Flag)</td>
<td></td>
</tr>
<tr>
<td>Breathing Apparatus</td>
<td></td>
</tr>
<tr>
<td>Resuscitator – Inhalator</td>
<td></td>
</tr>
<tr>
<td>Standby Safety Personnel</td>
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</tr>
<tr>
<td>Body Harness w/&quot;D&quot; ring</td>
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</tr>
<tr>
<td>Emergency Escape Retrieval Equip</td>
<td></td>
</tr>
<tr>
<td>Lifelines</td>
<td></td>
</tr>
<tr>
<td>Fire Extinguishers</td>
<td></td>
</tr>
<tr>
<td>Lighting (Explosive Proof)</td>
<td></td>
</tr>
<tr>
<td>Protective Clothing</td>
<td></td>
</tr>
<tr>
<td>Respirator(s) (Air Purifying)</td>
<td></td>
</tr>
<tr>
<td>Burning and Welding Permit</td>
<td></td>
</tr>
</tbody>
</table>

Note: Items that do not apply enter N/A in the blank.

### Supervisor/Attendant Air Monitoring:

<table>
<thead>
<tr>
<th>Instrument Serial #:</th>
<th>Manufacturer #:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

Factory Calibration Date: ___________________  Bump Test Date: ________________

<table>
<thead>
<tr>
<th>Entry</th>
<th>Reading</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen (19.5 – 23.5 %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combustibles (&lt;10% LEL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO (&lt;35 ppm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H₂S(&lt;10 ppm)</td>
<td></td>
<td></td>
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</tbody>
</table>
## Appendix A

<table>
<thead>
<tr>
<th>Peak</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen (19.5 – 23.5 %)</td>
<td>_________</td>
</tr>
<tr>
<td>Combustibles(&lt;10% LEL)</td>
<td>_________</td>
</tr>
<tr>
<td>CO (&lt;35 ppm)</td>
<td>_________</td>
</tr>
<tr>
<td>H₂S (&lt;10 ppm)</td>
<td>_________</td>
</tr>
</tbody>
</table>

Entry Supervisor’s signature, authorizing the above conditions have been met for safe entry:_________________________ Date:_________ Time:__________

Time of cancellation:___________________ Supervisor Signature: __________________

Comments:__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

Permit Reviewed by:

_________________________ Date

Attendant Signature

_________________________ Date

Entrant Signature

_________________________ Date

Entrant Signature