Permit-To-Work (PTW) Procedure

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Rev 01	Standardization of Procedure	Sunil Bartakke (Head-Biogas & Lavasa Project)	Navendra Singh (Group Head – P & CB; Corp Safety.)	Vijay Chourey (Chief – Corp Safety)
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1. OBJECTIVE:

To provide a standardized & uniform procedure for obtaining authorization to perform jobs require special consideration to ensure the safety of personnel, and protection of facilities by using a safe system of work and clear understanding between the working agencies / departments involved.

2. SCOPE:

This procedure applies to all operating and project sites of Tata Power Group companies including JVs/ Subsidiaries.

3. EXPECTED RESULTS:

3.1. Manage jobs being done under Permit-To-Work (PTW) safely.

3.2. Control of incidents in Jobs related to Permit-To-Work (PTW).

3.3. Compliance to Regulatory requirements related to Permit-To-Work.

4. ACCOUNTABILITY & RESPONSIBILITY:

4.1 ACCOUNTABILITY: Concerned Division's Heads / SBU Heads / Assets Custodian.

4.2 RESPONSIBILITY: Working department, Contractors.

4.2.1 SBU Head / Assets Custodian:

- Implement and manage the PTW system and provide necessary resources of expertise in its application.
- Implement, apply, monitor and audit the Permit-To-Work System within the respective area.
- Delegate various levels of authority in accordance with needs, subject to appropriate training and competency.
- Oversee training programs for Permit Acceptors, Permit Issuers, Permit Approvers, Area Operators and Gas Testers as applicable.
- Ensure that those who are appointed as Permit Acceptors, Permit Issuers, Approvers and Area Operators are certified and competent to undertake the role.
- Ensure updated list persons certified and competent for PTW are available. Preferably list to be displayed at conspicuous location.
- Ensure regular audit of PTW process as a whole.
- Receive feedback from the users of the PTW system.

4.2.2 Permit Creator / Initiator / Applicant / Acceptor

The permit creator / initiator / acceptor / Applicant is a person who initiate the PTW and after its approval he accept it for performing the job. He / She shall be responsible for executing the entire job in full compliance with the PTW requirements. His/her responsibilities include the following:

- Understand the potential hazards involve in the job.
- Ensuring that LOTO is performed at all points as applicable before the commencement of the job.
- Understand how the hazards are controlled.
- Know the emergency situations likely to occur in the job / area and actions to be taken including evacuation procedure.
- Ensure that the Permit Holder understands all the hazards and controls, explaining them to the workers, and ensure that the controls are maintained throughout the execution of job.
- Inform all people who may be directly / indirectly affected by the job.
- Know the status of the job at all times, till its completion.
- Transfer duties formally as and when required.
- Know how to mitigate a possible incident, safe closure of job at such time, rescue of men and material, arrange / administer medical aid if required.
- Knowledge of first aid and its administration.
- Is aware of the on-site emergency plan.
- Lead and take care of his group at times of emergencies.

Permit Creator / Initiator / Applicant / Acceptor is typically maintenance engineer or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

4.2.3 Permit Issuer / Issuing Authority (Control Room Engineer)

The Permit Issuer shall be responsible for review the information provided and amend if required.

The Permit Issuer shall be responsible for the following:

- Confirm that all hazards associated with the job have been identified, assessed, managed and all relevant parties have provided their inputs and agree with the precautions.
- Ensure that the PTW contains scope of the job and the documented controls mentioned are adequate to ensure that the job can be completed safely.
- Ensure that all necessary supporting PTWs / Certificates / Checklist / JSA / drawings are attached or referred to in the PTW.
- Ensure that the Permit Acceptor knows the exact location and scope of the job, all the hazards that may be present and all the precautions and controls that must be taken and maintained during execution of the job.
- Confirm that all operational preparations, including process clearance and isolations, de-energizing and de-pressurizing have been completed.
- Lock out and Tag out (LOTO) shall be performed as per Tata Power LOTO procedure (TPSMS/CSP/LOTO/001) and isolation shall be done as per Standard Operating Procedure.
- Confirm that the job site is safe for the job to proceed.
- Specify on the PTW any additional precautions that need to be taken during the job.

- Identify any conflicts between the proposed job and other jobs in the area, and if necessary, cross-reference necessary controls in all such PTWs.
- Inform all persons who may be affected by the job.
- Know the status of the job at all times till it's completion,
- Ensure shift handover includes all ongoing or suspended PTWs with the upcoming Permit issuer.

Permit Issuer / Issuing Authority is typically Control Room Engineer or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

4.2.4 Permit Approver: Shift Incharge shall be a Permit Approver. The Permit Approver shall be responsible for ensuring that the hazards have been evaluated, adequate controls are provided and precautions are specified in the PTW. He/she is responsible for the following:

- Know the hazards including potential hazards and confirming that all hazards associated with the job have been identified, assessed and managed and all relevant agencies / Departments have provided their inputs and agreed with the precautions.
- Know how to control and manage hazards involve in the job.
- Verify that the job area is safe to commence and carryout job, including checking that representative atmospheric sampling results are within the acceptable limits.
- Ensure that the PTW contains scope of the job and the documented controls mentioned are adequate to ensure that the job can be completed safely.
- Ensure that all necessary supporting PTWs / Certificates / Checklist / JSA / drawings are attached or referred to in the PTW.
- Confirm that the Permit Holder has been explained the exact location of the job, all the hazards & risks that may be present and all the precautions and controls are taken care of.
- Confirm that all operational preparations, including process clearance, isolations, de-energizing and de-pressuring etc. have been completed.
- Approve the PTW.

Permit Approver is typically Shift In- Charge or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

4.2.5 Permit Maker (Holder) - Person who is supervising the working party at the site and executing the job.

The Permit Holder shall be responsible for commencing and completing the authorized job while fully complying with all the requirements as mentioned in PTW. His / Her responsibilities include the following:

- Know and understand the potential hazards involved in the job.
- Know and understand how the hazards are controlled.
- Know the right kind of PPEs required, ensure correct use and compliance thereof.

- Know the emergency situations likely to occur in the job / area and actions to be taken including evacuating the area.
- Deliver the Tool-Box-Talk (TBT) to the workers involved prior to commence the job and record the same.

4.2.5 Individuals working within the PTW system should ensure that:

- Received and understood safety instructions during TBT on the particular job and they understand the hazards and the precautions taken or to be taken.
- Shall not start any job without valid PTW and TBT.
- In case of stop work, the site and any equipment they are using is left in a safe condition
- If in any doubt or if circumstances change, they must stop work and consult with their supervisor / Permit holder.

5 GLOSSARY/ DEFINITIONS:

PTW - Permit-To- Work

Permit-To-Work (PTW) system: A PTW system is a formal written system used to control and execute certain types of jobs safely, which are identified as potentially hazardous. It is also a means of communication between different departments, plant supervisors, operators, agencies etc.

Permit Creator / Initiator / Applicant / Acceptor: The Permit Creator / Initiator / Acceptor / Applicant is a person who initiate the PTW and after its approval he accept it for performing the job. He / She shall be responsible for executing the entire job in full compliance with the PTW requirements. Permit Creator / Initiator / Applicant / Acceptor is typically maintenance engineer or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

Permit Issuer / Issuing Authority (Control room engineer): The Permit Issuer shall be responsible for review the information provided and amend if required. Permit Issuer / Issuing Authority is typically Control Room Engineer or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

Permit Approver: Shift Incharge shall be a Permit Approver. The Permit Approver shall be responsible for ensuring that the hazards have been evaluated, adequate controls are provided and precautions are specified in the PTW. Permit Approver is typically Shift In- Charge or equivalent, however terminology of this designation may vary based upon hierarchy/ organization chart.

Permit Holder (Maker): Person who is supervising the working party at the site and executing the job. The Permit Holder shall be responsible for commencing and completing the authorized job while fully complying with all the requirements as mentioned in PTW.

Job Safety Analysis: Job safety analysis (JSA) is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job. In a

JSA, for each basic step of the job, it is to identify potential hazards and to recommend the safest way to do the job.

6 PROCEDURES:

6.1 Applicability:

Valid Permit-To-Work (PTW) and approve Job Safety Analysis (JSA) shall be taken for all jobs other than approved exception list. Exception list shall be prepared at each division and shall be approved by division chief.
The Plant / installation which is completely under the supervision / custody of External party / contractor; as a principle employer, company has to ensure the PTW system must be in place. Such PTW system those are from external party / contractors shall be approved by concerned division chief.
SAP-PM portal shall be used for Permit-To-Work (PTW) management. Entities where such portal is not active, should use same Permit-To-Work (PTW) template and comply to requirement mentioned in this procedure. In case SAP-PM is not available at any point of time due to any reasons, entity may use Permit-To-Work (PTW) template and should maintain record of Permit-To-Work (PTW) as per dentation p[period as per this procedure.

6.2 Preparation

6.2.1 Co-ordination: It is important to ensure that job requiring PTW, shall be planned and coordinated in order to avoid risks caused by simultaneous activities.

6.2.2 Planning : Careful planning of job requiring a PTW shall take place to ensure:

- Appropriate approval for the job.
- All persons in charge of areas which may be affected are made aware and hence take precautions against possible interaction with other work activity
- Sufficient time to identify all potential hazards, implement precautions and prepare the worksite. One suggested technique of achieving this is a Job Safety Analysis.

6.2.3 Job safety Analysis (JSA): Job safety Analysis (JSA) shall be done directly into the system or alternatively it can be done externally and uploaded in the system.

6.2.4 Types of Permit-To-Work (PTW): The types of work for which PTW systems shall be applied include maintenance and repair, inspection, testing, construction, dismantling, modification and cleaning.

The types of Permit-To-Work (PTW) as per SAP-EHS include:

Main permits-

(1) **General Permit** – to be taken as base permit for de-energization, applying LOTO and making surrounding safe.

(2) **Project Nature Permit**- To be taken for project nature jobs.

Add on permits- following add on permit shall be taken along with general permit based upon the types of activity to address and mitigate risk pertaining to activities involved.

- Confined Space Entry Permit
- Electrical Permit
- Excavation Permit
- Hot Permit
- Lifting and slinging Permit
- Radiography Permit
- Working at Height Permit

6.2.5 Cross Reference: The objective of cross reference is to ensure that no interaction takes place between work activities which might endanger the safety of personnel or the installation. The PTW issuer shall, by knowledge of work going on in his area of responsibility, be aware of potential interaction when issuing multiple PTWs for the same piece of equipment or system, or where there may be potential conflict with adjacent work activities.

Such situations should be minimized by careful planning and suitable precautions which should include an appropriate method of cross referencing the different tasks.

It may be that the interacting activities are covered by separate PTW issuers, in such cases close co-ordination shall be necessary.

6.2.6: Process Flow of Permit-To-Work (PTW) in SAP:
For all high risk jobs and Project nature Job, it is mandatory to take approval to safety while processing the PTW.

If the job is high risk in nature then concerned Head has to change the status to High Risk Job (HRJB) while assigning the Notification to Person responsible. Only concerned Head is authorized to set the User Status LRJB & HRJB.

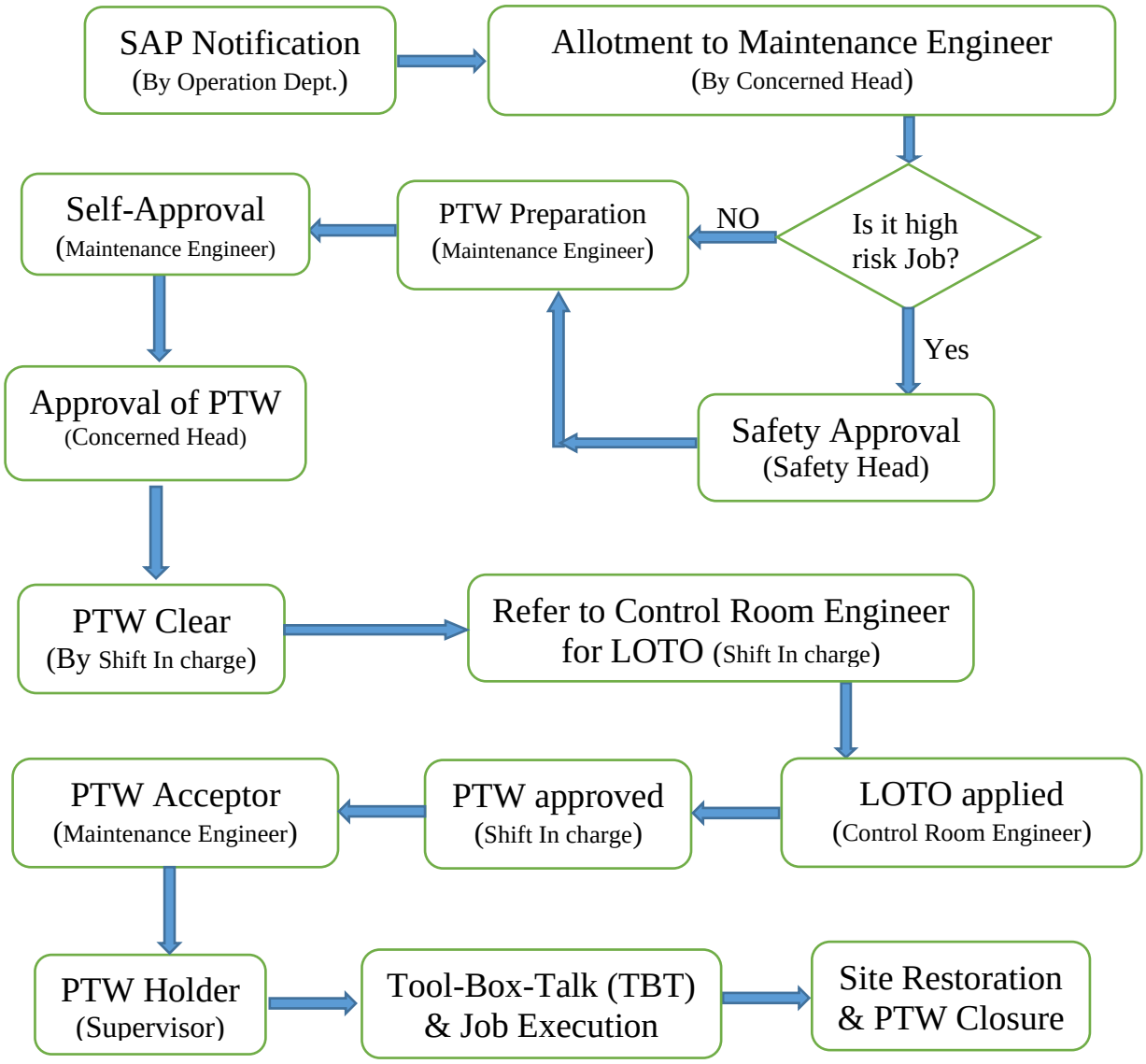
Permit initiator while preparing permits can still change job as high risk even if Concern head has marked it as low risk.

If the Notification Status is “High Risk Job”, system will not allow to delete the concerned Head & Safety Approvals in all types of PTW. If User tries to delete the Approvals, System will show error message.

Concerned Safety Advisor shall check the adequacy of control measures defined in PTW and JSA for all such high risk jobs. He may further recommend additional control measures before grant of approval. At PTW clearing stage s/he is responsible to give their inputs in

JSA & PTW and during this s/he may not visit site, however subsequently during site visit s/he shall check deployment of control measures.

Line management is wholly responsible for the implementation of JSA & PTW at site which has been cleared by safety. Tool box talk (TBT) shall be done prior to start of each job and to be recorded as per Annexure -6 {Tool-Box-Talk (TBT) TPSMS/CSP/PTW/008/FORM/ 002}.
PTW shall be displayed at site or alternatively it should be made available at site. Permit Holder shall remain present at site during entire period of job.



6.2.7 Extension of Permit-To-Work (PTW): In order that effective control is maintained in changing circumstances there shall be a limit on the life of a permit. Depending on

the job, extension of all PTW other Project Nature Permit shall be up to 7 days. Maximum extension in case of project nature permit may be upto 30 days. It shall be necessary to intimate about the extension of PTW to all concerns involved. All concerns shall maintain all existing controls measures in place as mentioned in PTW & JSA.

6.2.8 Tagging: An essential ingredient of any safe system of work is the method and integrity of the isolation procedure. The isolation principle to be adapted, prior to carry out maintenance or repair, will be determined by a number of factors e.g. potential for pressure, dangerous substances, lack of oxygen, moving machinery etc. It is beyond the scope of this document to provided guidance on the isolation required for each potential hazards, please refer Standard operating procedure of each equipments and Tata Power LOTO procedure - TPSMS/CSP/LOTO/001. In case isolations are required, the Issuing Authority will maintain the required isolations. Electrical team will be involved in this step if electrical isolations are required.

The following additional points should be considered within the isolation procedures:

- Complex isolations should be planned and recorded on a working drawing. This should be discussed between the Permit Issuer and Permit Acceptor to ensure all isolation points are clearly understood and agreed. The marked up drawing should be readily available to all concerned. Consideration should be given to attaching a copy to the PTW.
- It is essential that the isolation standard is commensurate with the type of job being carried out, plant operating conditions and other local influences.
- Isolation procedures should include all energy sources, i.e. mechanical, electrical, hydraulic pressure etc.
- The tag or key number should be recorded on the PTW form or on a separate form which should in turn be cross referenced and attached to the PTW form.
- isolation should only be applied and removed on instruction from the person issuing the PTW
- If more than one task is to be carried out on part of a plant or piece of equipment, there is a risk that on completion of one of the tasks the isolations are removed and the equipment is put back into service. Controls should be in place to prevent premature de-isolation where dual tasks are involved
- if the work is not able to be completed within the shift the site should be checked by both the Permit Acceptor and the Permit Issuer to ensure it is left in a safe condition and equipment cannot be reinstated until all job shall be properly completed

- If the PTW is suspended, the status of the job site should be left on display in a suitable location e.g. Control Room, and the isolation padlock keys kept in a secure place to ensure no unauthorized access.

All persons authorized to carry out isolations should be assessed for their competence prior to appointment i.e. they should

- Be suitably qualified
- Have experience on the plant/equipment
- Have received specific instructions on the plant, methods of isolation etc.
- Be able to demonstrate their knowledge by examination.

Their areas of responsibility shall be made quite clear.

6.2.9 Gas Testing: PTW preparation may involve a consideration of the likely presence of flammable or toxic gases, or oxygen deficiency/enrichment, at the worksite.

Where such a consideration is necessary then gas testing shall be undertaken.

Persons involved in gas testing shall be adequately trained in the use of gas testing equipment, and in the interpretation of results.

The responsibility of what to test for, where to take samples, and the minimum number of samples to take should lie with the Permit Issuer. Gas testing shall be done as close to the commencement of work as possible.

Results of any gas testing shall be recorded and timed, as per Tata Power confined space entry procedure (TPSMS/CSP/CSE/003- Annexure 05/form No TPSMS/CSP/CSE/003/FORM/003). In case ambient parameters changes beyond acceptable levels during the work, the PTW shall be suspended.

6.2.10 Signatures: Once PTW approved, auto generated mail shall go to Permit Initiator to execute the job as requested in PTW. Signature of Permit Holder and respective field operation engineer (area / equipment owner) shall be taken on initial issue of PTW and thereafter for revalidation on each day/shift as applicable.

6.3 Process

6.3.1 Display of Permit-To-Work (PTW): It is important that permits shall be displayed so the persons who need to be aware of them, or to refer to them, are able to do so.

Copies should normally be distributed/displayed as follows:

- At the worksite. Where this is not practicable (e.g. at an exposed location), the Permit Acceptor of the job should retain the copy, having ensured that the working party members are familiar with its content and control measures.
- At the main control / co-ordination room, where these should be displayed in a systematic arrangement.

6.3.2 Revalidation: Permit-To-Work (PTW) should be revalidated in order that the Permit Issuer can satisfy himself that the conditions under which the PTW was originally issued remain unchanged to allow work to continue.

Revalidation shall be done on next day before start of the same job as per Annexure 5 Permit-To-Work (PTW) Revalidation (TPSMS/CSP/PTW/008/FORM/001). It can be revalidated upto 7 days only except project nature permit. For project nature permit revalidation may be done upto 30 days. The maximum validity of the permits is defined and revalidation beyond this period are not allowed. In such cases, the PTW is closed and a new PTW shall be issued.

6.3.3 Suspension: In the event of any of the following circumstances occurring during the course of an activity under permit, the Permit Holder must refer back to the Permit Issuer (through Permit Acceptor) on the appropriate course of action:

- The specified equipment or tools to be used not being available.
- Any changes in the type and nature of work.
- Occurrence of any condition / situation during the progress of the work that was not anticipated.
- Any change in the process condition or the surrounding. (E.g. unexpected release of gas from a nearby tank).
- An emergency in the area.
- Any change in the weather condition.

6.3.4 Shift Hand-overs: Shift changeovers can be one of the most vulnerable times for the PTW system. The failure to pass on information or the correct information has been shown to be the cause of many accidents. There is sufficient overlap to allow proper review and discussion of the status of all Permit-To-Work.

Written means of communicating information can be by:

- PTW Log Book
- PTW Files
- Display Boards
- Computer Screen/Print Out

Or a combination of any of the above. Whichever arrangements are adopted, the shift handover arrangement shall be monitored regularly to ensure its continued effectiveness.

6.3.5 Action in an Emergency / break down situation: During emergencies, when working party is not able to generate notification, PM order and hence PTW; in such situation control room will use WCT6 and WCT7 to create safety tag number for the outage. However, maintenance engineer will have to generate - notification, PM order, PTW subsequently and attach safety tag (by using WCLE & WCD transaction) number. No safety norms to be violated and standard SOP to be followed. For more details please refer "SAP – PM Training Manuals (Use of WCT6 & WCT7 - Guidelines Emergency Outages) available at Sangam web page at following path -

Saarthi > Project Saarthi > Training > Module > Plant Maintenance (PM) > 2. PM Processes - Others> 06. Creating Safety Tags (WCT6 & WCT&) without PTW-Emergency Outages.

6.3.6 Monitoring: The monitoring of the PTW shall be during entire span of job execution by Permit Holder.

6.3.7 Trial Required After Maintenance Work: If trial of equipment is required to be taken after the maintenance work is completed, the temporary un-tagging cycle is initiated. (Refer Tata Power LOTO procedure (TPSMS/CSP/LOTO/001 Rev 01) 6.5 Temporary Removal of Lockout/Tag out Devices)

Process is initiated by authorized person by activating the button “Untag temporarily” in the work clearance document, and system status is updated as BTUG - Untag temporarily. (Annexure-1 Permit- To-Work (PTW) - Status Sequence)

Tags are removed from the field and system is restored to original condition. After the tags are removed and the system condition is restored the authorized person activates a button in the work clearance document “Temporarily untagged” and the system status is up-dated as ETUG – Temporarily Untagged.

Trial is taken for the system and after successful completion of the trial, the authorized person activates the button “Tagged” in the Work Clearance document and system status is updated as ETG – Tagged.

If trial is unsuccessful then Maintenance team (Permit Initiator) have two options based on the scenario.

If work can be done to rectify the problem, then the isolations of the field equipments will be done again using the temporary untagging cycle as explained above. Temporary untagging cycle will be repeated using the same tags and field equipments will be isolated. Work will be executed in the equipment and further trial will be taken.

However, if work cannot be executed again and a scope change in work is required then the PTW shall be closed. Untagging of the field equipments will be done and work clearance document shall be closed. Scope change in work shall be handled by creating a sub order through Work Order Management and new PTW will be created.

6.4 Completion

6.4.1 Work Completion: When the maintenance work is completed then maintenance person indicates in the work order system that work is completed by activating Work Completed Button on order header and the System Status is updated to WOCO – Work completed.

Order operations are confirmed and order is updated with a system status as CNF – Confirmed.

6.4.2 Closing of Permit-To-Work (PTW): After the Work is completed the Permit-To-Work (PTW) is surrendered and the PTW is closed and the System Status is updated as CLSD – Closed.

The system provides a facility to automatically set CLSD status on the Permit-To-Work (PTW) when Maintenance order gets WOCO status.

6.4.3 Un-Tagging Process: After the Permit-To-Work (PTW) is surrendered then un-tagging process is initiated by activating the button “Untag” in the Work clearance document and the System status is up-dated as BUG – Untag.

System is restored to original condition as per the un-tagging conditions in the Work Clearance document and tags are removed from the field equipments.
Authorized person will activate the button “Untagged” in the Work Clearance Document and the system status is updated as EUG – Untagged.

6.4.4 Closing the work Clearance Documents: After untagging of the isolation the Work Clearance Document is closed and the system status is updated as CLSD – Closed.

6.4.5 Closing of Maintenance Order: After the PTW is closed, the order is technically completed and the system status is set to TECO – Technically Completed. The order cost is then settled by the finance section to the respective cost center and order is business completed and system status is up-dated as CLSD - Completed.

6.4.6 Housekeeping: Housekeeping shall be ensured before the start of job as well as after the completion / cancellation of job. Permit-To-Work (PTW) shall be closed only after restoration of housekeeping of the Job site.

7 Records:

Filled Permit-To-Work (PTW) – Retention Period - One year
Filled Permit-To-Work (PTW) Revalidation (TPSMS/CSP/PTW/008/FORM/001) -– Retention Period - One year
Record of Tool-Box-Talk (TBT) TPSMS/CSP/PTW/008/FORM/ 002} – Retention Period - One year
(Note: For PTW from SAP above mentioned records, those are available in SAP no separate register/record is required)

8 TRAINING & COMMUNICATION

8.1 Training of Permit-To-Work procedure shall be carried out to cover for following-

(i) Permit Issuer,

(ii) Permit acceptor,

(iii) Permit Holder,

(iv) Permit approver.

List of trained and competent person in PTW as a Permit Issuer, acceptor, holder & approval shall be displayed at conspicuous location.

8.2 Initial Communication to be done through Corporate Communication, Email and subsequently shall be made available at safety portal at Sangam

9 VERIFICATION

Verification of implementation shall be done during Permit-To-Work (PTW) procedure audit, field safety visit and site inspections.

10 EXCEPTION: Any Exception to this procedure shall only be done as per Document Control .Procedure (TPSMS/GSP/DC/014).

11 REFERENCES

- EPM 04.01.02 - Safe Working Procedures
- Indian Factory Act 1948 and State Factory Rules (As amended)
- SAP PM Work Permit Management Process - PM_Work_Permit_Management_04
- Excavation Safety (Shoring and Sloping) Procedure - TPSMS/CSP/EXS/002
- Tata Power LOTO Procedure - TPSMS/CSP/LOTO/001
- Tata Power Job Safety Analysis (JSA) Procedure - TPSMS/CSP/JSA/009
- Tata Power Hazard Identification & Risk Assessment (HIRA) Procedure - TPSMS/GSP/HIRA/005

- Tata Power Confined Space Entry Procedure - TPSMS/CSP/CSE/003
- Tata Power Work At Height Procedure - TPSMS/CSP/WAH/004

12 REVIEW:

12.1 Review of this procedure shall be done as and when but not later than once in every three (03) years. Typical Factors like Changes in legislation, Review of Incident Reports, Inspection & Audit findings, Feedback from users, Recommendations in Incident investigation reports may be inputs for the review and revision of the procedure.

12.2 In case release of revised procedure gets delay due to obtaining feedback or any other reasons, safety advisory may be issued immediately to take precautions for the proposed changes in the procedure and revised procedure should be released subsequently.

13 ANNEXURES:

Annexure-1: Permit- To-Work (PTW) - Status Sequence
Annexure-2: Sheet 1 - Permit -To-Work (PTW) Issuance Process
Sheet 2 - Permit-To-Work (PTW) Return Process
Annexure - 3: SAP Permit-To-Work (PTW) Process Flow (Tabular Form)
Annexure -4: SAP Standard Report
Annexure-5: Permit-To-Work (PTW) Revalidation (TPSMS/CSP/PTW/008/FORM/001)
Annexure-6: Tool-Box-Talk (TBT) TPSMS/CSP/PTW/008/FORM/ 002}

Annexure -1

Permit- To-Work (PTW) - Status Sequence

During the process of the isolations, execution and completion of work, the system status of Header and Item level gets up-dated based on the processing phase. The processing phase could be as follows –

- Tagging Phase
- Un-tagging phase
- Temporary Un-tagging Phase

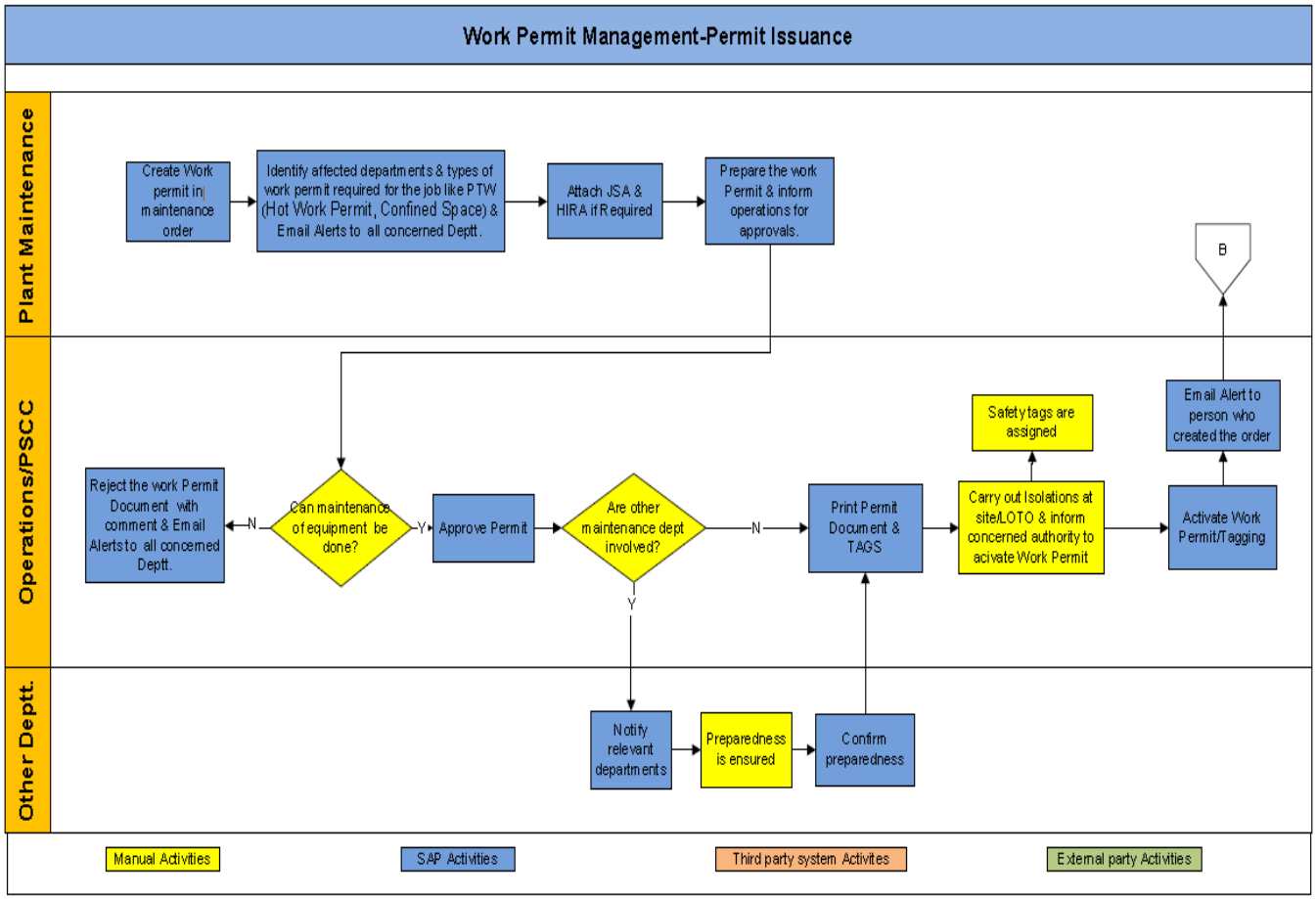
System Status	Description	Remarks
CRTE	Created	When the Work Clearance Document is created the system status is set to CRTE – Created.
PREP	Prepared	After review of the Work Clearance Document Header and Item data the WCD system status is set to PREP – Prepared. This will allow for the approval and Tagging process.
CHNG	Change	WCD status PREP is revoked.
CLSD	Closed	After the items are untagged the WCD status is set to CLSD – Closed and the WCD is completed in the system.
ITG	Initial Tagging Condition	WCD items system status is set to ITG – Initial Tagging Condition when the WCD is set to Prepared condition. The items cannot be deleted from the WCD document after ITG status is set to the items.
PROC	Processing	When the Tagging process is initiated System status is set to Processing.
BTG	Begin Tagging	WCD items system status is set to BTG- Begin Tagging status when tagging process is initiated by activating the “TAG” button.
PTAG	Print Tag	WCD items status is set to “PTAG” status when tag printing button is activated for printing the Tags from the system
ETG	End of Tagging	WCD items system status is set to “ETG” - Tagged status when “Tagged” button is activated after the items are physically isolated and tags are placed on the isolated items.
INAC	Inactivated	WCD item status is set to INAC- Inactivated status if WCD item is not relevant and items already have system status ITG.
BTUG	Begin Temporary Untagging	WCD items status is set to “BTUG” status when “Untag Temporarily” button is activated for Trial purposes.
ETUG	End of Temporary	WCD items status is set to “ETUG” status when “Temporarily Untagged” button is activated after conditions

	Tagging	are restored for trial purposes.
TEST	TEST Cycle	Permit trial cycle in progress
PTST	Print Test Tag	WCD items get “PTST” status when tag printing button is activated for printing the Tags from the system for test cycle.
UNT	Untaggable	WCD items get UNT – Untaggable status to indicate items can be untagged.
BUG	Begin Untagging	WCD items get “BUG” untag status when “Untag” button is activated to begin Untagging Process
EUG	End of Untagging	WCD items are set to “ETG” Untagged status when “Untagged” button is activated.

Annexure-2

Sheet 1

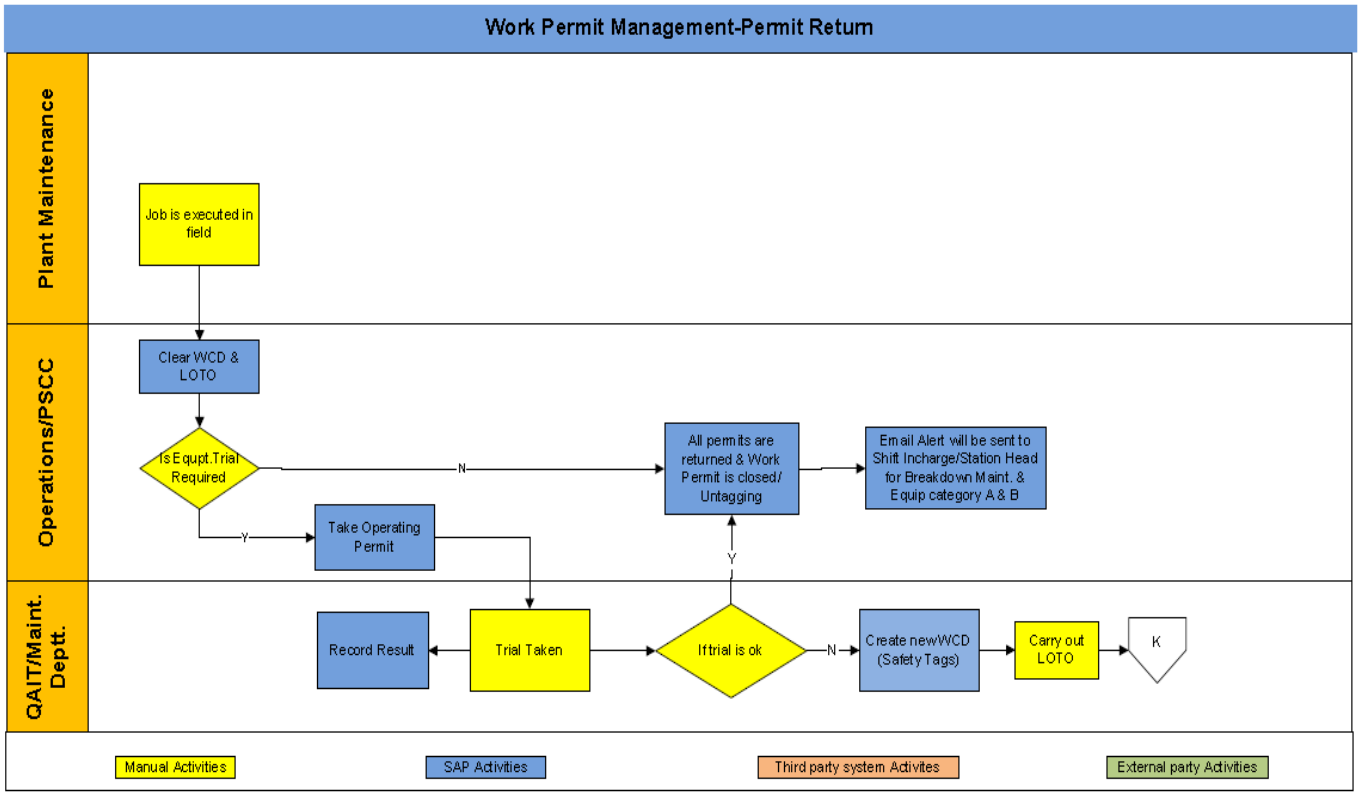
Permit -To-Work (PTW) Issuance Process



Annexure- 2

Sheet 2

Permit-To-Work (PTW) Return Process



Annexure- 3

SAP Permit-To-Work (PTW) Process Flow (Tabular Form)

Work Step #	Work Step Description	SAP T-code/Out of SAP/Other
	Permit Issuance Process	
1	Create Work permit in maintenance order	IW31/IW32
2	Identify affected departments & types of work permit required for the job like PTW (Hot Work Permit, Confined Space)	IW32/IPMD
3	Attach JSA/HIRA if required	
4	Prepare the work Permit & inform operations for approvals.	WCLE
5	Can maintenance of equipment be done? (YES:7 NO:6)	Manual
6	Reject the work Permit Document with comment and Email alert to all the concerned Dept	WCLE
7	Approve Permit	WCLE
8	Are other maintenance dept involved? (YES:9 NO:12)	Manual
9	Notify relevant departments	Workflow
10	Preparedness is ensured	Manual
11	Confirm preparedness	WCLE
12	Print Permit Document & TAGS	WCLE
13	Carry out Isolations at site/LOTO & inform the concerned to activate the work Permit	Manual
14	Safety tags are assigned	Manual
15	Activate Work Permit/Tagging	WCLE
16	Email alert to person who created the order	Workflow
	Permit Return Process	
1	Job is executed in field	Manual
2	Clear WCD and LOTO	WCLE
3	Is Equipment trail required (YES 4, NO 10)	Manual
4	Take Operating Permit	
5	Trail Taken	Manual
6	Record Results	
7	Is Trail is OK (YES 10 NO 8)	
8	Create new WCD/Safety Tags	WCLE
9	Carry Out LOTO	Manual
10	All permits are returned & Work Permit is closed/Untagging	WCLE
11	Email alert will be sent to Shift In Charge/Section Head for breakdown Main for Equipment Category	Manual

	A and B	

Annexure- 4

SAP Standard Report

Report title	Transaction code (SAP GUI)	Comment
List Work Approvals	IP16	A list of all work approvals will be displayed with respective status such as 'created', 'closed', etc.
List Work Clearance Applications	WCL6	A list of all work clearance applications will be displayed
List maintenance orders	IW39	A list of all selected maintenance orders is displayed.
Equipment list	IH08	An equipment list with general data and more information.
List of Work Clearance Document templates	WCL2	A list of all work clearance document templates will be displayed

TPSMS/CSP/PTW/008/FORM/001 **Annexure- 5**

Permit-To-Work (PTW) Revalidation

Details:	**Shift_ / Day 2**	**Shift_/ Day 3**	**Shift _/ Day 4**	**Shift _/ Day 5**	**Shift _/ Day 6**	**Shift_/ Day 7**
Date:						
Time: From						
Time :To						
Signature & Name of Permit Issuer						
Signature & Name of Permit Accepter / Holder						
Signature & Name of Area Operator (if applicable)						

TPSMS/CSP/PTW/008/FORM/002 **Annexure- 6**

Tool-Box-Talk (TBT) Record

Tool-Box-Talk (TBT) Date :
Location/Venue :
Permit-To-Work (PTW) No. :

Time :
Tool Box Talk conducted by :
Name of the Contractor / dept. :
Name of the Contractor's Supervisor :
Number of Workmen Present :

COMMON POINTS TO BE DISCUSSED	STATUS	Brief Discussion on Job to be performed
• Use of proper PPEs		
• Use of proper Tools		
• Barriers & Signs		
• Emergency Vehicle & First Aid Box		
• Enquiry of Health Status		

SN.	Name of the Workmen	Gate Pass No.	Sign
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Sign & Name of Tool-Box-Talk (TBT) conducted by: