

Notice of Change to Controlled Documents #271-273 / 8 Oct 2015

Summary of Changes

Revisions managed by: Shannon Smith

Purpose: [271] Procedures clarified and emergency ISOS contact numbers highlighted. [272] Reporting chart created to clarify incident reporting [273] SOPs combined into new SOP

NOC#	Ch., Sec., SOP	Summary	Revision#
271	SOP-GEN-008B	SOP rewritten to provide clear step by step instructions for a medevac situation when no project specific plan applies.	#9
272	SOP-GEN-007L	Incident reporting chart created as a quick reference for vessel personnel	#16
273	SOP-GEN-2015C	SOPs for hot work and welding combined	#1

<p><u>Date Completed</u></p> <p><u>10-14-15</u> <u>SS</u> SMM TOC page updated</p> <p><u>10-14-15</u> <u>SS</u> NOC web page updated</p> <p><u>10-14-15 - 88</u> SMM- each section updated</p> <p><u>10-14-15 - 88</u> NOC sent to fleet</p>	<p><u>Date Completed</u></p> <p><u>10-14-15</u> <u>SS</u> NOC pdf posted on CM</p> <p>Vessel acks recorded</p> <p>Office controlled SMM updated</p>
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Approvals	Approvals
<div style="border: 1px solid green; padding: 5px;"> <p style="text-align: center; color: green;"><u>Approved for Distribution</u></p> <p>Date <u>10/13</u> Initials <u>SS</u></p> <p>Print Name <u>James Howell</u></p> </div>	<div style="border: 1px solid green; padding: 5px;"> <p style="text-align: center; color: green;"><u>Approved for Distribution</u></p> <p>Date <u>10/13</u> Initials <u>PT</u></p> <p>Print Name <u>PETE TATRO</u></p> </div>

NOC # 271 SOP-GEN-008B MEDEVAC- ALL

Revision #	Section(s)
Revision #9	See attached new SOP

Approved for Distribution

Date 10/13 Initials JB

Print Name J. Brook

NOC # 272

SOP-GEN-007L Incident Reporting

Revision #	Section(s)																														
Revision #16	<p>6.0 Reporting Chart</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="background-color: #e1f5fe;">Routine Reports These are handled entirely on the vessel</th> <th style="background-color: #e1f5fe;">Immediate Reports These require immediate reports to the office and some degree of action by management</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center; background-color: #fff9c4;">All reports are to be entered into NS5 compliance module with Employee and Supervisor forms attached.</td> </tr> <tr> <td>Due</td> <td style="text-align: center;">With next Ship Position Report</td> <td style="text-align: center;"><u>Immediately</u>, NS5 report in 24 hrs</td> </tr> <tr> <td>Medical</td> <td>First aid, prolonged headaches or nausea, flu symptoms, ear aches, dental issues, abrasions, sprains, strains, conditions requiring a visit to a medical professional in port.</td> <td>Accident, Injury or illness requiring medical treatment or that prevents the crewman from performing normal duties. Loss of Life. Illness or injuries that are life-threatening, require MEDEVAC or return to port.</td> </tr> <tr> <td>Mechanical/ Vessel Safety</td> <td>Unplanned maintenance or repairs that do not present an immediate hazard to personnel or the environment are not considered incidents. A new work order in NS5 is all that is required.</td> <td> <ul style="list-style-type: none"> Unplanned loss of steering, propulsion or any associated control system that reduces the maneuverability of the vessel Any event that adversely affects the vessel's seaworthiness or fitness for service, such as failure or damage to life rafts, fixed fire extinguishing systems, bilge pumps or auxiliary power generators Damage or failures requiring immediate assistance </td> </tr> <tr> <td>Emergencies</td> <td></td> <td>Fire, Explosion, Man Overboard, Collision, Allision, Abandon Ship, Grounding, Stranding, Foundering, Dead Ship, Flooding</td> </tr> <tr> <td>Port State</td> <td></td> <td>Port State inspections or detentions</td> </tr> <tr> <td>Project Related</td> <td></td> <td>Equipment Loss, Damage or Failure that directly affects ability to continue client project</td> </tr> <tr> <td>Environment</td> <td></td> <td>Any spill of hydraulic oil, fuel or other hazardous substance into the water or other harm to the environment</td> </tr> <tr> <td>Near Miss</td> <td></td> <td>An event that could have caused an injury or material damage to equipment or facilities, but did not.</td> </tr> </tbody> </table>		Routine Reports These are handled entirely on the vessel	Immediate Reports These require immediate reports to the office and some degree of action by management	All reports are to be entered into NS5 compliance module with Employee and Supervisor forms attached.			Due	With next Ship Position Report	<u>Immediately</u>, NS5 report in 24 hrs	Medical	First aid, prolonged headaches or nausea, flu symptoms, ear aches, dental issues, abrasions, sprains, strains, conditions requiring a visit to a medical professional in port.	Accident, Injury or illness requiring medical treatment or that prevents the crewman from performing normal duties. Loss of Life. Illness or injuries that are life-threatening, require MEDEVAC or return to port.	Mechanical/ Vessel Safety	Unplanned maintenance or repairs that do not present an immediate hazard to personnel or the environment are not considered incidents. A new work order in NS5 is all that is required.	<ul style="list-style-type: none"> Unplanned loss of steering, propulsion or any associated control system that reduces the maneuverability of the vessel Any event that adversely affects the vessel's seaworthiness or fitness for service, such as failure or damage to life rafts, fixed fire extinguishing systems, bilge pumps or auxiliary power generators Damage or failures requiring immediate assistance 	Emergencies		Fire, Explosion, Man Overboard, Collision, Allision, Abandon Ship, Grounding, Stranding, Foundering, Dead Ship, Flooding	Port State		Port State inspections or detentions	Project Related		Equipment Loss, Damage or Failure that directly affects ability to continue client project	Environment		Any spill of hydraulic oil, fuel or other hazardous substance into the water or other harm to the environment	Near Miss		An event that could have caused an injury or material damage to equipment or facilities, but did not.
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NOC # 273

SOP-GEN-2015C Hot Work & Welding

Revision #	Section(s)
Revision #1	See attached new SOP

SAFETY MANAGEMENT MANUAL



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MEDEVAC/ Emergency
Contacts**

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MEDEVAC/ Emergency Contacts**

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 - 3.2 [Requiring Medical Treatment](#)
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- 4.0 [Emergency Office Contacts](#)
- 5.0 [Emergency Medical Services & 24 hr hotline](#)
- 6.0 [Initiate MEDEVAC and Prepare the Vessel](#)
- 7.0 [Helicopter Transfer from the Vessel](#)
- 8.0 [Patient Information Form](#)

Revision/ Review Log

Revision Date	Approved by	Reviewed by	Revision Details/ Proposal Notes
11 January 2010 Revision #5	Dr. Jim Brooks	HSE Manager: Sue McDonald	
15 October 2010 Revision #6	Dr. Jim Brooks Dr. Bernie Bernard	HSE Manager: Russell Putt Capt. Pat Fallwell	Changed to electronic format
02 May 2011 Revision #7	Dr. Jim Brooks Dr. Bernie Bernard	Dr. Jim Brooks Dr. Bernie Bernard Dr. Roger Fay Capt. Pat Fallwell Dr. James Howell	Multiple changes based on Masters Reviews
10 January 2015 Revision #8	Dr. Jim Brooks Pete Tatro	Dr. Jim Brooks Dr. Bernie Bernard Dr. Roger Fay Capt. Pat Fallwell Dr. James Howell	Vessel call signs and other contact info updated
08 October 2015 Revision #9	Dr. Jim Brooks Pete Tatro	Dr. Jim Brooks Dr. Bernie Bernard Dr. Roger Fay Dr. James Howell	Medevac process streamlined and outdated info removed

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1.0 Introduction

Most projects will have their own project specific MEDEVAC plan for the geographic region of operation. This SOP describes general procedures to be followed in the absence of a project specific MEDEVAC plan.

Each medical situation needs to be carefully evaluated to determine the most likely route for the best medical care. **A JSA should be conducted by the Master and those who will be involved with the transfer procedure to evaluate the best method for transporting the patient to medical care.** The JSA should include evaluating the risk of the medical condition to the capabilities of the medical facilities available and the risk involved in the procedures.

Depending on the nature of the injury/illness, weather conditions, available facilities and medical advice, the patient may be moved by personnel or Stokes basket to another vessel or rig, boat to boat transfer (see SOP-GEN-007Y) or in extreme situations, helicopter MEDEVAC.

Under no circumstances should a MEDEVAC be attempted if other lives will be put at significant risk.

Should conditions not permit a safe transfer of the patient, the vessel will immediately sail to the nearest location with acceptable medical facilities or transport options. The Master will contact the appropriate port authorities and arrange for transfer of the patient.

2.0 Responsibility


The Master is responsible for the safety of the vessel and anyone sailing aboard the vessel. He or she is responsible for evaluating the weather, sea state and vessel condition to determine if a MEDEVAC can be carried out within an acceptable level of risk.

3.0 Illnesses and Injuries

There are three major categories of injuries or illnesses. They range from first aid to a full-scale MEDEVAC and require different levels of response.

3.1 Requiring First Aid

TDI-Brooks encourages employees to complete an Employee Incident Report for all types of injuries/illnesses, even those that seem minor. Incident reports are to be

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turned in to the employee's supervisor. The supervisor will review the report and turn it in to the First Mate to be recorded in NS5.

3.2 Requiring Medical Treatment

An incident report is required and management is to be notified immediately of any injuries or illness requiring more than first aid. ISOS should be consulted. This service is manned by licensed medical doctors 24 hours a day to provide medical advice.

They will assist in suggesting further treatment on board and determining the urgency of the condition. If an immediate return to port is required, ISOS can identify the nearest and best medical facility.

**** Notify the DPA immediately regarding any decision to return to port so we may begin addressing potential issues with visas, agents, immigration or Port State that could potentially delay getting the patient to medical care.**

If we have no agent in the arrival country, ISOS can also make ground transportation arrangements from the arrival port and assist with any visa issues that may arise.


3.3 Requiring Emergency Medical Treatment

First aid trained personnel should administer first aid and stabilize the patient. The Master will consult emergency medical services (See ISOS Sec. 5.0) and request assistance for MEDEVAC to shore based facilities or a platform or vessel with more advanced capabilities. ISOS will contact the medical facility where the patient will be transferred and arrange for ground transportation to the facility.

Should an attempt to be made to move near a fixed facility, such as a drilling rig, review 500 m entry procedures in **SOP-GEN-007A**.

- Transfer of the patient to the medical facilities may be via ambulance or other ground vehicle, helicopter, commercial flight, chartered air craft or chartered air ambulance.
- Medical personnel or the Master may decide that medical care at the facility is insufficient and further transportation is required.
- Additionally transfers may involve another in country medical facility or an out of country facility. The decision to move the patient will be made by local medical personnel and the Master.

4.0 Emergency Office Contacts

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Should an injury/illness occur requiring a MEDEVAC, the Master/ Party Chief will notify the appropriate client representative and the DPA as soon as possible after the patient has been stabilized.

TDI-Brooks International Main Office: 1-979-696-3446

Pete Tatro Designated Person Ashore		Dr. James Brooks President	
Mobile:	979-446-4284	Mobile:	979-693-3634
E-mail:	petetatro@tdi-bi.com	Home:	979-220-3798
		E-mail:	drjmbrooks@aol.com

Dr. Bernie Bernard Vice President		Dr. James Howell HSE Manager	
Mobile:	979-220-3804	Mobile:	281-794-3806
E-mail:	berniebernard@tdi-bi.com	E-mail:	jameshowell@tdi-bi.com

5.0 Emergency Medical Services & 24 hr hotline

TDI-Brooks maintains a contract with a full-service medical provider known as ISOS. Services include a medical doctor that is on call 24 hours a day, advice, repatriation, assistance with local medical resources, in country clinics and MEDEVACs. **Do not hesitate to contact ISOS for any concerns.**

TDI-Brooks Policy Number 11BSMS000333

<p><u>Johannesburg South Africa</u> International SOS Assistance</p> <p>Open 24 hours a day Tel: +27 (0) 11 541 1300 Fax: +27 (0) 865 290 777</p>	<p><u>Philadelphia USA</u> International SOS Assistance</p> <p>Open 24 hours a day Tel: 1 215 942 8226 Fax: 1 215 354 2338 Tel (Japanese): 1 215 942 8189 Fax (Japanese): 1 215 354 2349</p>
<p><u>Paris France</u> International SOS Assistance</p> <p>Open 24 hours a day Tel: +33 (0) 155 633 155 Fax: +33 (0) 155 633 156 Tel (Japanese): +33 (0) 155 633 107 Fax (Japanese): +33 (0) 155 633 156</p>	<p><u>London United Kingdom</u> International SOS Assistance</p> <p>Open 24 hours a day Tel: +44 (0)20 8762 8008 Fax: +44 (0)20 8748 7744</p>

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6.0 Initiate MEDEVAC and Prepare the Vessel

Should an **extreme emergency** arise that indicate a medical evacuation is necessary to preserve a life, the following procedures will ensure as safe an evacuation as possible.

These procedures have been adapted from U.S. Coast Guard (USCG) helicopter evacuation procedures but should be applicable to helicopter operations conducted by other rescue agencies.

6.1 Identify a Lift Site

The first step is to identify and designate a site on the vessel from which a helicopter can hoist a person. This area needs to be free of overhead lines, cables, antennas and structures and be large enough to allow a helicopter hoist.

If there is no area free of obstacles and with enough room to maneuver a hoist basket safely, a MEDEVAC is NOT an option.

Keep in mind that the maximum distance a USCG helicopter will attempt a hoist under ideal conditions ranges from 100 to 300 nautical miles. Further distances will require that the vessel diverts to a closer location.

6.2 Request Assistance

When requesting assistance from either the USCG or other rescue agency for a MEDEVAC you will need to provide information concerning vessel position and patient condition.

6.3 Vessel Position and Weather/ Sea Conditions

The rescue group will need an accurate position, time, speed, course and weather conditions (ceiling visibility, wind direction and speed and sea state). Be prepared to change course toward the helicopter if so directed by the Search And Rescue (SAR) Coordinator of the rescue agency. **The following steps should be completed before the arrival of the helicopter.**

- Provide continuous radio guard on 2182 or 4125 kHz, 156.8 MHz (CH 16, VHF-FM) or whatever other frequency designated by the SAR coordinator.
- Secure and clear the hoist area. This includes loose gear, equipment, antennas (with the exception of the communication antenna unless you

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receive specific instructions to do so), rigging, flagstuffs, cables, and etc. **The more free space, the less risky the hoist.**

- Should the MEDEVAC be conducted at night, illuminate the area as well as possible, ensuring that lighting is not directed toward the helicopter so that the pilot and other rescue personnel are not blinded. If there are obstructions in the area, illuminate those so that the pilot is aware of their location.
- Point search lights vertically to help the helicopter locate the vessel. Once the helicopter is on scene aim lights at the deck to avoid blinding the pilot.
- Inform the SAR coordinator of the hoist location so that they can direct the approach of the helicopter.
- Be aware that voice communications will be severely compromised due to the helicopter noise. **Discuss and agree to hand signals** with which the crew assisting with the hoist is familiar.

6.4 Patient Information

When contacting the USCG or other rescue organizations about a MEDEVAC have the following patient information ready. Use the patient information form located on the TDI Forms page and open the Medical Disclosure document the patient provided at the beginning of the trip. Provide as much information as possible.

6.5 Communications


Communication must be established with the aircraft to aid in coordination. International distress frequencies such as 2182 kHz or 4125 kHz, 156.8 MHz (CH 16 VHF-FM) or other agreed upon frequencies may be used.

7.0 Hoist Operations

As helicopter approaches, change vessel course until the wind is 30 degrees off your port bow, or as directed by the helicopter crew, as long as it is safe to do so. Maintain course and normal speed, unless otherwise directed. It is usually easier for a hoist if the vessel is underway.

The hoist operation is controlled by the helicopter crew and the vessel must follow their directions.

- **The “Go Bag”**- Put together a small sealed bag of critical items to be transferred with the patient. The Go Bag should contain:

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- **Patient ID** (passport, visas), **medications** the patient may be taking, the **Medical Release form** signed by the patient at the beginning of the cruise, the **Patient Information form** and any personal effects.
- Move the patient as close to the designated hoist area as their condition and weather permits.
- **The pilot will make the final call if a hoist is to be attempted and will provide instructions once on site.**
- A rescue swimmer may be lowered to the vessel to evaluate the situation and patient and assist in the hoist. **Assist the rescue swimmer and follow their instructions.**
- If the patient cannot be easily moved, the rescue basket must be taken to the patient. The hoist cable will need to be unhooked first. **Do not secure the hoist cable to the vessel.** Usually the hoist cable will be retrieved until the patient is on deck in the hoist device.
- Keep the patients hands inside the rescue basket. Instruct them not to hold on to the sides.
- Only those directly assisting in the hoist should be on the deck or in the hoist area. An observer in communication with the bridge should be in a good position for observation, but remain out of the hoist target area.
- All personnel assisting with the hoist need to have on appropriate PPE, including **a full PFD - not a work vest.**
- The helicopter will send down the rescue basket to hoist the patient.
- Allow the rescue basket to touch the deck before handling, so that personnel do not receive a shock due to built up static electric charge.
- Strap in the patient as quickly as possible, face up, wearing a life jacket if possible.
- Keep the ship's position so that the vessel has the best ride with the wind on the bow. Maintain speed to minimize the ship's movement as instructed by the helicopter crew.

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- If a trail line is dropped by the helicopter, use this to guide the rescue basket.
Under no circumstance tie the trail line or hoist cable to the vessel.
Always tend the trail line so that it does not foul.
- When the patient is secured, signal the helicopter by radio, thumbs up hand signal or by flashlight if attempting at night.
- As the hoist begins, steady the rescue basket to prevent turning or swinging.
However, do not stand directly under the hoist device.
- For night time hoists, light the ship and hoist area as necessary. **Do not shine lights into the cockpit – it will blind the pilot.**

8.0 Patient Information

The following form may be used to supply information for the patient.

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Patient Information

Patient Name					
Age	Sex		Nationality		
Type of Injury/Illness					
Symptoms and Location					
When/How Injury/Illness Occurred					
Medications/Treatment Administered					
Previous Medical Condition (Include Medications)					
Vital Signs					
Temp_____	BP_____	Comments_____			
Airway:	Obstructed	Gurgling	Open		
Respiration:	Normal	Shallow	Deep	None	
Pulse:	Normal	Weak	Fast	None	
Skin Color:	Blanched	Yellow	Blue	Red	Normal
Skin Conditions:	Hot	Cold	Dry	Clammy	Normal
Conscious	Y/N	Ambulatory	Y/N	Eyes Dilated	Y/N
Convulsions	Y/N	Signs of Shock	Y/N	Eyes Reactive	Y/N
Vomiting	Y/N	Bleeding	Y/N	Eyes Equal	Y/N
Tingling Limbs	Y/N	Paralysis	Y/N		

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- 11.0 [The Permit](#)

Revision/ Review Log

Revision Date	Approved by	Reviewed by	Revision Details/ Proposal Notes
08 October 2015 Revision #1	Dr. Jim Brooks Pete Tatro	Dr. Jim Brooks Pete Tatro	Hot work and welding SOPs combined

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1.0 Introduction

This SOP provides guidance to ensure that any hot work undertaken on TDI-Brooks vessels is done safely.

2.0 Scope & Applicability

This policy applies to all welding activities by either contractors or TDI-Brooks employees.

3.0 Definitions

Authorized Person- The person empowered by TDI-Brooks to authorize and sign a permit

Alternate Authorized Person- The Port Engineer may authorize any permit in the absence of the Authorized Person.

Hot work- grinding, welding, flame cutting or other fire or spark-producing operation

Fire watchman- a person assigned to stand with fire extinguishing equipment ready to put out any fire that may start. 29 CFR 1915.504 specifies that a fire watch is required if the following conditions are present:

- (1) Slag, weld splatter, or sparks might pass through an opening and cause a fire;
- (2) Fire-resistant guards or curtains are not used to prevent ignition of combustible materials on or near decks, bulkhead, partitions, or overheads;
- (3) Combustible material closer than 35 ft. (10.7 m) to the hot work in either the horizontal or vertical direction cannot be removed, protected with flame-proof covers, or otherwise shielded with metal or fire-resistant guards or curtains;
- (4) The hot work is carried out near insulation, combustible coatings, or sandwich-type construction that cannot be shielded, cut back or removed, or in a space within a sandwich type construction that cannot be inerted;
- (5) Combustible materials adjacent to the opposite sides of bulkheads, decks, overheads, metal partitions, or sandwich type construction may be ignited by conduction or radiation;
- (6) The hot work is close enough to cause ignition through heat radiation or conduction on the following:
 - (i) Insulated pipes, bulkhead, decks, partitions, or overheads; or
 - (ii) Combustible materials and/ or coatings;
- (7) The work is close enough to unprotected combustible pipe or cable runs to cause ignition; or
- (8) A Marine Chemist, a Coast Guard-authorized person, or a shipyard Competent Person as defined in 29 CFR 1915 Subpart B, requires that a fire watch be posted.

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4.0 References

29 CFR 1915 Subpart P Fire Protection in Shipyard Employment
 29 CFR 1915 Subpart D Welding, Cutting and Heating (Shipyard)
 29 CFR 1915.14 Hot Work in Confined Spaces (Shipyard)

5.0 General Responsibilities

The Chief Engineer is the Authorized Person responsible for any hot work operations aboard the vessel. The Chief Engineer is responsible for entering the hot work permit into a work order in NS5 and writing the work order number on the signed permit.

A fire watchman with a fire extinguisher will be on stand-by during welding or any other applicable hot work operations specified by 29 CFR 1915.504 to extinguish any ignited materials. The fire watchman may not have any other duties during fire watch.

6.0 Personal Protective Equipment (PPE)

Required PPE for grinding and welding operations is addressed on the PPE matrix. PPE required for other types of hot work will be determined in the Job Safety Analysis.

7.0 Equipment Inspection

Prior to beginning hot work activities, the worker must inspect the equipment and PPE to ensure it is free of defects or other issues that may compromise the safety of the operation. Equipment should be maintained and inspected according to manufacturer's recommendations.

8.0 Training

Only licensed welders will be allowed to conduct welding activities. Other affected employees will be trained to recognize the general hazards associated with welding and other hot work and understand the permitting requirements.

9.0 Outdoor Grills

A hot work permit is not required to operate outdoor grills, including those on vessels. A fire extinguisher should be kept nearby and the fire should not be left unattended.

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Like any other work areas, grills and hot work areas should be inspected before use to ensure no fire hazards have been introduced.

10.0 Procedures

Before hot work may begin:

- The Chief Engineer or Port Engineer must
 - review any proposed hot work
 - evaluate the associated hazards
 - ensure that employees know how to conduct the job safely
 - and sign off on the hot work permit
- A copy of the permit must be posted at the work site
- If welding, a fire watchman must be standing by
- Main fire extinguishing system on standby if appropriate

After hot work is complete:

- Monitor work site 30 minutes after work is complete
- Remove the posted permit copy
- Have Chief Engineer sign off on the permit
- And file completed permit on the bridge
- Note in the NS5 work order that permit is complete and filed on bridge

11.0 The Permit

The **TDI Forms** page on the ship web pages contains the Hot Work Permit

All permits require at least two signatures in order to be valid. No one may write their own permit without notifying and obtaining the signature of a second party.