ESCO GROUP
Core Drilling Permit

Date: _____

Location: _____
_____

All core drilling must be approved by:

Person doing the drilling: _____

Customer: _____

ESCO GROUP Supervisor: _____

ESCO GROUP Foreman: _____

ESCO GROUP Safety Coordinator: _____

Job Briefing and Planning Checklist		
Employee:	Date:	
Location:	Area:	
TASK DESCRIPTION:		
	YES	NO
Can the equipment be de-energized?		
Energized work?		
Shock Hazard Analysis:		
Voltage Level: _____		
Limited Approach: _____		
Restricted Approach: _____		
Rubber Insulating Equipment Class (Gloves) _____		
Arc Flash Risk Assessment: **(choose NFPA 70E Tables or incident energy analysis)**		
[ ] NFPA 70E Tables Method		
HRC level: _____ Max. Short Circuit Current _____ Max. Fault Clearing time _____		
[ ] Incident Energy (cal/cm2) _____		
Arc Flash PPE required?		
Arc Flash protection boundaries: _____		
Job Planning:		
Current Job write up or prints available and reviewed?		
Any "foreign" (secondary source, backfeeds) voltage source possible?		
Employee experienced in the assigned task?		
Employee qualified for completing the task?		
Employee familiar with the facility?		
Communication with employees & with facility		
Are energy sources controlled? (Lockout/Tagout) Simple Lockout ____ Complex Lockout ____		
Temporary Protective Grounding straps installed and locked out?		
Location: _____ Size: _____		
Grounding straps removed before energizing?		
Fill out 'Energized Electrical Work Permit' have it signed and posted in work area		
Electrical Testing Required? Megger ___ Med Voltage Cable DC Hi Pot ___ Other ____		
Is work near overhead lines?		
Voltage: _____ Approach distance: _____		
Method of protection: [ ] Distance, [ ] De-energize, [ ] Grounded or [ ] Guarded **(check methods used)**		
Any cutting or drilling into equipment, floors or structure?		
Location of conductors, cables, raceways, or equipment have been identified or marked?		
Have safety interlocks been disabled or bypassed?		
Have customer requirements been reviewed and approval by customer?		
Job Planning – Safe Work Practices		
Arc Flash/Shock PPE accessible, inspected and in good condition?		
Voltage-rated tools available, inspected and in good condition?		
Install barriers and barricades		
Meters and leads inspected and in good condition		
Cords and GFCI inspected and in good condition		
Barricades (w/tag) and/or signs needed?		

Job Planning – Additional Items		
Any unusual work conditions?(aerial lifts, cranes, excavating/trenching, linebreak, forklifts)		
Elevated work - fall protection equipment? List:		
Confined space? (permit, training)		
Hot work permit? (welding, grinding, cutting)		
Proper gloves being worn? Circle one: chemical, cut resistant, general purpose, leather		
Will this task affect other people? (notify others in area)		
Will other jobs in the area affect this task?		
Any chemical products in the area that may be a hazard?		
Housekeeping plan in place?		
Emergency Procedures:		
Emergency # identified? _____		
Emergency shutoff located? Location: _____		
CPR/AED person trained on site? Identify: _____		
Fire extinguisher & First aid kit located?		
Emergency eyewash/shower located?		
Electrical Equipment		
Is the electrical equipment to be worked on properly installed and maintained?		
Are all covers and doors are secured and in place?		
Evidence of any impending failure (arcing, overheating, loose or bound equipment parts, visible damage, or deterioration)?		
Adequate work space is maintained around electrical equipment?		
CB or relays available with instantaneous trip or overcurrent protection settings?		
Instantaneous settings "locked/tagged out" during work? (to prevent switching back to operational setting)		
Normal operation setting restored when work complete?		
Work in energized units: [ ] insulated barrier installed? [ ] Finger safe (IP20 or greater)		

Employee Signatures: _____

ESCO Group
Energized Electrical Work Permit

This permit is required for any work in which a person or conductive object will approach closer than the Restricted Approach Boundary to energized (live) parts operating at 50 volts or more. PPE and electrically rated equipment is still required, however the following do not require this permit to be completed.

Testing and troubleshooting, including voltage and current testing.

- Breaker and switch operation with covers closed or safe.
- Activities to lockout/tagout equipment.
- Installation of barriers to make the job safe.
- Tightening a 110VAC terminal screw.
- Removing a cover to perform an IR scan.

Before initiating this work…….

Can this job be avoided? Yes ☐ No ☐

Is there a safer way to do this work? Yes ☐ No ☐

Can it be shut down? Locked/Tagged? Yes ☐ No ☐

Can it be delayed until such a time that it can be shut down? Yes ☐ No ☐

Can Voltage Rated Barriers be installed to eliminate the hazard? Yes ☐ No ☐
If one or more of these question is "Yes", then use this method and use a normal Job Briefing for this work. If all are "No" proceed with an Energized Electrical Permit.

Why does it have to be done hot? (Check all that apply)

☐ It is part of a Continuous Process that can't be shut down?

☐ Emergency System

☐ Hazardous Location Ventilating System?

☐ Creates additional hazards or infeasible due to equipment design or limitations?

If none of these items are checked, Energized Electrical work is not allowed and the equipment should be shut down and locked out!

Instructions to electrically Qualify individual (Permit Issuer):

Verify/Fill our permit daily
All items on the permit must be checked or filled out.
Insure proper PPE
Sign Permit
Review project plan with and secure acknowledgement signatures
Notify designated 1st Aid/CPR site safety coordinator
Post permit at job site.

Note: Once work is complete, return this form to your supervisor.

Emergency Information:

1. For medical assistance dial _____ for plant.
2. Dial 911 for emergency response.

Energized Electrical Work Permit

Energized electrical work being done by:

Employee: _____
Date: _____
Permit expires: (time) _____
Job/WO Number: _____
Job Location: _____
Flash Hazard Boundary: _____
Flash Hazard Category (Circle) and Protection Required.
0 1 2 3 4
See page DD-21 for Personal Protection Equipment required.
Description of Circuit Equipment: _____
_____
_____
_____
_____
_____
Description of work being done: _____
_____
_____
_____
Note: See Arc Flash Label for some of the following information: Use Power Feed Label in absence of local label:
MAXIMUM VOLTAGE EXPOSED: (CIRCLE)
150-300V, 300V TO 750V, >750V Specify: _____
_____ AC☐ DC☐
Voltage Being Worked On: (Circle)
<150V, 150-300V, 300V to 750V, >750V
If >750V Specify: _____ AC☐ DC☐
1.Prohibited Approach Boundary: (Permit Requirements)
<300V – Avoid Contact
300 to 750V – One inch
>750V – Seven inches (up to 15,000 volts).
2. Shock Protection Boundary (Restrictive Approach Boundary) _____
3. Shock Hazard PPE Required (Circle Required Elements):
- Voltage Rated Gloves/Leathers
Class Required (Circle): 00. 0. 1, 2, 3, 4
- Voltage Rated Tools Yes ☐ No ☐
4. Limited Approach Boundary: (Unqualified People Entry Distance) _____
5. Means to keep Unqualified people out: _____
_____

6. Additional Safety Work Practices Employed:
_____
_____
_____
_____ or none ☐
7. Other job hazards: _____
_____
_____
_____ or none ☐
8. Job Briefing/Planning Checklist Filled Out
Yes ☐ No ☐
9. ERT/FRT and technical community been notified?
Yes ☐ No ☐
10. >150V: Identify observer if working alone on work or N/A ☐: _____
11. Do you agree that this work can be performed safely?
_____ Yes ☐ No ☐
_____ Yes ☐ No ☐
_____ Yes ☐ No ☐
If "No", stop work and report to your Supervisor.
12. Do you acknowledge that you have reviewed this job at the job site with the electrically qualified worker?
ESCO Group Supervisor
Name: _____
Signature: _____

Maintenance/Engineering Manager
Name: _____
Signature: _____

Once the work is complete, forward this form to ESCO Group Safety Department for review and retention.

Automation Electric Engineering Safety Testing
ESCO GROUP

HOT WORK PERMIT

NAME _____ FOREMAN _____
Person performing hot work

DATE _____ TIME _____

FACILITY NAME _____

EXACT LOCATION WHERE WORK WILL BE PERFORMED _____
_____

☐ FIREWATCH (Remain in area for 30 minutes after work is completed) NAME: _____ ☐ FIRE EXTINGUISHER

☐ FIRE EXTINGUISHER

☐ FIRE BLANKETS

☐ FLAMMABLE MATERIAL CLEARED OUT OF WORK AREA

SIGNATURES:

_____
Person performing hot work

_____
Foreman

_____
Owner Representative (if applicable)

Electrical Conduit and Tray Cable Removal Permit

This Permit shall be completed for any work in which an employee will be required to remove an installed electrical conduit or tray cable under these circumstances:

Check all that apply

□ All circumstances where at least one end of the conduit or tray cable to be cut cannot be seen or is not within 30' of cutting point.

□ All circumstances that involve cutting a conduit or tray cable anywhere except for the end of the conduit or cable tray; i.e. the middle of the installation.

□ All circumstances that involve cutting conduits or tray cable that are similar in size and materials that are installed in such a manner that they are parallel or adjacent to each other.

□ Unable to remove cable from conduit-cutting is last resort.

Permit (To be completed prior to work commencing)

Date: _____ Time: _____ a.m. or p.m.

Conduit or Tray Cable Location: _____

Dept Supervisor: Print _____ Sign_____

ESCO Group Supervisor Signature:

Print_____Sign_____

Final Checklist
□ **Verify conduit is empty**
□ **Verify cable is de-energized (locked out or de-terminated)**
□ **Identify conduit with tape, paint, or tag on the conduit to be cut.**
□ **Two ESCO employees (signatures below) confirm that correct conduit to be cut is identified.**

ESCO Signature #1: Print _____ Sign_____

ESCO Signature #2: Print _____ Sign_____

Submit all completed permits to ESCO Group Safety Department

The ESCO Group's Hazard/Risk Evaluation Procedure