

EXHIBIT F-7
STATION FORMS

THERMAL HOT WORK PERMIT
PROGRAM

AND

DIGGING PERMIT

LG&E AND KU ENERGY LLC
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Thermal Hot Work Permit Program

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THERMAL HOT WORK PERMIT PROGRAM

1. PURPOSE

The purpose of this program is to reduce or eliminate the potential for injury to people and damage to property that can result from fires or explosions that arise when thermal hot work is performed outside of a designated safe thermal hot work area.

This program establishes a permit authorization system to ensure that all hazards are evaluated and that appropriate safety measures and controls are taken prior to and during any operation involving open-flames or that produces heat and/or sparks.

This operating procedure is written in accordance with the Occupational Safety and Health Administration's (OSHA) workplace standard, 29 CFR 1910.252, Welding, Cutting and Brazing and the National Fire Protection Association (NFPA) code standard 51B, Fire Prevention in Use of Cutting and Welding Processes.

2. SCOPE

This program is applicable to all LGE/KU personnel and all contract personnel working at LGE/KU-owned properties and other locations where LGE/KU has control over the work to be performed.

3. Responsibility

All employees have responsibility for ensuring compliance with this program, including suspending thermal hot work if conditions become unsafe. Specific responsibilities are:

- 1) The Corporate Health and Safety Manager shall ensure that:
 - a) the written Corporate Thermal Hot Work Permit Program is reviewed and revised, as necessary,
 - b) the Business Units are provided assistance in evaluating the applicability and implementation of this program, and
 - c) reviews of the program's effectiveness are conducted and documented.
- 2) Business Unit managers shall:
 - a) designate one or more individuals with responsibility for authorizing thermal hot work in areas not specifically designed for such processes,
 - b) provide resources and enforcement toward the identification, implementation and evaluation of controls to protect workers potentially exposed to the hazards of thermal hot work in the workplace,
 - c) provide necessary support to ensure documentation of required record keeping activities, and

- d) provide necessary supports to ensure employees attend annual training classes.
- 3) Health and Safety Specialists and Technical Training Consultants are responsible for:
- a) reviewing and approving, in coordination with departmental representatives, the locations where thermal hot work permits are required. This can be accomplished by either designating areas where permits are required or identifying areas where permits would, under normal conditions not be required,
 - b) maintaining a list of areas that are specifically designed for thermal hot work,
- 4) Supervisor and/or Team Leader are responsible for:
- a) ensuring that fire watches are properly trained,
 - b) ensuring that the proper fire fighting equipment is in working condition, and is available to standby personnel,
 - c) determining whether combustible materials or other hazards are present or are likely to be present in the work location,
 - d) periodically monitoring designated areas to be sure that conditions have not become unsafe for thermal hot work,
 - e) preparing the workplace by:
 - i) moving the work to a designated safe thermal hot work area or a location free of combustibles and potentially explosive atmospheres, or
 - ii) if the work cannot be moved, having the combustibles moved to a safe distance (a minimum of 35 feet) from the work area, or
 - iii) having the combustibles properly protected against ignition, or
 - iv) ventilating the area to remove potentially combustible or explosive gases or dusts (**Note:** In areas where there is the possibility of a release of an explosive gas, continuous monitoring of the area with an explosive meter is required.), or
 - v) scheduling the thermal hot work during a time when combustible materials are not to be in the area.
 - f) obtaining a thermal hot work permit from an issuing authority for any work that is to be performed outside of a designated safe thermal hot work area.
 - g) ensuring that workers are provided with and use proper safety equipment, including personal protective equipment and fire extinguishing equipment.

- h) when required, designating a properly trained person to serve as a fire watch.
- 5) The Contractor Proponent will be responsible for ensuring that the duties of the Supervisors and/or Team Leaders are properly executed for tasks involving contractors performing thermal hot work.
- 6) The Issuing Authority shall:
- a) review the permit request and verify that all necessary precautions have been properly taken. If necessary, a visual inspection may be conducted prior to final approval.
 - b) verify that the buildings fire sprinkler system is in service, where applicable. Determine if the work area has any fire alarm detectors that need to be disabled to prevent false alarms, and appropriately disable only those devices that could be accidentally activated.
 - c) verify the location, start time and duration of the thermal hot work operation. A thermal hot work permit shall only be valid for the time duration identified. No thermal hot work permit shall exceed the requestor's scheduled shift period unless the requester receives a written approval from the Issuing Authority for an extension.
 - d) determine whether a fire watch is required for the thermal hot work operation.
- 7) The Fire Watch shall be a properly trained person designated by the individual or department requesting the thermal hot work permit, but shall not be the actual employee who is performing the thermal hot work operation.
Specific responsibilities include:
- a) having fire extinguishing equipment readily available and be trained in its proper use and limitations.
 - b) being familiar with facilities and procedures for sounding an alarm in the event of a fire.
 - c) correcting or stopping any conditions which may lead to a fire and reporting conditions to their department at the earliest opportunity. Attempting to extinguish fires appropriate to the available equipment and level of training, or otherwise activate the fire alarm system.
 - d) remain at the work site to monitor for smoldering fires while work is in progress and for at least one half hour following job completion. If the fire watch must leave the work site, all thermal hot work must stop.
- 7) Employees performing thermal hot work shall obtain proper authorization to perform thermal hot work operations via the THERMAL HOT WORK PERMIT and shall handle the equipment safely and use it so as not to endanger lives and property. The employee performing thermal hot work is also responsible for:
- a) ensuring full compliance with the requirements of this procedure.

- b) being fully qualified to perform required thermal hot work and verify that their equipment and tools are in good working order.
- c) using appropriate safety equipment, including eye and face protection, hand protection, body protection, head protection, hearing protection and respiratory protection, as needed.
- d) avoiding thermal hot work operations where conditions ARE NOT SAFE.
- e) stopping work when conditions change from those set when the work was approved. If the designated fire watch must leave the work site, operations shall cease and the operator shall remain at the work site for at least one half hour following job completion to monitor for fires.

4. Definitions

Designated Safe Thermal Hot Work Areas are areas that have been designed and constructed for performing work involving open-flames or that produce heat or sparks.

Facility Manager is the senior manager responsible for the physical operations of the facility or his/her designee (i.e., a plant manager at a power generation station or a service center manager at an operations center).

Fire Watch is a person trained to monitor thermal hot work operations. The Fire Watch shall be present during the entire thermal hot work operation and are immediately available to extinguish a fire or take other effective action if needed.

Thermal Hot Work is any work using an open-flame, heat or spark-producing apparatus. Thermal hot work includes, but is not limited to, welding, cutting, burning, grinding, and any related heat-producing jobs that could ignite combustible materials or flammable atmospheres. **Note:** Bolt heaters, car thaw sheds, portable room heaters (where allowed) and thermal weatherization equipment are not considered thermal hot work and do not require permits under this corporate program.

Thermal Hot Work Permit is a special permit, issued by an issuing authority, which authorizes specified thermal hot work at a specific location and time.

Issuing Authority is a person trained and approved by the facility manager or Business Unit manager to issue thermal hot work permits.

5. Thermal Hot Work Requirements

- 1) Routine thermal hot work operations shall be allowed without the requirement of a permit only in areas that have been designated as a SAFE THERMAL HOT WORK AREA.
- 2) In areas where it is not practical to move the work to a designated SAFE THERMAL HOT WORK AREA, thermal hot work shall only be permitted once the area is made fire safe by removing combustibles or protecting combustibles from ignition sources.

- 3) Thermal hot work operations are strictly prohibited under the following conditions:
 - a) in areas not designated as SAFE THERMAL HOT WORK AREAS where a proper thermal hot work permit has not been obtained;
 - b) in sprinklered buildings while such protection is impaired;
 - c) in the presence of explosive atmospheres, such as mixtures of flammable gases, vapors, liquids, or dusts with air; on or in any drum, container or vessel that has not been properly cleaned to remove any possible explosive atmospheres that can develop inside from residual contents; or
 - d) in areas near the storage of large quantities of flammable or combustible materials that can readily ignite. Note: In coal yards and other coal storage areas, as well as when working on or within 35 feet of coal handling equipment, a thermal hot work permit will always be required and the coal must be adequately protected.

6. Thermal Hot Work Permit Procedures

- 1) Before a thermal hot work permit is approved and issued, the department or individual requesting the permit shall verify that:
 - a) all thermal hot work equipment to be used is in satisfactory condition and in good repair.
 - b) any combustible materials such as paper, wood, textiles, or coal on the floor are swept clear for a radius of 35 feet or protected against ignition by other means. Floors constructed of combustible materials are properly protected by either wetting the surface or covered by fire-resistant shields. Where floors have been wetted down, personnel operating arc welding or cutting equipment shall be protected from possible shock.
 - c) all combustible materials are relocated at least 35 feet from the work area. Where relocation is not practical, the combustible materials shall be adequately protected.
 - d) openings or cracks in walls, floors, or ducts and grating surfaces within 35 feet of the work area are tightly covered to prevent the passage of sparks to adjacent areas. Where thermal hot work is done near walls, partitions, ceilings or roofs of combustible construction, fire-resistant shields or guards are provided to prevent ignition.
 - e) if thermal hot work is to be done on a metal wall, partition, ceiling or roof, that precautions are taken to prevent ignition of combustible materials on the other side, due to conduction or radiation, such as relocation or covering the materials. If the combustible materials cannot be relocated or protected, a fire watch shall be provided on the opposite side of the wall where the work is being performed.
 - f) no thermal hot work is attempted on a metal partition, wall ceiling or roof having a covering, or on walls or partitions of combustible sandwich-type panel construction.

- g) thermal hot work is not undertaken on pipes or other metals that are in contact with combustible walls, partitions, ceilings or roofs, if the work is close enough to cause ignition by conduction.
 - h) nearby personnel are suitably protected against heat, sparks, slag, etc.
 - i) where thermal hot work is to be done in close proximity to a sprinkler head, that the head is covered by a wet cloth to prevent activation. The cloth must be removed immediately at the conclusion of the thermal hot work.
- 2) The department or individual requesting the thermal hot work permit is responsible for designating a fire watch. The fire watch shall:
- a) have fire extinguishing equipment readily available and be trained in its use.
 - b) know how to activate the building's fire alarm system, if applicable, or who to notify in the event of a fire.
 - c) watch for fires in all exposed areas, and try to extinguish them first only when obviously within the capacity of the equipment available, or otherwise sound the alarm immediately.
 - d) monitor the work area for at least one half hour after completion of the thermal hot work to detect and extinguish any smoldering fires that may be identified.
- 3) Once the work area has been properly prepared, the department or individual requesting the thermal hot work permit shall complete the thermal hot work permit form (See *Appendix A* for an example of a thermal hot work permit, the Business Units may create their own form) and request final review and approval from an Issuing Authority. The requestor, Issuing Authority, Fire Watch (when required) and employees performing the thermal hot work shall sign and dated the permit. Once approved, the thermal hot work permit shall be posted in the area where the work is to be performed.

7. Special Precautions

- 1) When work is stopped for an extended period of time the equipment must be shut down and secured to prevent accidental release of sparks, heat or flames. If the work stoppage will exceed the original duration time of the thermal hot work permit, the requester must notify Issuing Authority to have the permit extended or to request issuance of a new permit.
- 2) When thermal hot work is to be performed in a permit-required confined space or in conjunction with other permits or tags (such as required by the Lockout/Tag Out Program), all of the permits shall be marked so that they are linked to the original work order and to each other.
- 3) When the operation of equipment would render the area unsafe for thermal hot work, this equipment must be locked and/or tagged out in accordance with the Lockout – Tag Out Program.

Both the lockout – tag out documentation and the thermal hot work permit shall be marked so that they are linked to the original work order and to each other.

- 4) Drums, tanks, containers or any vessel that may have contained chemicals or materials that when heated may produce flammable, explosive or toxic atmospheres shall be thoroughly cleaned and prepared prior to performing any thermal hot work on them.
- 5) Thermal hot work that must be performed on any utility piping used for the transmission or distribution of flammable gases or liquids shall only be performed by a crew qualified to make hot taps.
- 6) Contractors shall perform all thermal hot work procedures in accordance with this operating procedure or be able to demonstrate that they have a comparable procedure that meets or exceeds the requirements of this operating procedure.

8. Personal Protective Equipment

Personal protective equipment for eyes, face, head, and extremities, respiratory protection and protective shields and barriers, shall be used and maintained in a sanitary and reliable condition. Selection of appropriate devices should be made in accordance with the Personal Protective Equipment Hazard Assessment Program.

Request for Permit to Excavate

At E.W. Brown

Revised 10-13-09

Permit Number: _____

This form is to be completed and approved before beginning any digging at the E.W. Brown Generating Station and is to be displayed at the digging site.

Requestor's Name and Company: _____

Date of Request: _____

Date work is planned to begin: _____

Description of the work to be performed and the specific location for excavation:

Verified by: Drawings: _____ Soft Dig: _____ Outside Investigation: _____
Special Conditions: _____

Sketch or Drawing attached? (Y/N) _____

Kentucky Utilities Company Construction Office Approval:

Name: _____ **Date:** _____

E.W. Brown Station Approval: (One Required)

Construction Coordinator: _____ **Date:** _____

Planning Office: _____ **Date:** _____

E.W. Brown: _____ **Title:** _____ **Date:** _____

Date Permission given to dig: _____ **Date Complete:** _____

Copies To: E.W. Brown _____ FGD Construction Office _____

Appendix A: Thermal Hot Work Permit Example

KENTUCKY UTILITIES COMPANY, E.W. BROWN

• HOT WORK PERMIT

Person requesting permit: _____ Date of Request: _____

KU Work Order #: _____ or Contractor: _____

Location and System to be worked on: _____

Duration of Permit: Date/Time _____ through Date/Time _____

Nature of Work (be specific): _____

The requester and authorizing person shall check the following items and resolve any issues prior to issuing the permit.

YES	NO	N/A	• DESCRIPTION
			General condition of area housekeeping acceptable.
			Necessary equipment tagged/locked out of service according to KU Lockout/Tagout program.
			Fire protection system in service, including extinguishers.
			Remove all flammable and combustible materials. Use guards or shields to protect immovable fire hazards. Remove or cover flammable and combustible liquid storage cabinets and containers.
			Sweep or vacuum any dust in 35-foot radius area.
			Check area for combustible vapors.
			Purge or inert any piping or vessels prior to welding, cutting or heating if they contain combustible or flammable fluids.
			Opening in floors or walls shall be covered to contain sparks and hot slag.
			Fire watch provided and equipped with a fire extinguisher and the location of nearest fire fighting equipment identified.
			Fire watch instructed to remain in area for a period of 30 minutes after the work is complete.
			If working in a confined space, during lunch and overnight, remove electrodes from holders and locate so that accidental contact cannot occur and disconnect machine from power source.
			If working in a confined space, close torch valves and shut off gas supply to torch outside confined area.
			Work area barricaded if necessary.
			Communication system operating.
			Required Personal Protective Equipment in use.
			Notification of appropriate supervisor and operations personnel.

Signature of person requesting permit

Signature of authorizing person

Print Name

Date

Print Name

Date

KENTUCKY UTILITIES E.W. BROWN STATION HOT WORK PERMIT

Procedure

- Identify the need for a Hot Work Permit:
- Does the work area contain or have the potential to contain combustible dusts, gases, fumes, vapors, etc.?

And

Does the work provide a potential ignition source such as: welding, burning, grinding, or air arc cutting, gouging, etc.?

Then:

- Fill out top section of permit
- Complete checklist
- Post permit at job site
- When job is completed, conduct fire watch or assign this to someone
- Turn completed permit in to supervisor
- Supervisor forwards permit to Safety Specialist