

## UCOR BLUE SHEET COVER PAGE

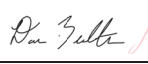
### Blue Sheet Review

ID Number:	BS-0051			
UCOR Level 1 Mgr:	Eric Abelquist			
Topical Area or Facility Name:	Construction Heavy Equipment Program			
Blue Sheet Classification:	<input checked="" type="checkbox"/>	Status 1: Document(s) adopted as is		
	<input type="checkbox"/>	Status 2: Document(s) adopted with minor changes		
	<input type="checkbox"/>	Status 3: Document(s) not adopted; major changes required		
	<input type="checkbox"/>	Status 4: Document(s) superseded	Superseding Doc #:	
	<input type="checkbox"/>	Status 5: Document(s) retired		
Needed Updates/Revisions	See the latest revision of Management Directive DIR-UCOR-600 for a crosswalk of non-intent terminology changes (e.g., company name and logo, organizational titles).			

### Unreviewed Safety Question (USQ) (if applicable)

USQ Review	<input checked="" type="checkbox"/>	Excluded	Reason for Exclusion:	Non-intent changes do not require USQ screening
	<input type="checkbox"/>	Required	Screening #:	

### Approvals

Blue Sheet Reviewer:	 <small>Digitally signed by Daniel Beckworth Date: 2022.05.11 12:40:46 -04'00'</small>	<hr style="border: 0; border-top: 1px solid black;"/> Date
Level 1 Manager:	ERIC ABELQUIST (Affiliate) <small>Digitally signed by ERIC ABELQUIST (Affiliate) Date: 2022.05.11 13:46:15 -04'00'</small>	<hr style="border: 0; border-top: 1px solid black;"/> Date

### Documents covered by this Blue Sheet (or indicate attachment with information)

Document #:	Document Title	Rev
PROC-FO-1004	Excavation/Trenching Permitting	16
PROC-ET-3016	Inspecting and Testing of Forklift	5
PROC-FO-1039	Construction Equipment Inspection and Maintenance Program	12
PROC-FO-1040	Lift Truck Operation	12
PROC-FO-1072	Penetration Permitting	1
PROC-FO-1073	Vehicle/Construction Equipment Spotter	3
PROC-FO-3034	Earth Moving Equipment Operation	5
PROC-FO-3035	Well Drilling Operations	0
PROC-FO-3036	Mobile Elevating Work Platform Operation	5
PROC-FO-3037	Ground Penetration Permitting	1
PROC-FO-3038	Transport Platform Car System Operation	1
PROC-ET-3023	Inspection and Test of Tailgate Lifts	1
PPD-FO-1037	Construction and Heavy Equipment Program	2

OWNER: Chief of Staff	DIR-UCOR-600	REVISION: 0
SUBJECT MATTER AREA: Contract Transition	PREPARER: Samantha Dolynchuk	Page 1 of 3
DIRECTIVE	CONCURRENCE/DATE: LINDA RAULSTON (Affiliate)	Digitally signed by LINDA RAULSTON (Affiliate) Date: 2022.05.11 09:19:37 -04'00'
TITLE: TRANSITION OF UCOR PERFORMANCE DOCUMENTS	APPROVED BY/DATE: SAMANTHA DOLYNCHUK (Affiliate)	Digitally signed by SAMANTHA DOLYNCHUK (Affiliate) Date: 2022.05.10 09:08:12 -04'00'
USQD <input checked="" type="checkbox"/> UCD <input type="checkbox"/> CAT X <input type="checkbox"/> EXEMPT <input type="checkbox"/>	EFFECTIVE DATE:	5/23/22
USQD/UCD/CAT X No: USQD-MS-DIRUCOR600-1807	REQUIRED REVIEW DATE:	5/23/25

## PURPOSE

This directive formalizes the adoption of UCOR LLC, an Amentum-led partnership with Jacobs, performance documents by United Cleanup Oak Ridge LLC (UCOR). It also serves as an authorizing change mechanism for documents that require administrative, non-intent changes to reflect the new contractual relationship between new UCOR and the U.S. Department of Energy Oak Ridge Office of Environmental Management (DOE OREM) eliminating the need for individual change records for each document. The following statement will be added to the Performance Document Database ([Forms and Procedures \(ettp.gov\)](http://Forms and Procedures (ettp.gov))) to notify document users that performance documents have been blue sheeted and accepted:

All performance documents have been accepted per Management Directive  
DIR-UCOR-600.

The Blue Sheeting process, including this Management Directive, will be briefed at key meetings including the President’s Accident Prevention Council (PAPC), Executive Plan of the Week, Chief Operating Officer’s Morning Operations Calls, and an Expanded Staff Meeting that will be held on May 11, 2022. This Management Directive will be flowed down to the entire UCOR workforce during the Safety Start that will be held on May 23, 2022. Additionally, this Management Directive will be assigned as required reading for the entire UCOR workforce.

## SCOPE

This directive applies to all performance documents controlled by the UCOR Performance Documents Group. This directive also applies to the UCOR nuclear facilities’ safety basis documents controlled by Nuclear and Criticality Safety, Security documents controlled by Security and Emergency Services, and any UCOR-numbered documents that were submitted as Transition Deliverables.

## DIRECTIVE

This directive is effective at the start of Task Order 2, Contract Implementation. Existing documents will be updated to reflect the elements herein within one year of the start of Task Order 1 Transition (February 28, 2023). Procedures and documents are to be considered suitable and useable for the safe accomplishment of assigned work until that time.

While the technical content of a performance document remains accurate, references within a given document may not immediately match newly assigned UCOR titles, UCOR logo’s, company names, or other contractually-

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related information. This directive provides direction for using incumbent UCOR terminology compared to new UCOR terminology in order to allow employees to achieve verbatim compliance without work stoppage.

## INTERPRETATIONS

The crosswalk in Attachment A lists the previous UCOR organization structure with the new UCOR organizational equivalent. Document users encountering an incumbent UCOR organization name shall interpret it as if the organizational names in Attachment A have been updated in the document.

Some performance documents refer to forms that contain UCOR LLC, an Amentum-led partnership with Jacobs, or URS | CH2M Oak Ridge LLC. These forms are acceptable for continued use until changes can be made by the form owners, and incumbent UCOR references shall be interpreted as if they refer to United Cleanup Oak Ridge LLC or UCOR.

Some performance documents may refer to other performance documents by number and title. Some of these references may be affected by the contract transition or a previous organizational restructuring. These cases shall be interpreted by their current number and title.

## CHANGE PROCESS

Performance documents requiring administrative changes only (i.e., those identified in Interpretations) will be processed under a blanket administrative change and authorized by this directive as change authorization.

Changes to documents other than the administrative changes listed in Attachment A will be performed in accordance with *Performance Document Process* (PROC-OS-1107).

Changes to safety basis documents controlled by Nuclear and Criticality Safety will be changed in accordance with *Safety Documentation for Hazard Category 2 & 3 Nuclear Facilities* (PROC-NS-1002) and *Safety Documentation for Less than Hazard Category 3 Nuclear and Non-Nuclear Facilities* (PROC-NS-1009).

## POINTS OF CONTACT

Contact the appropriate functional or line manager for guidance related to the content of a procedure or document or the information on Attachment A. For questions related specifically to the performance document process, contact the Information, Technical Editing & Records Manager.

REVISION LOG			
Revision	Effective Date	Description of Changes	Pages Affected
0	5/23/22	Initial release.	All

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**Attachment A**  
**Crosswalk of Organizational Terminology for UCOR Transition**

<b>UCOR TRANSITION REPLACEMENT TERMINOLOGY TABLE</b>	
<b>UCOR (current) Organization Terminology</b>	<b>New UCOR Organization Terminology</b>
UCOR an Amentum-led partnership with Jacobs	United Cleanup Oak Ridge LLC
URS   CH2M Oak Ridge LLC	United Cleanup Oak Ridge LLC
East TN Technology Park (ETTP) contract	Oak Ridge Reservation Cleanup contract (ORRCC)
Contract number: DE-SC-0004645	Contract number: 89303322DEM000067
Oak Ridge Reservation (ORR) Environmental Cleanup	ORRCC Site Integration & Cleanup
President and Project Manager	President and Chief Executive Officer (CEO)
Environmental Services	Environmental Services & Regulatory Management
Heritage Center Enterprise	Heritage Center Area Project
Field Characterization	Characterization Services
D&D Waste Integration	Waste Integration
Waste Management Enterprise	Waste Disposition
Nuclear Operations	ORNL Waste Operations
Waste Disposition and TRU Operations	ORNL TRU Operations
Shipping and Receiving	Shipping & Receiving/Logistics
Technical Services	Technical, Engineering, & Nuclear Safety
Nuclear Services	Technical Programs
Nuclear Safety	Nuclear and Criticality Safety
Mercury Projects	Mercury Projects & Technology Development
End State & Federal Land Reuse	Chief Program & Sustainability Office
Reindustrialization and Closure	Beneficial Reuse and End State Management
Diversity & Workforce Development Program	Equity, Environmental & Regulatory Programs
Project Services and Support	Project Integration & Business Services
Project Integration	Project Integration & Business Services
Project Mgmt and Integration Services	Enterprise Project Management



# UCOR

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## PERFORMANCE DOCUMENT COVER PAGE

**NOTE:** If the following document is printed, this cover page must be attached to the front and the required information filled in below.

**Date Printed:** \_\_\_\_\_

<b>Dates Rev. No. Checked:</b>
------------------------------------

**Document Number:** \_\_\_\_\_

**Revision Number:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Person Checking Revision Number:** \_\_\_\_\_

*The attached document was printed from the online Performance Document System. The user must check that the hard copy revision number matches the revision number of the controlled document in the online Performance Document System. For future use, confirm the revision number's accuracy online and record dates that the revision number was checked.*

### Section Below Completed by the Performance Document Group Only

Document Type:       Administrative       Technical      Emergency  
                                  Standard Practice       Alarm Response

Required Review Date: \_\_\_\_\_ Date Required Review Completed: \_\_\_\_\_

Document Status:       Maintain As Is       Revise       Delete

If "Maintain As Is," Next Required Review Date: \_\_\_\_\_

If "Revise" or "Delete," Due Date: \_\_\_\_\_



# UCOR

an Amentum-led partnership with Jacobs

OWNER: Nuclear and Engineering Services		PROC-FO-1004	REVISION: 16
SUBJECT MATTER AREA: Permitting		PREPARER: J. Hocutt	Page 1 of 27
PROCEDURE TYPE:	Administrative <input checked="" type="checkbox"/>	CONCURRENCE/DATE: Logan Poore 10/21/21	
Emergency <input type="checkbox"/>	Alarm Response <input type="checkbox"/>	[Approval Signature on File]	
TITLE: EXCAVATION/TRENCHING PERMITTING		APPROVED BY/DATE: Daniel Beckworth 10/21/21	
		[Approval Signature on File]	
USQD <input checked="" type="checkbox"/>	UCD <input type="checkbox"/>	CAT X <input type="checkbox"/>	EXEMPT <input type="checkbox"/>
EFFECTIVE DATE:		11/4/21	
USQD/UCD/CAT X No: USQD-MS-PROCFO1004-1765		REQUIRED REVIEW DATE: 11/4/24	
Exhibit L Mandatory Contractor Procedure: No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>		If an Interim Procedure, Expiration Date:	

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This document is approved for public release per review by:  
Leesa Laymore 10/6/21  
 UCOR Classification and Date  
 Information Control Office

REVISION LOG			
Revision	Effective Date	Description of Changes	Pages Affected
16	11/4/21	Intent change. To remove conflicting definitions and add TSR references. Clarification of terms and general formatting.	3, 12, 21, 22, 23, 25, 27
15	9/16/21	Intent change. Changed the definition of professional engineer and clarified allowance for extensions/revisions. Clarifications for use of GPR equipment on utility locates. Roles and responsibilities of IA revised. This revision effects Form-147. IF-2021-0663.	All
14	1/14/20	Intent change. Added source document PROC-DE-1040, <i>Design Drawing Verification</i> ; clarify definition of excavation, CAMS IF-2020-0176. Grammatical changes.	8, 18, 21

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13	10/24/19	Intent change. Complete rewrite to extract penetration permitting into separate procedures. Revised Form-147. New Form-3459. Title changed.	All
12		Intent change. Strengthening language on Competent Person for Excavation requirements. Add prohibition on excavation on IWS cover.	3, 5, 6, 7, 8, 9, 25, 26
11	1/10/19	Intent change. Clarification of when 31888 was not needed, addition of vacuum excavation less than 4ft depth to the permit exceptions, direction that locate markings may only be refreshed by original utility. Added SME approval to Form-3130.	3-5, 7, 10-12, 15-24, 26, 27
10	9/13/18	Intent change. Changed Section "V" to Section "W" of PROC-FS-1001. Changed concurrence in Competent Person Excavation training equivalence from S&H Programs Manager to SME. Added 31888, Excavation Hazard Awareness training, as a general requirement for workers in/around excavations. Added Planner to walk-down participants. Changed BWSC to new company name of Barge Design Solutions. Added "Date Engineering Copied" column to record who and when in Engineering was copied on the closed permit and added definition in Instruction of Actual Closure Date and who and when transmission to Engineering entry. Added requirement to complete Project Engineer log. Added Project Engineer log for recording whether returned Permit package required a Design Change.	4, 5, 7, 12, 18, 24, 29-32
9	4/12/18	Intent change. Expanding the description of an excavation to include area, perimeter and depth. Clarifying the difference between abandoned, inactive, and active lines and the requirement to differentiate them in the permit and drawings.	9, 10
8	8/31/17	Intent change. Clarification for penetrations and penetration permits reinforcing and clarifying that FMs are responsible for penetrations in their facilities and are responsible penetration permits in their facilities.	All
7	6/26/17	Intent change. Scope: Changed bullet 9 to make it clear that the depths of 3 inches in blacktop, aggregate or pavement was excluded. Changed to "Penetrations utilizing drilling equipment not exceeding 1.5 inches in depth into a building surface nor exceeding 3 inches into any blacktop, aggregate, or concrete pavement surface." EP Section III – Work Execution Discussion and Approval: added note before Step 20, "The LLLW TSR requires the LLLW FM or designee to review and approve all Excavation Permits generated at ORNL by any preparer (e.g., UCOR, UT-B, etc.);" added tag, <WM-LGWO-LLLW-TSR> to Step 23; removed LGWO/LLLW from Step 4 and replaced with "facility;" and removed LGWO/LLLW from Step 29 and replaced with "adjacent facility." Additionally, the procedure and form (Form-147) were updated to strengthen the responsibility to check the Excavation Permit package for all supporting drawings, figures and documents before passing it on and to clarify that a minimum of the FM, Responsible Engineer, WGS/STR and BWSC utility locate representative be included on the walk down after Section II and III reviews are in (previously essential attendees weren't specified from the list given to the IA).	All
6	3/20/17	Intent change. Total re-write. Procedure revised to define responsibilities, clarify actions required for TN 811 compliance, define how Issuing Authorities are designated, integrate the ORNL process from PROC-OR-1010, separate the Excavation Permit from the Penetration Permit, incorporate CPE duties into the procedure and delete the attachment for CPE functions; and get the procedure steps aligned with the revised Forms. New forms: Form-3129 and Form-3130. Revision 6 includes corrective actions for issue IF-2017-0031.	All
5	10/10/16	Intent change. IF-2016-0636. Review/Revise for TROTS action CAP.	All
4	6/15/15	Intent change. Entire procedure re-worded, clarified, and non-valued added material deleted. Revised Form-147.	All
3	5/1/14	Intent change. Clarification of exemption statement; inserted "Note" at section D.2 to prevent Competent Person and Issuing Authority conflict of interest; added "aggregate as a category of product to penetration definition in Attachment "A". Revised Form-147.	3-7, 13
2	8/22/13	Non-intent change. Removed reference to PROC-EH-2010 (procedure cancelled); updated/corrected other cross-references and terminology that are currently in-use.	All
1	4/25/12	Intent change. Modifications made in Scope – Exceptions to address I/CATS I0080233.	2
0	2/3/12	Initial release. Replaces BJC-FS-1004, Rev. 2, <i>Excavation/Penetration Permit</i> .	All

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**PURPOSE** This procedure establishes permitting requirements for protection of personnel who are performing digging operations for excavations/trenches.

**SCOPE** This procedure provides a consistent approach to the development, review, approval, and implementation of permits issued to perform excavation/trenching activities by UCOR LLC, an Amentum-led partnership with Jacobs, and subcontractor personnel.

**NOTE1:** Well drilling activities including soil sampling, well drilling, penetrations through concrete slabs into soil, and geotechnical activities are covered in PROC-FO-3037, *Ground Penetration Permitting*.

**NOTE 2:** Existing permits do not need to be replaced with the new procedure revision unless a change to the permit takes place.

**NOTE3:** Safety of personnel and field performance/execution is addressed in PROC-FO-3034, *Earth Moving Equipment Operation*.

**Excavation/Trenching Permit Exceptions**

A UCOR Excavation/Trenching Permit (ETP), Form-147, is required for all UCOR excavation/trenching activities, except those noted below:

- Earth/rock excavations/trenches, 12 inches or less in depth, using hand-held tools such as shovels or hand augers. Jackhammers, mattocks, picks, post-hole diggers, wrecking bars, post drivers, and similar tools using impact to loosen soil or drive bars/rods/posts must be approved for use by the Program Subject Matter Expert (SME).
- Vacuum excavation/trenching (e.g., air or water lance) methods less than four (4) feet in depth unless restricted or prohibited by safety basis documents.
- Maintenance, removal, or replacement of roadways/driveways, railroad, or sidewalks within the existing right-of-way, 12 inches or less in depth provided there are no indications of installations in the area to be excavated.
- Designated soils borrow areas or temporary soil, coal, or aggregate storage piles where the original permanent grade has not been disturbed.
- Grading associated with roads and parking lots, including exposing covered storm drains or manhole covers identified on underground figures, sketches, and/or drawings, 12 inches or less in depth provided there are no indications of installations in the area to be excavated.
- Excavations/trenches in active designated landfills for the purpose of waste disposition or grading.
- Excavations/trenches at ongoing capping, previously capped, or soil placement operations where materials have been placed as part of the work process and this material needs to be moved, removed, or penetrated for rework, testing, erosion impacts, etc., and the original grade is not impacted.



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- Emergency work conducted under PROC-FS-1001, *Integrated Work Control Program*, may be performed without an ETP. PROC-FS-1001 requires the appropriate SMEs to direct the work team in lieu of the ETP and complete Form-419, Immediate Mitigation Work Package.
- **IF** the work being performed as part of the ETP includes activities involving ground penetration, **THEN** a separate Ground Penetration Permit (GPP) is not required.

**NOTE:** “Subcontractors should contact their Subcontract Coordinators (SCCs)/Subcontract Technical Representatives (STRs) for assistance in understanding or complying with this procedure.”

**OTHER  
DOCUMENTS  
NEEDED**

- PROC-DE-0705, *Design Drawings*
- PROC-EH-2018, *Stop Work*
- PROC-FO-3034, *Earth Moving Equipment Operation*
- PROC-FS-1001, *Integrated Work Control Program*
- PROC-NS-1001, *Unreviewed Safety Question Determinations for Nuclear Category 2 & 3 Facilities*
- PROC-NS-1008, *Unreviewed Change Determinations for Radiological and Non-Nuclear Facilities*
- Form-147, Excavation/Trenching Permit (ETP)
- Form-3459, Issuing Authority Designation for Excavation/Trenching Permitting

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**NOTE 1:** Engineering and respiratory controls must be included in the Job Hazard Analysis (JHA) of the work package.

**NOTE 2:** Permit requester should allow seven (7) calendar days from the time the ETP is requested for the ETP to be effective.

**WHAT TO DO**

**A. Responsibilities**

Project Manager  
(PM)/SCC/STR

1. Ensure flow down of the requirements of this procedure to subcontractors.
2. Ensure the ETP is completed and remains on site as part of the work package.

Project Operations  
Managers/CHE SME

3. Designates, with the Construction/Heavy Equipment (CHE) SME approval, the project personnel who perform the duties of the ETP Issuing Authority (IA) under this procedure. The IA is designated using Form-3459 (LEARN Module 31778), Issuing Authority Designation for Excavation/Trenching Permitting, and through the Local Education Administrative Requirements Network (LEARN) system under Module 31778, Excavation Issuing Authority Designation Form. The number of designated IAs should be sufficient to support project operations but limited in number with an objective of keeping the IA function independent from the facility manager (FM) function.

Project Engineer

4. Responsible for the following:
  - Ensuring the engineering reviews for ETPs are completed with any uncertainties in the information available noted in the ETP, along with any engineering controls required for the work.
  - Identifying the work required to locate buried/embedded obstructions.
  - Maintaining technical documents and records of underground and facility installations performed by UCOR in accordance with UCOR Engineering procedures.

IA

5. Responsible for the following:
  - Coordinating the ETP process defined in this procedure for the project, including the maintenance of the ETP Log (Attachment B), facilitating required functional group reviews, and tracking the status of all open ETPs.
  - Coordinating Tennessee One Call (TN811) functions for the project including updates to the TN811 ticket.
  - Confirming positive response has been provided for all TN811 utility locates.
  - Coordinating UCOR ETPs and UCOR support with UT-Battelle (UT-B) and Consolidated Nuclear Security, LLC (CNS) at the Oak Ridge National Laboratory (ORNL) and Y-12 National Security Complex (Y-12) and their permitting processes.

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- IA
- Overseeing UCOR performed utility locates and buried/embedded obstruction investigations and ensuring the personnel performing the work are competent through experience and training.
  - Be available to the project to perform initial briefings on the ETP.
  - **IF** excavation activities could potentially affect wells installed in and around the dig, **THEN** consider the following when establishing ETP controls:
    - Do not dig using mechanical equipment within five foot of bollards or concreted well pad without permission for the CHE SME. This includes above ground and flush mount wells.
    - **IF** a flush mount well does not have a well pad, **THEN** stay five ft away from outer edge of manhole/well cover.
    - Verify within the composite drawing and Engineering to ensure no well is within the dig site or within 5 ft of the boundary. Hand dig rules per PROC-FO-3034, *Earth Moving Equipment Operation*, will apply.
    - Digging cannot occur beneath a concreted top or flush mount without evaluation from Engineering/CHE SME and Water Resource Restoration Program personnel.
    - Protect/identify wells with barricades, e.g. concrete jersey bouncers, or other rigid barricade device, during excavation and or demolition activities.
- FM
6. Ensure the controls specified in the ETP prepared by the Excavation/Trenching IAs are appropriate and in compliance with facility requirements.
- Safety and Health (S&H), Industrial Hygiene (IH), Radiological Protection (RP)
7. Responsible for reviewing the ETP work scope and to ensure the necessary controls for performing the work safely have been incorporated into the ETP and work document.
- Environmental Compliance & Protection (EC&P)
8. Responsible for reviewing the ETP work scope and other information sources to ensure all environmental and historical requirements and applicable ETPs have been addressed in the ETP and work document.
- Requester
9. Responsible for the following:
- Defining the scope of work and location of the work.
  - Performing a walkdown of the work area and field marking the work location boundaries.
  - Performing a walkdown of the work area with the IAs, FMs, S&H, Radiological Protection Technician (RPT), and work crew.

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## B. General Requirements

**NOTE 1:** These are general requirements to be understood by all involved in ETP activities.

**NOTE 2:** Only organizations that have made the original underground active/hazardous and abandoned utility locate markings shall restore or refresh those markings to avoid error and additional liability.

All

1. Before performing excavation/trenching activities, the following steps to locate buried/embedded obstructions shall be performed.
  - a. Reviewing historical documents (e.g., maps, diagrams, and as-built drawings).
  - b. Interviewing knowledgeable site/facility personnel for historical information.
  - c. Performing subsurface investigation with qualified personnel to identify and mark underground utility/structure using radio frequency transmitters and receivers, and ground-penetrating radar (GPR). Other devices may be used if approved in writing by the CHE SME (e.g., ultrasonic testing, metal detectors).
  - d. Contacting Tennessee One Call (TN811).
2. UCOR or subcontracted personnel performing subsurface surveys shall have experience and training in the proper operation of the equipment to be used.
3. Potential hazards associated with this activity should be controlled and documented in accordance with PROC-FS-1001, *Integrated Work Control Program*. If field work is required for preparation of the ETP, then a hazard assessment can be conducted to evaluate the risks involved with ETP preparation, and the same ETP can be revised for any hazards identified during ETP preparation before commencement of excavation/trenches work.
4. FM knowledge of the site is critical in determining whether a review by Nuclear Facility Safety is required. Inactive Waste Sites (IWS) would require such a review and safety basis documents covering areas with buried waste generally contain prohibitions against excavations/trenches.
5. No excavation/trench is allowed that will disturb any originally buried waste materials at an IWS. Excavations/Trenches may be approved at IWS sites that do not disturb the original buried waste materials.
6. The UCOR RP organization shall be contacted prior to ANY excavation/trench (soil or ground surface) activities, including non-permit required excavations/trenches to determine if coverage may be required.

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All

7. Excavation/Trenching activities by UCOR or UCOR subcontractors shall be performed in accordance with this procedure, 29 Code of Federal Regulations (CFR) 1926, Subpart P, and PROC-FO-3034.

8. For subsurface locates for utilities:

a. For East Tennessee Technology Park (ETTP) – Tennessee One Call (TN811) is the primary source for utility locate work with UCOR performing additional locates as determined by the Project Engineer.

**NOTE:** UCOR IA is responsible for Tennessee One Call (TN811) for excavations/trenches at Y-12 and ORNL.

All

b. For ORNL – UCOR is the primary source for utility locate.

c. For Y-12 – CNS is the primary source for utility locate work with UCOR performing additional locates as determined by the Project Engineer.

d. Liquid and Gaseous Waste Operations (LGWO) FM is the point of contact for WASTE lines on campus.

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### C. Processing an Excavation/Trenching Permit (ETP)

**NOTE 1:** Support functions for ORNL and Y-12 to the IA are performed by the Project Engineer and EC&P staff.

**NOTE 2:** ETPs should be focused on localized areas and not on large areas (e.g., multiple acres, noncontiguous areas). Multiple excavations/trenches for the same job may be addressed by a single ETP with the approval of the IA when excavation/trenching locations are within close proximity to each other.

#### ETP Section I – General Information

**NOTE:** Excavations/Trenches may affect the Safety Authorization Basis requirements and shall have an Unreviewed Safety Question Determination or Unreviewed Change Determination review completed and documented in the work control document, as required by PROC-NS-1001, *Unreviewed Safety Question Determinations for Nuclear Category 2 & 3 Facilities*, or PROC-NS-1008, *Unreviewed Change Determinations for Radiological and Non-Nuclear Facilities*, as applicable for the facility.

Requester

1. Complete ETP Section I, General Information.
  - a. Determine description of work including area, perimeter, and depth of excavation/trench describing the excavation/trenching and whether entry will be required, location, schedule dates, and any other pertinent information regarding the excavation/trenching activity.
  - b. Identify the FM for excavation/trenching footprint, a Work Group Supervisor (WGS) who is knowledgeable of the work, and IA on the form, and notify them of the proposed excavation/trenching and schedule.
  - c. **IF** the ETP will include Ground Penetrations (GP), **THEN** indicate the type (e.g., well, sample, power pole, etc.), diameters, and depth of the GP.
2. Mark the proposed excavation/trenching location in the field with white paint, white stakes, or white flag field markings consistent with the area identified on figures, sketches, and/or drawings.
3. **IF** the ETP will include ground penetrations, **THEN** mark the GP with white paint (circle), white stake, or white flag field markings consistent with the area identified on figures, sketches, and/or drawings.
4. Once the proposed area of excavation/trenching has been marked, notify the IA.

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Requester                    5.    Upon completion of ETP Section I, General Information, add requester's name and date the form, and forward to the IA.

IA                                6.    Assign a unique identifying number to the ETP and record it in the project Excavation/Trenching Permit Log.

a.    Attachment B, Excavation/Trenching Permit Log and Instructions, is an example of the Excavation/Trenching Permit Log and the minimum information that is recorded on the log. The log will, as a minimum, have information such as number, description, date of issue, subcontractor, estimated and eventually actual closure date, and FM.

b.    Logs may be hardcopy or electronic.

7.    Forward ETP to the responsible project engineer or designee for processing.

**ETP Section II – Engineering Review**

Project Engineer or Designee                    1.    Research all site and facility figures, sketches, and/or drawings, Engineering Service Orders, etc., of the excavation/trenching area and consult with Engineering disciplines for additional figures, sketches, and/or drawings and information they may have access to, site knowledge from maintenance personnel, or FM/staff familiar with the facility/location to identify subsurface features or utilities that are suspected to be present. Note all systems, structures, and components that could be affected by excavation activities on the ETP. Differentiate between abandoned (air gapped), active, and inactive lines (inactive lines are not air gapped, may still be connected to active service lines, and may contain materials), and clearly mark the difference. Include any known concealed utilities not on figures, sketches, and/or drawings. Note any potential energy isolation required.

a.    Figures, sketches, and/or drawings for the Y-12 footprint need to be requested through the UCOR Work Order CNS Contact.

b.    Figures, sketches, and/or drawings for the ORNL footprint need to be requested from the ORNL Excavation Permit Coordinator.

**NOTE:**      Drawing are developed in accordance with PROC-DE-0705, *Design Drawings*.

Project Engineer or Designee                    2.    Develop appropriate figures, sketches, and/or drawings defining the scope of the planned excavation/trenching, the location of the work, and the estimated depth of the excavation/trench. Include any known concealed structures or utilities differentiating between abandoned (air gapped), inactive, and active lines (including non-hazardous communication, signal, or monitoring circuits and piping or lines not carrying hazardous energies/materials, pressures, or materials) not on figures, sketches, and/or drawings.

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Project Engineer or Designee

3. Check “Yes” in Section II of the ETP for any utilities on figures, sketches, and/or drawings that indicate the potential for underground, embedded, or concealed utilities suspected to exist at or adjacent to the excavation(s)/trench (s) **OR** mark the “No” column if the figures, sketches, and/or drawings do not show an interference with the planned excavation/trenching.
4. **IF** excavation/trenching location requires support from an offsite utility company or organizations, **THEN** fill in the utility company name or write “None.”
5. List referenced figures, sketches, and/or drawing numbers and note any differences in the information obtained from the figures, sketches, and/or drawings, and/or researched utilities as well as any relevant underground interferences (focus on assisting site excavation/trenching workers in preventing unplanned contact with underground interferences) in Section II, Comments, of the ETP. Attach marked-up copies of impacted reference figures, sketches, and/or drawings.
6. Identify any actions necessary to protect the affected systems/structures/components in Section II of the ETP. In particular, note when information is insufficient to determine if concealed utilities are in the area.
7. Identify whether any nearby facilities or structures will be affected by the excavation/trench (sidewalk, roadway, foundation, or utilities into or out) and the impact on the facilities.
  - a. Notify the adjacent facility FMs potentially affected by the excavation/trench and record their name(s) and phone numbers. Incorporate their facility information and mitigation for impacts in final figures, sketches, and/or drawings and files.

Responsible Project Engineer

8. Incorporate all accumulated information into figures, sketches, and/or drawings.
9. Route the ETP and associated figures, sketches, and/or drawings and other information to the engineers for review and input on field conditions and controls needed to perform the work. Review by the Electrical and Fire Protection engineering disciplines is required for all ETPs. Review by the civil or structural engineer is dependent on the scope of the work and determined by the project engineer. Enter N/A in the Civil/Structural Engineer Signature area in Section II of the ETP if civil/structural review is not required.
10. Identify any UCOR field investigation work needed in support of the ETP for non-utility buried or embedded obstructions. This is in addition to Tennessee One Call (TN811), UT-B, or CNS investigations.
11. Sign and date the ETP and forward it with any support figures, sketches, and/or drawings and files to the IA.



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### ETP Section III – Work Execution Discussion and Approval

**NOTE 1:** Sections III a, b, c, and d on ETP may be completed concurrently.

**NOTE 2:** For Section III, if the work control documents require concurrence or approval from the responsible representatives in that section, then the applicable section may not be required to be completed. For this section, input the statement, “Concurrence/Authorization is located in WPX-XX-XXXXXX”.

- IA
1. Forward the ETP for Work Execution & Approval (Section III of the ETP). The review and approvals for Section III are as follows:
    - a. EC&P – required
    - b. S&H – required or enter work package number into signature box
    - c. RP – required or enter work package number into signature box
    - d. LGWO / Liquid Low-Level Waste (LLLW) FM – required for ORNL permits. <WM-LGWO-LLLW-TSR>
    - e. FM of Excavation/Trench Site – required
    - f. FM of Adjacent Impacted Facility – as determined by the project engineer

**NOTE:** The ETP walkdown may be performed as part of the JHA walkdown.

- IA
2. Conduct a walkdown of the excavation/trench site to review figures, sketches, and/or drawings and files. The walkdown of the work location shall include the IA, FM, WGS/STR/SCC, project engineer, project planner, and Barge Design Solutions (Barge underground locate service), and may include competent person excavation, professional engineer, EC&P, S&H representative and IH, field radiological engineer (FRE), or other experts the IA deems appropriate.

**NOTE:** ETP Sections III and IV may be performed in any order or concurrently.

- EC&P
3. Review Sections I - II of the ETP and other appropriate documents to determine potential for environmental impacts, appropriate mitigation measures, and to ensure all environmental/historical requirements and applicable ETPs have been addressed or obtained.
  4. Review existing information sources concerning Resource Conservation and Recovery Act (RCRA) Solid Waste Management Units, RCRA Areas of Concern, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Appendix C sites, or other known areas of environmental concern to ensure the activity will not unknowingly disturb hazardous substances/contaminants.

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- |  |   |
|--|---|
| EC&P   | <ul style="list-style-type: none"> <li>5. Discuss any environmental aspects that would prohibit or limit proposed excavation/trench activity with WGS/STR (or designee), and FM.</li> <li>6. List special controls for the identified work scope in the Comments section of the ETP.</li> <li>7. Sign and date the ETP.</li> <li>8. Return the signed ETP to the IA.</li> </ul>   |
| S&H Representative<br>AND Responsible IH<br>Representative | <ul style="list-style-type: none"> <li>9. Review Sections I - II of the ETP, and other appropriate documents, to determine potential for safety or IH impacts.</li> <li>10. Conduct a review for any safety or IH issues in the excavation/trench area or adjacent facilities potentially impacted by the excavation/trench.</li> <li>11. Discuss any safety or IH aspects that would prohibit or limit proposed excavation/trench activity with IA, WGS/STR (or designee), and FM.</li> <li>12. List special controls for the identified work scope in the Comments section of the ETP.</li> <li>13. Sign and date the ETP and return it to the IA.</li> </ul> |
| Radiological Engineer                                      | <ul style="list-style-type: none"> <li>14. Review Sections I - II of the ETP, and other appropriate documents, to determine potential for RP impacts.</li> <li>15. Conduct a review for any RP issues in the excavation/trench area or adjacent facilities potentially impacted by the excavation/trench.</li> <li>16. Discuss any radiological aspects that would prohibit or limit proposed excavation/trenching activity with IA, WGS/STR (or designee), and FM.</li> <li>17. List special controls for the identified work scope in the Comments section of the ETP.</li> <li>18. Sign and date and return the ETP to IA.</li> </ul>                        |
| LGWO/LLLW FM<br>(ORNL only)                                | <ul style="list-style-type: none"> <li>19. Review Sections I - II of the ETP, and other appropriate documents, to determine potential for LGWO/LLLW impacts.</li> </ul> <p><b>NOTE:</b> The LLLW Technical Safety Requirements (TSR) requires the LLLW FM or designee to review and approve all ETPs generated at ORNL by any preparer (e.g., UCOR, UT-B).</p>  |
| LGWO/LLLW FM<br>(ORNL only)                                | <ul style="list-style-type: none"> <li>20. Conduct a review for any LGWO/LLLW issues in the excavation/trench area or adjacent facilities potentially impacted by the excavation/trench.</li> <li>21. Discuss any LGWO/LLLW impacts that would prohibit or limit proposed excavation/trenching activity with IA and WGS/STR (or designee).</li> </ul>   |

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- |                                       |   |
|---------------------------------------|---|
| LGWO/LLLW FM<br>(ORNL only)           | <p>22. List special controls for the identified work scope in the Comments section of the ETP.</p> <p>23. Sign and date and return the ETP to IA. &lt;WM-LGWO-LLLW-TSR&gt;</p>  |
| FM of<br>excavation/trenching<br>site | <p>24. Review Sections I - II of the ETP, and other appropriate documents, to determine potential for facility impacts.</p> <p>25. Conduct a review for any facility issues in the excavation/trenching area or adjacent facilities potentially impacted by the excavation/trenching.</p> <p>26. Discuss any impacts that would prohibit or limit proposed excavation/trenching activity with IA, WGS/STR (or designee), and FM.</p> <p>27. List special controls for the identified work scope in the Comments section of the ETP.</p> <p>28. Sign and date and return the ETP to IA.</p>          |
| Adjacent FM (if<br>applicable)        | <p>29. Review Sections I - II of the ETP, and other appropriate documents, to determine potential for adjacent facility impacts.</p> <p>30. Conduct a review for any facility issues in the excavation/trenching area or adjacent facilities potentially impacted by the excavation/trenching.</p> <p>31. Discuss any impacts that would prohibit or limit proposed excavation/trenching activity with IA, WGS/STR (or designee), and FM.</p> <p>32. List special controls for the identified work scope in the Comments section of the ETP.</p> <p>33. Sign and date and return the ETP to IA.</p> |
| IA                                    | <p>34. Ensure ETP package is complete.</p>  |

**ETP Section IV – Utility Surveys – ORNL and Y-12**

**UCOR excavations at ORNL and Y-12 require additional input from the facilities.**

- NOTE 1:** Utility surveys/identification shall be performed no more than 14 days prior to the start of work unless IA concurs where the site is fully under UCOR control and no outside utilities are involved.
- NOTE 2:** UCOR IA is responsible for Tennessee One Call (TN811) for excavations/trenching at Y-12 and ORNL.
- NOTE 3:** Only organizations that have made the original utility locate markings shall restore or refresh those markings to avoid error and additional liability.

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- Utility Locator      1. Personnel performing subsurface surveys shall complete Subsurface Investigation Checklist (SIC) in ETP.
- IA (for ORNL)      2. Identify the organizations performing the utility locates. For UCOR excavations/trenching at ORNL, utility locates (document reviews and surveys) are normally conducted by UCOR Subsurface Investigation Utility locator in accordance with UCOR procedures.
- IA (for Y-12)      3. Identify the organizations performing the utility locates. For UCOR excavations/trenching at Y-12, utility locates are normally conducted by CNS in accordance with CNS procedures. Confirmation of the CNS review is documented by an approved CNS Excavation permit. These are added to the UCOR ETP.

**ETP Section IV – Utility Surveys – ETTP and Outside the Blue Line**

- IA (for ETTP and OUTSIDE Blue Line)      1. Identify the organizations performing the utility locates.
- 2. Contact Tennessee One Call (TN811) to coordinate all external stake holders for evaluation of underground facilities. Record the Ticket # and date on the ETP.
  - a. **IF** there has not been a positive response from all utilities listed on the Ticket after 72 hours, **THEN** contact Tennessee One Call (TN811) again and have them pursue it with the responsible parties.
  - b. **IF** there has not been a positive response after the second notification of Tennessee One Call (TN811), **THEN** consult with the project engineer on whether to proceed with the ETP approval or hold for the utility confirmation.
- 3. Forward the ETP, with support figures, sketches, and/or drawings, to both the Subsurface Investigation Utility Locators for utility identification and marking at the work location.

**NOTE 1:** Utility surveys/identification shall be performed no more than 14 days prior to the start of work unless IA concurs that the location of the site is fully under UCOR control and no outside utilities are involved.

**NOTE 2:** Surveys such as audio and radio frequency transmitters and receivers, GPR, electrical detection surveys, etc., are conducted to provide indications of concealed utilities. They must not be considered as positive proof of the absence of utilities or the exact position or depth of a utility due to the technical limitations of available technology.

- Subsurface Investigation Locator      4. Ensure the excavation/trench boundary is clearly marked at the work location. Request re-marking through the IA if needed.
- 5. Locate and mark utilities as shown on the figures, sketches, and/or drawings.

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Subsurface  
Investigation Locator

6. **IF** a utility cannot be positively located (present, known by visual or instrument detection) and are shown on figures, sketches, and/or drawings, **THEN** notify the IA and FM to discuss additional actions to ensure any excavation/trenching can proceed in a safe manner (CHE SME may also be consulted).
7. Complete the SIC in ETP. Enter the date completed and sign the checklist.
8. Communicate the findings with the IA.
9. **IF** any unknown underground structures/utilities are identified, **THEN** red line the composite drawing with the approximate location, direction, length, and type.
10. Sign and date the ETP.
11. Return the ETP to the IA.

IA

12. Contact Tennessee One Call (TN811) and provide a “positive response” to the facility-owned locates, for UCOR, as one of the Underground Facility Operators.
13. Verify Tennessee One Call (TN811) has received “positive response” from all other Underground Facility Operators, mark the ETP accordingly, and include a copy of the response page with the ETP.
14. Verify all identified utility companies or organizations with utilities have marked their locations at the excavation/trenching site.
15. Contact Tennessee One Call (TN811) and the specific utility companies or organizations if any markings are not identified at the excavation/trenching site and schedule to meet those utility company or organization for marking of the area.
16. Review ETP and figures, sketches, and/or drawings, field markings of the Underground Facility Operators, work scope, work location boundaries, etc., to confirm:
  - a. The known underground utilities are mapped on figures, sketches, and/or drawings, and are properly field marked, and
  - b. There is no indication of other underground utilities present that are not mapped/marked.
17. **IF** any of the criteria in Step 16.a and 16.b cannot be confirmed, **THEN** repeat the above procedural processes as necessary until confirmation can be obtained or confer with responsible project engineer and FM to resolve the issue before proceeding.

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- IA                    18. Perform/coordinate a final walkdown with a WGS/STR and the Utility locator to verify the information in the ETP prior to issue.
19. **IF** all criteria above has been confirmed, complete Section IV of the ETP, **THEN**  
                              sign and date the ETP.

**ETP Section V – Permit Issuance**

- IA                    1. Identify if a Y-12 excavation/trenching permit is required for performing this work. **IF** required, **THEN** record the Permit identifier, the issue date, and the finish date in Section V.
- NOTE:**        The initial expiration date shall be no longer than six months (180 days) from the issue date.

- IA                    2. Ensure all sections of the ETP are completed and supporting figures, sketches, and/or drawings, and documents are present, the ETP sections are signed, and issue/expiration dates are identified.
3. Record the UCOR Excavation/Trenching Permit Issue Date and Expiration Date of the ETP.
4. Sign and date the ETP issuing the Permit to WGS/STR.

- WGS/STR            5. Ensure all sections of the ETP are completed and supporting figures, sketches, and/or drawings, and documents are present, the ETP sections are signed, and issue/expiration dates are identified.
6. Sign and date accepting the ETP.
7. Notify the FM of the excavation/trenching site prior to starting work in accordance with PROC-FS-1001.
8. Perform excavation/trench work activities in accordance with the approved work documents.

**Extensions and Revisions**

**NOTE 1:**    Provided the excavation/trenching work does not exceed the original marked boundaries and UCOR has maintained continuous exclusive control of the work site, updating the utility locates (TN811, UT-B, or CNS) is not required.

**NOTE 2:**    Only one extension, lasting up to 180 days from the original expiration date is allowed.

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- IA
1. **IF** an Extension is required, **THEN**  
the IA shall review the permit information, utility locates, and site markings to determine if the work conditions support an extension of the permit.
    - a. **IF** the extension is acceptable, **THEN**  
record the extension finish date on the ETP, sign the ETP extension section, and notify the FM and the WGS/STR of the extension.
    - b. **IF** Tennessee One Call (TN811) is required, **THEN**  
call and record the new Ticket #, and date and sign the ETP.

**NOTE:** Revisions to the scope of work for an ETP requires revisions to the work package document. ETP revision must be approved by the CHE SME.

- IA
2. **IF** a revision is required/requested, (e.g., boundary increase or changes to the scope of work), **THEN**  
get approval from the CHE SME.
  3. **IF** approved, **THEN**  
complete the revision section on the ETP, indicate the revision number on the first page of the ETP, and obtain the required signatures.
    - a. **IF** the marked excavation/trench boundaries need to be enlarged/exceeded, **THEN**  
utility locates (TN811, UT-B, or CNS) must be updated prior to proceeding with excavation/trenching work outside the original ETP boundaries. Notify the FM and the WGS/STR of the boundary changes.
    - b. **IF** Tennessee One Call (TN811) is required, **THEN**  
call and record the new Ticket #, and date and sign the ETP.
  4. Ensure updated/revised ETPs are provided to the project to update the work package.

**ETP Section VI – Feedback and Permit Closure**

- WGS/STR
1. Verify all work involving excavation/trenching activities is complete and the site is left in a safe and environmentally restored condition.
  2. Notify the FM of the excavation/trench site of the completion of the work in accordance with PROC-FS-1001.
  3. Document any unexpected obstructions, modifications to the utility system, or other unusual conditions in the work package status log.
  4. Sign and date Section VI of the ETP. Return a copy of the ETP and any notes, observations, figures, sketches, and/or drawings, or photos showing locations of buried features to the IA.

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- IA
5. **IF** there are redline entries on the ETP, figures, sketches, and/or drawings, **THEN**  
forward the copy of the completed ETP and any special notes, observations, or figures, sketches, and/or drawings to responsible project engineer or designee and note the date and ID of recipient in the ETP log.
  6. Ensure copies of figures, sketches, and/or drawings provided to Engineering are revised to reflect any changes in the installation or the presence of previously unknown utilities or obstructions.
- Responsible Project Engineer or Designee
7. Log the ETP and any design change requirements on the Project Engineering Permit Package Log (Attachment C).
  8. Ensure changes to drawings are updated in VAULT.
    - a. **IF** the drawing is not in VAULT, **THEN**  
enter the drawing into the VAULT System.
  9. Evaluate the changes for configuration management applicability and log the ETP and determine whether a drawing change in, accordance with PROC-DE-0705 is required.
  10. Submit a copy of the ETP and all supporting documents to the IA and file the original ETP with the wWork Plan (WP) to Work Control.
- IA
11. Use the copy of the completed ETP and any special notes, observations, or figures, sketches, and/or drawings for closure in the Excavation/Trenching Log.
  12. Enter the closure date into the Excavation/Trenching Log.
  13. Sign and date the permit as closed.



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**D. Field Implementation of the Excavation/Trenching Permit**

WGS/STR

1. Ensure work is performed in accordance with PROC-FS-1001, the ETP, and the associated work documents.

**NOTE:** Only organizations that have made the original utility locate markings shall restore or refresh those markings to avoid error and additional liability.

2. **IF** at any time,
  - the field markings are difficult to see (partially or completely) and need to be remarked, **OR**
  - the scope of work changes or field conditions change that are not covered by the ETP or the work control document, **OR**
  - the area of excavation/trenching requires expansion beyond the established boundaries, **THEN**

**STOP/SUSPEND WORK** in accordance with PROC-EH-2018, *Stop Work*, and contact the IA.

**RECORDS**

Records generated by this procedure and listed below shall be dispositioned in accordance with PROC-OS-1001, *Records Management, Including Document Control*:

- Form-147, Excavation/Trenching Permit (ETP)
- Form-3459, Issuing Authority Designation for Excavation/Trenching Permitting
- Excavation/Trenching Permit Logs

**SOURCE DOCUMENTS**

- 10 CFR 1021, National Environmental Policy Act; Implementing Procedure
- 29 CFR 1926, Subpart G, Signs, Signals, and Barricades
- 29 CFR 1926, Subpart P, Excavations
- DOE Order 440.1B, Admin Change 1, *Worker Protection Management for DOE Federal Employees*
- UCOR-4350, URS | CH2M Oak Ridge LLC (UCOR) Training Requirements Matrix (TRM), Oak Ridge, Tennessee
- PROC-DE-1040, *Design Drawing Verification*
- PROC-FO-3033, *Out of Commission Isolation Process for Structures, Systems, and Components*

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**Attachment A**  
**Definitions/Acronyms**  
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**Active Designated Landfills or Burial Sites** – A landfill or burial site that has been developed and approved for use and where the addition of new waste is authorized to be buried.

**BLUE LINE** – Demarcation line (painted blue across the roads entering into Y-12). This line demarks the actual entrance on to Y-12 when security regulations apply.

**CFR** – Code of Federal Regulations

**CHE** – Construction/Heavy Equipment

**CNS** – Consolidated Nuclear Security, LLC. The current Y-12 plant M&O contractor.

**Composite Drawing** – Drawing consisting of information gathered by the assigned engineer and annotated on the drawing obtained from the ORNL Atlas database or equivalent.

**Engineering** – The Engineering organization that provides engineering support to the organization issuing the permit and has access to the appropriate figures, sketches, and/or drawings to allow an engineering review. Projects located on sites that are owned by non-UCOR companies may need to obtain these services through the landlord organization.

**Environmental Compliance and Protection (EC&P)** – The Environmental Compliance and Protection organization at each of the sites that provides oversight and/or environmental support to the organization issuing the permit.

**Environmentally restored** – The use of like material (i.e., vegetation, asphalt, gravel) to stabilize the soil and prevent erosion into nearby storm drains and surface waters.

**ETP** – Excavation/Trenching Permit

**ETTP** – East Tennessee Technology Park

**Excavation** – Any man-made cut, cavity 12 or more inches into the soil that is wider than it is deep.

**Excavation Permit Log** – A listing of the excavation permit numbers and the associated permit information. The Permit Log may be hardcopy or electronic.

**Facility Manager (FM)/Owner** – The person with overall responsibility and authority for oversight of facility and occupational safety, for facility safeguards and securities, for facility planning and scheduling, and for work execution of facility maintenance and project activities performed within or adjacent to their assigned facilities. The FM serves to prepare, log, manage, and issue penetration permits (for walls, floors, and ceilings). Also has the responsibility for serving as the primary point of contact and work authorization authority for all activities performed in their assigned facilities. May also serve as a Subcontract Coordinator for subcontracted activities performed in their areas of responsibility.

**FRE** – UCOR Field Radiological Engineer

**GP** – Ground Penetration

**GPR** – Ground Penetrating Radar

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**Attachment A**  
**Definitions/Acronyms**  
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**IH** – UCOR Industrial Hygiene

**Issuing Authority (IA)** – The UCOR person authorized by management to issue excavation/trenching permits (FM issues penetration permits for their facilities). The IA will have a working knowledge of the facility and understand the known and potential hazards and consequences involved with the excavation operation. The IA must have knowledge of the areas of responsibility. The IA can be:

- Construction engineer,
- Knowledgeable person authorized by recognized management authority,
- The Emergency Services Watch Office (ESWO)/Y-12 Operations Center /Laboratory Shift Superintendent (LSS) may serve as IA on off shifts, weekends, or during emergency situations, if they are knowledgeable and have appropriate experience and understand the known and potential hazards and consequences.

**IWS** – Inactive Waste Sites

**JHA** – Job specific hazard analysis

**LEARN** – Local Education Administrative Requirements Network

**LGWO** – Liquid and Gaseous Waste Operations

**LLLW** – Liquid Low-Level Waste

**ORNL** – The Oak Ridge National Laboratory

**RCRA** – Resource Conservation and Recovery Act

**Record of Decision (ROD)** – A ROD is a public document that identifies the appropriate cleanup option selected after completion of a Remedial Investigation/Feasibility Study.

**PE** – Professional Engineer (PE). Professional Engineer (PE) means “an individual, who has fulfilled education and experience requirements and passed rigorous exams under State licensure laws.”

**Requester** – The UCOR person who initiates the permit.

**Routine Grading** – Surface grading to remove grass or to spread road material such as gravel or asphalt.

**RP** – Radiological Protection

**Safety & Health (S&H) Representative** – A UCOR Safety and Health person with safety training and experience who is knowledgeable through experience and education with excavation/trenching work, and who can determine if additional measures must be considered (such as hand digging) so work can proceed in a safe manner.

**SIC** – Subsurface Investigation Checklist

**SME** – Subject Matter Expert

**Subcontract Coordinator (SCC)** – The UCOR personnel with responsibility for executing the technical requirements and monitoring the activities of subcontractors.

**Subcontract Technical Representative (STR)** – The UCOR person with responsibility for performance of the technical requirements of the subcontractor.

**Subcontractor** – A company, corporation, or individual that has a contract with UCOR and has overall responsibility for all work associated with that contract or purchase order.

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**Attachment A**  
**Definitions/Acronyms**  
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**Subsurface Survey** – Inspection of a site where excavation activities are to be performed. The inspection includes using a device to identify the presence of underground obstacles/utilities. The service group or subcontractor performing the subsurface survey will mark utility location in a positive manner.

**TN ONE CALL (811)** – TN 811 gathers information from anyone who is excavating, processes it using GeoCall Ticket/Mapping system, and notifies underground utility operators that may have utilities in the area. The owners of the utilities then send personnel to locate and mark/identify their utilities.

**TSR** – Technical Safety Requirements

**Underground Facilities** – A term used by Tennessee One Call (TN811) to refer to underground utilities or structures.

**UT-B** – UT-Battelle. The current ORNL M&O contractor.

**VAULT** – Autodesk Vault is a data management software tool that helps organize, manage, and track technical services documents. Vault is the data repository for all technical services documents, is used to maintain version control, and is integrated with AutoCAD (among others).

**Work Group Supervisor (WGS)** – A UCOR or Subcontractor individual who will supervise work performed.

**Y-12** – Y-12 National Security Complex



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**Attachment B**  
**Instructions for the Excavation/Trenching Permit Log**  
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Permit Number (XXXX-ETP-YY- NNNN)	XXXX = Site (ORNL, Y12, ETP) or facility number ETP = Excavation/Trenching Permit; YY = calendar year (e.g., 99 = 1999; 00 = 2000) NNNN = consecutive number (e.g., 0001)
Project/Job Title (Subcontractor)	Descriptive Job Title or Project Name If subcontractor is performing the work, then put name in parenthesis.
Facility/Area	Facility or Area number.
Requester	Name of person requesting and processing the permit.
Issuing Authority	Name of Issuing Authority or FM.
Date Permit Issued	The date that the permit is logged in (i.e., when permit number is assigned).
Estimated Closure Date	The date that the permit expires.
Actual Closure Date	The date that the completed excavation permit paperwork is signed off and returned to the IA.
Date Engineering Copied	The date that the completed permit is copied back to Engineering and the ID of who it was transmitted to.



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**Attachment C**  
**Instructions for the Project Engineering Permit Package Log**  
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Permit Number (XXXX-ETP-YY- NNNN)	XXXX = Site (ORNL, Y12, ETP) or facility number ETP = Excavation/Trenching Permit; YY = calendar year (e.g., 99 = 1999; 00 = 2000) NNNN = consecutive number (e.g., 0001)
DC Required (Y/N)	Engineering determines if a Design Change (DCN or EI) is required due to the information provided with the permit.
DC #	Record Design Change # if a DC is required. The DC itself will be tracked in the Vault system.
CM Applicability	Record any comments on the Configuration Management Applicability for the Design Change.