SOP-GEN-019 Permit to Work

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1.0 Introduction

A permit to work system is a formal written system used to control certain types of potentially hazardous tasks. A permit is a document that describes the task to be done and the precautions to be taken. All permits must be signed by at least two persons, one of whom must be an Authorized Person. If the task needs to be continued after 12 hour period, a new permit must be generated. **All permits except energy isolation are valid for a 12 hour period only. All permits and their tasks must remain open until the work is complete.**

Permits to work form an essential part of safe systems of work for many maintenance activities. They allow work to start only after safe procedures have been defined and they provide a clear record that all foreseeable hazards have been considered.

A permit is needed when a maintenance task can only be carried out if normal safeguards are dropped or when new hazards are introduced by the task. Examples of permits used on TDI-Brooks vessels are: confined space, energy isolation (lockout/ tagout), hot work and working at heights.

2.0 Definitions

Attendant-- An individual stationed outside one or more permit spaces who monitors the authorized entrants.

Authorized Person-- Someone empowered by TDI-Brooks to approve a specific type of permit. The only authorized persons on TDI-Brooks Vessels are the Master, the Chief Mate, and the Chief Engineer. In the absence of any of these crewmen, for example in a shipyard, the Port Engineer becomes an Authorized Person to sign any permit.

Confined Space Permit—This permit must be signed by both the Master and the Chief Engineer.

Energy Isolation Permit (formerly Lockout/ Tagout)— the required procedures for locking or tagging out a piece of equipment to prevent activation of the equipment or the release of stored energy that could harm an employee.

Fire Watchman—A trained employee assigned to the duty of fire watch while hot work is in progress and authorized to STOP WORK if necessary, to restore safe conditions within the hot work area. This person cannot perform any other duties while on fire watch. The person performing the hot work cannot be their own fire watch. Fire watchers shall have fire extinguishing equipment readily available and be trained in its use.

Hot Work Permit—29 CFR 1915.11 defines hot work as "...any activity involving riveting, welding, burning, the use of powder-actuated tools or similar fire-producing operations." (Includes production of sparks) A hot work permit is required for any task that meets that definition.

JSA Meeting-- A meeting by all persons involved in performing a task for the purpose of reviewing the risks and mitigations for that task. JSAs are integrated into each of TDI-Brooks' permits and must be signed by all task participants, including contractors.

Job Safety Analysis (JSA)– A written risk analysis that breaks the task down into steps, evaluates the risks in each step and assigns mitigations, usually PPE or a procedure, to minimize the risks.

Working at Heights Permit—TDI-Brooks' policy is that a permit is required for any task that requires the worker's feet to be 6 feet or more from the surface of the deck and when working over dangerous equipment and machinery. Fall protection must be worn unless it is determined that the fall protection system would create a greater hazard.

3.0 References

- Hot Work – 29 CFR 1915.11, 1915.14
- Confined Space Entry (maritime environment)- 29 CFR 1915 Subpart B
- Energy Isolation (Lockout/ Tagout) – 29 CFR 1910.147, 1910.269(d) and 1915.89
- Working at Heights – 29 CFR 1915- Shipyard Employment, 1917 Marine Terminal, 1918 Longshoring. For most TDI activities at the dock side or in a shipyard, the 1918 Longshoring rule applies.

4.0 Procedures

4.1 How to document planned or unplanned task

- **Step 1**: All work starts with someone realizing a task needs to be done. This can be a standard job from planned maintenance or an unplanned job.
- **Step 2**: Create a single task in the preventative maintenance program describing the work to be done and link it to the equipment if possible.
- **Step 3**: Conduct a Job Safety Analysis (JSA). A JSA simply breaks the job down into steps, lists any hazards associated with that step and describes how the hazards will be mitigated. Those performing the task – INCLUDING CONTRACTORS-- must participate in the JSA and sign it.
- **Step 5**: Determine if the task will require any permits. If not, complete the task, document the task with details of the work done and finish the task. If the task DOES require permits, then proceed to the next section.

4.2 How to issue a permit

Once it has been determined that a permit is required for a task, there are several steps that need to be completed. If more than one permit is needed, these steps must be followed for each permit.

****** The description of the task in the maintenance system must follow the naming protocol to indicate it includes one or more permits.**

The task description must **start with an abbreviation of the permit type** (**WH**- for Working at Heights, **HW**- for Hot work and **EI**- for Energy Isolation, **CS**- for Confined Space) **followed by a short description of the task**. If more than one permit is required, **you only need one task**, but mention all permits in the notes and include both prefixes in the title.

Ex: "**HW-WH**-WELD NEW LADDER RUNG ON TOP OF STERN A-FRAME"

The notes in the task should say, "HOT WORK AND WORKING AT HEIGHTS PERMITS COMPLETED AND FILED ON BRIDGE. RUNG REPLACED."

- **Step 6**: Complete all sections of a permit and get the persons doing the task and the Authorized Person to sign it. The Chief Engineer is the only Authorized Person to sign Hot Work and Energy Isolation permits. The Master or Mate may serve as the Authorized Person for Working at Heights permits. **A Confined Space permit must be signed by both the Chief Engineer and the Master.**

- **Step 7**: Post a copy of the signed permit at the task site.
- **Step 8**: Notify affected persons and departments
- **Step 9**: Complete the task and have the persons doing the task and the Authorized Person sign the permit to close it. File the signed copy on the bridge.
- **Step 10:** Document the task with details of the repair and finish the task.
- **LEAVE THE PERMIT AND TASK OPEN UNTIL ALL WORK IS COMPLETE.**

5.0 How to conduct a Job Safety Analysis (JSA)

A JSA meeting is held with all personnel participating in the task (including contractors) to evaluate the hazards of the job. The steps for evaluating the hazards are listed below. TDI has developed a standard format JSA for non-permitted task. JSAs for Permitted task are included as part of the permits.

5.1 Job Safety Analysis (JSA)

- Identify the task to be accomplished.
- Break down the task into a series of steps and list each step of the process.
- Describe the risks associated with each step and list mitigation measures to minimize those risks.
- Identify any additional personnel or operations that may be affected.
- Notify all affected personnel of the planned task.
- List the PPE to be used.
- Determine if there is a need for any other permits such as working at heights, hot work or energy isolation.
    1. If permits are needed, follow all steps for completing the permits.
- Establish clear methods of communication for those participating in the task.

Once the JSA has been conducted, participating personnel must sign the JSA and the JSA must be filed on the bridge.

5.2 Permits and JSA's during change of shift

If there is a change of shift and new workers will continue work on a permitted task, **they must create and sign a new permit**. However, there is no need to create a new JSA.

Under the "Permits" section of the new permit, check the **Yes** box for "Continued task from a previous permit?" and record the task number from the previous permit. Once

the oncoming crew has reviewed the original JSA, they may check the **Yes** box for “Has the JSA been reviewed by all new workers?” sign the new permit and continue task.