



## PURPOSE

ATC wants to keep YOU safe. This procedure explains how to identify actual and potential workplace hazards and to reduce their risk.

## AUTHORITY / RESPONSIBILITIES

### Senior Supervisors

- Master, Chief Engineer, Chief Mate, and First Engineer (1 A/E Engine & 1 A/E Maintenance) and Steward.
- Authority (not responsibility) may be delegated to junior officers or senior unlicensed personnel at the Master’s discretion.
- Responsible for ensuring that the job plan (and risk assessment, where required) is complete, and for final approval of the JHA and its contents.
- Safety of workers remains at all times with Senior Supervisors.

### Work Crew

- Persons assigned a job shall be responsible for development and review of the JHA and for following the approved JHA.
- Responsible for stopping when the job changes from that outlined on the JHA and seeking a senior supervisor to discuss the changes before proceeding further with the job.

## REQUIREMENTS

A JHA is a process or action to be documented on form HSE-04 and to be used:



- Prior to commencing any work
- To be reviewed by all personnel involved with the work
- To be approved by a senior supervisor
- Whenever conditions change, work shall stop and the JHA revised
- Requires a risk assessment as triggered by the form
- May be approved once each work tour IF approved as a common low-risk job
- Certain port operations designated by the Master and C/E may be more efficiently handled in an alternate procedure as outlined in the Port Operations section below

## GUIDANCE

### Daily Safety Meetings

Each department will hold daily safety meetings. See [PR713](#) for additional information.

### Job Planning



Shipboard JHA begins with job planning. An initial job assessment will be done by one of four senior Officers: the Master, the Chief Engineer, the Chief Mate, or the First Assistant Engineer. This initial assessment can be done at any time prior to the job actually being done.

Not all shipboard jobs can be done safely and/or efficiently by shipboard personnel. This may be due to weather or time constraints, equipment or tool deficiencies, or personnel limitations.

Following this initial assessment and the job being considered a "go", circumstances may change and the job, as initially planned, may be canceled or delayed.

If shipboard leadership determines that the job can be done safely and efficiently with shipboard personnel, the JHA process may begin.

## DOCUMENTING THE JOB HAZARD ANALYSIS

### Developing a JHA Form<sup>1</sup>

1. Using an HSE-04 template in the JHA Template Library, use it to generate a new instance of the form. If a template does not exist, create a new form.
2. Review or develop the sequence of detailed job steps. Consult manufacturer's instructions or other sources if needed. *(Attaching and following a copy of the Work Card or Procedure from the Tech Manual that will be followed without transcribing the procedure onto the HSE-04 is acceptable. Hazards identified in those documents must be listed on the HSE-04 along with any others identified during the site visit.)*
3. Assess the hazards involved with each job step, after inspecting the work site.



A hazard is a potential danger to you, to the ship or to the environment, so for each step, you need to find and identify the hazards, actions and conditions that could lead to injury, illness or damage. See the HSE-04 form for hazard types.

4. Decide what actions are necessary to eliminate or minimize the hazard. Choose controls taking into account the following (listed in order of effectiveness):

Hazard Control	Description	Effectiveness
Elimination	Remove the hazard or modify a design to eliminate it. Does the task need to be done? Use mechanical device instead of doing by hand.	High
Substitution	Substitute a less hazardous material. Can you use something else? E.g. use water-based paints vs. solvent-based, use pellet/liquid form vs. powder, reduce size/weight of item, use wire vs. synthetic sling.	High



Hazard Control	Description	Effectiveness
<b>Engineering Controls</b>	Engineer the hazard out, provide guards and safety devices. Can equipment be used to reduce the risk? E.g. chain falls, local exhaust ventilation, guarding/isolations (Mechanical/Electrical), lighting enclosure, interlocks, sound enclosures, etc.	<b>High</b>
<b>Segregation</b>	Use distance/barriers/guards to prevent exposure. E.g. access controls, distance, time	<b>Medium</b>
<b>Reduction (Personnel/ Time/Energy)</b>	Limit people's exposure and time they're exposed. Do hazardous work at low-activity periods (i.e. nights). Job/Shift Rotation. Reduce energy used (slow pumping rates, etc.)	<b>Medium</b>
<b>Procedural</b>	Signs, warnings & procedures to reduce risks? E.g. caution tape, photo-luminescent signs, walkway markings, warning lights, alarms, safety procedures, equipment inspections, tagging & work permits, checklists.	<b>Low</b>
<b>Personal Protective Equipment (PPE)</b>	Safety glasses, hearing protection, face shields, safety harnesses and lanyards, respirators and gloves, etc.	<b>Low</b>

5. Do a risk assessment for each job step using the risk-rank matrix ([PR719](#)) if any of the following conditions are met. (The HSE-04 will automatically add a Residual Risk column.) A JHA/Risk Assessment Guidance document is available in the ASAP e-Library.

- A work permit is required ([PR774](#))
- Initial start-up of new equipment installed aboard
- Category 'A' Critical Equipment failure repair
- A unique job that is significantly hazardous in nature
- Physically impossible to comply fully with the requirements of a stated working procedure, safeguard or with another recognized source of guidance, regulation or legislation
- Potential cyber risk to critical equipment ([PR1032](#))
- Anytime a senior supervisor feels it's necessary



If a residual risk scores **High** or **Very High**, shoreside approval is needed.


If any of the aforementioned conditions are met, develop a contingency plan. This is the



action plan that should be quickly and safely implemented in the unlikely event pre-established safety barriers are breached. (e.g. For LOTO, circuit breaker # to secure in the event the primary circuit breaker fails.)

6. The work crew will discuss the following with the senior supervisor:
  - The process to follow in completing the job
  - The hazards they expect to encounter
  - What's being done to eliminate or reduce those hazards
  - If applicable, the residual risk scores on the HSE-04
  - If a residual risk is scored **High** or **Very High**, discuss emergency response plans, based on potential emergencies (e.g. [Emergency Procedures Guidance and Checklist Manual](#), [Integrated Vessel Response Plan](#), Fire & Safety Plan, etc.)

Once the senior supervisor and work crew agree that the hazards have been identified and mitigated, they will sign the JHA, authorizing the job to begin.

7. Bring the JHA form with you to the job site (if practicable) and safely do the work!
  -  Stop if work conditions or work scope changes and discuss the changes with a senior supervisor before proceeding further with the job. (If a Chief Mate or First Engineer is performing the work, they will discuss the changes with the Captain or Chief Engineer.) Revise the JHA or cancel the job.
8. Suggest any improvements to JHA template by routing the HSE-04 form to your senior supervisor.

### COMMON LOW-RISK JOBS (CLR)

These are jobs performed frequently and tend to be part of the day-to-day activities of the crew, and have a well-established procedure with associated risks identified. CLR jobs are tasks that have been previously proven a safe act with no significant number of past incidents or near misses. It excludes any job that is inherently hazardous, involves new personnel or an individual performing the job for the first time.

- Requires designation by Master or Chief Engineer following a one-time formal risk assessment. To qualify, all steps must have an inherent risk rating of Low.
- HSE-04 is normally valid until the person performing the work is relieved at the end of their work tour, unless a Senior Supervisor selects an alternative date (e.g. end of Master's or C/E's tour). Relief personnel must review the HSE-04 again and obtain senior supervisor approval prior to commencing the job for the first time. (The CLR designation in no way restricts the shoreside leadership team, Master or Senior Supervisor from requiring a more frequent review of the HSE-04.)
- Hazards associated with CLR jobs to be performed that day shall be discussed at daily safety meetings. See [PR713](#) for additional information.



- Stop if work conditions or work scope changes and discuss the changes with a senior supervisor before proceeding further with the job.
- Examples of CLR jobs might be: mopping decks, sanitary, trash removal, changing linen, some galley operations, etc.

**PORT OPERATIONS**

Some port operations onboard the vessel span a period of time and encompass multiple jobs. These operational evolutions may be covered in an alternate fashion when the standard JHA process is difficult to implement due to the number and timing of jobs occurring during an operational period. Examples of such periods include anchor periods and dock operations. Examples of the multiple jobs involved may include: launch operations, handling mooring lines, crane operations, storing, bunkering, gangway operations, etc.

- These evolutions still require HSE-04 forms, but they may be completed and discussed as a group during a meeting prior to arrival in port or at a convenient time prior to the operational evolution.
- The meeting should include all personnel who will be involved in those evolutions and should cover the hazards associated with all the jobs that can reasonably be predicted by the senior supervisors.
- After review, the pertinent JHA or group of JHAs covering an operational evolution will be posted in the control room, bridge or admin office for that operational period.
- Personnel coming on duty will review the posted HSE-04 forms with the officer in charge of operations prior to assuming their duties.
- These JHAs will be reviewed as frequently as deemed necessary by senior supervisors during the evolution.

**ADDITIONAL REQUIREMENTS**

***Contractors***

JHAs will be used during any in-service or out-of-service period for any work performed by an outside contractor. These JHAs may be completed by the repair contractor's personnel, or together with ATC personnel, in writing, and will be reviewed by a vessel senior supervisor with the contractors.

When the vessel is under the control of a shipyard, ATC personnel will do JHAs only for their own work/inspections.

***Maintaining JHA Templates***

If an incident or near miss occurs on a job, the JHA should be reviewed immediately to determine whether changes are needed.



Senior supervisors should periodically inspect the JHA Template Library to remove duplicates and ensure templates are properly categorized. For fleet standardization, it is recommended where possible that the NS5 standard job title be used in the title for the JHA Template.



## REFERENCES

ISM - 1.2.2.2; 1.4.2; 7

TMSA - 7a.1.1; 9.2.2; 9.2.5; 9.3.1; 9.3.2; 9.4.1

1. TMSA, 3.4.3, 2008.

