

PPPL	PRINCETON PLASMA PHYSICS LABORATORY	PROCEDURE	No. ENG-024 Rev 3 page 1 of 3
Subject: DIGGING PERMITS	Effective Date: August 16, 2004	Initiated by: Head, ES&H and Infrastructure Support	
	Supersedes: Rev. 2, dated Nov. 30, 1998	Approved: Director	

APPLICABILITY

This procedure defines and establishes controls for penetrations in the ground of 12-inches or deeper anywhere on the PPPL site. The procedure is applicable to work performed by PPPL as well as subcontractors who may be employed to work on existing or new installations.

INTRODUCTION

The PPPL Operations and Maintenance Division (O&M) issues Digging Permits following a review of the proposed excavation, the architectural/civil drawings of the affected location(s), and NEPA and OSHA determinations. The Digging Permit Coordinator is appointed by the Head of Maintenance and Operations. The appointment is based on practical field experience, electrical knowledge and the ability to read underground utility drawings.

NOTE: A valid Digging Permit with drawings or schematics attached shall be available at the excavation site whenever work is in progress.

ON-SITE INSPECTION

The "Competent Person" is a designated individual who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them. During the digging operations, the Digging Project Supervisor and/or an authorized representative of the ES&H and Infrastructure Support Department shall inspect the digging activity with the competent person.

JOB SPECIFICATIONS REQUIREMENTS

The "Requestor" of the project that requires the use of this procedure shall ensure that the project Specifications used by the subcontractors responsible for designing and executing the project, include the following information and/or directions:

- Incorporate information (Drawings etc.) to assist in determining location of buried utilities at the job site.
- State any known precautions necessary for any digging activity.
- When installing new underground utilities, provide for placement of "trace lines" & caution tape.
- The digging coordinator will determine if notification to the State of New Jersey DIG is required. He will notify the subcontractor if applicable.
- Subcontractor (or PPPL if digging is done in-house) is responsible for Calling 1-800-272-1000 (State of New Jersey DIG) and the final marking and layout of excavation sites, including the marking or confirming of the location of existing underground utilities.

REFERENCES

29CFR1926 OSHA "Safety & Health Standards", Subpart P, "Excavations, Trenching & Shoring".
 ESH-014 NEPA Review System
 29 CFR Part 1926 Sub-Part P
 29 CFR OSHA 1926.32(f) Definition of a Competent Person
 ENG-032 Work Planning Procedure

PROCEDURE

<u>Responsibility</u>	<u>Action</u>
Requestor	<ol style="list-style-type: none"> 1. Provides A/E representative and/or Cog with the latest relevant drawings to aid in the design process, if digging is required for the project. 2. Completes the “Requestor” section of the Digging Permit form including the assignment of a Digging Project Supervisor [sufficient details of the proposed excavation shall be included to facilitate the reviews required]. 3. Assure a completed NEPA form, per ESH-014, has been obtained for the proposed action. Also secures the proper resume, training certificates from the “Competent Person” for the ES&H Division’s authorization. 4. Transmits the Digging Permit, NEPA form, and design drawings to the Digging Permit Coordinator along with any other appropriate information on the proposed excavation.
M&O Digging Permit Coordinator or Designee	<ol style="list-style-type: none"> 5. Completes appropriate section of the Digging Permit form. Reviews work package against existing PPPL drawings to determine proximity of underground utilities to excavation site and include this information on the Digging Permit package. 6. Arranges for use of Ground Penetrating Radar to locate underground utilities (as appropriate for work scope and digging location). If GPR is not feasible requests in writing a waiver from DOE Princeton Site Office. 7. Provides ground markings at excavation site to indicate location of underground utilities and marks up the pertinent prints to specify the location of underground utility lines on the Digging Permit package from identifiable landmarks established by triangulation or use of surveying equipment. 8. Provides notes on the marked-up prints showing the anticipated depth, if available, of any underground utilities located at the excavation site. If necessary, writes "Cautions" on marked-up prints. 9. Forwards the Digging Permit package to ES&H for review.

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| ES&H Division | 10. Reviews the Digging Permit and completes review of proposed excavation and provides the safety concerns and/or requirements for the excavation on the form or as an attachment. |
| M&O Digging
Coordinator or Designee | 11. Signs the Digging Permit form and transmits to the M&O Digging Coordinator. Also approves the designation of the "Competent Person."
12. Arranges for an independent review of the digging plan, precautions and markings with the appropriate PPPL organization/personnel (e.g., AC Power).
13. Verifies the qualifications of the individual selected by the <u>Requestor</u> as the Digging Project Supervisor.
14. Transmits a "draft" copy of the Digging Permit with attachments to the Digging Project Supervisor for preparation of excavation. |
| Digging Project
Supervisor | 15. Schedules a Job Hazard Analysis (JHA) briefing with the M&O Digging Coordinator/designee Competent Person and ensures the equipment operators are included among attendees. |
| M&O Digging
Coordinator or Designee | 16. Conducts a job briefing with Digging Project Supervisor, Competent Person, equipment operator(s), and ES&H (if required) prior to signing and dating Digging Permit for validation. |
| M&O Digging
Coordinator or Designee | 17. Marks up drawings with <u>red-line</u> corrections, as required, to reflect <u>as-found</u> conditions. |
| Digging Project
Supervisor | 18. Assures that markers and ribbons are laid in the excavation prior to back filling and then notifies the M&O Digging Coordinator before commencing with the backfill operation. |
| M&O Digging
Coordinator or Designee | 19. Conducts on-site inspection of the excavation area before allowing the work crew to begin the backfill operation. |
| Digging Project
Supervisor | 20. Backfills excavation in accordance with requirements on the Digging Permit and the contract.
21. Submits as-built drawings to M&O Digging Coordinator or designee with a cost center for PPPL Drafting. |
| M&O Digging
Coordinator or Designee | 22. Reviews as-built drawings and transmit them to PPPL Drafting with the cost center provided by the Digging Project Supervisor. |

Attachment

PPPL Digging Permit Form

Dig Coord.	PPPL DIGGING PERMIT # _____ Work Order # _____										
To be filled in by Requestor	REQUESTOR: _____ DATE OF REQUEST: _____ DEPARTMENT: _____ PROJECT TITLE: _____ Description: Include reason for excavation, duration of work digging method & equipment to be used, excavator (PPPL or outside contractor) location and sketch of work area, all cautions known to the initiator (attach separate sheet if needed), and NEPA Form number and Certification Date. 1. REASON – 2. DURATION – 3. METHOD & EQUIP. 4. EXCAVATOR – PPPL <input type="checkbox"/> CONTRACTOR <input type="checkbox"/> 5. LOCATION – 6. CAUTIONS – 7. NEPA NUMBER _____ DATED: _____ Name of Qualified Digging Project Supervisor (assigned by Requestor) (Approval by Digging Coordinator required.) _____ Competent Person: (Please Print): _____ Approval by I.H. Required: _____										
Dig. Coord.	GPR COMPLETED <input type="checkbox"/> OR WRITTEN WAIVER FROM DOE PRINCETON <input type="checkbox"/> Drawings reviewed for issuance: _____ State of New Jersey DIG Required <input type="checkbox"/> Yes <input type="checkbox"/> No CALL 1-800-272-1000 (By Excavator) Coverage of digging by ES&H 100% _____ periodic inspection _____ Coverage of digging by Digging Project Supervisor 100% _____ periodic inspection _____ Backfilling Requirements: _____										
I.R.	Independent Review by: _____ Signature: _____ Date: _____										
SAFETY	OSHA Review by: _____ Date: _____ Concurrence to digging coverage by ES&H & Digging Project Supervisor: _____										
Dig. Coord.	Permit issued by: _____ Date: _____										
Dig. Coord.	Start of work Date: _____ Expiration Date: _____ I HAVE PERSONALLY REVIEWED THIS PROJECT IN THE FIELD WITH THE ATTACHED DRAWINGS AND FULLY UNDERSTAND THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN IN THE WORK AREA AS NOTED ON DRAWINGS, THE PERCENT OF COVERATE AND THE CAUTIONS EXPLAINED. KEEP THIS PERMIT WITH ATTACHMENTS AT JOB SITE AT ALL TIMES.										
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%; text-align:center;">1.</td> <td>DIGGING PROJECT SUPERVISOR: _____ Date: _____</td> </tr> <tr> <td style="text-align:center;">2.</td> <td>EQUIPMENT OPRATOR(S): _____ Date: _____</td> </tr> <tr> <td style="text-align:center;">3.</td> <td>COMPETENT PERSON: _____ Date: _____</td> </tr> <tr> <td style="text-align:center;">4.</td> <td>DIGGING COORDINATOR/DESIGNEE VALIDATION (SIGNATURE & DATE): _____</td> </tr> <tr> <td style="text-align:center;">5.</td> <td>_____</td> </tr> </table>	1.	DIGGING PROJECT SUPERVISOR: _____ Date: _____	2.	EQUIPMENT OPRATOR(S): _____ Date: _____	3.	COMPETENT PERSON: _____ Date: _____	4.	DIGGING COORDINATOR/DESIGNEE VALIDATION (SIGNATURE & DATE): _____	5.	_____
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