

Rutgers Environmental Health and Safety (REHS)

Program Name:	Hot Work Permit Program		
Responsible Executive:	Executive Director of REHS		
Adopted:	October 1, 2015	Reviewed:	January 27, 2020

1. Program Statement

It is the policy of Rutgers University to take precautions to eliminate potential hazards in the workplace. Certain job duties such as welding, grinding, cutting and other spark or heat producing activities referred to as “hot work” need to be controlled to prevent fires. This program establishes procedures to minimize fire risk during these operations.

2. Reason for Program

This program is designed to protect Rutgers employees by establishing fire prevention methods, hot work permit procedures and communication tactics to prevent fires during hot work. It is also designed to ensure compliance with the following standards and codes:

- *Welding, Cutting and Brazing* – 29 CFR 1910.252 (OSHA/PEOSH General Industry Standard)
- *Welding and Cutting Fire Prevention* – 29 CFR 1926.352 (OSHA/PEOSH Construction Industry Standard)
- *Standard for Fire Prevention During Welding, Cutting and Other Hot Work* – National Fire Protection Agency (NFPA) 51B (2019)
- New Jersey Uniform Fire Code – N.J.A.C 5:70-2.6

3. Who Should Read this Program

This program applies to all Rutgers employees and contractors hired by Rutgers who perform hot work in existing buildings or new construction attached to existing buildings.

This program does NOT apply to:

- New construction where there is NO ATTACHMENT to an existing building
- Areas that are specifically designed and equipped for hot work such as welding and grinding stations in maintenance shops

4. The Program

I. Roles and Responsibilities

- A. Rutgers Environmental Health and Safety (REHS)

- 1) Provide program oversight and technical consultation to Rutgers departments regarding potential risks and fire prevention methods related to hot work.
 - 2) Provide training in hot work procedures
 - 3) Conduct periodic audits of the program and spot inspections of hot work activities.
- B. Departments Performing or Contracting Hot Work
(Includes Schools, Departments, Institutes, Farms, Clinics, Research Stations, Camps, Outlying Facilities and any other Rutgers unit that performs hot work)
- 1) Recognize the responsibility for the safe usage of cutting and welding equipment in their area
 - 2) Establish areas for cutting and welding, i.e. maintenance shops
 - 3) Ensure hot work procedures are being implemented and followed
 - 4) Ensure that supervisors, cutters and welders are suitably trained in the operation of the equipment and the safe use of the process
 - 5) Ensure that supervisors, cutters and welders are suitably trained in the operation of the fire protection equipment (fire extinguishers)
 - 6) Ensure that contractors follow Rutgers procedures
- C. Supervisors of Employees or Contractors Performing Hot Work
- 1) Request Hot Work Permits at least 72 hours in advance by utilizing the online [Fire Protection Impairment & Hot Work Request System](#)
 - 2) Upon completion of Hot Work, immediately close out all requested Hot Work Permits in the online Hot Work Permit System (See Attachment 1)
 - 3) Ensure that employees and contractors are utilizing hot work procedures and fire prevention methods
 - 4) Ensure that all cutting and welding equipment is in satisfactory condition and good repair
 - 5) Ensure that employees are suitably trained in the Hot Work Permit Program, fire extinguisher use and safe operation of the equipment.
- D. Employees or Contractors Performing Hot Work
- 1) Follow all hot work permit requirements and procedures
 - 2) Obtain a hot work permit prior to work and maintain it at the work site
 - 3) Ensure that all cutting and welding equipment is in satisfactory condition and good repair

- 4) Attend and actively participate in hot work training sessions
 - 5) Protect nearby personnel and property against heat, sparks, smoke, welding arcs, etc. when working in occupied buildings
- E. Rutgers University Emergency Services (RUES)
- 1) Monitor hot work on the New Brunswick Campuses
 - 2) Provide technical assistance and conduct random work site inspections to monitor compliance
 - 3) Provide assistance in training supervisors and employees
- F. Institutional Planning & Operations (IP&O) – Newark and Camden Campuses
- 1) Monitor hot work activities on the Newark and Camden Campuses
 - 2) Provide technical assistance and conduct random work site inspections to monitor compliance
 - 3) Notify RUES and/or REHS to review compliance issues or technical concerns

II. Definitions

Hot Work

Welding, brazing, cutting, soldering, thawing pipes, using heat guns, torch-applied roofing and chipping operations, or the use of spark-producing power tools such as drilling or grinding.

III. Procedures

A. Hot Work Permit Procedures

- 1) Hot work shall not be performed if the work can be avoided or performed in a safer manner. When practical, objects to be welded, cut or heated must be moved to a designated safe location, i.e. maintenance shops.
- 2) If hot work must be performed, a Hot Work Permit must be obtained prior to any work by utilizing the online [Fire Protection Impairment & Hot Work Request System](#). Upon completion of the online application, the Hot Work Permit shall be printed and maintained at the work site during the work periods.
- 3) All precautions on the Hot Work Permit must be met prior to any work. The permit shall be completed by the individual authorized to perform hot work. The authorized individual must review and complete each check item on the permit prior to beginning work. The permit will contain written safety procedures, emergency telephone numbers, space for employee or contractor sign off, and space for a fire watch sign off.

- 4) The Hot Work Permit is only valid for the date(s) and time specified on the permit. A copy of the permit must remain at the hot work location for the duration of the work period.
- 5) All personnel (employees, contractors, building occupants) must be suitably protected against the hazards generated by the work, i.e. heat, sparks, fumes, welding rays, etc. This may include the use of personal protective equipment, shields, screens, or local exhaust ventilation. Rutgers University Emergency Services (RUES) and/or Rutgers Environmental Health and Safety (REHS) should be consulted to make sure adequate precautions are in place prior to the commencement of hot work.
- 6) Prior to starting any hot work, the employee or vendor performing the work must verify the fire alarm system is properly impaired to prevent false fire alarm activations. Fire alarm impairments must be reviewed and approved 72 hours in advance by utilizing the online [Fire Protection Impairment & Hot Work Request System](#). Approval of a Hot Work Permit is NOT approval for a fire alarm impairment.
- 7) **ALL INCIDENTS (fire, burning, excessive smoke) involving hot work will require immediate termination of hot work activities and immediate reporting to Rutgers University Emergency Services (RUES).**

B. Hot Work Permit – Prohibited Conditions

A Hot Work Permit will not be approved if any of the following conditions exist:

- 1) Sprinkler protection is impaired
- 2) Appropriate firefighting equipment (fire extinguishers or fixed water source as approved) is not readily available
- 3) Combustible or flammable materials are within 35 feet and cannot be moved or protected
- 4) Floor and wall openings cannot be covered
- 5) Flammable vapors or gases are present
- 6) Cutting or welding on pipes or other metals can conduct enough heat to ignite nearby combustible materials
- 7) Any condition that could result in undue hazards by performing the work.

ATTACHMENT 1

ONLINE HOT WORK PERMIT INSTRUCTIONS

1. Go to: <https://halfife.rutgers.edu/hotwork>
2. Enter your NetID and Password to access the Main Menu.
3. From the Main Menu, select "New Request".
4. Select "Yes or No" for each question. If you are only requesting a Hot Work Permit, select "No" for "Fire Protection Impairment" and "Yes" for "Hot Work Permit" then select "Continue".
5. Complete all questions and provide detailed information for each section.
 - a. "Requestor/Permit ID Information"
 - i. Name, Email, Dept. and Phone will auto-populate based on the information linked to your NetID.
 - ii. Hot Work Permit # and Impairment Link Permit # will auto-populate once the permit application is saved.
 - iii. Supervisor Name/Email must be manually entered. They will be emailed a copy of the permit based on this information.
 - b. Location Information
 - i. You must click on the blue "Search for Building" link next to the Building Number box to search for the building where you will be performing the Hot Work. In the Search screen, either enter the official building name or building number and click "Submit". In the "Results" box, click on the correct building which will then bring you back to the permit entry form.
 - ii. "Describe Work Area"
 1. Provide a detailed description of the work area that allows an inspector or responding Public Safety unit to quickly locate the work area. Ex: Room 341 Mechanical Room; 2nd floor hallway heating unit by Room 202.
 - c. Date & Time
 - i. Enter the start and end date and time. For the time, ensure you enter AM or PM.
 - d. Description of Hot Work to be performed
 - i. Provide a detailed description of the actual hot work to be performed. Enter specific information describing the hot work (ex; soldering, welding, cutting, brazing, etc.) and the description of the equipment used, equipment hot work is performed on and hazards present.
 - e. Employee/Contractor conducting the work
 - i. Enter the Name and sit contact information (cell #) for the individual performing the work. DO NOT enter an office number or supervisor's number. This information must be a direct contact number for the individual performing the hot work.
 - ii. Indicate if the individual performing the Hot Work is a RU employee or Contractor.
 - iii. Indicate which RU department is responsible for any billing if applicable.
 - f. Complete Submission
 - i. Check the box after reading the statement regarding Hot Work, then select "Submit".
The Rutgers employee or contractor listed on the permit is authorized to perform the described hot work in the location described. The employee or contractor has been trained in the proper selection and use of portable fire extinguishers and will have an approved extinguisher available during the Hot Work and subsequent Fire Watch. Use of extinguishers provided in the building is not approved to meet this requirement. The employee or contractor will inspect the work area to ensure it is clear of flammable or combustible materials and will ensure all permit conditions are met. Additionally, the employee or contractor will ensure that the hot work equipment is in proper working condition with no signs of damage. Prior to beginning hot work, the employee or contractor shall ensure that proper fire detection and/or suppression systems are properly protected in accordance with the University Fire Protection System Impairment Policy to prevent accidental activation."
 - g. You will be brought back to the Main Menu where the new Hot Work Permit will be listed.

- h. You will receive an email copy of the Hot Work Permit that must be printed and provided to the individual performing the Hot Work, or you can select the printer icon to the left of the permit on the Main Menu. The permit must remain on location while Hot Work activities are in progress.
 - i. The permit is only valid for the date and times and individual listed on the printed permit.
6. **Fire Watch Certification signoff and/or Permit Close Out**
- a. To access the signoff and/or Permit Close Out, use one of the following:
 - b. Open the Hot Work Permit from the Main Menu and select “Go to Fire Watch Sign-Off/Closeout page” located to the bottom of the screen.
 - c. Open your email and click on the hyperlink at the bottom of the emailed Hot Work Permit Form; or
 - d. Log into the Main Menu of the system and locate the permit you are certifying and click on the printer icon to the left of the permit number. Once the printed permit opens, click on the link at the bottom of the permit.
 - e. **Fire Watch Certification Only**
 - i. You are required to certify that the required 1 hour fire watch was performed immediately following each hot work activity. To access the certification page, you can click on the link located at the bottom of the Hot Work Permit. If the permit is for a multiple day Hot Work, select “Complete a Fire Watch Sign-Off” at the end of each fire watch period following Hot Work activities then select “Next”.
 - ii. You will be brought to the Fire Watch Checklist page where you are required to select all of the appropriate check boxes pertaining to your site inspection for this hot work activity. You Must Check All Applicable Boxes.
 - iii. Under the “Fire Watch Sign-Off”, check the box, manually type your FULL name and enter the date the fire watch was performed and click “Submit”. By clicking Submit, you are certifying that the required 1 hour fire watch was performed and the area was monitored for smoke or fire.
 - iv. Upon successfully submitting the certification, you will see a pop-up window stating “Fire Watch Sign-Off Complete”.
 - f. **Close Out the Permit Only**
 - i. You are required to close out each Hot Work Permit upon completion of all work listed on the permit. Prior to closing out a Hot Work Permit, you must certify that the Fire Watch was performed as listed in “d” above. Select “Close Out the Permit” and click “Next”.
 - ii. Click the box under “Close Out” and type your full name and correct date the permit was closed and select “Submit”.
 - iii. Upon successfully submitting the certification, you will see a pop-up window stating “Close Out Complete”.
 - g. **Fire Watch certification AND Close Out the Permit**
 - i. If you performed a single day Hot Work Permit, you can select “BOTH of the above actions” to enter the Fire Watch and Close Out the Permit together then hit “Next”.
 - ii. Enter the information as required in “e” and “f” above then select “Submit”. This will certify the fire watch, enter the checklist items and close the permit at the same time.
 - iii. Upon successfully submitting the certification, you will see a pop-up window stating “Fire Watch Sign-Off/Close Out Complete”.
 - h. **No Hot Work Was Performed**
 - i. Select “No Hot Work Was Performed” if you applied for a Hot Work Permit, but either Hot Work was not necessary to complete the activity, or the work was cancelled.
 - ii. Check the box under “No Hot Work Was Performed”, manually enter your full name, enter the date and click “Submit”.
 - iii. Upon successfully submitting the certification, you will see a pop-up window stating “Hot Work Permit Cancelled”.