




Bangladesh Power Development Board

**INTEGRATED MANAGEMENT SYSTEM
(BASED ON ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018
STANDARDS)**

PROCEDURE FOR HOT WORK

	INTEGRATED MANAGEMENT SYSTEM	Document No.: BPDB-IMS-PR-075
		Revision No.: 00
	PROCEDURE FOR HOT WORK	Effective Date: 01-11-2021
		Page 2 of 5

1 Purpose

A hot work permit is the means by which the Operation Department can keep track of Maintenance activities that pose a risk and involve hot work. The system provides a checklist for fire and safety which reminds contractors of their safety responsibilities before, during and after any hot work is performed.

2 Scope

This procedure is applicable to every one performing cutting, welding, heating or any other work involving naked flame with in BPDB.

3 Terms and Definition

Hot Work - Is considered any operations that will generate heat, sparks, or flame. They include, but are not limited to, grinding, soldering, welding, cutting, and brazing operations, torch applied roofing, hot riveting, or any other operation involving a flame or spark for construction/ demolition or repair activities. Not included items or activities include candles, and pyrotechnics.

Hot Work Area - The area exposed to the sparks, hot slag, radiant heat, convective heat, conduction heat, or flame generated by the hot work operations. This includes the immediate work area as well as areas adjacent to and above and/or below the work area

Hot Work Permit - It is the approval given to the authorized person in order to complete the required hot work. No hot work shall be performed until a permit is issued. The responsible person shall be on the approval list in order to have a permit issued to them. The permits are granted in written format. Verbal permits will be issued in emergencies.

Fire Watch - Employee assigned to hot work activities to ensure that no fires result from hot work and, if a fire does occur, takes appropriate action.

Person-in charge - Employee responsible for ensuring all personnel under their direction are advised of the extent of hot work and associated time constraints

Abbreviations

BPDB – Bangladesh Power Development Board


HRSG - Heat Recovery Steam Generators

4 Roles and Responsibility

Shift Charge Engineer/MR shall:

- Assure combustible materials are removed from the area directly below (if grating or elevated) and within a 35-foot radius of the hot work location. Or when not possible to do so protect them adequately. Have heating, ventilation and air conditioning systems removed from service that may re-distribute hot work fumes or sparks.

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		Revision No.: 00
	PROCEDURE FOR HOT WORK	Effective Date: 01-11-2021
		Page 3 of 5

- Shield, with fire retardant substance, any equipment or combustible materials that cannot be removed from directly below or within a 35-foot radius of a hot work location.
- Ensure that an explosive atmosphere does not exist as per zone requirements (via the use of an atmosphere-sampling device) in near proximity to the hot work location.
- Ensure that fire detection devices are de-activated if smoke, heat or fumes generated by hot work could trigger fire suppression equipment.
- Complete a “Hot work Permit”

5 Procedure for Hot Work

5.1 Preparation for Work


It is the responsibility of the Authorized Maintenance person to request for a hot work permit from the Operations at least 24 hours in advance, unless it is an emergency. The SCE will then fill out a permit and maintain a log of all permits at the CCR office. The permit will be given to the Authorized person only after inspecting the hot work site to ensure that; hot work equipment is in good condition, flammable gasses, liquids, and dusts are removed, an appropriate and healthy extinguisher is onsite, combustibles that cannot be moved are covered with fire retardant welding blankets and curtains, and all other applicable precautions listed on the permit are met.

- Providing the required fire extinguisher is the responsibility of the person performing hot work at every site.
- The Authorized person will visit the site off and on during hot work and for a minimum of 30 minutes after hot work has stopped to monitor for fire and unsafe conditions.
- During times of welding or torch cutting, a second person to perform fire watch at the site is required, if there is a risk of sparks, flames or heat penetrating through floors or walls. The fire watcher’s sole responsibility is to watch the area during hot work activity.

The fire watch can and shall stop all hot work activities if an unsafe condition arises

- If hot work is being conducted in an area where explosive vapors could accumulate, such as a battery room, adequate ventilation shall be provided before work starts and air monitoring may have to be conducted.
- Atmospheric Test for Hot works (Grinding / Cutting / welding) conducted inside HRSG (Heat Recovery Steam Generators) and all hot works inside identified confined spaces shall be made for every 4hours. It is also advised that a multi gas detector will be kept inside

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		Revision No.: 00
	PROCEDURE FOR HOT WORK	Effective Date: 01-11-2021
		Page 4 of 5

the confined space to continuously monitor the atmospheric condition inside the confined space.

- It is the contractor's responsibility to ensure that their employees receive the required fire-extinguisher training annually. Plant Maintenance employees also receive the required fire-extinguisher training during their annual HSE Safety training.
- Operation Department shall be responsible for:
 - Ensuring safe and proper isolation of systems prior to issuance of Permit-To-Work to Maintenance for carrying out hot work.
 - Frequently visiting the Hot-work site to confirm that the environment is safe and the execution is also safe as per procedure.

Any contractor or employee wishing to do hot work must be familiar first with fire watch/ hot work responsibilities.

- Once familiar and aware of the risks authorized person can contact SCE for hot work permit.
- In the event of any emergency, Operations shall be contacted before performing any hot work, and the authorized person shall wait until the permit is issued.
- The In-charge shall arrange for the permit approval. Permits can be issued for up to a week, unless specific time has been determined but authorized person shall renew the permit daily.

Hot work permits shall be posted at the hot work site in a conspicuous location

If operation concludes a fire watch was not required for that activity, someone must still inspect the site 30 minutes after the hot work activity to make sure that there is no risk of fire.

6 Reference

Permit to work procedure

Emergency preparedness and Response Plan Procedure

7 Appendix

None

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Page 5 of 5

8 Revision History

SI No.	Revision Number	Section	Change Made	Date of Revision

Prepared By		Approved By	
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