

1. Purpose

To define mechanism and responsibilities for permit to work (PTW) system

2. Process Owner

- MR or his designated person is the process owner for this procedure.
- Every Zonal Head/Department Head ensures PTW system is effectively implemented and no task requiring a PTW is performed without a PTW.

3. What is a Permit to Work (PTW)

- A PTW is a written document that authorizes specific work, at a specific location, for a specific time period.
- Permits are used for controlling and co-coordinating work to establish and maintain safety while doing non-routine or hazardous tasks.
- They ensure that all foreseeable hazards have been considered and that the appropriate precautions are defined and carried out.

4. Procedure

4.1 Terms used in the Procedure

(a) <u>ISSUING AUTHORITY or Permit Issuer</u>

Job Initiator / Department / Person authorizing the Work.

(b) Executing / Receiving Authority or Permit Acceptor

Department / Group / Contractor who performs the Work.

(c) LOCK

A physical device or barrier (e.g. key or combination lock, chain & lock, isolation blind etc) which is used or installed as part of the isolation process to maintain security of the isolation.

(d) TAG

A label card or sign which is attached to the lockout or isolation device & used to designate that the equipment of system is isolated.

4.2 Tasks that require permit to Work (PTW)

PTW must be obtained while performing following Activities:

- Performing hot work such as burning, welding, flame cutting at any location other than its designated location in workshop.
- Working with energy sources (including high voltage electrical systems, steam, high pressure lines) and/or machinery (e.g. when unguarded but still potentially powered.)

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- Handling hazardous chemicals during maintenance/ construction jobs or working with chemicals, polishing or grinding.
- Excavation/trenching/ construction
- Undertaking repair or maintenance or carrying/handling of radioactive sources.
- Working with asbestos-containing materials.
- Working on electrical ducting, heating, ventilation, or air conditioning equipment.
- Working at heights / scaffolding of more than 6 feet.
- Working on Fragile Roofs (Asbestos Roofs).
- Entering or working in confined spaces e.g. tanks, vessels, chambers, sewers, sumps, fabrications under construction, excavations, ducts etc.).
- Any non-routine job considered hazardous by Department Head / MR or his designated person.
- Work by contractor on building repair, painting, cleaning after shutdown activities, etc.

4.3 Responsibilities and Procedure

- a. The Departmental Head or his designated representative wanting to initiate the work or get the work done (Permit Issuer) calls the Supervisor/Group/contractor (Permit Acceptor) and explains what is required to be done and what exactly are the activities involved in performing the work.
- b. The Group/contractor (Permit Acceptor) explains the details of how he would undertake the task, the steps and equipment involved.
- c. Once both fully agree on the activities, sequence and equipment involved, the Permit issuer fills the Master PTW (IMS-IP-F-15/16). This is issued in all cases.
- d. The Permit issuer indicates (one or more) specific areas involved in the particular work. A job specific permit is filled in addition to IMS-IP-F-15 for all additional areas identified or involved in the task. These may be:
 - Work on height above 6 feet (IMS-IP-F-16)
 - Work in a confined space (IMS-IP-F-16)
 - Excavation, construction, demolition (IMS-IP-F-16).
- e. Before permit is signed or issued, the permit issuer inspects the place and equipment for safety and readiness for work. Only then he signs & issues the permit.
- f. In case the work is to be carried out in other department's premises, IMS coordinator/Area authority of the respective area has to be involved.

4.4 Identification of OHS Hazards and Operational Controls

- In all cases (when only IMS-IP-F-15/16 is raised an EHS Hazard and Control identification exercise must be done for the specific hazards of the particular task. These must be recorded on the concerned PTW.
- Where required, help must be taken from the concerned specialist department, such as Electrical, Civil Works, Engineering, Maintenance, Production, or Admin for accurate filling of the PTW as well as for identification of hazards and controls.
- In case of hot works, If Departmental Head/Permit Issuer assesses that extra precautions are required against fire hazard then Guard/Trained Fire Fighter must be appointed through Fire Officer by sending the Signed PTW from Permit issuer.

4.5 Acceptance of PTW by Executing Department/Contractor (Permit Acceptor)

The representative of the Executing Department/Contractor must sign the PTW as an acknowledgement of understanding of PTW requirements and a confirmation to fully implement all requirements of PTW.

4.6 Control of Work Execution

- The validity period of PTW shall be defined on the PTW. For longer duration jobs (more than a day), the PTW will be re-validated by Permit Issuer at the beginning of each day.
- If the work is extended after shift change then Permit Receiver takes permission of PTW extension from Permit Issuer.
- The representative of the Executing Department monitors the work to verify compliance of PTW requirements by the Permit Receiver staff/Contractor.
- The permit issuer is responsible to inspect/audit the work at random intervals to ensure that PTW is fully complied. This may be done by permit issuer himself or by his nominated representative. Work should be stopped in case of a serious violation.
- All permits shall be automatically suspended upon the actuation of the fire alarm.
 Work shall not recommence until renewal of the permit has been obtained from the Permit Issuer.
- Third flyer of PTW copy shall be sent to ManEx department before execution of job, ManEx representative will randomly visit the site for verification of adequate controls taken in to account for job execution.

4.7 Verification after Work Completion

- After completion of work, the Executing Department/Contractor will inform Permit Issuer that work has been completed.
- Permit issuer or his representative must sign PTW after verifying that the site/area is properly cleaned, no scrap or redundant material is left at the site and equipment/vessel/area is ready for operation.

4.8 Display of PTW

The Executing Department/Contractor must ensure that PTW is displayed at a prominent place near the work location preferably on equipment/vessel on which work is performed.

4.9 Lock Out/Tag Out

Scope: is to communicate with other people working on or operating the system. The following list is representative of situations where tagging is warranted & should be utilized:

- Switches, valves & blinds used to isolate control lines or equipment undergoing maintenance (corrective or preventive).
- Equipment that is not functioning properly or is unsafe to use.
- Equipment in abnormal position. Defective or leaking valves.

The equipment listed is the scope shall be tagged in the following manner to ensure that proper attention is given to needed repairs.

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- Record on the tag Department name, location, the equipment name, work type which should include the fault or reason for tagging.
- Include the date & time, sign & attach the tag.
- Notify your immediate supervisor.

Tags should be removed immediately after condition changes, so as not to be left on by mistake.

Following are the steps to be followed for the isolations (electrical, mechanical, and process)

- Qualified individuals must perform an initial evaluation of the equipment to identify potential exposures which must be isolated before safe working.
- On duty operator shall be notified prior to isolation of the equipment or taking the equipment out of service.
- Each lock must have filled "Danger-Do not operate this" tag attached with it.
- In the presence of Issuing & performing authority, qualified individual will isolate the equipment & place the lock & tag. Key of the lock must be kept with issuing authority. (In case of shift change key must be handed over to his reliever).
- For electrical isolations the lock should be applied at the circuit breaker or at the electrical isolation switch or both. An isolation is preferred to be as close as possible to the equipment being isolated. If the circuit cannot be locked out, it must be deenergized & tagged. If the circuit requires disconnection or removal of the component to ensure isolation, qualified person must perform that.
- After the completion of work, individuals performed the work along with the performing authority will inform the issuing authority or senior operator. Issuing authority/senior operator will verify that no one is still working on the equipment, all tools & maintenance equipment have been removed from the area, all guards have been returned in place & no hazard to personnel will be created by energizing.
- Qualified person will then remove the lock & tag & energize the equipment.

4.10 Training Requirement

MR or his designated person ensures that all personnel, who have responsibility for Issuing / Authorizing of PTW, must be formally trained prior to authorizing a permit.

The training covers:

- Type of work requiring PTW
- How to fill PTW
- Understanding of Operational Controls
- Responsibilities

5.0 Records

Record no.	Record name	Maintained by	Retention period
IMS-IP-F-16	PTW (URDU)	Departmental Coordinator	1 year



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	M/C + Equipment Name	Section	Lock Out & Tagout devices				
Sr #			Quantity & Location of Padlock and Tags	Date & Time (Attachment) with authorized person name	Date & Time (De- Attachment) with authorized person name	Permit Ref or SAP #	Remarks