

MARINE DEPARTMENT

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|----------|--|-------|------------------------|------------|----------------------|
| To : | All Agents, Bunkering Companies, Coast Guard, FMA, UK Hydrographic Office | | | | |
| Attn: | General Manager & Operations Manager | | | | |
| From: | Capt. Mayed Alameeri – Harbour Master | | | | |
| Ref. No. | MD/23/352 | Date: | 20 October 2023 | No. Pages: | 2+34(booklet) |

Notice To Mariners No. 340
NOTICE TO MARINER NO. 148 V6 AMENDMENTS

SUBJECT: HOT WORK REQUEST PROCEDURE

The Port of Fujairah is pleased to announce the immediate implementation of the "**Port of Fujairah General Instruction Hot Work.**" This comprehensive document outlines revised procedures and requirements for conducting Hot Work in the Port of Fujairah (berths) & Fujairah Offshore Anchorage Area (FOAA).

A significant change is that Hot Work jobs can now be carried out onboard Tankers in a Gas Free condition, provided all specified requirements are met.

In light of this update, all previous Notices to Mariners (NTMs) related to Hot Work are hereby cancelled, and the new "**Port of Fujairah General Instruction Hot Work**" supersedes all prior requirements.

Safety remains the utmost priority, and this update aligns with the Port's commitment to ensuring a secure working environment. The "**Port of Fujairah General Instruction Hot Work**" document is accessible on the official Port of Fujairah website for reference and compliance.

The following Sections in our Notice to Mariner No. 148 V6 have been amended:

I. GENERAL INFORMATION


59.1 Hot Work Request

The procedures and requirements concerning Hot Work conducted onboard ships are detailed in the "Port of Fujairah General Instruction Hot Work" document, 1st Edition REV 1- 2023.

Attachment:

"Port of Fujairah General Instruction Hot Work." 1st Edition REV 1- 2023.

Best Regards,


Capt. Mayed Alameeri
HARBOUR MASTER.

c.c : Managing Director – PoF
Dy. Managing Director – PoF
Marine Consultant –PoF
Operations Manager – PoF
Terminal Manager - PoF
HSSE Manager – PoF
Port Security Officer – PoF
Dy. Harbour Master - PoF
Asst. Harbour Master – PoF
Pilot Office
HSE Officer – Marine - PoF
Control Tower.



General Instruction HOT WORK

Marine Department

Fujairah Offshore Anchorage Area

(FOAA) &

Port of Fujairah (Berths)

1st Edition REV 1- 2023



Document

| | |
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1. Purpose

The core purpose of these hot work procedures is to create a secure working environment within the port and Fujairah offshore anchorage area (FOAA), specifically addressing hot work tasks. This objective aims to significantly diminish the likelihood of accidents resulting in personal injury or property damage. These procedures provide explicit guidelines for precautions to be meticulously observed both before, during, and after hot work operations to effectively prevent the occurrence of fires or explosions. Such incidents could potentially cause harm to individuals or property within the port and Fujairah offshore anchorage area (FOAA).

2. Scope

The scope of this document is designed as a general instruction to compliment the criteria for hot work process onboard vessels (Tankers) with specified limitations on work activities in line with Chapter 9, section 9.4 of the Sixth Edition of ISGOTT (International Safety Guide for Oil Tankers & Terminals).

Table – Allowable Hot Work Location:

| |
|--|
| Hot work within the cargo tank deck area (On Deck only) |
| Hot Work in accommodation, Poop Deck and F 'castle area |
| Hot Work inside the machinery space |
| Hot Work over the side |
| Hot work on pipelines in the engine room, excluding cargo and bunker pipes, will undergo evaluation considering the location and risk assessment as a special consideration explicit permission from Harbour Master is required. |
| Tankers without an Inert Gas (IG) system |

This general instruction is applicable to all individuals and entities utilizing the port, including Ship masters, shipping agents, registered repair companies, and chemists, who intend to engage in hot work activities within the port and Fujairah offshore anchorage area (FOAA).

NOTE: Area of permissible operations for Hot work activities as described in the general instruction table below. Request for Layby berth should be approved by the Operation Department.

Table 2: Berth Restrictions

| | Location | Permission |
|-------------------|--|-------------|
| Hot Work Activity | MB (Main Berth) | Allowed |
| | SBB (South Break water Berth) | Allowed |
| | FOTT (Fujairah Oil Tanker Terminal) | Not Allowed |
| | Service Harbour (Utility Boat Berth-UBB) | Allowed |
| | VHFL Terminal | Not Allowed |
| | SPM Terminals | Not Allowed |

3. Overview

A key shipping hub for the Gulf and wider regions, the Port of Fujairah is the only multi-purpose maritime facility on the east coast of the United Arab Emirates. Strategically located just 70 nautical miles outside the Strait of Hormuz, the Port provides an essential economic link between Europe and Asia, opening the markets of the Indian subcontinent and North East Africa to greater local and international trade. Since operations started in 1983, the Port has consistently provided vital infrastructure and resources to meet the region's growing needs, thereby playing an essential economic and strategic role in its progress. Its extensive facilities and services include container operations, general and project cargo, as well as dry and liquid bulk cargo.

- Location: Latitude / Longitude: 25° 16.1215 / 56° 36.58
- The Service Harbour is used for providing extensive services to the Ocean-going Vessels at the Fujairah Offshore Anchorage Area including Supply, provision, Crew Change & other essential marine activities.

4. Definition of Hot Work

Hot work has caused fires and explosions in, on or near cargo tanks or other spaces that contained or have previously contained, flammable substances or substances that emit flammable vapors.

Hot work is any work that involves sources of ignition or temperatures high enough to ignite a flammable gas or liquid or material. This includes, but is not limited to:

- Welding (electric arc or gas).
- Cutting, burning, gouging (electric or gas).
- Heating (blow torch or heat gun).
- Soldering (electric or blow torch).
- Use of the following temporary/portable equipment in a hazardous area should be classed as hot work:
 - Power tools (electric or electric power tools).
 - Non-intrinsically safe electronic equipment.
 - Internal combustion engines (driving air compressors, pumps, pressure washers, etc.).

5. Roles and Responsibilities

Port of Fujairah

The Port of Fujairah plays a pivotal role in its jurisdiction as the Port Authority, with its function being to ensure compliance with the specified guidelines and international conventions, including this particular guideline. The ultimate responsibility and accountability for adherence and compliance with all safeguards concerning Hot Work lie with: **The Ship's Master**

The Ship's Master

- The Master shall initially decide whether hot work is justified and whether it can be done safely as per the vessel safety management system (SMS) under the ISM & and Permit to Work System.
- The departmental heads shall assess all proposed work within their departments before the work commences.
- A risk assessment shall identify the hazards and the risks involved. This will produce risk-reduction measures that need to be taken to allow the work to be done safely.

Appendix A – Risk Assessment

- The risk assessment should identify hazards, their threats and their consequences (via risk matrix) to fire watch personnel and emergency response and evacuation plans. Risk assessments shall be applied utilizing the 5 pillars to ensure all risks are determined as low as reasonably practicable (ALARP).
- A written work plan (method statement) for conducting the work should be thoroughly completed, discussed, and mutually agreed upon by all individuals assigned to or impacted by the planned activities. This plan encompasses all vessel marine crew members as well as contractors and visitors at the designated location. This plan shall define all planned activities, associated risks, and potential consequences while ensuring that all barriers to prevent occurrence in place. The plan should also identify the person authorizing the work and the personnel responsible for carrying out the specified tasks, including contractors.

Appendix B – Method statement

- A designated Responsible Officer not directly involved in the hot work should ensure that the plan is followed via completing approved inspections.
- Personnel carrying out the work shall be adequately trained and competent to carry it out safely and effectively.
- The usual resource limitations on board a tanker means that only one hot work operation at a time should be carried out. A separate hot work permit should be approved for each intended task and location.
- The work area should be carefully prepared and secured before hot work starts.
- Fire safety precautions and fire-extinguishing measures should be reviewed. Adequate firefighting equipment should be prepared, laid out, and ready for immediate use.
- Fire watch procedures should be established for the area of hot work and for adjacent spaces where heat transfer or accidental damage might create a hazard, e.g., damage to hydraulic lines, electrical cables, thermal oil lines, etc. The fire watch should monitor the hot work and act if residues or paint coatings ignite. Effective ways to contain and extinguish welding sparks and molten slag should be established.

- The atmosphere of the area should be tested and be less than 1% Lower Flammable Limit (LFL) as per Chapter 9, section 9.4.4.1 page 135 of ISGOTT (International Safety Guide for Oil Tankers & Terminals).
- The vessels hot work permit should be issued just before the work is to be done. If the start of the work is delayed, all safety measures should be rechecked and recorded before it begins.
- Permits are issued under specific conditions, but if these change, hot work should stop immediately. The permit should be withdrawn or cancelled until all conditions and mitigations have been checked and reinstated, allowing the permit to be re-issued or re-approved.
- The work area should be adequately and continuously ventilated, and the frequency of atmosphere monitoring should be established. Times and results of atmosphere monitoring should be recorded on a sheet.
- The cargo tank beneath the hot work location should be continuously ventilated, cleaned, and gas-freed.
- Isolation of the work area and fire safety precautions should continue until the risk of fire no longer exists.
- Master to make sure, all operations related to Hot Work and Gas Freeing will be carried out in accordance with the Oil Tanker Operation Manual & ISGOTT (International Safety Guide for Oil Tankers & Terminals).

Appendix C – Attachment 25 Master Declaration of Compliance

Registered Agent

- The registered vessel agent holds the responsibility for the following tasks
- Request NOC from the Port of Fujairah for hot work and complete all necessary document submissions.
- The agent of the vessel appoints a Port of Fujairah registered Chemist to attend to vessels when hot work is requested. The foremost duty of the Chemist is to inspect the work area, assess its safety conditions, and issue the requisite certificates, which encompass "Gas free, Safe for entry and Hot Work permit Certificate".

Chemist (Safety Critical)

- As the primary duty, the Port of Fujairah registered Chemist must board the ship and prepare for hot work safety assessments. Before issuing the "Gas free, Safe for entry, and Hot Work permit Certificate," it is imperative to conduct a thorough inspection of the Hot work area. Failure to adhere to this requirement could result in severe violations of Port regulations and associated consequences.
- Conduct comprehensive gas measurements to verify that the atmosphere in the designated work area is safe for hot work activity and as per Port of Fujairah requirements.

- Examine the ship's firefighting appliances to confirm their availability. These are critical for addressing unforeseen emergencies during hot work. Ensure that fire hoses are charged and easily accessible, and available for firefighting to uphold safety standards.
- In the event of any missing equipment or safety concerns regarding the hot work area, promptly communicate with the Master of the Vessel to arrange necessary actions to rectify the situation.
- If the hot work area is deemed unsafe, report the situation to the Port of Fujairah for further evaluation and guidance to ensure safety compliance.
- Confirm that the hot work job requested by the Master of the Vessel has received NOC from the Port of Fujairah before proceeding & verify the Job scope.
- Clearly document the condition on the "Gas free, Safe for entry, and Hot Work permit Certificate" to accurately reflect the status of the work area. This documentation helps minimize confusion and potential risks.
- Issue separate "Gas free, Safe for entry, and Hot Work permit Certificate" for specific jobs and locations when conditions vary, due to onboard resource constraints.
- The "Gas free, Safe for entry, and Hot Work permit Certificate" should not be issued if the conditions and safety measures are not aligned with the Port of Fujairah requirements.
- Maintain open and regular communication with the Port for clarification or addressing any safety-related concerns & and non-compliance.

Appendix D – Declaration of Compliance for Gas Free Certificate

Appendix F – Gas free, Safe for entry and Hot Work permit Certificate

Registered Repair Company (POF Approved Vendors)

- The company should diligently maintain accurate records of essential documents, including the Permit to Work, Risk Assessment, and Toolbox Meeting records. These records should be properly organized and easily accessible.
- Ensure the proper issuance of a Permit to Work for the hot work activity. This should involve a thorough assessment of the work area and potential risks before starting any hot work.
- Perform a comprehensive risk assessment before commencing hot work. Identify potential hazards, assess their severity, and implement necessary safety measures to mitigate risks.
- Arrange and conduct a Toolbox Meeting with all technicians involved in the hot work. During this meeting, discuss safety procedures, emergency protocols, and any specific concerns related to the task at hand.
- Ensure that all technicians directly involved in the hot work activity sign the Permit to Work, Risk Assessment, and Toolbox Meeting records. This signifies their acknowledgment and commitment to adhering to safety protocols.
- Verify that all technicians follow the safety guidelines outlined in the Permit to Work, Risk Assessment, and Toolbox Meeting. Address any deviations promptly to maintain a safe working environment.
- Have contingency plans in place for dealing with emergencies related to hot work, such as fire, gas leaks, or injuries. Ensure that technicians are aware of these procedures.
- Provide adequate supervision and oversight throughout the hot work process to ensure that safety measures are maintained and that the work is carried out according to established standards.
- Safeguard the records of the Permit to Work, Risk Assessment, and Toolbox Meeting for a designated period in compliance with regulations and company policies.
- The technician from the repair company should strictly perform only the approved hot work job as approved by the Port of Fujairah. Any requests for additional tasks or instructions from the Ship's master should not be accepted and must be promptly reported to the Vessel agent.

6. Hot Work Requirements (Tankers)

The requirements mentioned below are derived from section 9.4 of the Sixth Edition of ISGOTT (International Safety Guide for Oil Tankers & Terminals). Industry guidance, including ISGOTT, is founded upon the most current and reliable knowledge and information accessible. The Safety Management System (SMS) of the vessel under the ISM should include adequate guidance on the control of hot work and should be robust enough to ensure compliance. An absence of guidance should be understood as work is prohibited rather than approved. Welding should only be carried out in ventilated areas.

Hot work within the cargo tank deck area (on Deck):

If hot work is to be done above the tank deck (higher than 500mm), the following measures should be taken for cargo and slop tanks within a radius of at least 30m around the working area:

- Cargo tank below the working area should be cleaned and gas freed or to meet hot work requirements and continuously ventilated.

Special NOTE: All cargo tanks within a radius of at least 30m around the working area should be emptied, cleaned, and gas freed with hydrocarbon vapor content reduced to not more than 1% Lower Flammable Limit (LFL), which should be maintained at that level.

- All other cargo tanks greater than 30m around the working area should be emptied, inert or gas freed.
- All slops should either be removed from the ship or isolated in a tank located as far away from the hot work location as practicable greater than 30 m.

Hot Work in accommodation, Poop Deck and F 'castle area:

Hot Work in accommodation, Poop Deck and F 'castle area, measures should be taken for cargo and slop tanks within a radius of at least 30m around the working area as mentioned below.

- All cargo tanks within a radius of at least 30m around the working area should be emptied, cleaned, and gas freed with hydrocarbon vapors content reduced to not more than 1% Lower Flammable Limit (LFL), which should be maintained at that level.
- All other cargo tanks greater than 30m around the working area should be emptied, inert or gas freed.
- All slops should either be removed from the ship or isolated in a tank located as far away from the hot work location as practicable greater than 30 m.

Hot Work inside the machinery space:

- All cargo tanks should be emptied, cleaned, and gas freed.
- No Hot Work should be carried out on or within 1000 mm of bunker tanks.

Hot Work over the side:

- Hot Work on the outside hull, that does not fall within the dangerous or hazardous areas, may present a unique hazard and should be risk assessed before the work starts. Examples are hot work on anchors or chains (from a barge or other vessel), stern seal, underwater welding or propeller work.
- All cargo tanks should be emptied, cleaned, and gas freed.

Hot Work on Pipelines in Engine Room

Hot work on pipelines in the engine room, excluding cargo, bunker, hydraulic line, will undergo evaluation considering the location and risk assessment as a special consideration.

Hot Work in the vicinity of Bunker tanks

Hot Work in the vicinity of Bunker tanks at Fujairah Offshore Anchorage Area (FOAA) & inside the port must be 30m away from the closet air vent.

Ballast Condition:

The Ship must be in Ballast Condition. All slops should either be removed from the ship or isolated in a tank located as far away from the hot work location as practicable greater than 30 m.

Hot Work Prohibition:

Table 3: Restrictions

| Hot Work activity | FOAA | POF (Lay by Berths) |
|---|-------------|---------------------|
| Cargo Tanks | Not allowed | Not allowed |
| Ballast Tanks | Not allowed | Not allowed |
| Pump Room | Not allowed | Not allowed |
| During Bunkering Operation | Not allowed | Not allowed |
| While drifting | Not allowed | Not allowed |
| Pipelines categorized as cargo, bunker, hydraulic lines | Not allowed | Not allowed |

For tankers without an Inert Gas (IG) system:

All cargo tanks within 30m of the hot work location, including those positioned diagonally, should be either:

- a. Cleaned and gas freed to meet hot work standards. or
- b. Completely filled with water.

All slops should be either removed from the ship or securely isolated in the tank that is furthest from the hot work location, with a minimum distance of 30m. Vapor or vent lines to the compartment should be ventilated to not exceed 1% Lower Flammable Limit (LFL) and then isolated. Additionally, the possibility of using an external source of IG should be considered.

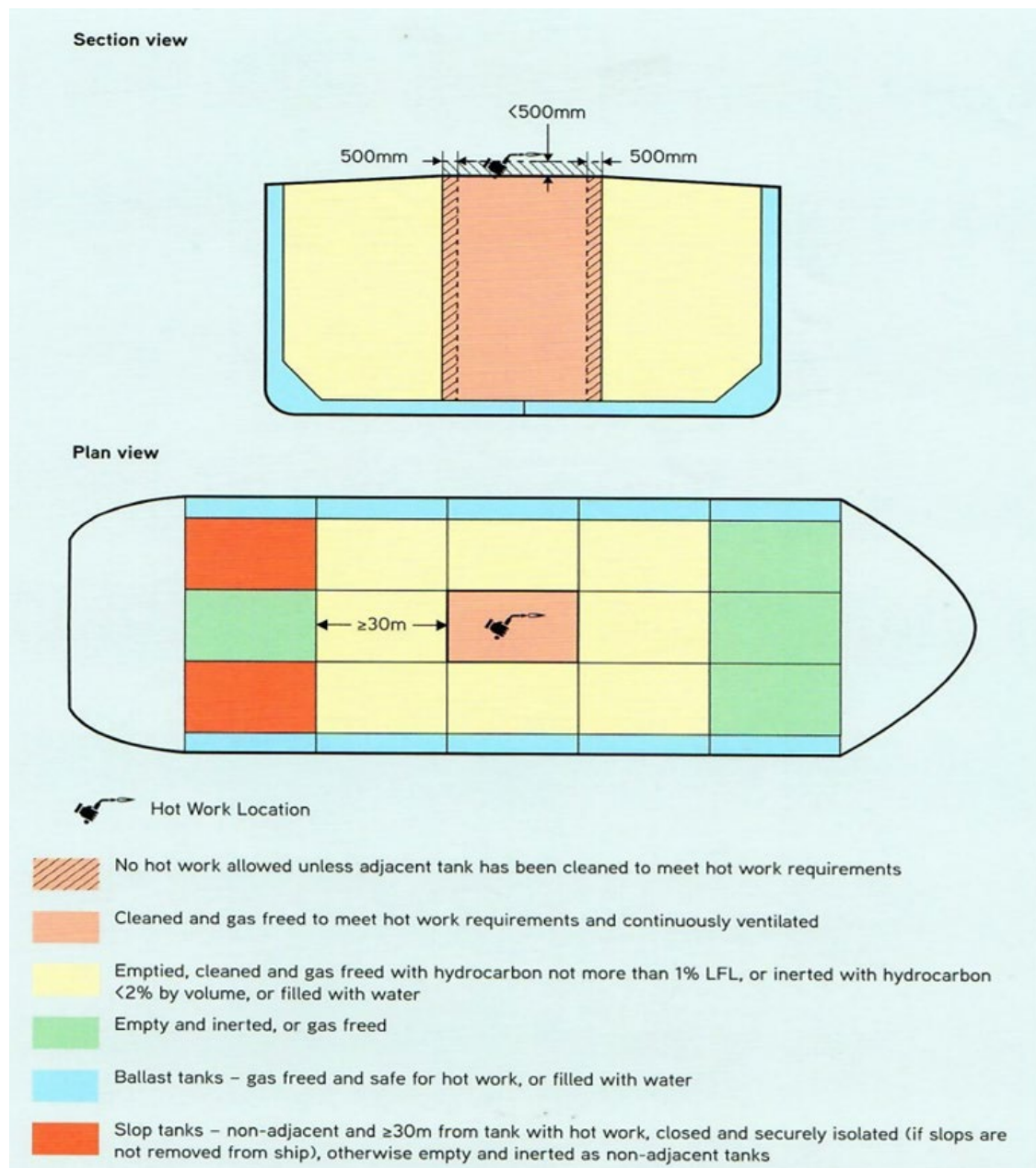
Hot Work on Pipelines (Fire lines)

Hot work on fire lines will undergo evaluation considering the location and risk assessment as a special consideration. The main Fire pump and Emergency fire pump shall be in good working condition.

"Gas free, Safe for entry and Hot Work permit Certificate" validity

The Chemist issued "Gas free, Safe for entry and Hot Work permit Certificate" maximum validity 24hrs.

Figure 9.2 Page 141 ISGOTT – Hot work on Cargo Deck



7. Hot Work Requirements (LPG/LNG Ships)

Hot work on LPG/LNG ships will be evaluated based on location and risk assessment, with special consideration given to explicit permission from the Harbour Master. An established habitat for hot work must be verified. The Ship must be in Ballast Condition.

8. Hot Work Requirements (Cargo Ships)

Ballast Condition

The Ship must be in Ballast Condition or loaded with non-hazardous cargo.

Hot Work over the side

Hot Work on the outside hull, that does not fall within the dangerous or hazardous areas, may present a unique hazard and should be risk assessed before the work starts. Examples are hot work on anchors or chains (from a barge or other vessel), stern seal, underwater welding or propeller work.

Hot Work in Ballast Tanks

Hot Work in ballast tanks at Fujairah Offshore Anchorage Area (FOAA) is allowed, subject to the following:

- a. The Ballast tanks have no common boundary with Fuel Oil Tanks.
- b. The Cargo holds are empty, cleaned and free from residues.

Hot Work on Pipelines

Hot work on pipelines in the engine room, excluding bunker, and hydraulic lines, will undergo evaluation considering the location and risk assessment as a special consideration.

Hot Work in the vicinity of Bunker tanks

Hot Work in the vicinity of Bunker tanks on deck at Fujairah Offshore Anchorage Area (FOAA) & inside the port must be 30m away from the closet air vent.

Hot Work Prohibition:

Table 4: Restrictions

| Hot Work activity | FOAA | POF (Lay by Berths) |
|--|-------------|---------------------|
| Bunker Tanks | Not allowed | Not allowed |
| Ballast tanks having common boundary with Fuel Oil Tanks | Not allowed | Not allowed |
| Shell plating | Not allowed | Not allowed |
| During Bunkering Operation | Not allowed | Not allowed |
| While drifting | Not allowed | Not allowed |
| Pipelines categorized as bunker, hydraulic lines etc | Not allowed | Not allowed |

Hot Work on Pipelines (Fire lines)

Hot work on fire lines will undergo evaluation considering the location and risk assessment as a special consideration. The main Fire pump and Emergency fire pump shall be in good working condition.

"Gas free, Safe for entry and Hot Work permit Certificate" validity

The Chemist issued "Gas free, Safe for entry and Hot Work permit Certificate" maximum validity 72 hrs.

9. Hot Work Requirements (Service Boats)

Ballast Condition

The Boat must be in Ballast Condition and the Deck area should be clear from any cargo.

Hot Work on Pipelines

Hot work on pipelines in the engine room, excluding bunker, and hydraulic line, will undergo evaluation considering the location and risk assessment as a special consideration.

Hot Work Prohibition:

Table 5: Restrictions

| Hot Work activity | FOAA | POF (Lay by Berths) |
|--|-------------|---------------------|
| Bunker Tanks | Not allowed | Not allowed |
| Ballast tanks having common boundary with Fuel Oil Tanks | Not allowed | Not allowed |
| Shell plating | Not allowed | Not allowed |
| During Bunkering Operation | Not allowed | Not allowed |
| While drifting | Not allowed | Not allowed |
| Pipelines categorized as bunker, hydraulic lines | Not allowed | Not allowed |

Hot Work on Pipelines (Fire lines)

Hot work on fire lines will undergo evaluation considering the location and risk assessment as a special consideration. The main Fire pump shall be in good working condition.

"Gas free, Safe for entry and Hot Work permit Certificate" validity

The Chemist issued "Gas free, Safe for entry and Hot Work permit Certificate" maximum validity 72 hrs.

Note: The dedicated area for Hot Work jobs in the port is the UBB (Utility Boat Berth) area or Layby berth allocated by the Operation Department.

10. Hot Work Requirements (Dry Berth)

Hot Work in the Engine Room

Maintain a safe distance of at least 1000 mm from fuel oil tanks.

Hot Work Prohibition:

Table 6: Restrictions

| Hot Work activity | POF (Dry Berth) |
|--|-----------------|
| Bunker Tanks | Not allowed |
| Ballast tanks having common boundary with Fuel Oil Tanks | Not allowed |
| During Bunkering Operation | Not allowed |

Work Area Protection

Cover the entire work area with appropriate sheets to safeguard against debris, dust, and exposure to weather elements.

Fire Safety Measures

Ensure the availability of fire-fighting arrangements, including functional fire extinguishers, fire hoses, and a responsive fire alarm system. Regularly inspect and maintain this firefighting equipment to ensure their effectiveness.

Keep a charged hose nearby at all times to promptly address any potential fire incidents.

Handling Oxygen and Acetylene Bottles

Exercise caution when working with oxygen and acetylene bottles. Store, handle, and ventilate these bottles properly to prevent accidents.

Supervision and Compliance

Provide continuous supervision of the repair work to ensure strict compliance with safety protocols and to respond promptly to any emergencies.

Dust Control

Implement effective dust control measures, particularly when the repair work involves sanding or painting, to minimize the risk of respiratory issues.

Hot Weather Precautions

Take precautions for working in hot weather conditions by providing shade, access to drinking water, and encouraging frequent breaks to prevent heat-related illnesses.

First Aid Preparedness

Maintain a well-stocked first aid kit on-site and ensure that at least one person is trained in first aid procedures.

Emergency Contact Information

Keep a list of emergency contact numbers readily available and prominently displayed in case of accidents or emergencies.

Personal Protective Equipment (PPE)

Ensure that all personnel involved in the repair work wear appropriate personal protective equipment (PPE) such as safety helmets, safety glasses, gloves, and suitable footwear.

Toolbox Meetings

Conduct regular toolbox meetings to discuss safety procedures, potential hazards, and strategies for mitigating risks.

Risk Assessment

Perform a comprehensive risk assessment before commencing the repair work and implement necessary safety measures based on the assessment findings.

Safety Signage

Display safety signs and warnings prominently in the work area to remind workers of potential hazards and safe practices.

"Gas free, Safe for entry and Hot Work permit Certificate" validity

The Chemist issued "Gas free, Safe for entry and Hot Work permit Certificate" maximum validity 72 hrs.

11. Risk Management Process

The risk management process to be conducted by the Master of the Vessel & registered repair company should take into account the following factors:

1. The nature of the work activity, including practices and processes involved.
2. The presence of potential hazards, such as dangerous goods, hazardous substances, dust, fibers, or asbestos.
3. The overall work environment.
4. The compatibility of work within the area.
5. Limitations related to working conditions, such as working at heights, working over water, or working in or near confined spaces or fuel tanks.
6. The potential for changing circumstances and environments during the course of the work.
7. The size and constraints of the workforce.
8. The existing control measures, such as system isolation and area barricading.
9. The availability of control measures in the vicinity, including fire screens, fire blankets, and firefighting equipment.

Each stage of the risk management process should be thoroughly documented. This documentation should encompass assumptions, methods, data sources, analysis results, and the rationale behind decision-making. These documented records are essential and must be kept on-site and readily accessible where the work is being carried out.

Risk Assessment:

The purpose of this assessment is to determine the likelihood and consequences of exposure to identified hazards. The goal is to either eliminate or mitigate the risks associated with:

1. Potential harm to individuals from the ongoing work.
2. Potential damage to property due to the ongoing work.
3. Unsafe work practices that may be in place.
4. Unsupervised work activities.
5. Hazards that require control and the order in which they need to be addressed.

While a generic assessment can be used to reduce redundancy and streamline the process, the vessel Master (or their designated crew member) is responsible for ensuring that the risk assessment:

- Is applicable to the specific work being undertaken.
- Remains up-to-date and relevant.
- Is accompanied by a work permit and a work method statement.

Risk Control:

Risk control involves determining and implementing appropriate measures to eliminate or reduce the risks associated with the work being carried out. These measures should be applied primarily to high-risk situations but should not overlook lower-level risks that can be easily managed. Any risk with unacceptable consequences must be addressed promptly. Risk control measures should be continuously reviewed to ensure that actions taken to address one risk do not inadvertently create another risk.

The main objective is to eliminate or reduce the risk to the greatest extent reasonably achievable. A hierarchy of control measures is in place, starting with:

1. Elimination: Removing the risk at its source (while recognizing that complete elimination of all risks, especially in hot work, may not always be possible).
2. Substitution: Replacing hazardous activities with less hazardous alternatives.
3. Isolation: Separating dangerous activities from people, property, or other hazardous activities.
4. Engineering controls: Modifying equipment or processes to reduce risk.
5. Administrative controls: Implementing work procedures and practices that eliminate or reduce risk, often used in conjunction with other control measures.
6. Personal Protective Equipment (PPE): Providing individuals with protective gear as a supplementary measure when other controls are not sufficient.

Implementation of Risk Control:

The implementation of risk control and treatment measures must be documented, monitored, and reviewed. These measures should be:

- Tailored to the specific work, task, person, and hazard.
- Accompanied by an action plan and training on correct use and application.
- Cost-effective.
- Designed to eliminate or reduce health and safety risks.

Monitor and Review:

The entire risk management process should be thoroughly documented to enable ongoing monitoring and facilitate continuous improvement. The monitoring and review process should encompass all levels of the process, including planning, strategic, and operational levels. Changing circumstances should be considered during this process to adapt priorities and control measures accordingly.

12. Verification for concurrence of Procedure (Registered vessel Agents)

Step 1 Advance Notification

Notify Ports of Fujairah at least 48 hours in advance of the intended Hot Work job to request a NOC (No Objection Certificate)

Appendix E – Required documents

1. Attachment 25 Master Declaration of Compliance
2. Risk Assessment
3. Method Statement
4. Permit to Work as per vessel Safety Management System (SMS)
5. Registered Repair Company Attendance Letter including List of Technicians

Note: When hot work is to be conducted in enclosed spaces or underwater, the regulations and guidelines for enclosed space and underwater operations as outlined in NTM 148 must also be adhered to.

Step 2 Concurrence of Procedure Documentation Compliance

The designated registered agent will have the responsibility of submitting all required documents from the vessel master to the Port authority in accordance with this procedure, as outlined in Appendix-E. The registered vessel agents will not be held accountable for the contents of the documents; instead, their responsibility lies in ensuring the delivery of all documentation as specified in this procedure.

Step 3 Port Authority Concurrence

The Port Authority upon receiving all required documentation as outlined in Appendix-E will issue NOC (No objection Certificate) for Hot Work job.

Step 4 Arranging a Chemist

The vessel's agent arranges for a Chemist to board the vessel for the issuance of a "Gas-Free, Safe for Entry, and Hot Work Permit Certificate."

Step 5 Certificate Issuance

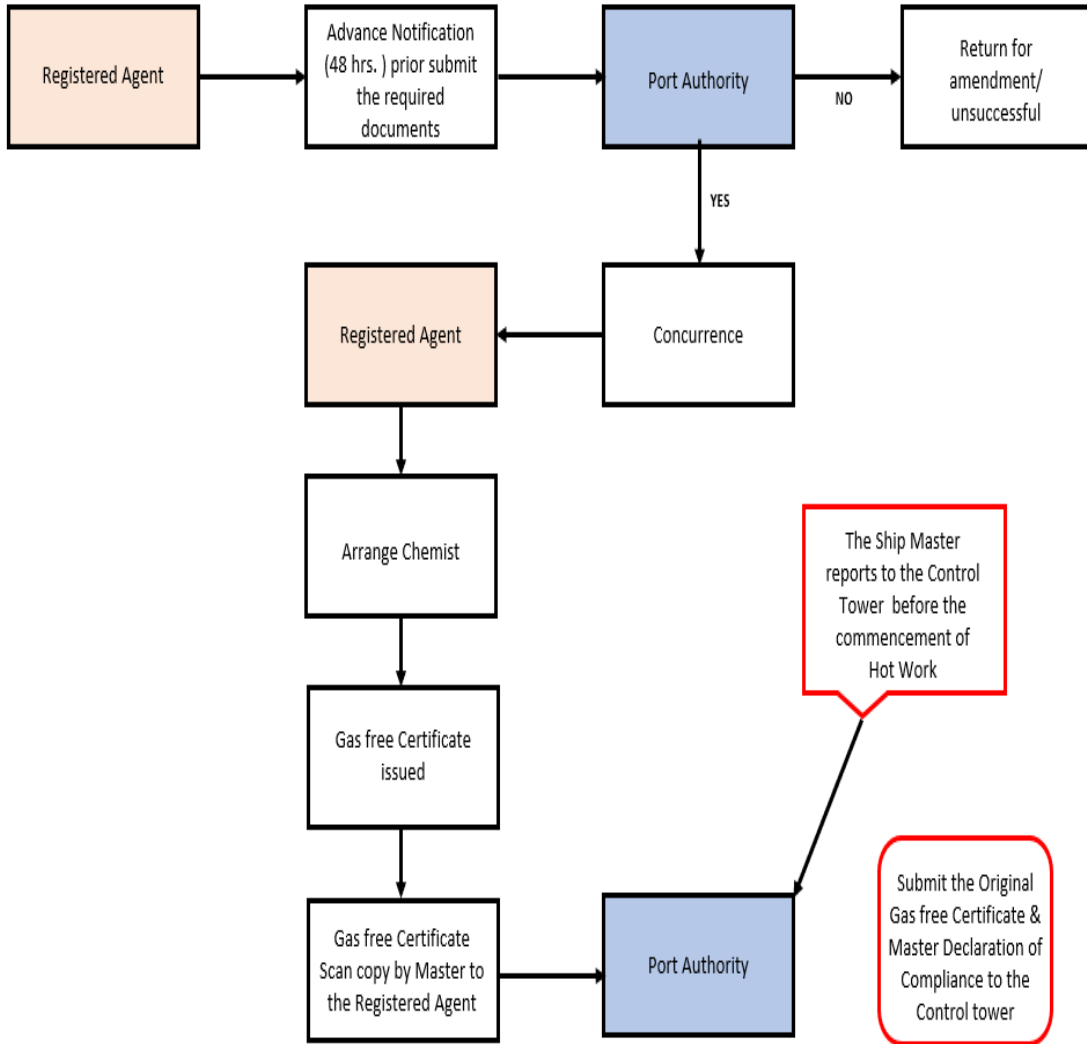
If the conditions are met, the Chemist issues the "Gas-Free, Safe for Entry, and Hot Work Permit Certificate".

Step 6 Submission of Certificate

The Control Tower will only allow the Hot Work job after receipt of scan copy of the "Gas free, Safe for entry and Hot Work permit Certificate".

The Original "Gas free, Safe for entry and Hot Work permit Certificate" & Attachment 25 Master Declaration of Compliance should be submitted to the Control Tower.

Overall Process Flowchart of Hot Work



13. Continuation of Hot Work (Revalidation)

Step-by-step procedure for ensuring the safe continuation of Hot Work activities on board a vessel:

Step 1 Initial Assessment

The Master should assess the need for continuing Hot Work activities on the vessel.

Step 2 Contact the Vessel Agent

If Hot Work needs to continue, the Master contacts the vessel's agent and informs them of the requirement.

Step 3 Arranging a Chemist

The vessel's agent arranges for a Chemist to board the vessel for the issuance of a "Gas-Free, Safe for Entry, and Hot Work Permit Certificate." This arrangement should be made well in advance.

Step 4 Chemist Verification

The Chemist verifies that there have been no changes in the conditions and that the same Hot Work operation is planned to proceed for the specified duration:

- For tankers: 24 hours
- For cargo ships/service boats: 72 hours

Step 5 Certificate Issuance

If the conditions are met, the Chemist issues the "Gas-Free, Safe for Entry, and Hot Work Permit Certificate" without specifying any time gaps.

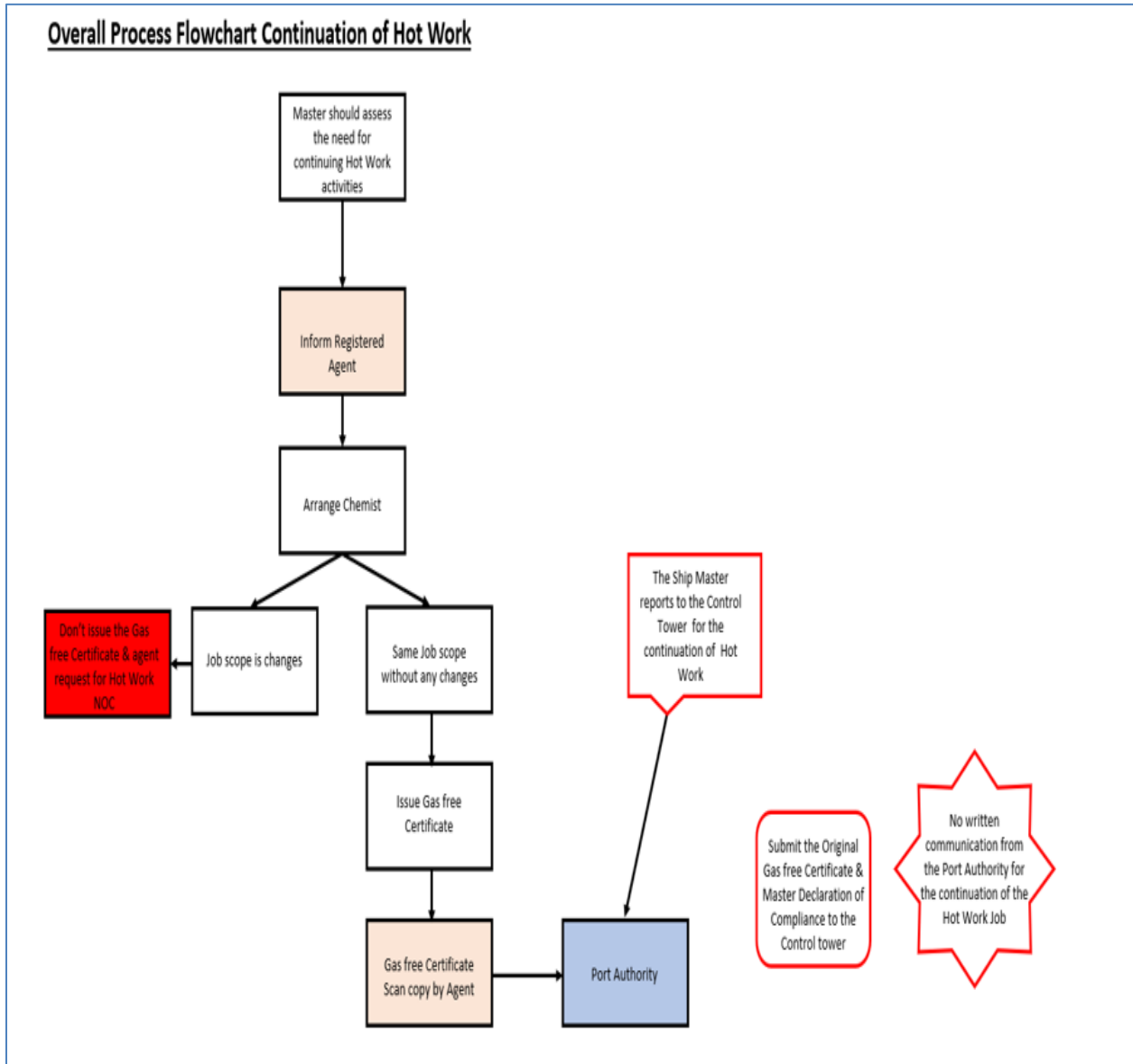
Step 6 Notification to Port Authority

The registered vessel agent notifies the port authority by sending a scanned copy of the certificate. This serves as a notification of the continuation of Hot Work activities.

Step 7 No Further Concurrence Required

It's important to note that no further acknowledgment, NOC, or verbal approval is needed from the Port Authority or the control tower for the continuation of Hot Work once the certificate has been issued and the Port Authority has been notified.

The Original “Gas free, Safe for entry and Hot Work permit Certificate” & Attachment 25 Master Declaration of Compliance should be submitted to the Control Tower



14. Reporting of Non compliances

The Master shall advise shipping agent as soon as practicable where noncompliance (s) with this procedure are discovered and reported with all work activities involved have ceased and rendered safe. Immediately notify the Control Tower.

15. Emergency Contacts List

| | | |
|---------------|------|------------------------------------|
| Control Tower | 24/7 | VHF Ch.10 Phone: +9719 207 0808 |
|---------------|------|------------------------------------|

16. Appendix

1. Appendix A – Risk assessment
2. Appendix B – Method statement
3. Appendix C – Attachment 25 Master Declaration of Compliance
4. Appendix D – Declaration of Compliance for Gas Free Certificate
5. Appendix E – Required documents for NOC
6. Appendix F – Gas free, Safe for entry and Hot Work permit Certificate specimen

17. References

- I. ISGOTT (International Safety Guide for Oil Tankers & Terminals) 6th Edition.
- II. ISM (International Safety Management Code)

Appendix A – Risk assessment (specimen)

| Risk # | Activity (Hazard) | Risk Category | Threat (Cause) | Event Description | Raw Consequence | Raw Risk | | | Prevention Barriers (threat / current controls) | Current Risk | | | Mitigation Barriers (recovery/escalation controls) | Residual Risk | | | Person(s) Responsible | Recommendation/Comments |
|--------|-------------------|---------------|----------------|-------------------|-----------------|-------------|-------------|------|---|--------------|-------------|-------------|--|---------------|-------------|-------------|-----------------------|-------------------------|
| | | | | | | Consequence | Likely-hood | Risk | | Consequence | Likely-hood | Risk Degree | | Consequence | Likely-hood | Risk Degree | | |
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Appendix B – Method Statement (Specimen)


Method Statement

(To be completed on official letterhead)

The method statement should contain at least the following sections.

| |
|--|
| 1. Introduction: |
| 2. Scope of Work: |
| 3. Work Sequence and Methodology: |
| 4. Sketch the Location of the Hot Work & attach Photos/Drawings: |
| 5. Pre-Job Inspection and Preparation: |
| 6. Responsibilities: |
| 7. Personnel and Competencies: |
| 8. Equipment and Tools: |
| 9. Health, Safety, and Environmental Considerations: |
| 10. Emergency Procedures and Contingencies: |

Appendix C – Attachment 25 Master Declaration of Compliance

| | | | | |
|---|-------------------------|--|----------------|------------|
|  <p style="font-size: small;">Port of Fujairah ميناء الفجيرة Port of Fujairah United Arab Emirates</p> | PORT OF FUJAIRAH | | | |
| | Document Title: | HOT WORK MASTER DECLARATION OF COMPLIANCE | Revision No.: | 3 |
| | Document No.: | ATTACHEMENT 25-NTM 148 V6 | Revision Date: | 20.10.2023 |

| 1-General Details | | | | |
|------------------------------|------------------------------|--------------------------|----------------|--------------------------|
| Name of Vessel | | Type of Vessel | | |
| IMO No | | Flag / POR | | |
| Job to be carried out (Tick) | By Registered Repair Company | <input type="checkbox"/> | By Ship's Crew | <input type="checkbox"/> |
| Hot Work Period | From | | To | |
| | Date | | Date | |
| | Hours | | Hours | |
| Registered Repair Company | | Contact | | |
| Registered Agent | | Contact | | |
| Registered Chemist | | Contact | | |

| | |
|---------------------------------|--|
| 2-Detail of Hot Work Job | |
|---------------------------------|--|

| 3-Master Declaration |
|--|
| <p>I, the undersigned, in my capacity as the Master of the vessel, hereby solemnly acknowledge and assume the ultimate responsibility and accountability for ensuring the rigorous adherence and strict compliance with 'Port of Fujairah General Instruction Hot Work', within the jurisdiction of the Port of Fujairah, encompassing both the Fujairah Offshore Anchorage Area (FOAA) and the Port of Fujairah (Berths).</p> <p>I commit to undertaking a comprehensive review, comprehension, and unwavering enforcement of the 'Port of Fujairah General Instruction Hot Work' as mandated and enforced by the Port of Fujairah.</p> <p>By appending my signature below, I unequivocally affirm my unwavering commitment to upholding the highest standards of safety and compliance with the Port of Fujairah's safety rules, regulations, and latest Notice to Mariners (NTMs) , in all Hot Work activities carried out on board the vessel under my direct command.</p> |

| 4-Authorization Signatures |
|----------------------------|
|----------------------------|

| | | | | | |
|-----------------|--|-----------------------|--|-------|--|
| Name of Master: | | Signature with Stamp: | | Date: | |
|-----------------|--|-----------------------|--|-------|--|

Appendix D –Declaration of Compliance for Gas Free Certificate

(This document should be filled out by the Chemist company's chief executive on official letterhead at the time of registration, renewal, or in the event of any changes in the management of the company).

To,
The Port Authority
Port of Fujairah,
United Arab Emirates.

Subject: Declaration of Compliance for "Gas free, Safe for entry, and Hot Work permit Certificate."

I, [Your Name], [Designation], representing [Company Name], hereby solemnly declare our unwavering commitment to the stringent safety protocols mandated by the Port of Fujairah for hot work operations. As Chemists, we acknowledge our paramount responsibility in ensuring strict adherence to these safety procedures. We understand that this declaration may serve as a legally binding document in the event of any breach of hot work safety regulations within the Port.

Our commitment encompasses conducting gas measurements to ensure that the work area's atmosphere aligns with Port requirements. We diligently verify the availability of the ship's firefighting appliances, including charged fire hoses, to respond promptly to unforeseen emergencies during hot work.

In cases where the work area is deemed unsafe during inspection, we pledge to report the situation to the Port of Fujairah for further evaluation and guidance, ensuring rigorous compliance with safety standards.

Additionally, we confirm that hot work jobs requested by the Vessel's Master have obtained a no objection certificate (NOC) from the Port of Fujairah. To avoid confusion and mitigate potential risks, we commit to accurately documenting the work area's condition on the "Gas free, Safe for entry, and Hot Work permit Certificate."

Furthermore, we shall adhere to the latest Notice to Mariners (NTMs).

Sincerely,

(Signature with Stamp)

Appendix E – Required documents for NOC

1. Attachment 25 Master Declaration of Compliance (Port of Fujairah format)
2. Risk Assessment on Letterhead
3. Method Statement on letterhead
4. Permit to Work as per vessel Safety Management System (SMS) on letterhead
5. Registered Repair Company Attendance Letter including List of Technicians on letterhead

Appendix F – Gas free, Safe for entry and Hot Work permit Certificate (Specimen)

| | | | |
|----------------------|-------|------------------------------|-------|
| Certificate No | | | |
| Name of Vessel | | Type of Vessel | |
| IMO No | | Flag | |
| Berth No / FOAA | | Certificate (New/Renewal) | |
| Certificate Validity | From | | To |
| | Date | | Date |
| | Hours | | Hours |

| | |
|---|--|
| Name of the Boat used for transportation to FOAA. | |
|---|--|

| | |
|-----------|--|
| Job Scope | |
|-----------|--|

| |
|--|
| 2-Sketch the Location of Hot Work & draw 30m radius (Reference Figure 9.2 Page 141 ISGOTT) |
| |

| Tank | Port | | | | Centre | | | | Stbd | | | |
|------|------|----------------|----|------------------|--------|----------------|----|------------------|------|----------------|----|------------------|
| | LEL | O ₂ | CO | H ₂ S | LEL | O ₂ | CO | H ₂ S | LEL | O ₂ | CO | H ₂ S |
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| | | | | | | | | | | | | |
| | LEL | O ₂ | CO | H ₂ S | LEL | O ₂ | CO | H ₂ S | LEL | O ₂ | CO | H ₂ S |

| Condition | YES/NO/NA |
|---|-----------|
| The Ship is in Ballast Condition (For Tankers) | |
| The Ship is in Ballast Condition or loaded with non-hazardous cargo. (Cargo Ship/Service Boats) | |
| All cargo tanks within a radius of at least 30m around the working area are emptied, cleaned, and gas freed with hydrocarbon vapour content reduced to not more than 1% Lower Flammable Limit (LFL), which is maintained at that level. | |
| All other cargo tanks greater than 30m around the working area are emptied and inerted or gas freed. | |
| The cargo tank below the working area is cleaned and gas freed or meets hot work requirements and is continuously ventilated. | |
| All slops are either removed from the ship or isolated in a tank located as far away from the hot work location as practicable, greater than 30m. | |
| Fire Pumps, Emergency Fire Pump working satisfactory & FFA available. | |
| | |
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| | |
| | |

Ship Master

Contractor

Chemist