



ISU SALVAGE SAFETY STANDARDS (ISU-SSS)

1. OBJECTIVES OF THE ISU SALVAGE SAFETY STANDARDS

- 1.1 The INTERNATIONAL SALVAGE UNION (ISU) recognizes the inherent differences and unforeseen difficulties attendant to any marine casualty as compared with general marine transportation as a primary mover of loads and products. In order to ensure job safety as a primary and identified goal of any marine salvage and wreck removal operation, the ISU promotes domestic and world-wide safety standards. While fully recognizing international and existing safety standards, the ISU, nevertheless, has established its own Salvage Safety Standards, the objectives of which are to ensure safety at sea, prevention of human injury and loss of life, the avoidance of damage to the marine environment and preservation of property.
- 1.2 Only by planning, organizing and implementing the safety elements affecting this unique business of salvage and wreck removal can the industry expect to attain the highest level of success and environmental protection?

2.0 PRECEDENCE

- 2.1 The Salvage Safety Standards are the primary source of reference for the conduct of all operations in a salvage/wreck removal operation and shall be used in conjunction with the member company's own safety standards and practices. Members of the ISU will strictly adhere to the ISU Salvage Safety Standards unless emergency conditions evolve during the salvage/wreck removal operation that would necessitate, in the judgment of the Salvage Master and in the interests of safety mitigation, a temporary deviation. The ISU Safety Standards are intended to complement other domestic and international procedures, instructions or guidelines, as applicable, and shall work in conjunction with the AWORP and the ISM Code, where appropriate.

3.0 ISU Safety Policy

- 3.1 The following safety policies and procedures shall serve as the ISU Salvage Safety Policy.

- 3.2 The ISU is committed to safety in all phases of a salvage/wreck removal operation. ISU members must make every effort to fully comply with all applicable laws and regulations. Recognizing the unique nature of casualty response, the ISU Salvage Safety Standards supplement existing legislated safety standards as a means of providing additional protection for our members and their employees, the environment, equipment and cargo. Every ISU member is expected to give his full support to the promotion of safety.
- 3.3 The ISU believes that most accidents that occur during a salvage/wreck removal operation are preventable by establishing rules and safe working procedures, exercising good judgment, and using common sense, adhering to reasonable standards and rigorously enforcing those standards. All ISU members and their employees have the opportunity and responsibility to protect them and to contribute to the protection of their fellow crewmembers, the environment, and the equipment for which they are responsible.
- 3.4 The individual is always directly responsible for his immediate actions, or inaction, and is therefore the only person who can guarantee his own safety. A job is done well only when it is done safely.
- 3.5 ISU members expect to maintain efficiency in our daily operations by doing every job safely and correctly the first time and every time. **Accidents and injuries that occur as a result of carelessness or attempting to save a few minutes are unacceptable.** Everyone is expected to recognize the need to practice "safety first" when engaged in any task.
- 3.6 Safety policies or procedures are always subject to amendment if a member has a suggestion for a better way. Everyone is encouraged to participate in the development of new procedures, or revisions to existing procedures, by making recommendations to the Salvage Safety Standards. Each company must establish a protocol for receipt of suggestions and improvement of present practices.

4.0 What is a Site Safety and Health Plan (SSHP)

- 4.1 The Site Safety and Health Plan, generally and herein referred to as the Site Safety Plan or SSHP, is specific to the site where a salvage or wreck removal operation takes place, to the specific operation, to the techniques and work methods, and to the equipment that will be used during the operation. The Site Safety Plan has four (4) purposes:
 1. to lay out safety procedures and methods required for the site.
 2. to spell out operational safety practices and procedures that will be used during the operation.
 3. to be a practical plan that is useful throughout the operation.
 4. to fulfill regulatory requirements.

- 4.2 Throughout the plan, Company Safety Manuals and Safe Operating Practices Manuals may be cited—with appropriate chapter and verse. These manuals should be available at the site for review by regulators and the use of workers and supervisors.

5.0 Procedures

The ISU has developed a specific set of procedures to ensure the priority of safety during a salvage/wreck removal operation. Each member of the ISU has agreed to follow these procedures in the preparation of individual salvage/wreck removal operations.

5.1. Site Safety and Health Plan

Care must be taken to ensure that safety, including the prevention of human injury or loss of life and the occurrence of damage to the marine environment and to the preservation of property, is a primary obligation of the Salvor during the entire salvage/wreck removal operation. As a result, a site specific safety plan must be incorporated into the overall Salvage Plan and must include:

- health and safety analysis for each site task or operation;
- comprehensive operations work plan;
- personnel training requirements;
- PPE selection criteria;
- site specific occupational monitoring requirements;
- air monitoring plan, if needed;
- site control measures;
- confined space entry procedures (if needed);
- pre entry briefings, (tailgate meetings) initial and as needed;
- pre-operations commencement health and safety briefings for all incident participants;
- and quality assurance of SSHP effectiveness.

A sample Site Safety and Health Plan is provided in Appendix “B”.

5.2 Daily Briefings and Reporting

A safety briefing shall be held at the commencement of each work day. All elements of casualty response underway shall be discussed, including

- a review of diving operations;
- an update on vessel operations;
- status of all heavy lift operations;
- status of all rigging;
- status of all refloating operations;

- weather conditions;
- a review of safety hazards and dangerous situations encountered, corrective actions taken, effectiveness of these actions and any other additional recommendations;
- status of unmet safety requirements and procedures;
- new hazards or safety requirements and procedures;
- employee comments and feedback
- any other issue/activity to be conducted during the day.

5.3 Vessel/Equipment Inspections

Equipment should be subject to inspection upon arrival at the site of the casualty. Any salvage work should have safety standards for equipment, including inspections before delivery to the work site. Those organizations which follow AWORP, ISM Code or other safety programs should ensure adherence to these programs and/or codes.

Vessels should, where appropriate, be classified by a recognized classification society. If appropriate, the ISM should be identified, approved and current. Inspections should be made on each vessel to ensure safety is being maintained as well as all licensing requirements for navigating crew. Appropriate insurance on all vessels and equipment must be confirmed.

5.4 Subcontractors

When utilizing subcontractors, professional salvors who are members of the ISU should be conscious of subcontractors' safety standards and safety programs. To the maximum extent possible, subcontractors should be chosen on the basis of their safety record and demonstration of a safety program in their operations. When fellow members of the ISU are integrated by subcontract, there is the advantage of a common safety program. When the subcontractor is not a member of the ISU, the subcontractor's safety program should be reviewed carefully to ensure that it can be incorporated into salvor's safety program. If changes are required to ensure an integrated safety program, these changes should be made to subcontractor's safety program before the subcontractor begins work at the salvage site. Adequate and appropriate insurance must be provided and reviewed as necessary.

5.5 Salvage Master's Log

The Salvage Master must keep an independent log of daily salvage activities. This log is to be completed and maintained according to industry standards and in accordance with any applicable regulatory requirements. Sufficient entries are to be made to ensure that the salvage operation can be understood from the log itself.

Specifically, entries in the Salvage Master's log as they relate to safety shall include, but not be limited to the following:

- acknowledgement of safety program;
- acknowledgement that inspections have been carried out;

- deficiencies have been corrected;
- times and details of accidents and deaths at the salvage site;
- notation of damage to or loss of any important articles or fixtures;
- any occasion of touching ground, colliding with ship or any other fixed or floating object, including the time of accident, the names of deck and engineering officers and other bridge personnel. The name and port of registry of any other ship involved shall also be recorded;
- description of the weather, wind, sea and corrected barometer and any unusual phenomenon;
- full particulars of any contravention or suspected contravention of Oil Pollution Prevention Regulations and actions taken;
- names and descriptions of any vessels, lighters, barges or small craft alongside including time of arrival and departure;
- any damage caused by vessels alongside;
- times of commencing and ceasing to load or discharge;
- times of departure and return of ships;
- any other entry that is required by regulation;
- copies of reports required by regulation or submitted to any agency.

The Salvage Project Manager should have copies and overall control of the salvage logs.

6.0 Roles and Responsibilities

- 6.1 An outline of the roles and responsibilities for each member of a Salvage Team is attached as Appendix A.

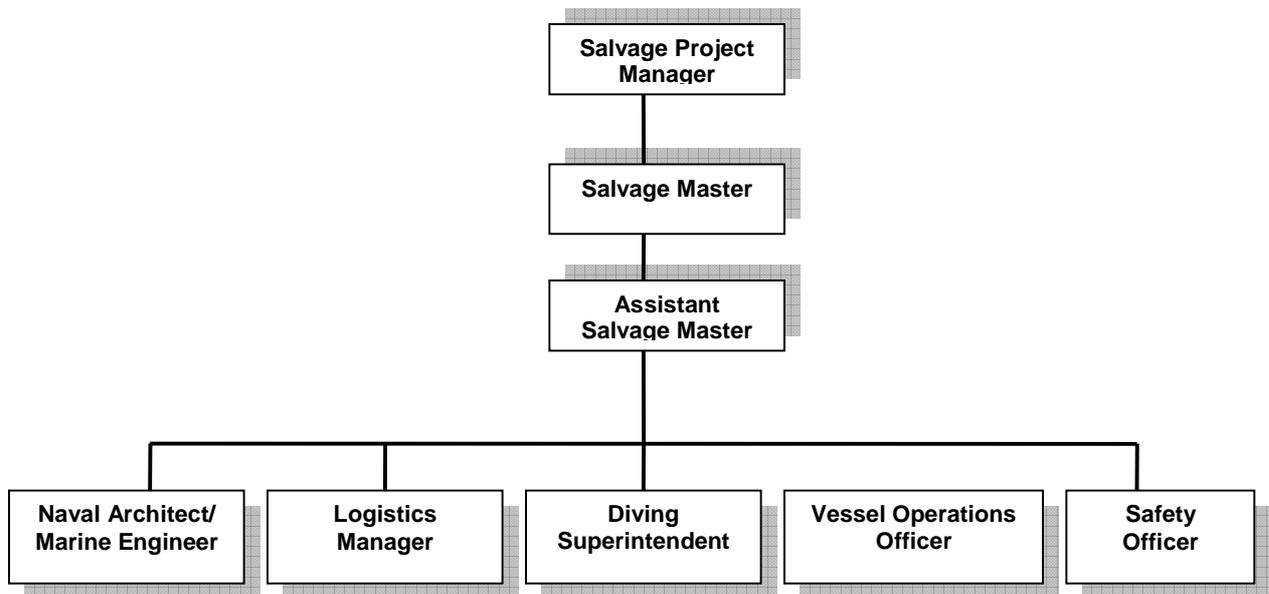
APPENDIX A

ROLES AND RESPONSIBILITIES OF A SALVAGE TEAM

1.0 Typical Organizational Matrix

Due to the uniqueness of its operations, there is no one standard organizational structure or matrix for a salvage/wreck removal project.

An example of a possible organizational matrix is shown here.



2.0 Responsibilities

It is a high priority in any salvage/wreck removal operation that working conditions are favorable to the safety and health of employees and any persons at the site of the casualty. All members of the salvage team are committed to protecting all persons at the site of the casualty and all property from accidental loss or damage. To fulfill this commitment, the salvage team will provide support and maintain a safe and healthy work environment that complies with and at times exceeds regulatory requirements as the team strives to eliminate any foreseeable hazards which could cause personal injury or illness, loss or damage to property or loss to the environment. The role and responsibilities of each key member of the salvage team are discussed in the following sections.

2.1 Salvage Project Manager

In incidents of high visibility and either real or potential, substantial adverse environmental impact, a salvage project manager who directs overall activities and

integration of efforts with regulating agencies, owner, underwriter, media, environmental groups, special interest groups and the general public must be appointed. This appointment is mandatory whenever an Incident Command System is utilized. The Salvage Project Manager must insure that the salvage safety plan is not only being actively engaged in all respects but that the other participants are aware of the program and are playing a part in support of the total safety of all elements of the operation.

2.2 Salvage Master

The Salvage Master has overall accountability in all respects for the salvage/wreck removal operation. He is responsible for the formulation, development, implementation and monitoring of the salvage plan to ensure an effective and efficient salvage operation. He is ultimately responsible for its success or failure. Above all others, the Salvage Master is responsible for accomplishing the goals of the salvage operation, the safety of the salvage personnel, the equipment used during the salvage operation, preservation of property, and the protection of the environment. All other positions described below report to the Salvage Master and provide him with advice and assistance in the particular area of expertise.

The Salvage Master's specific responsibilities with regard to safety are:

- review and execute the Site Safety Plan for the operational area.
- ensure that personnel safety and health receive top priority in all phases and areas of operations.
- coordinate safety and health issues and requirements pertaining to both pollution response and salvage operations.
- serve as the final safety and health authority for the salvage operations.
- review and approve accident reports.
- review and approve supervisory safety meeting minutes/reports.
- order work to stop if there is an immediate danger to life and health (IDLH) and consult with supervisor and managers to determine and carry out corrective actions before allowing work to resume.
- report safety deficiencies and provide recommendations to correct deficiencies to ICS Command; monitor implementation of recommendations.
- review work plans to identify safety deficiencies and requirements and coordinate with supervisor and manager to resolve deficiencies and meet requirements.

2.3 Naval Architect/Marine Engineer

The Naval Architect or Marine Engineer has the responsibility to plan the technical and engineering aspects of the salvage/wreck removal operation and to then oversee its safe and orderly execution in accordance with the approved engineering plans. All technical and engineering work is subject to and conditioned by safety considerations.

2.4 Logistics Manager

The Logistics Manager is directly responsible to the Salvage Master for planning, organizing, directing and controlling all support services, both materiel and administrative, during the entire salvage operation. He assists the Salvage Master and the Safety Officer in the interface with regulatory and other interested parties and is tasked with making these individuals aware of the safety program for the particular salvage/wreck removal operation. The Logistics Manager must ensure that all safety equipment is available to suit the tasks for which the equipment will be used.

2.5 Diving Superintendent

The Diving Superintendent reports to the Salvage Master and is responsible for all diving operations deployed during the salvage/wreck removal operation, including:

- the preparation of all diving plans to ensure that procedures issued by the regulatory authority responsible for the enforcement of the regulation for the safety and protection of divers are identified, are incorporated into the salvage plan and will be observed by the diver conducting the dive;
- the provision of safe working conditions to the highest standards;
- emergency and contingency planning;
- maintenance and verification that all diver logbooks are up to date;
- verification and inspection of all diving equipment;
- verification of fitness to dive certifications, as applicable.

2.6 Vessel Operations Officer

The Vessel Operations Officer is accountable for managing and directing the cost effective operation and deployment of all vessels and other delivery platforms used to fulfill the salvage plan requirements during the salvage/wreck removal operation. He is responsible to manage the acquisition and in-service support of all vessels and other delivery platforms and their installed equipment identified in the salvage plan and to ensure that the vessels and other delivery platforms and their installed equipment and systems are maintained in accordance with the relevant standards and regulations throughout their in-service operation in support of the salvage/wreck removal operation. An inspection of all vessels employed in the salvage/wreck removal operation should be made when possible and practicable. A Vessel Operations Officer is required in a substantial operation where significant subcontracted assets are in use.

2.7. Safety Responsibilities of the Logistics Manager, Diving Superintendent and Vessel Operations Officer

The Logistics Manager, Diving Superintendent and Vessel Operations Officer are specifically responsible to:

- assist in the development, review and execution of the Site Safety Plan for their operational area;

- assist in the coordination of safety and health issues and requirements impacting other operational areas;
- assist in monitoring the effectiveness and implementation of the Site Safety Plan through their supervisors the Safety Officer;
- review and approve all accident reports for their operational area;
- Review and approve work plans.

2.8 Safety Officer

The Safety Officer reports directly to the Salvage Master on a day-to day basis and is accountable to him for all matters concerning safety, including safety of personnel, equipment and protection of the environment. Specifically the Safety Officer is responsible to:

- create a site specific safety plan;
- implement the salvage safety plan;
- immediately correct action of any noted deficiency;
- create and implement other safety documentation, when necessary;
- brief visitors and subcontractors on Site Safety Plan;
- conduct investigations of accidents, prepare reports, and review reports and results with operational managers;
- Oversee Safety meetings and briefing.
- conduct periodic safety inspections and report findings and results to the Salvage Master;
- review and approve requirements for personal protection equipment (PPE), oversee use of PPE, monitor PPE use;
- review and maintain MSDSs if necessary;
- Monitor reported adverse physical conditions of personnel and determine if the individual is capable of participating in an activity.

2.9 Safety Responsibilities of Supervisors

- Review, monitor and implement Site Safety Plan.
- Enforce the wearing and proper use of all required PPE, and established safety and health procedures.
- Monitor employee condition during work.
- Inspect the work site for safety deficiencies, safety violations, and unsafe situations.
- Make on-the-spot corrections of safety hazards whenever possible, or if not possible, contact Safety Officer.
- Stop work if there is an Immediate Danger to Life and Health situation, notify the Safety Officer and the Salvage Master, evacuate if necessary, and do not resume work until cleared by Safety Officer and Salvage Master.
- Assist the Safety Officer in the investigation of accidents.
- Revise and resubmit work plans when there are changes in procedures, as required.

- Report all injuries and illnesses and physical conditions that may impact performance and safety (blisters on feet, weak knees, twisted ankle, colds, fever, etc.). to the Safety Officer within 24 hours.

2.10 Safety Responsibilities of All Hands

- Work safely.
- Review and comply with the Site Safety Plan.
- Comply with established safety procedures and work plans.
- Use PPE as trained/instructed; do not modify PPE without consulting with the assigned supervisor and the Safety Officer.
- Report all dangerous situations or safety hazards to supervisor.
- Stop work if an Immediate Danger to Life and Health situation exists and stopping work will not endanger other workers/operations; in all events, report situation immediately to supervisor.
- Monitor the condition of other employees, especially work partners at hazardous work sites.
- Report all injuries, illnesses and physical conditions that may impact performance and safety to supervisor.

APPENDIX B

SITE SAFETY AND HEALTH PLAN

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**SITE SAFETY AND HEALTH PLAN (SSHP)
FOR SALVAGE OR WRECK REMOVAL**

I. INTRODUCTORY MATERIAL

Contractor:

Customer:

Contract Number:

Task Order Number:

Site Name:

Site Location:

Purpose of Work: Contains a brief description of the purpose of the work to be conducted on the site

Prepared By: _____, Safety Officer

Office / Address:

Telephone: () _____

Facsimile: () _____

Email: _____

Date Prepared: _____

Signature: _____ **Date:** _____

Reviewed By (Title and Signature):	Date
Salvage Project Manager:	
Salvage Master:	
Diving Superintendent:	

All site safety procedures will be in accordance with this Site Safety and Health Plan. All personnel involved in handling oil and hazardous materials will have the appropriate level of OSHA HAZWOPER training as delineated in 29 CFR 1910.120 with current certification. This Salvage Site Safety and Health Plan include the Diving Operations Health and Safety Plan and may be integrated in a single Site Safety Plan for the entire casualty response. All safety procedures will be in compliance with or exceed the regulations of the United States Coast Guard, OSHA, the Safety Standards of the American Salvage Association, the International Salvage Union and the Safety Manuals and Safe Practices Manuals of the Salvage Contractor and his subcontractors. This Site Safety Plan will be maintained by the Salvage Master and the Safety Officer.

Visitors to a field location or aboard the casualty will be held to a minimum. Everyone visiting field locations or aboard the casualty will wear appropriate PPE and will be escorted at all times by a representative of the Salvage Company. Visitors will not touch, move, or excavate any materials without express permission of the Salvage Manager or Salvage Master.

The Safety Officer may modify this plan with risk to human safety and health if site conditions warrant. All modifications will be coordinated with the Salvage Project Officer and Salvage Master

II. SITE DESCRIPTION

Contains a brief description of the location, size and make up of the casualty and the shore site.

A. The Casualty

1. The Ship or Vessel

A brief description of the casualty and its current condition.

2. Cargo

A brief description of the cargo and its stowage with identification of any cargo covered by the IMDG Code or which is potentially polluting.

3. Bunkers

A brief description of the type, quantity and location of bunkers and other oils aboard the casualty.

B. Weather

A brief description of the weather that may be expected at the site during the expected period of the operation and the sources of weather information.

C. The Shore Site

1. Site Map and Chart:

A site map and nautical chart of the casualty area are provided as Attachment 1 to this Plan. (A site map is required and can be hand drawn; the chart should be a replica of the appropriate section largest scale chart covering the casualty location and operations area). Site work zones are marked on the site map and chart.

2. Present Use: (Check all that apply)

- | | | |
|---------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Military | <input type="checkbox"/> Recreational | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Commercial | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Natural Area | <input type="checkbox"/> Industrial | |
| <input type="checkbox"/> Agricultural | <input type="checkbox"/> Landfill | |
| <input type="checkbox"/> Secured | <input type="checkbox"/> Active | |
| <input type="checkbox"/> Unsecured | <input type="checkbox"/> Inactive | |

3. Known past Uses:

Contains a brief description of known past uses of the site.

4. Surrounding Population:

Contains a brief physical description of the site, its flora, fauna and human population. Known dangerous, threatened, or endangered species at the site should be noted.

- | | | |
|--|--------------------------------------|--|
| <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> |
| <input type="checkbox"/> Remote location | <input type="checkbox"/> Commercial | <input type="checkbox"/> |

5. Previous Sampling /Investigation Results:

Contains a listing of the air, water, soil, and vegetation samples known to have been taken at the site and the results of the analyses.

Type of Sample	Date	Sampling Method	Analysis Results
Air, Water, Soil, Vegetation			

III. WORK PLAN AND OBJECTIVES

A. Overall Objectives

All work shall be conducted in accordance with procedures established during pre-salvage or entry briefings and the attached work plans.

Overall objectives include:

1. accomplishment of the purposes of the work;
2. preservation of property;
3. protection of the environment;
4. protection of personnel from death or injury;
5. a plan to be implemented in the event of personal injury.

B. Daily or Shift Objectives

Daily or shift objectives include:

1. accomplishment of specific work aboard the casualty, ashore, afloat or underwater for the day or shift;
2. safety issues particularly relevant to the day's or shift's work;
3. daily or shift objectives shall be developed daily and shall be described during the daily or shift change presalvage/entry briefing.

Complete salvage (or wreck removal) and diving operations work plans are provided as Attachment 2 to the Site Safety and Health Plan. Brief descriptions of the work are in the paragraphs below.

C. Activities/Tasks to be Performed:

1. Ashore:

A brief description of tasks to be formed ashore.

2. Afloat:

A brief description of tasks to be performed afloat.

3. Diving Operations:

A brief description of diving operations to be conducted.

IV. SITE SAFETY ORGANIZATION

A. Salvage Project Manager: _____

Office: _____

Address: _____

Phone: () _____

B. Salvage Master: _____

Office: _____

Address: _____

Phone: () _____

C. Safety Officer: _____

Office: _____

Address: _____

Phone: () _____

D. First Aid/CPR Certified Personnel:

The personnel listed below are CPR/first aid trained.

Name	Position	Vessel or Group	Qualification

E. Key Personnel

The following key personnel involved in this salvage operation are:

- Federal On-Scene Coordinator (FOSC)

- Incident Commander (IC)

- Federal On-Scene Coordinator's Representative (FOSC Rep)

- Salvage Project Manager

- Salvage Master

- Operations Supervisor

- Diving Supervisor

- Logistics Supervisor

- Site Safety & Health Officer (SSHO)

- Site Safety & Health Supervisor (SSHP)

- Public Affairs Officer (PAO)

- Scientific Support Coordinator (SSC)

- National Pollution Fund Center Case Officer (NPFC CO)

- US Coast Guard Contract Supervisor

- State Rep _____
- Local Rep _____
- Other Federal, State & Local Reps

- RP's Rep _____
- RP's On-Site Rep

V. HAZARD ANALYSIS

A. Anticipated Health Hazards

1. General Hazards Ashore:

- | | | |
|---------------------------------------|--|--|
| <input type="checkbox"/> Heat Stress | <input type="checkbox"/> Overhead Hazard | <input type="checkbox"/> Tripping Hazard |
| <input type="checkbox"/> Cold Stress | <input type="checkbox"/> Electrical | <input type="checkbox"/> Water Hazard |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Biological | <input type="checkbox"/> Dangerous Plants |
| <input type="checkbox"/> Foot Hazard | <input type="checkbox"/> Confined Space | <input type="checkbox"/> Dangerous Animals |
| <input type="checkbox"/> Radiological | <input type="checkbox"/> Climbing Hazard | <input type="checkbox"/> Storm |
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Hantavirus | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Flammable | <input type="checkbox"/> Falling Objects | |

2. General Hazards Afloat and aboard the casualty:

- | | | |
|--|---|--|
| <input type="checkbox"/> Heat Stress | <input type="checkbox"/> Marine Operations | <input type="checkbox"/> Tripping Hazard |
| <input type="checkbox"/> Cold Stress | <input type="checkbox"/> Shallow Water Operations | <input type="checkbox"/> Falling Objects |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Ship to Ship Transfers | <input type="checkbox"/> Overhead Hazard |
| <input type="checkbox"/> Foot Hazard | <input type="checkbox"/> Helicopter to Ship Transfers | <input type="checkbox"/> Water Hazard |
| <input type="checkbox"/> Radiological | <input type="checkbox"/> Electrical | <input type="checkbox"/> Helicopter Operations |
| <input type="checkbox"/> Explosive | <input type="checkbox"/> Biological | <input type="checkbox"/> Diving Operations |
| <input type="checkbox"/> Flammable | <input type="checkbox"/> Confined Space | { } Storm |
| <input type="checkbox"/> Heavy Rigging | <input type="checkbox"/> Climbing Hazard | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Heavy Lifting | <input type="checkbox"/> Unknown Chemicals | |
| <input type="checkbox"/> Oxygen Deficiency | <input type="checkbox"/> Dangerous Surfaces | |

B. Overall Hazard Evaluation

An evaluation of the overall hazard for each segment of the operation (low, medium, or high), with notes as to any particular hazards that are unique or are unusually prevalent.

Overall Hazard Evaluation		
Operation	Overall Hazard Level	Comment
Shore Operation	High, Medium, or Low	
Afloat/ Aboard Casualty		
Diving		

VI. ACCIDENT PREVENTION

Prior to the start of work, all hands are required to read this plan and to sign the form acknowledging they have read and will comply with it. In addition, the Safety Officer and supervisors will hold a daily safety briefing in which specific topics regarding the day's work will be discussed. A copy of the Site Safety plan will be available at the job site for reference by all hands.

A. Site Control

1. Anyone entering or departing a work area shall report to the site supervisor or designated representative.

2. No person shall enter a site without subscribing to this or another appropriate Site Safety Plan.
3. The buddy system is mandatory for everyone on the site.
4. In general, all personnel on the site shall be trained adequately to perform their assigned tasks safely.
5. All personnel entering the site shall be fully informed about the applicable hazards and procedures on site.
6. Heavy equipment operators will receive instructions and shall demonstrate proficiency in the operation of the equipment. Training and qualification will be documented.
7. All divers will be trained on basic emergency pollution response operations with emphasis on the safety requirements and procedures. Training will be documented.
8. While on duty, employees may not use or be under the influence of alcohol, narcotics, intoxicants, or similar mind-altering substances. Employees found to be under the influence of or consuming such substances will be immediately removed from the job site.

B. General Safe Work Practices

1. **Unanticipated Hazardous Conditions:** At any sign of unanticipated hazardous conditions, stop tasks, leave the immediate area, and notify the Safety Officer.
2. **Electrical Storms:** When lightning could occur, all operations shall cease.
3. **High Seas or Surf:** Work shall be halted in seas or surf high enough to prevent safe work
4. **Eating and Drinking:** Smoking, chewing, eating, drinking, and applying lip balm, sun block, etc. is allowed only in designated areas
5. **Material Handling Procedures:** In compliance with the Work Plan and the Company Safety Manual.
6. **Drum Handling Procedures:** In compliance with the Work Plan and the Company Safety Manual.
7. **Confined Space Entry:** In compliance with the Company Safety Manual. A permit, air monitoring, and rescue plan is required.
8. **Ignition Source and Electrical Protection:** Smoke in designated areas only. Only intrinsically safe equipment is allowed in areas where explosive or flammable liquids or vapors are present.
9. **Spill Containment:** Required for refueling operations and other areas where pollutants or hazardous materials are handled or stored.
10. **Excavation Safety:** Do not enter trenches and/or excavations, until approved by competent person
11. **Illumination:** Work during daylight hours or with illumination per OSHA requirements.

12. **Sanitation:** Sanitary facilities will be provided in work areas. The following apply:
- a. An adequate supply of drinking water shall be available at all times.
 - b. Adequate toilet and washing facilities shall be available at all times.
 - c. Use of common cup (a cup shared by more than one worker) is prohibited. Unused disposable cups shall be kept in sanitary containers and waste receptacles shall be provided for used cups.
 - d. Outlets dispensing non-potable water will be conspicuously posted CAUTION - WATER UNFIT FOR DRINKING, WASHING OR COOKING.
13. **Buddy System:** At all times two persons on-site shall maintain constant contact with one another.
14. **Clear Access:** All stairways and accesses shall be kept free of materials and obstructions at all times.
15. **Heat Stress/Cold Stress:** Dress appropriately. Take sufficient breaks and drink plenty of fluids. Watch for signs/symptoms of heat or cold stress. Monitoring may be applicable depending on site weather conditions and type of PPE worn.

C. General Safety Precautions

1. Fire Protection

- a. Fire-fighting equipment shall be provided and installed in accordance with recommendations of the National Fire Protection Association and U.S. Coast Guard Regulations.
- b. When an unusual fire hazard exists or emergencies develop, additional fire protection shall be provided as required by the Safety Officer.

2. Poisonous and Harmful Substances Material Handling, Storage and Disposal

- a. When any hazardous substance is procured, used, stored, disposed of, or discovered aboard the casualty or elsewhere on the site, material safety data sheets (MSDS) for the substances shall be available at the work site.
- b. All employees shall use protective equipment for protection from poisonous and hazardous substances.
- c. Containers of hazardous chemicals will be labeled, tagged or marked in accordance with 29 CFR 1910.1200.
- d. All incompatible materials will be segregated and stored properly.
- e. All chemicals, to including oils and fuels, will be labeled. This includes any pipelines, hoses and storage containers, including drums.
- f. Non-hazardous wastes will be stored separately from hazardous wastes. Containers for both wastes will be marked accordingly and will include a warning not to mix them.

3. Electrical Wiring and Apparatus

- a. All electrical equipment shall conform to Underwriters Laboratory Standards.
- b. Electrical tools shall have ground fault protection when appropriate.
- c. Temporary wiring shall be guarded, buried or elevated to prevent accidental contact by workers or equipment.

4. Hand and Power Tools

- a. As required by the Safety Manual caution shall be exercised in the use of all tools.
- b. Power tools shall be inspected, tested, and determined to be in safe operating condition prior to use.
- c. Safety lashing shall be provided at connections between tool and hose and at all quick makeup connections on hydraulic and pneumatic tools.

5. Rigging and Lifting

- a. All rigging, rigging appliances, tension members, and fittings shall be used within the safety recommendations and safe working load limits of the manufacturer.
- b. Wire and fiber rope, hooks, shackles, rings, and other fittings that show excessive wear shall be taken out of service.
- c. All hands shall stand clear of wire and fiber ropes that are being hauled or tensioned or that are under tension.
- d. Personnel shall not work or pass under the buckets or booms of operating cranes or loaders, except as necessary.
- e. Cranes will not be loaded in excess of the certified load.
- f. Braking equipment capable of stopping, lowering and holding a load shall be provided.
- g. A standard signal system shall be used on all hoisting equipment.
- h. Crane operators shall not do anything which will divert their attention while operating cranes.
- i. There shall be at least three full wraps (not layers) of cable on the drums of hoisting equipment at all times.

6. Machinery and Mechanized Equipment

- a. All machinery shall be operated in accordance with the appropriate Safety Manual and Operating Instructions.
- b. Preventive maintenance procedures recommended by the manufacturer shall be followed.

D. Job- and Site-Specific Safety Precautions

This section provides specific safety precautions for the particular job and job site as developed by the Safety Officer and the Salvage Master.

1. Special Safety Precautions.

In addition to the above, the Salvage Master is responsible for any special safety precautions that are to be taken aboard the casualty and for compliance with good salvage safety practice as addressed in the Company Safety Manual.

In like manner, the Diving Superintendent is responsible for special safety precautions in diving operations as for compliance with the appropriate OSHA and US Coast Guard Regulations and for compliance with his company's Safe Practices Manual.

The Vessel Operations Manager is responsible for any special maritime safety precautions suited to the operation and its particular conditions and for compliance with good maritime safety practice and with the Safety Manuals of the company or company's involved in the operation.

E. Safety Briefings

1. All employees should be made aware of the Accident Prevention Program. They will attend daily safety meetings and should be encouraged to report any dangerous conditions to their supervisors. All personnel shall receive an initial orientation/briefing on the Site Safety Plan which will be documented by means of a signature sheet. A typical Safety Plan Acceptance Sheet is provided as Attachment 3.
2. Field supervisors will conduct safety meetings each day for all workers. A brief of the meeting giving date, time, attendance and subjects discussed shall be retained on site and a copy given to the Safety Officer. As a minimum, the subjects covered shall include:
 - a review of safety hazards and dangerous situations encountered, corrective actions taken, effectiveness of these actions, and any additional recommendations.
 - status of unmet safety recommendations.
 - new hazards or safety requirements and procedures.
 - employee comments/feedback.
3. All visitors to the site, including subcontractors, will receive an orientation/briefing on the Site Safety Plan as applicable to the purpose of the visit or subcontractor work. Subcontractors will be responsible for the safety of their employees and will have a subcontractor safety plan that meets the applicable requirements of this Site Safety Plan. The subcontractor safety plan will be reviewed and approved by the Safety Officer as well as by operational managers before the subcontractor begins work.
4. Copies of forms for acknowledgement of initial briefings and for daily safety briefing records are provided as Attachments 4 and 5.

F. Personal Protective Equipment and Safety Equipment.

1. Employees shall wear clothing suitable for the weather and work conditions; the minimum for field work shall be short sleeve shirt, long trousers, and leather or other protective work steel-toed shoes or boots and hard hats. Foul weather gear appropriate to existing conditions may be worn.
2. Persons involved in activities with potential exposures to hazardous materials will use PPE as prescribed in work plans.
3. Site visitors should be appropriately attired for their visit and if required trained in and equipped with the proper PPE.
4. Life rings shall be provided on each safety skiff and the casualty.
5. All employees working over or adjacent to water shall wear life vests.
6. All floating plant shall be equipped in compliance with applicable Coast Guard regulations.

G. Monitoring Equipment and Procedures

If monitoring of the presence or concentrations of hazardous materials is required by the salvage operator, the monitoring equipment and procedures should be described in this paragraph. A statement that monitoring is required in accordance with procedures and with equipment provided in an attachment is acceptable. If no monitoring is required, a statement should be made to that effect.

H. Decontamination

If decontamination of people and equipment is required by the salvage operation, the equipment and procedures should be described in this paragraph. A statement that decontamination is required in accordance with procedures and with equipment provided in an attachment is acceptable. If no decontamination is required, a statement should be made to that effect.

I. Medical Surveillance

If most on-site personnel in the salvage operation are on the Medical Surveillance Program meeting the requirements of 29 CFR 1910.120, and ANSI Z-88.2, depending on the PPE and site-specific tasks, it should be stated here. It should also be stated if, based on the risk assessment, not all personnel are required to have current OSHA or a medical exam. If, at any time, the risk exceeds the assessment, the Safety Officer will direct personnel to avoid the affected areas.

VII. EMERGENCY PROCEDURES AND FACILITIES

1. Workers and supervisors shall be alert to the dangers associated with the site and the operations at all times. If an unanticipated hazardous condition arises, stop work, evacuate the immediate area and notify the Safety Officer.
2. Telephone numbers or other means of quick communication to the police, Coast Guard and emergency medical treatment shall be posted at the site. Emergency numbers are:

Coast Guard	
Fire /Police/Ambulance	911

Highway Patrol	
Poison Control Center	
CHEMTREC	800 424 9300
Helicopter Services	
Safety Officer	
Salvage Project Manager	
Salvage Master	
Diving Superintendent	

3. Hospitals:

Closest Hospital: _____
Distance: _____ miles

Name:	
Address:	
Telephone:	
Driving Directions:	
Level of Trauma Care	
Lifelight Helicopter	YES/NO
Helicopter Landing Facilities	YES/NO, Day/Night

Second Closest Hospital: _____
Distance _____ miles

Name:	
Address:	
Telephone:	
Driving Directions:	
Level of Trauma Care	
Lifelight Helicopter	YES/NO
Helicopter Landing Facilities	YES/NO, Day/Night

Maps of the routes to each hospital are provided as Attachments 6 and 7.

4. A copy of the Accident Prevention and Response Plan will be available at the job site for ready reference by all employees. The plan will be maintained by the Salvage Master and Safety Officer.
5. The Salvage Master _____ will be responsible for communications at the site. The emergency radio channel is _____. This channel is reserved for all emergency communications at the site. The site dispatcher will be responsible for requesting all outside emergency support, including air evacuations.
6. Emergency signals:
 - a) Fire/Explosion - 3 short blasts on air horn
 - b) Stop work at site and evacuate - Continuous blast on air horn
 - c) All clear - Verbal clearance from supervisor
 - d) Test - 1 short blast on air horn
7. Supervisors will instruct employees on their work site-specific evacuation plan.
8. First aid kits are provided at all work sites, aboard all vessels and in the Safety Officer's vehicle. The first aid kit at the diving station and recompression chamber shall be appropriately equipped for dealing with diving accidents.

VIII. ACCIDENT REPORTING AND RECORDKEEPING

1. Employers and immediate supervisors are responsible for reporting all injuries and illnesses to the Safety Officer and their operational manager within 24 hours.
2. Injured or ill persons are responsible for reporting all injuries and illnesses as soon as possible.
3. A daily record of all accidents and first-aid treatments shall be maintained on prescribed forms on site by the supervisor for review by the Safety Officer.
4. The Salvage Master will prepare a "First Report of Accident" on all employee injuries and send it to the home office where it will be reviewed and forwarded to the insurance carrier, other appropriate agencies and the contracting officer in a timely manner.
5. Third Party Accidents should be reported to the supervisor immediately. Any aid necessary should be rendered and any operation which might be causing the dangerous condition would cease until it is determined how and why the accident occurred. The accident should be reported to the home office in writing along with sketches, if possible. The home office will notify the proper agencies.
6. All personal injuries and property damage in excess of \$250.00 will be immediately reported to the supervisor.
7. All of the job accidents should be recorded on OSHA Form No. 300 which is maintained/posted at the job site.
8. Any follow-up material received at the job site will be sent to the home office for proper handling.

IX. SIGNALS, WARNING SIGNS, AND SIGNALING

1. Only persons who are dependable and qualified by experience with the operations being directed shall be used as signal persons.
2. Warning signs shall be placed to provide adequate warning of hazards to workers and the public. They shall be removed when the hazards no longer exist.
3. Signs, tags, and labels shall be provided to give adequate warning and caution of hazards and instruction and directions to workers and the public.
4. Emergency signals:
 - a) Fire/Explosion - 3 short blasts on air horn
 - b) Stop work at site and evacuate - Continuous blast on air horn
 - c) All clear - Verbal clearance from supervisor
 - d) Test - 1 short blast on air horn
5. Verbal communications will be used among team members to communicate with one another on-site. If this communication is not possible, the hand signals listed below will be used.
 - a) Hand gripping nose - Unusual smell detected.
 - b) Thumbs up - Okay: I am all right or I understand.
 - c) Thumbs Down - No, Negative
 - d) Grip partner's wrist or both hands around waist. Leave the area immediately.
6. Off-site communications available on site include cellular telephones and radios.

SITE SAFETY AND HEALTH PLAN (SSHP)

ATTACHMENTS

Number	Title	
1	Site Plan	Job Specific
2	Work Plan	Job Specific
3	Safety Plan Acceptance Sheet	Sample attached
4	Initial Safety Briefing	Sample attached
5	Daily Safety Briefing	Sample attached
6	Hospital Route Map	Job Specific
7	Hospital Route Map	Job Specific

**ATTACHMENT 4—Initial Safety Briefing Checklist
(Check Subjects Discussed)**

Site Name: Salvage of M/V at **Date/Time:** _____

General Information

_____ Purpose of Job/Visit
_____ Identify Key Site Personnel
_____ Training and Medical Requirements

Specific Information

_____ Site Description / Past Uses
_____ Results of Previous Studies
_____ Potential Site Hazards
_____ Safety Procedures
_____ Site SOPs
_____ Site Control and Communications
_____ Emergency Hand Signals
_____ Emergency Response
_____ Location of First Aid Kits
_____ Emergency Phone Numbers and Location
_____ Location of Nearest Medical Facility and Location of Map to Facility
_____ PPE and Decontamination

Stress the following during the briefing: ***If an unanticipated hazardous condition arises, stop work, evacuate the immediate area, and notify the Safety Officer.***

ATTACHMENT 5—Daily Safety Briefing Checklist

Salvage of M/V **at** **Date/Time:** _____

Subjects Covered

Attendees:

Briefer

APPENDIX C

DIVING OPERATIONS

1.0 Basic Requirements

- 1.1 Diving operations shall be conducted in accordance with the requirements, standards and regulations of the Occupational Safety and Health Administration (OSHA), the Hazardous Waste Operations and Emergency Response (HAZWOPER) standards and the U.S. Coast Guard (USCG) as are appropriate and applicable to the location and mode of dive planned.
- 1.2 The number of divers has been selected to assure operations can be safely conducted within diving time/depths limits. The diving crew will be required to mobilize all diving safety equipment, including appropriate decompression chambers. All diving tasks will be carefully planned and tested. Tools and fixtures will be developed to assist divers and reduce inherent safety risks as much as possible.
- 1.3 The Salvage Master shall ask and shall receive assurances from the Diving Superintendent that the diving operation will be conducted in accordance with all applicable regulatory requirements including verification of diver logbooks, proper equipment and fitness to dive.
- 1.4 The Salvage Master shall develop a site specific checklist to ensure that procedures are followed in the conduct of diving operations.

2.0 Planning of Diving Operations

- 2.1 A detailed plan of diving operations including the contingency plan will be presented by the Diving Superintendent and will be discussed between the Diving Superintendent and the Salvage Master and agreed upon by all parties prior to the commencement of diving operations. The plan should include:
 - a description of the underwater work to be done;
 - the location of the work;
 - the number and time of the dive or dives;
 - the number of divers that will be in the water at any one time;
 - the number of dive attendants that will be on duty while divers are down;
 - the signal system that will be used to communicate with the divers;
 - a list of requirements to be met by the dive vessel (shutdowns, lockouts, lookouts, boats, energy sources, tools, lines etc.);
 - a set of contingency plans to deal with foreseeable emergencies;
 - this plan will include the location and phone number of the nearest hyperbaric chamber.
- 2.2 A copy of the plan shall remain on board the dive vessel.

3.0 Conduct of Diving Operations

- 3.1 In accordance with appropriate regulations, applicable signals and shapes will be displayed during the diving operations. Where required, appropriate warning devices such as buoys, flags, lights, etc. shall be displayed to define the restricted access limits of the diving operations. Where appropriate a NOTICE TO SHIPPING will be issued.
- 3.2 The Salvage Master, in consultation with and approval of the Diving Supervisor, will ensure that the propulsion machinery, sea-suction and underwater discharge mechanisms, cathodic protection system or any other mechanism that could pose a threat to the safety of the divers are secured in such a manner as to render the work site safe for diving operations.
- 3.3 A general announcement is to be made informing all personnel that diving operations are taking place, and a notice to this effect posted in a suitable location in the engine room. The appropriate machinery lockout procedures must be taken and logged.
- 3.4 A Diving Operations Checklist (see sample checklist below) will be completed prior to the commencement of the actual dive and the return of divers and the completion of diving operations shall be logged immediately upon completion. The checklist is divided into three components – personnel, equipment and operations. This checklist is intended to provide a basic compliance indication consistent with the minimum health and safety requirements for commercial divers.

10. Weights are equipped with a quick release system.
11. Decompression chambers are properly equipped, maintained and approved for use by appropriate authorities.
12. The decompression chamber has:
- pressure relief device;
 - two-way communications between compartments and outside;
 - a pressure gauge in each compartment;
 - view ports;
 - sufficient illumination to allow gauges to be read;
 - an interior fire extinguishing system;
 - a system to override interior breathing and pressure supply controls.

PART THREE – DIVING OPERATIONS

1. Detailed Diving Operations Plan is available on site.
2. Contingency Plan in the event of an emergency is available on site.
3. First aid equipment, including hand held resuscitator is available on site.
4. A pre-dive safety briefing and equipment inspection has been conducted.
5. Appropriate warning devices (buoys, flags, lights, etc.) are displayed to define the restricted access limits of the diving operations.
6. The designated on-scene person in charge maintains a dive log.

SCUBA DIVING

7. Scuba diving must be conducted in depths less than 130 fsw, within the no-decompression limits and in currents less than 1 knot.
8. A standby diver is available while the scuba diver is in the water.
9. The scuba diver is either line-tended or accompanied by another diver with continuous visual contact.
10. In physically confining space, scuba diver must be line tended by another diver from the underwater point of entry.
11. Scuba diver is carrying a reserve breathing gas supply.

SURFACE -SUPPLIED AIR DIVING

12. Surface-supplied air diving must be conducted at a depth of 190 fsw or less.
13. Each diver must be continuously tended.

