

Division 1 - General Requirements
Hot Work
Section 01145A

PART 1 GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract apply to work of this Section.

1.2 SUMMARY

This Section includes restrictions and processes which must be followed by the Contractor in order to perform "Hot Work" and related work which may affect fire alarm devices in specific work areas located on the Austin-Bergstrom International Airport (ABIA) campus.

1.3 DEFINITIONS

- A. Hot Work: Any temporary work involving open flame or producing heat and/or sparks. This work is sometimes referred to as "spark/flame" work, that includes but is not limited to: brazing, butting, grinding, soldering, thawing pipe, torch-applied roofing, and welding
- B. This policy affects all work in buildings on ABIA site.
- C. Hot Work Request Form: Form completed by the Contractor in order to request a Hot Work Permit. Form shall be provided to the contractor at project Pre-Construction meeting.
- D. Hot Work Permit: Authorizes the Contractor to perform the Hot Work. It is issued by Department of Aviation (DOA) upon approval of the Contractor's Hot Work Request Form. The actual permit is posted by the DOA near the work area and is required to be signed and completed by the Fire Watch designee as noted below.
- E. Fire Watch: The process in which a designated Contractor's representative (Fire Watch designee) visually checks to ensure that all precautions required by the Hot Work Permit have been met prior to starting the Hot Work, during performance of the Hot Work and also verifies there is no hazard after the Hot Work is completed.
- F. The Fire Watch designee signs the Hot Work Permit, providing verification the requirements were met and/or followed. The Fire Watch designee cannot be directly involved in performing the work.
- G. Fire Safety Supervisor: A designated DoA individual authorized to review the Contractor's Hot Work Request Form and issue Hot Work Permits.
- H. Fire Alarm Impairment: If needed due to Hot Work type and location, the Contractor can request or recommend a fire alarm device be temporarily disabled, so that Hot Work can be performed. This impairment is only temporary and coordinated to occur simultaneously when the actual Hot Work is performed. The Fire Safety Supervisor will evaluate the need for Fire Alarm Impairment during review of the Contractor's Hot Work Request Form. A Hot Work Permit will not be approved if a sprinkler impairment is in the same work area.

- I. Hot Work Permit Log: The Contractor shall keep a log of Hot Work Request forms submitted to the Owner's Representative and submit, at a minimum, the updated log to the Owner's Representative, on a monthly basis with the Contractor's Application For Payment.
- J. The minimum information to be tracked on the Hot Work Permit Log shall include, but not be limited to: sequentially numbered Hot Work Request Forms, date submitted to Owner's Representative, Hot Work Subcontractor, Fire Watch designee, permit number, and date completed permit returned to Owner's Representative.
- K. Monitoring: The process of maintaining visual vigilance for the 2nd, 3rd, and 4th hours after the Hot Work is complete for evidence of any remaining smoldering fire or opportunity for ignition. This process does not require a dedicated or continuous Fire Watch but at a minimum the Hot Work area must be inspected once every 10 to 15 minutes. Photo or other evidence of minimum inspections shall be submitted daily, as approved by the Owner.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

1.1 CONTRACTOR'S PROCEDURE FOR REQUESTING HOT WORK PERMIT

- A. For a Hot Work permit to be requested, the following steps shall be taken:
- B. The Contractor must request a Hot Work permit using the attached Hot Work Request Form. All requested information should be completed by the Contractor or Subcontractor who will be performing the proposed Hot Work and submitted to the Owner's Representative a minimum of 3 business days prior to the time of the proposed Hot Work activities.
- C. A requirement of completing the Hot Work Request form is to convey a detailed Hot Work plan which explains: the type of work, the work process, the time period for the work, the exact location of the work, any hazards and necessary precautions to be taken in the area of the work such as fire alarm device impairment and any other pertinent information.
- D. The Contractor must identify a designated individual to be responsible for the Hot Work and be present prior to and during performance of the Hot Work
- E. The Contractor must identify an additional designated individual who must be trained in the proper use of a fire extinguisher and be present for a Fire Watch with an appropriate fire extinguisher during the Hot Work process.
- F. The Contractor must identify if multiple individual Fire Watches may be required depending on the location of Hot Work in relation to walls and ceilings.

1.2 OWNER'S PROCEDURE FOR ISSUING THE HOT WORK PERMIT

- A. Upon receipt of the Contractor's Hot Work Request form, the request will be reviewed by the DOA's Fire Safety Supervisor for completeness and for smoke, sprinkler, fire/life safety and environmental considerations including but not limited to:
- B. Can the Hot Work be completed without fire alarm impairment (with minimal alarm activation possibility) if the proper training and awareness is given?

- C. What else is going on in the area during the Hot Work?
- D. Where is the closest fire alarm device coverage area from the Hot Work?
- E. Is fire alarm impairment necessary? Is the impairment a matter of convenience or a functional need for required work?
- F. Should DOA maintenance personnel be on site during the Hot Work and any associated fire alarm impairment?
- G. Can the specific work activity be completed at a safer location than what the contractor is proposing?
- H. If a Hot Work Request Form is not completed correctly, or if additional information is needed, the DOA will make an effort to contact the contractor for clarification. If the Contractor's Hot Work Request Form is "rejected," the DOA will promptly notify the Owner's Representative so the Contractor can be promptly notified.
- I. Prior to issuing the permit, the Fire Safety Supervisor will complete the "Required Precautions Checklist," included on the actual Hot Work Permit. Upon completion, the actual Hot Work Permit is then posted at the work area for the Contractor's designated individual (and Fire Watch designee) to complete upon work start and after work completion.
- J. For posting of permit during and after work, the following steps shall be taken:
- K. Permit shall be posted by DOA, in clear view, adjacent to the permitted work area to allow any personnel in the area to know that Hot Work is being performed at the noted location.
- L. A copy of the Permit will also be posted by the Owner in the DoA Operations Security Office area and/or another copy on the NOTAM (Notice to Airmen) bulletin board.
- M. A floor plan print will be used and marked where the Hot Work is being performed if the location cannot be clearly stated and understood on the permit. Each different work area will require a separate permit.
- N. The permit will be posted by DOA no less than 1 hour prior to the Hot Work starting and remains in place for a minimum of 5 hours. This includes the one (1) hour Fire Watch period and the three (3) additional hours of monitoring after the work is completed.
- O. The Contractor will complete/execute the Hot Work Permit upon completion of the fire watch as noted below.

1.3 CONTRACTOR'S PROCEDURE FOR COMPLETING/EXECUTING THE HOT WORK PERMIT

- A. The Contractor shall "complete and execute" the Hot Work permit as follows:
- B. The individual performing the Hot Work must indicate the time the work started and when the work is finished.
- C. The Fire Watch designee must ensure that all required precautions checked by the Fire Safety Supervisor have been met prior to work starting.

- D. The Fire Watch designee must initial to the right of the supervisor's signature signifying that these conditions are met prior to work starting.
- E. The Contractor must then monitor the work area for 3 hours to ensure there is no fire after work is completed, unless otherwise indicated on the permit, by the issuing authority.
- F. The Contractor then signs off on the permit after the work is completed and verifies he/she is satisfied that there is no hazard.
- G. The "completed and executed" permit must be returned to the Owner's Representative, unless noted otherwise, within 5 business days after work is completed. Failure to return completed permits could result in administrative penalties, such as no additional Hot Work Permits being issued until resolution.

1.4 OTHER CONSIDERATIONS REGARDING THE HOT WORK PERMIT PROCESS

- A. No Hot Work can be conducted if the Permit is not posted in its designated work site location and no Hot Work can be conducted after the permit expires. It is the Contractor's Responsibility to submit for Hot Work permits on a timely basis, ahead of the Hot Work that needs to be performed.
- B. Failure of the Contractor to adhere to the requirements set forth in Section 01145A Hot Work could result in, but not be limited to: stop work order, Hot Work Permit revocation, temporary suspension of issuing additional Hot Work permits, Notices of Non-Conformance, construction contract amount reductions, etc.
- C. A spot check of these procedures may be conducted at any time by the issuing Fire Safety Supervisor, DoA Operations, Safety or AFD Fire Department personnel.
- D. If any requirements of the permit are not complied with, the Contractor will be notified to immediately to stop the work until all deficiencies have been corrected. The Work may then be allowed to resume or the permit could be revoked at that time.
- E. If a permit is revoked the word REVOKE must be written on the face of the permit and the reason written on the back with contact information for the authorized personnel who is revoking the permit.
- F. If the Contractor's personnel do not wish to comply with the directives given to stop work, the Owner's personnel including DoA staff will contact Airport Police to have Contractor personnel escorted off city property.
- G. Training on the Hot Work Permit process can be made available upon written request from the Contractor. Based on project size and potential for Hot Work activities, the Training on the Hot Work Permit process may be provided during the pre-construction meeting.

END

Attachments:

Hot Work Request Form - submitted by Contractor.

Hot Work Permit – Part 1 – completed by DOA Fire Safety Supervisor

Hot Work Permit – Part 1A – copy provided to ABIA Rescue and Firefighting Facility (ARFF)

Hot Work Permit – Part 2 – Actual permit posted by DOA Fire Safety Supervisor after approval of Contractor's Hot Work Request Form

**City of Austin
Aviation Department
HOT WORK REQUEST FORM**

Request No. _____ Date of Request: _____ Time of Request: _____ am/pm

Project Name: _____ CIP ID No: _____

General Contractor/Subcontractor: _____

Superintendent*: _____ Contact No: _____

*First point of contact for additional information or clarification needed during the review process.

Fire Watch Person(s): _____ Contact No: _____

Exact location of Spark /Flame Work: _____

Description of how work will be completed. What is the process you will follow? _____

Start Date/Time: _____ Finish Date/Time: _____

Category of work being performed:

() Torch () Soldering () Welding () Grinding () Brazing () Cutting

() Describe other flame, smoke, dust or spark process _____

CONTRACTOR shall answer the following questions.

- Contractor shall verify that all Flammables/Combustibles have been removed from the area prior to the start of the Hot Work? YES () NO* ()
- Contractor shall verify that if any Flammables/Combustibles remain in the work area at the time of any Hot Work, they will be adequately protected? YES () NO* ()
Method of protection: _____

- Contractor shall verify Fire Watch fully understands their responsibilities? YES () NO* ()

- Contractor shall inform the DoA if more than one Fire Watch is required for this operation?
YES () NO ()

- Is any spark/flame work to occur above combustible roof, equipment or materials?
YES** () NO () ** Special Protection Precautions: _____

*If answer NO, permit request shall be DENIED.

Hot Work Request Submitted by: _____

Title: _____ Contact #: _____

TO BE COMPLETED BY DEPARTMENT OF AVIATION

Reviewed By: _____ Title: _____ Contact No: _____

REJECTED* or APPROVED (circle one)

*REASON FOR REJECTION: _____

Permit Number Issued: _____ Permit Issue Date: _____

HOT WORK PERMIT

STOP!

Avoid hot work or seek an alternative/safer method, if possible.

This Hot Work Permit is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, torch-applied roofing and welding.

Part 1

Instructions

1. Firesafety supervisor:

- A. Verify precautions listed at right (or do not proceed with the work).**
- B. Complete and retain Part 1.**
(Part 1A is for quality assurance documentation, if necessary.)
- C. Issue Part 2 to person performing hot work.**

Hot work by

- Employee
 Contractor _____

Date _____ Job number _____

Location/building and floor _____

Nature of job _____

Name (print) and signature of person performing hot work _____

I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.

Name (print) and signature of firesafety supervisor/operations supervisor _____

Permit Expires

Date

Time

a.m.
p.m.

Note: Emergency notification on back of form. Use as appropriate for your facility.

Required Precautions Checklist

Available sprinklers, hose streams and extinguishers are in service/operable.

Hot work equipment in good working condition.

Requirements within 35 ft. (11 m) of hot work

Flammable liquid, dust, lint and oily deposits removed.

Explosive atmosphere in area eliminated.

Floors swept clean.

Combustible floors wet down, covered with damp sand or fire-resistive sheets.

Remove other combustible material where possible. Otherwise, protect with FM Approved welding pads, blankets and curtains, fire-resistive tarpaulins or metal shields.

All wall and floor openings covered.

FM Approved welding pads, blankets and curtains installed under and around work.

Protect or shut down ducts and conveyors that might carry sparks to distant combustible material.

Hot work on walls, ceilings or roofs

Construction is noncombustible and without combustible covering or insulation.

Combustible material on other side of walls, ceilings or roofs is moved away.

Hot work on enclosed equipment

Enclosed equipment cleaned of all combustible material.

Containers purged of flammable liquid/vapor.

Pressurized vessels, piping and equipment removed from service, isolated and vented.

Fire watch/hot work area monitoring

Fire watch will be provided during and for 60 min. after work, including any break activity.

Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.

Fire watch is trained in use of equipment and in sounding alarm.

Fire watch may be required in adjoining areas, above and below.

Monitor hot work area for an additional three (3) hours after the 60-min. fire watch.

Other precautions taken:

HOT WORK PERMIT

STOP!

Avoid hot work or seek an alternative/safer method, if possible.

This *Hot Work Permit* is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, torch-applied roofing and welding.

Part 1A

Instructions

1. Firesafety supervisor:

- A. Verify precautions listed at right (or do not proceed with the work).
- B. Complete and retain Part 1.
(Part 1A is for quality assurance documentation, if necessary.)
- C. Issue Part 2 to person performing hot work.

Hot work by

- Employee
- Contractor _____

Date

Job number

Location/building and floor

Nature of job

Name (print) and signature of person performing hot work

I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.

Name (print) and signature of firesafety supervisor/operations supervisor

Permit Expires

Date

Time

a.m.
p.m.

Note: Emergency notification on back of form.
Use as appropriate for your facility.

Required Precautions Checklist

- Available sprinklers, hose streams and extinguishers are in service/operable.
- Hot work equipment in good working condition.

Requirements within 35 ft. (11 m) of hot work

- Flammable liquid, dust, lint and oily deposits removed.
- Explosive atmosphere in area eliminated.
- Floors swept clean.
- Combustible floors wet down, covered with damp sand or fire-resistive sheets.
- Remove other combustible material where possible. Otherwise, protect with FM Approved welding pads, blankets and curtains, fire-resistive tarpaulins or metal shields.
- All wall and floor openings covered.
- FM Approved welding pads, blankets and curtains installed under and around work.
- Protect or shut down ducts and conveyors that might carry sparks to distant combustible material.

Hot work on walls, ceilings or roofs

- Construction is noncombustible and without combustible covering or insulation.
- Combustible material on other side of walls, ceilings or roofs is moved away.

Hot work on enclosed equipment

- Enclosed equipment cleaned of all combustible material.
- Containers purged of flammable liquid/vapor.
- Pressurized vessels, piping and equipment removed from service, isolated and vented.

Fire watch/hot work area monitoring

- Fire watch will be provided during and for 60 min. after work, including any break activity.
- Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.
- Fire watch is trained in use of equipment and in sounding alarm.
- Fire watch may be required in adjoining areas, above and below.
- Monitor hot work area for an additional three (3) hours after the 60-min. fire watch.

Other precautions taken:

WARNING!

HOT WORK IN PROGRESS. Watch for fire!

Instructions

1. **Person performing hot work:** Indicate time started and post permit at hot work location. After hot work is completed, indicate time and leave permit posted for fire watch.
2. **Fire Watch:** Watch area during hot work and for 60 min. after completion. Prior to leaving area, perform final inspection, sign, leave permit posted and notify firesafety supervisor.
3. **Monitor:** Monitor area for additional three (3) hours. Perform final inspection, sign and return to firesafety supervisor.

PART 2

Required Precautions Checklist

- Available sprinklers, hose streams and extinguishers are in service/operable.
- Hot work equipment in good working condition.

Requirements within 35 ft. (11 m) of hot work

- Flammable liquid, dust, lint and oily deposits removed.
- Explosive atmosphere in area eliminated.
- Floors swept clean.
- Combustible floors wet down, covered with damp sand or fire-resistive sheets.
- Remove other combustibile material where possible. Otherwise, protect with FM Approved welding pads, blankets and curtains, fire-resistive tarpaulins or metal shields.
- All wall and floor openings covered.
- FM Approved welding pads, blankets and curtains installed under and around work.
- Protect or shut down ducts and conveyors that might carry sparks to distant combustibile material.

Hot work on walls, ceilings or roofs

- Construction is noncombustible and without combustibile covering or insulation.
- Combustibile material on other side of walls, ceilings or roofs is moved away.

Hot work on enclosed equipment

- Enclosed equipment cleaned of all combustibile material.
- Containers purged of flammable liquid/vapor.
- Pressurized vessels, piping and equipment removed from service, isolated and vented.

Fire watch/hot work area monitoring

- Fire watch will be provided during and for 60 min. after work, including any break activity.
- Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.
- Fire watch is trained in use of equipment and in sounding alarm.
- Fire watch may be required in adjoining areas, above and below.
- Monitor hot work area for an additional three (3) hours after the 60-min. fire watch.

Other precautions taken:

Hot work by

- Employee
- Contractor

Date _____ Job number _____

Location/building and floor _____

Nature of job _____

Name (print) and signature of person performing hot work _____

I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.

Name (print) and signature of firesafety supervisor/operations supervisor _____

Time started _____ Time finished _____
 a.m. p.m. a.m. p.m.

Permit Expires

Date _____ Time _____
a.m. p.m.

Fire watch signoff: Work area and all adjacent areas to which sparks and heat might have spread were inspected during the watch period and were found firesafe.

Signed: _____

Final checkup: Work area was monitored for three (3) hours following completion of the 60-min. fire watch and found firesafe.

Signed: _____