Steam Tunnel Access

OVERVIEW

The steam tunnel system at WSU Pullman is considered a hazardous location. The hazards include, but are not limited to, risk of asbestos exposure, electrocution, burns, and steam engulfment.

The procedures described in this section are intended to ensure safe and timely tunnel access for personnel and contractors who are not employees of Facilities Services, Operations or Information Services. Project managers or supervisors in Facilities Services, Operations, Facilities Services, Capital, and Information Services may request tunnel access.

Access Notification Request

Two weeks before entry, the project manager or supervisor submits a notification request to Facilities Services, Operations Maintenance Services through the myFacilities Event Notification system. (See BPPM 80.45 for myFacilities access and instructions or contact the Facilities Services, Operations Director of Maintenance Services.)

The notification request must include all of the following information:

- Title of the request
- Work Request (WR) number of the related work project
- Location of the work
  Under Facilities, select 788 Utility Tunnel System as the location.
- Requesting organization
  Enter the name of the organization or department who is doing the work and/or needing access.
- Description of the work being done
  Enter under Event Description.
- When the work is anticipated to start and finish
  Enter under Event Description.
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Request Approval

Maintenance Services may approve shorter notice requests for emergency situations. The two-week notice is required to resolve conflicts with scheduled tunnel maintenance.

NOTE: Due to steam leaks or other dangerous tunnel conditions, Maintenance Services may determine not to grant tunnel access during the requested period.

Access for Telecommunications Purposes

Parties requesting access to steam tunnels for the purpose of installing or maintaining telecommunications infrastructure, including both copper and fiber-optic cabling, must first contact the Information Services Network and Design Consulting Manager at 509-335-0540 to obtain approval and sponsorship.

Information Services requires the following documentation prior to approving the request:

- Written scope of work to be performed
- Blueprints
- References to existing WSU contracts or purchase orders that cover the requested access

Approval Granted

Upon approval of the access notification request by Maintenance Services and/or Information Services, the project manager or supervisor is notified and granted access to the tunnel.

Tunnel Entry Hazard Acknowledgment

Before work begins, all affected employees must read and sign a Tunnel Entry Hazard Acknowledgment to confirm that they have been informed of potential tunnel hazards.

The project manager or supervisor completes and/or prints the PDF form master.

Once signed, the project manager or supervisor scans the completed document into a file and attaches it to the online Event Notification through myFacilities. The project manager or supervisor also retains the original document with the project file.

Additional Employees

Employees who join the project after work has begun must read and sign a Tunnel Entry Hazard Acknowledgment to confirm that they have been informed of potential tunnel hazards.
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Additional Employees (cont.) The project manager or supervisor scans and attaches any additional signed hazard acknowledgments to the online Event Notification through myFacilities. The project manager or supervisor also retains the original document with the project file.

Notifying Facilities Services, Operations

Work Begins When work begins, the project manager or supervisor notifies the Facilities Services, Operations dispatcher that the work group is entering the tunnel; telephone 509-335-9000. The project manager or supervisor states the location and length of time the employees are expected to be inside the tunnel.

Work Completed When work is complete, the project manager or supervisor notifies the Facilities Services, Operations dispatcher that the work group is exiting the tunnel; telephone 509-335-9000. The project manager or supervisor verifies that the work group's points of entrance and egress are secure.

Access Assistance Work Request If help is required for access, the project manager or supervisor must submit a funded work request to Facilities Services, Operations Maintenance Services. The project manager or supervisor submits both the access notification request and the access assistance work request through myFacilities.

TUNNEL HAZARDS AND SAFETY PROCEDURES

Manhole Entrance Work groups are to use fall protection barricades rated to withstand 200 lbs. of force to protect employees and the public from falling into open manholes.

When a manhole is used to enter a tunnel, employees are to leave the manhole lid off while any person is working in the tunnel.

Asbestos Exposure Hazard

Presumption of Contamination Employees, contractors, or service personnel are to presume that the existing steam pipe insulation in the tunnels contains asbestos.

Training Employees, contractors, or service personnel must receive asbestos awareness training prior to entering the tunnels.

Environmental Health and Safety (EH&S) provides asbestos awareness training to any WSU employee free of charge.
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Training (cont.)

Contractors are responsible for obtaining training for their employees by employing a qualified training provider. The training provider must be an asbestos competent person, as defined below.

Asbestos Competent Person

An asbestos competent person is defined as a person who is certified as an asbestos supervisor in the state of Washington or qualified as an asbestos project designer in the federal Environmental Protection Agency (EPA) Asbestos Model Accreditation Program. (See WAC 296-65-012 and 40 CFR 763 (Appendix C).)

Observation of Disturbed Material

Employees are to consider a tunnel to be contaminated with asbestos when there is evidence of disturbed pipe insulation.

When employees observe evidence of disturbed pipe insulation on the floor, the employees must exit the tunnel immediately and notify the project manager or supervisor.

Permission to Reenter Tunnel

Employees may not reenter the tunnel until instructed to do so by an asbestos competent person (see Asbestos Competent Person).

Asbestos Abatement

Work that includes removing, modifying, or disturbing known or presumed asbestos material is considered to be asbestos abatement. All asbestos abatement must be performed by employees certified as asbestos workers or supervisors (see SPPM 5.22).

Electrical Shock Hazard

There is the potential for electrical shock from impacting power and lighting conductors and devices present in the tunnels.

Employees must have an emergency response plan in place when performing work on the electrical systems. See BPPM 50.39, and SPPM 2.72 and 3.68.

Steam Energy Release Hazard

Accidental release of steam can cause the following:

- Burns
- Reduced levels of oxygen,
- Low visibility from steam engulfing the tunnel
- Blockage of exit from the tunnel

Employees must have an emergency escape plan in place when performing work on steam pipes or controls.
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**Trip and Fall Hazard**

The tunnel floor may be uneven or be obstructed by equipment parts. The tunnel floor level changes elevation through access ladders and doors.

Employees working in tunnels are to turn on the tunnel lights and bring and use flashlights.

**Head Bump**

Tunnels have low ceilings and ceiling obstructions.

Employees working in tunnels are to wear hard hats to reduce the risk of head injuries.

**Extreme Heat Exposure**

Working conditions in some parts of the tunnel fall within the hazardous high-temperature zone, which requires implementation of heat stress mitigation efforts.

**Burns**

Tunnels have exposed steam valve stems and handles, which may be hot and cause skin burns.

Employees are to use proper personal protective equipment to reduce the risk of burns (see SPPM 3.10).

**ENFORCEMENT**

Entering, attempting to enter, or remaining in a University steam or utility tunnel without prior authorization is considered trespassing. Violators may be prosecuted under applicable provisions of the *Revised Code of Washington (RCW)*, which may include RCW Chapter 9A.52.